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Mergers in Differentiated Products Markets and Multiproduct Firms: Acquisition of Nutrabien by Ideal

Submitted by: Chile

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FISCALIA NACIONAL ECONOMICA

MERGERS IN DIFFERENTIATED PRODUCTS MARKETS AND MULTIPRODUCT FIRMS: ACQUISITION OF NUTRABIEN BY IDEAL

FERNANDO JOSÉ COLOMA R.

SANTIAGO, CHILE

MARCH 1ST, 2019

FNE

DESCRIPTION OF THE MERGER

- On May 10th 2018 the Chilean National Economic Prosecutor ("FNE") blocked the proposed acquisition of Nutrabien by Ideal, two companies active in the sweet snacks industry.
- This was the first time that the competition authority blocked a transaction under the new mandatory notification system of mergers that was introduced on June 1st 2017.
- The authority argued that transaction would imply a substantial lessening of competition given that it would cause a significant upward pricing pressure that was not offset by merger efficiencies, in a context of high entry barriers and proposed behavioral remedies that did not fulfill the standard requirements.
- The parties appealed to the Competition Tribunal ("TDLC") on May 25th 2018 and the Tribunal finally overturned the FNE's decision and cleared the transaction pursuant to the remedies proposed by the parties.

THE PARTIES

- Nutrabien is a company belonging to Grupo CCU, mainly active in alcoholic and non-alcoholic beverages. Nutrabien is exclusively active in the sweet snacks industry marketing several differentiated products both in the supermarket and traditional channel (small stores and convenience stores). Its main products are brownies in individual and familiar format.

THE PARTIES

- Ideal is a subsidiary of Grupo Bimbo, a Mexican multinational bakery product manufacturing company. In Chile it is the main producer of bread and it is also active in the sweet snacks industry. Its main brands in this segment are Marinela, Fuchs, Agua de Piedra, Lagos del Sur and Laguito.

STRUCTURAL ANALYSIS (HHI) VS. PRICE PRESSURE INDEXES (UPP)

\- **SOFTNESS** +

STRUCTURAL ANALYSIS (HHI) VS. PRICE PRESSURE INDEXES (UPP)

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MARKET SHARES AND HHI IN THE TRADITIONAL CHANNEL

Tabla 12
Participaciones de mercado en ventas del año 2016
Tiendas de menor tamaño

Empresas	Bizcochos indiv.	Alfajores + Bizcochos indiv.	Alfajores+Bizc.Ind+ Galletas mini + galletón	Alfajores+Bizc.Ind+ Galletas dulces
Ideal	[60-65]	[55-60]	[35-40]	[15-20]
Nestle	[0-5]	[0-5]	[15-20]	[30-35]
Carozzi	[15-20]	[15-20]	[15-20]	[25-30]
Nutrabien	[15-20]	[10-15]	[10-15]	[0-5]
Fruna	[0-5]	[5-10]	[0-5]	[5-10]
Evercrisp	[0-5]	[0-5]	[0-5]	[5-10]
Otros	[0-5]	[0-5]	[5-10]	[5-10]
HHI pre	**4.225**	**3.969**	**2.313**	**2.198**
Cambio	**1.897**	**1.624**	**818**	**152**
HHI final	**6.121**	**5.594**	**3.132**	**2.350**

Fuente: Elaboración propia a partir de información de proveedores.

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STRUCTURAL ANALYSIS (HHI) V/S PRICE PRESSURE INDEXES (UPP)

- In the context of differentiated products markets, under an analysis based on market definition and calculation of market shares and concentration indexes, products must be classified as inside or outside the relevant market (in/out analysis) as if products had either zero or perfect substitutability when in truth some degree of imperfect substitutability exists.
- We should bear in mind that the economic implication for merger evaluation of Herfindahl-Hirschmann concentration index comes from a Cournot model with homogeneous products.

$$\sum_{i=1}^{n} \frac{(p - c_i)s_i}{p} = \frac{\sum_{i=1}^{n} (100 \cdot s_i)^2}{10{,}000 \cdot \eta} = \frac{HHI}{10{,}000 \cdot \eta}$$

- In this sense, the conclusion of a merger investigation depends crucially on the definition of the relevant market. At equal market share, a merger between any product inside the market should have the same effect, while in practice inside the market, products have different levels of competitive closeness and margins.

PRICE PRESSURE INDEXES

- To address the shortcomings of a market definition approach in the context of differentiated products markets, the FNE usually carries out price pressure indexes calculations that forego the definition of the relevant market.
- Other industries where the FNE has followed this approach:
  - Opticians
  - Sweets
  - Cemetery
  - Gasoline retail
  - Ready-mixed concrete
  - Home appliances
- How has the authority calculated diversion ratios?
  - Surveys
  - Churn analysis
  - Natural experiments
  - Market shares (Carefully!)

PRICE PRESSURE INDEXES: DIVERSION RATIO

- In Ideal-Nutrabien merger analysis, the FNE and the economist of the parties calculated diversion ratios using two customer surveys. The key question used by the FNE was:

"If [product acquired] would not be available in this supermarket and in any other store, for what product would you replace it?"

[Open question, where not buying is an option]

- Mandatory diversion is not a problem if marginal customers have the same substitution patterns than inframarginal customers, given that diversion ratios represent a proportion.
- Question about complete unavailability is easier to understand and decreases the size of the sample needed to get a reasonable number of observations.
- With a residual demand elasticity of -2 [and respondents understanding the question], what should be the sample size needed to expect 100 useful observations if the authority is evaluating consumers' reaction after a 10% increase in price?

PRICE PRESSURE INDEXES: MARGINS AND EFFICIENCIES

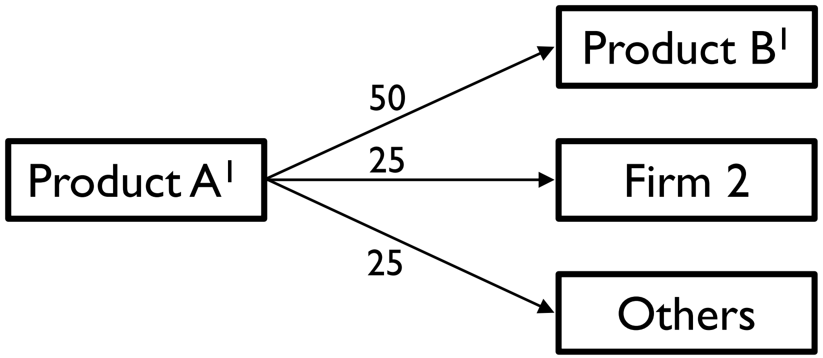
- Margins: Use of accountant information on cost that reasonably could be considered as variable.
    - Raw material
    - Transportation costs
    - Direct labour

- Variable cost efficiencies:
    - Merger-specific
    - Verifiable
    - Sufficient to reverse the merger’s potential harm to customers

- Based on this principles, the FNE only accepted efficiencies in logistic and product transportation, given the more efficient distribution system of Ideal (efficiency of 0-5% of market price of Nutrabien’s products).

ADDITIONAL CHALLENGE: MULTIPRODUCT FIRMS

- In this case, both parties marketed a number of differentiated products. This introduce new challenges in the calculation of price pressure indexes.
- Imagine a merger between Firm 1 and Firm 2, each one producing two products (A and B). After an increase on the price of Product A of Firm 1, the lost sales equal 100 and the diversion pattern is the following:



- What is the diversion ratio from Product A^1 to Firm 2?

ADDITIONAL CHALLENGE: MULTIPRODUCT FIRMS

- Two possible approaches:
  1. **Considering own-brand diversion as lost sales:** Deviation to own-brand products still exists and Firm 1 takes into account that after an increase in price of Product A^1 there will be a deviation to others owned products. Pre-merger, the owner of Product A^1 takes into account the cannibalization effect that is already reflected in higher pre-merger prices.

     $\longrightarrow$ DR=25%

  2. **Not considering own-brand diversion as lost sales:** Reasonable if both products of the same firm face similar upward pricing pressure or if the firm fixes their prices based in the same (uniform) parameters of competition.

     $\longrightarrow$ DR=50% [Assuming that customer deviated to Product B^1 that still deviate after an homogeneous increase in price of both products of Firm 1, substitute in the same proportion than other customer deviated]

- The first approach (followed by the FNE in Ideal/Nutrabien case) provides a lower bound of the upward pricing pressure caused by a merger. This is particularly important because, in this case, substantial diversion was observed to same-brand products.

PRICE PRESSURE INDEXES (GUPPI, IPR AND CMCR)

- GUPPI for product i calculated by FNE:

$$GUPPI_i = \frac{\sum_{j=1}^{n} D_{ij} * (p_j - c_j)}{p_i} \qquad (1)$$

where j=1,…,n represents the n products of the other part of the transaction

- Since the FNE's estimation underestimated the upward pricing pressure given that it did not consider feedback effects due to the increase on margins of competitors and other products of the same firm, Massimo Motta in an inform commissioned by the FNE carried out a CMCR ("compensating marginal cost reduction") estimation to take into account these feedback effects.

- GUPPI, IPR and CMCR calculations consistently suggested the existence of upward pricing pressure. The FNE, the economists of the parties and Massimo Motta obtained GUPPI/CMCR above 10%.

PRICE PRESSURE INDEXES: FNE'S RESULTS

Tabla 24
Resumen GUPPI menos eficiencias de principales bizcochos individuales de Nutrabien en comparación con riesgos calculados por la FNE

		Supermercados			Tiendas de menor tamaño		
		Promedio	Intervalo de confianza 95%		Promedio	Intervalo de confianza 95%	
Braunichoc	GUPPI (Tabla 17)	[10-15]%	[-]	[-]	[30-35]%	[-]	[-]
	Eficiencias	[0-5]%	[-]	[-]	[0-5]%	[-]	[-]
	Valor medio (GUPPI-EF)	[5-10]%	[-]	[-]	[30-35]%	[-]	[-]
Brownie	GUPPI (Tabla 17)	[10-15]%	[-]	[-]	[15-20]%	[-]	[-]
	Eficiencias	[0-5]%	[-]	[-]	[0-5]%	[-]	[-]
	Valor medio (GUPPI-EF)	[5-10]%	[-]	[-]	[15-20]%	[-]	[-]

Fuente: Elaboración propia a partir de bases de datos utilizadas por los equipos de economistas de las Partes en la determinación de eficiencias y Encuesta Activa Research.

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