

**Administration and management of Grupo Bimbo, S.A.B. of C.V.**

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**Abstract**

"Grupo Bimbo", the first group company, was founded in 1945 in Mexico City.; subsequently, in 1952-1978 over 12 floors they were opened, allowing you to extend the distribution of its products throughout Mexico. During this same period, the company "cakes and biscuits," which later became "Marinela products" and first floors of sweets and chocolates "Ricolino" and salty snacks "Harcel" settled was established. Grupo Bimbo began its international expansion in 1990 and today has become one of the companies with the largest bakery in the world, standing as a leader in Mexico and several Latin American countries. It has plants strategically located in Mexico, eu Argentina, Brazil, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela, Spain, Portugal and China. It also has an extensive direct distribution network with more than 52,000 routes and more than 125,000 employees the workforce.

**Products frequently consumed, food, drinks and snuff, food, food production and marketing, controller of companies engaged in the development and distribution of food products**

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## Financial integrative model

- $\pi$ = Inflation	- M1 = Currencies	C.V = Variable cost
- $P_{max}$ = Maximum Price	- M2 = Coins and Banknotes	C.F = Fixed cost
- $P_{min}$ = Minimum Price	- M3 = Coins, Banknotes and Paper	C.FI = Circulated cost
- Ant Max = Maximum Price Previous Year	- M4 = Coins, Banknotes, Paper and Titles	Circulation = circulation shares Log = A log Circulation
- Ant Min = Minimum price Previous Year	- $\beta_0$ = stochastic correlation	- $\lambda$ = Lambda, Fixed value
- $\frac{1}{2}$ = Brownian Value	- $\beta_1$ = stochastic correlation	- $\int$ = Integral, Fixed value
- $\frac{1}{4}$ = Stochastic Value	- $\beta_2$ = stochastic correlation	- $d$ = Derivative, fixed value
- PPp = Weighted Average Price	- Lim = limit, fixed value.	- $\epsilon$ = Epsilon, Fixed value
- $\pi_s$ = Core Inflation	- V = Stance Sale	- n = Fixed value
- $\pi_{ns}$ = Non-core inflation	- C = Posture Purchase	- $\theta$ = Partial fixed value
- T.C.D = direct exchange rate	- x = Fixed value	
- T.C.I = indirect exchange rate		

**Table 1** Definition of symbols and terms

- $\pi = (.80)$	- M1 = 3	 $C.V = (49.31)^{1/4} = 18.60$ $C.F = (49.31)^{1/2} = 7.02$ $C.FI = \left(\frac{49.31}{18.60}\right) = 1.16$  A. Current = 4,703,200,000 log = 9.67 - $\lambda = .75$ - $\int = 1$ - $d = -1$ - $\epsilon = -.50$ - $n = .25$ - $\theta = .50$
- $P_{max} = 49$	- M2 = 6	
- $P_{min} = 47.44$	- M3 = 9	
- $Max.Ant = 43.17$	- M4 = 12	
- $Min.Ant = 32.53$	- $\beta_0 = (.50)^2 = 1$	
- $\frac{1}{2} = .50$	- $\beta_1 = (.50)^2 = .50$	
- $\frac{1}{4} = .75$	- $\beta_2 = (.50)^2 = .25$	
- $PPp = 48.75$	- Lim = .10	
- $\pi_s = 2.38$	- V = 48.77	
- $\pi_{ns} = 2.96$	- C = 48.67	
- T.C.D = 16.5349	- x = .75	
- T.C.I = 1.22		

**Table 2** Value table

## Formula based on Financial Model Integrator (NIF)

$$NIF = \frac{\left[ \frac{(\text{Direct currency} - \text{Indirect currency})^{1/\text{Forward}}}{\text{Diversification} - \text{Depreciation}} \right] \left[ \frac{(\text{Evaluation} + C. \text{Variable})^{1/\text{Forward}}}{\text{Forward} - \text{Exposition}} \right]}{\text{Capital cost}} - \left[ \frac{FCP + FMP + PLP}{\text{Nonfundable} - \text{Fundable}} \right]^{\frac{1 - (\text{Long term} - \text{Middle term})^2}{\text{Long term}}} + \left[ \frac{\text{Residual} / \text{Variable}}{\text{Fundable}} \right]^{\frac{\text{Long term}}{\text{Middle term}}}$$

(1)

## INDICADORES SERIE A

Tercer trimestre del año	3 / 2015
Precio/Utilidad	49.311634
Precio/Valor Libro	3.988826
Utilidad p/Acción	0.988611
Valor Libro p/Acción	12.221642
Acciones de Circulación	4,703,200,000

**Table 2** Information Issuer " BIMBO"

## Replacing concepts by Formulas

$$MIF = \left[ \frac{\left( \pi - \left( \frac{Max.Ant + Min.Ant}{2} \right) \right)^{1/4} - \left( \frac{V + C.F}{2} \right)^{1/4}}{\left( \frac{M1 + Lim}{M4} \right)^{1/4} - \left( \frac{dM1 + dM2 + dM3 + dM4}{dX1 + dX2 + dX3 + dX4} \right)^{1/4}} \right]^{\frac{Max.Ant - Min.Ant}{2}} \left[ \frac{\left( \frac{PPp}{2} \right)^{1/4} - \left( \frac{C.V - C.F}{2} \right)^{1/4}}{\left( \frac{dM1 + dM2 + dM3 + dM4}{dX1 + dX2 + dX3 + dX4} \right)^{1/4} - \left( \frac{V + C.F}{2} \right)^{1/4}} \right]^{\frac{PPp - 2}{2}}$$

(2)

## Less (-)

$$\left[ \frac{\left( V - \pi \right)^{\max} + \left[ \frac{C + \pi}{T.C} \right]^{\min} + \left[ \frac{V - \pi}{C + \pi} \right]^{T.C - \frac{\max - \min}{\max}}} {\frac{\frac{\partial \left( Max \right)}{\partial \left( Max \right)}}{\frac{\partial \left( Max \right)}{\partial \left( Min \right)}} - \int \frac{\partial \left( Max \right)}{\partial \lambda \left( Max \right)} - \int \frac{\partial \left( Min \right)}{\partial \lambda \left( Min \right)}} \right]^{\frac{\left( \frac{\max - \min}{2} \right)^2}{\left( \frac{\max + \min}{2} \right)^2}}$$

(3)

## More (+)

$$\left[ \frac{\frac{d \left( max \right)}{d \lambda_1} + \frac{d \left( min \right)}{d \lambda_2}}{\left[ \frac{\left( d \left( max \right) / lim \max \right)^{1/2}}{\left( d \left( min \right) / lim \min \right)^{1/2}} \right]^2} \right] \left( \frac{\frac{d \left( min \right)}{d \lambda \left( min \right)}}{\frac{d \left( max \right)}{d \lambda \left( max \right)}} \right) \left[ \frac{d \left( max - d \min \right)}{d \left( Ant \right)} \right] \left[ \frac{d \left( max - d \min \right)}{d \left( Ant \right)} \right]^{3/4 - 1/2}$$

(4)

## Substitution amounts concepts

$$NIF = \left[ \frac{\left( \frac{d \left( max \right)}{d \lambda_1} - \frac{d \left( min \right)}{d \lambda_2} \right)^2 - \left( \frac{d \left( max \right)}{d \lambda_1} \right)^2 - \left( \frac{d \left( min \right)}{d \lambda_2} \right)^2}{\left( \frac{d \left( max \right)}{d \lambda_1} + \frac{d \left( min \right)}{d \lambda_2} \right)^2} \right]^{\frac{\max - \min}{\left( \frac{\max + \min}{2} \right)^2}} \left[ \frac{\left( \frac{d \left( max \right)}{d \lambda_1} - \frac{d \left( min \right)}{d \lambda_2} \right)^2 + \left( \frac{d \left( max \right)}{d \lambda_1} \right)^2 + \left( \frac{d \left( min \right)}{d \lambda_2} \right)^2}{\left( \frac{d \left( max \right)}{d \lambda_1} + \frac{d \left( min \right)}{d \lambda_2} \right)^2} \right]^{\frac{\max - \min}{\left( \frac{\max + \min}{2} \right)^2}}$$

(5)

**Less (-)**

$$\left[ \frac{[48.77 - .80]^{.49} + [48.67 + .80]^{.47-.44} + [48.77 -.80]^{.48-.52} - \frac{.49}{.47-.44}}{16.53} \right] \left( \frac{\int_{\frac{[(49 - 47.44)^{.50})^{.50}}{(.42.17 + 32.52)^{.50}}}^{.94 + 1.99} \cdot \int_{\frac{[(47.44 + 49)^{.50})^{.50}}{(.42.17 - 42.37)^{.50}}}^{.94 - 1.99}}{\int_{\frac{[(48.17 + 49)^{.50})^{.50}}{(-1)(.75)(.49)}}^{.94 + 1.99} - \int_{\frac{[(48.17 - 49)^{.50})^{.50}}{(-1)(.75)(.49)}}^{.94 - 1.99}} \right)^2 \quad (6)$$

**More (+)**

$$\left[ \frac{\frac{(-1)(.49)}{(-1)(.75)} + \frac{(-1)(47.44)}{(-1)(.75)}}{\frac{(((-1)(.49) / (10)(43.17))^{.50}}{((-1)(47.44) / (10)(32.52))^{.50}}} \right] \left( \frac{(.50)(.49) - (.50)(47.44)}{(.50)(43.17) + (.50)(32.52)} \right)^{.75-.50} \quad (7)$$

**First reduction**

$$MIF = \left[ \frac{[\ .80 - (.48.17)]^{.50} - [14.77]^{.75}}{[(5.34) \int_{\frac{3}{12}}^{.10} (.80)] - \left[ \frac{-3}{-.75} + \frac{-6}{-.75} + \frac{-9}{-.75} + \frac{-12}{-.75} \right] \cdot \frac{[12]}{.25} \right] \left[ \frac{[\ .80]^{.50} + [9.98]^{.50}}{[4.83]^{.75} - [17.75]^{.50}} \right]^{.14.12} \quad (8)$$

**Less (-)**

$$\left[ \frac{[2.90]^{.49} + [2.99]^{.47-.44} + [.97]^{.15-.49}}{\frac{f_{\frac{47.44}{-35.58}} - f_{\frac{49}{-36.75}} - f_{\frac{47.44}{-35.58}}}{-36.75}} \right] \left( \frac{\int_{\frac{[(1.56)^{.50}]^2}{(75.70)^{.75}}}^{.24.50} + \int_{\frac{[(96.44)^{.50}]^2}{(-10.64)^{.75}}}^{.24.50}}{\int_{\frac{[(46.08)^{.50}]^2}{(39.98)^{.75}}}^{.24.50}} \right)^2 \quad (9)$$

**More (+)**

$$\left[ \frac{\frac{-49}{-.75} + \frac{-47.44}{-.75}}{\left[ \frac{(-49 / 4.32)^{.50}}{(-47.44 / 3.25)^{.75}} \right]^2} \right] \left( \frac{\frac{(24.50)}{21.58}}{\frac{(23.72)}{16.26}} \right)^{24.50 - 23.72} \cdot \left( \frac{21.58 + 16.26}{16.26} \right)^{.25} \quad (10)$$

**Subsequent reductions**

$$\begin{aligned} MIF &= \left[ \frac{-689 - 1110}{[(5.34) \int_{\frac{3}{12}}^{.10} (.80)] - [40.79]} \right]^{.22} \left[ \frac{.94 + 1.99}{.94 - 1.99} \right]^{.14} \cdot \left[ \frac{4.54 + 3.68 + .62}{\int_{\frac{1-12}{1-12}}^{.12} - \int_{-1.33}^{.12} - \int_{-1.33}^{.12}} \right] \left( \frac{\left( \frac{1.22}{.12} \right)^2 + \left( \frac{1.22}{.12} \right)^2}{\int_{\frac{1-12}{1-12}}^{.12} - \int_{-1.33}^{.12} - \int_{-1.33}^{.12}} \right)^2 + \left[ \frac{\frac{1.22}{.12} \cdot \frac{1.22}{.12}}{\int_{\frac{1-12}{1-12}}^{.12} - \int_{-1.33}^{.12} - \int_{-1.33}^{.12}} \right]^{.14} \\ MIF &= \left[ \frac{-18}{[(5.34) \cdot (1)(.72)] - [40.79]} \right]^{.22} \left[ \frac{2.93}{-6.72} \right]^{.176} \\ MIF &= \left[ \frac{-18}{[3.84] - [40.79]} \right]^{.22} \left[ \frac{[-.23]}{8.84} \right]^{.176} \cdot \left[ \frac{8.84}{\int_{\frac{1-12}{1-12}}^{.12} - \int_{-1.33}^{.12} - \int_{-1.33}^{.12}} \right]^{.18} + [642.90]^{.32}(2.47) \\ MIF &= \left[ \frac{-18}{-36.95} \right]^{.22} \left[ \frac{[-.23]}{2.17} \right] \cdot \left[ \frac{[8.84]^{(0)}}{1} \right] + [642.90]^{(.81)} \\ MIF &= [.85]^{[-.23]} \cdot [8.84]^{(0)} + 188.19 \\ MIF &= .08 \cdot 1 + 188.19 = 187.11 \\ MIF &= \log 187.11 = 2.27\% \end{aligned} \quad (11)$$

**Conclusion**

Through the Integrator Financial Model, it was determined that the percentage of financial activity of the issuing company BIMBO, represents 2.27% of the national economy in Mexico, holding an exchange rate of \$ 16.53, an inflation of 2.96% and being a stock company in the Mexican financial market.

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