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## **The Evolution of the Brazilian Food Industry in the 20<sup>th</sup> Century**

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### Introduction

This work analyses the evolution of the Brazilian food processing industry in the 20<sup>th</sup> century. It discusses the changes in patterns competition during that time and compares strategies followed by foreign and local firms in the Brazilian food industry. As the Brazilian economy became more industrialized, manufacturing became the most dynamic sector, with an increasing participation of foreign firms. In the last decade of the 20<sup>th</sup> century, the Brazilian economy became more opened and internationalized. However, local firms managed to compete and grow, even though the Brazilian economy virtually did not grow during the last two decades of that century. The work is divided into three sections. Section 1 gives a brief account of the Brazilian economy in the 20<sup>th</sup> century. Section 2 evaluates the weigh of the food industry, in terms of value added and employment. Section 3 analysis the firm of the industry in terms of firm dispersion and of the size of the typical firm of the food industry, in terms of average output revenue and average number of people employed per firm, respectively, against the typical firm of the Brazilian industry. The section also looks at the participation of multinational subsidiaries among the largest firms in the Brazilian food processing industry. Finally, the section analyses the case of a local firm (Vilma Alimentos) from Belo Horizonte, Minas Gerais.

### 1. The Brazilian Economy in the 20<sup>th</sup> Century: A Brief Review

From the 1930s to the end of the 1970s the Brazilian economy is characterized by the rapid growth through import substitution industrialization (ISI). Although industrialization has already began in the second half of the 19<sup>th</sup> century<sup>1</sup>, it was only in the 1930s that industry became most dynamic sector of the economy, with the domestic market becoming the dynamic centre of development, and the state beginning to have a strong hand on the economy. From the 1950s onwards the industry not only grew but it also became highly complex and diversified<sup>2</sup>. As a result, the participation of the industry in the Brazilian GDP jumped from 19% in the mid-1950s to 30% in 1990<sup>3</sup>.

**Table 1 – Average Growth Rates (%)**

Years	GDP	GDP per Capita	Population
1960s (1961-1970)	6.17	3.19	2.89
1970s (1971-1980)	8.63	6.04	2.44
1980s (1981-1990)	1.57	-0.63	2.21
1990s (1991-2000)	2.65	1.20	1.43

Source: <http://www.bcb.gov.br/pec/indeco/Port/ie1-55.xls>

As shown in Table 1, in the late 1960s and the early 1970s Brazil experienced such high rates of growth that these years became known as the “Brazilian Miracle”. Growth continued even after the first oil shock in the early 1970s. GDP growth peaked in 1980, when the economy grew 9.2%. From then on, annual GDP decreased and only sporadically the economy experienced any substantial rate of growth, as in 1985 and 1986, when it grew 7.8% and 7.5%, respectively<sup>4</sup>. Meagre GDP and GDP per capita average growth for the whole 1980s transformed it in the “lost decade”.

In the 1990s, the Brazilian economy was transformed by a series of economic reforms and institutional changes, such as, the privatisation of most of the largest state-owned companies, deregulation of several sectors of the economy, monetary stability, international and regional integration, among others. However, economic performance during the 1990s was not much stronger than that of the “lost decade”. It is important to bear in mind that population growth has decreased during the last two decades of the 20th century, but more markedly in the

1990s, as shown in Table 1. Thus, macroeconomic performance in the 1990s was not worse due to a greater decrease of the rate of growth of the Brazilian population. Nevertheless, it is a mistake to consider the 1990s as mere a continuation of the 1980s. The above-mentioned economic reforms and institutional changes had a profound impact in the whole Brazilian society and economy. The food industry, for example, has gone through important changes in its pattern of competition, becoming the competitive arena of larger firms exploiting economies of scale and scope, either through mergers and acquisitions or internal expansion, as it is going to be discussed below.

## **2. The Industry**

This section discusses the importance of the food processing industry in the Brazilian economy measured by value added and employment. It shows that the industry has been an important industrial sector throughout the 20<sup>th</sup>-century Brazil. Although the industry lost its early relative importance by the 1950s, at the end of the 1990s the food industry regained much of its economic prominence possessing the largest industrial park in the manufacturing sector in Brazil.

### **2.1. Value Added**

The food processing industry is one of the seedbeds of the first industrial surge in Brazil in the last decades of the 19<sup>th</sup> century. At the end of the 1<sup>st</sup> World War, food production was the second largest manufacturing sector in Brazil, representing more than 20% of the total industrial value added. Only textile manufacturing was larger than food processing in value added, as shown in Table 2. Throughout the following decades the food processing industry kept an important participation in the Brazilian industry and in 1939 it became the largest manufacturing sector in value added. Until the beginning of the 1950s food processing remained as one of the main manufacturing sectors, alongside with the textile industry. However, as industrialization in Brazil unfolded and as its industry became more complex and diversified, the relative importance of the food processing industry decreased. A decade later, although food processing was smaller only than chemical, pharmaceutical, and personal care industries, other manufacturing sectors such as metallurgy and transport equipment were growing faster and generating almost the same proportion of value added as the food processing industry. This shows the growth of other manufacturing sectors established later in Brazil and the verticalization of the industrial structure promoted by ISI, implemented by the President Juscelino Kubitschek in the second half of the 1950s. In the mid-1970s, still under the impact of the “Brazilian Miracle”, metallurgy, chemical, pharmaceutical, and personal care industries had overcome the food processing industry. In 1980, the food processing industry reached its lowest relative participation in the total value added of the Brazilian industry. Thus, from 1920 to 1980 the food processing industry saw its participation in the total value added of the Brazilian industry shrink as new industrial sectors were established. However, the food processing industry remained as one of the main manufacturing sectors in Brazil.

From 1985 onwards the decreasing importance of the food industry in the Brazilian industrial production was reverted. During the second half of the 1980s and at the beginning of the 1990s, the participation of the food industry in the Brazilian industrial value added increased again. In 1992, the production of processed food represented 13.6% of the value added of the Brazilian industry, as shown in Table 2. Thus, with the opening of the Brazilian economy food production was the most important manufacturing sector in value added terms. At the end of the 1990s, it already represented around 14% of the Brazilian industrial production and its participation was even larger than that of the oil industry. Furthermore, in the 1990s the food industry had the largest industrial park in Brazil<sup>5</sup>. Therefore, in value

added terms, the food processing industry was one of the main businesses in Brazil throughout the 20<sup>th</sup> century.

**Table 2– Brazilian Industrial Structure: value added distribution between the main manufacturing sectors, 1919-1992.**

Sector/Year	Metallurgy	Machinery	Transport Equipment	Chemicals	Textile	Food
1919	4,4	0,1	2,1	1,7	29,6	20,6
1939	7,6	3,8	0,6	9,8*	22,2	24,2
1949	9,4	2,2	2,3	9,4*	20,1	19,7
1953	9,6	2,4	2,0	11,0*	17,6	17,6
1963	12,0	3,2	10,5	15,5*	11,6	14,1
1975	12,6	10,3	6,3	12,0	6,1	11,3
1980	11,5	10,1	7,6	14,7	6,4	10,0
1985	12,2	9,2	6,4	17,3	5,9	12,0
1992	11,9	12,5	7,1	13,0	4,6	13,6

\*The totals for the chemical industry during for these years include value added for chemicals, pharmaceuticals, personal care, and plastics.

Source: Adapted from W. Baer, *A Economia Brasileira*, São Paulo: Nobel, 2<sup>nd</sup>. ed. , 2002, pp.61, 87 and 404.

## 2.2. Employment

**Table 3 – Number of Employees: Brazilian Industry, Food Industry, and Percentage Participation of the Food Industry in the Brazilian Industrial Labour Force, 1940-1999.**

Year	Number of Employees – Brazilian Industry	Number of Employees – Food Industry	Food Ind. Labour Force/Brazilian Ind. Labour Force
1940	960,663	173,535	18%
1950	1,279,184	178,476	14%
1959	1,799,376	266,103	15%
1970	2,699,969	372,401	14%
1975	3,881,051	500,006	13%
1980	5,004,522	622,062	12%
1985	5,608,704	1,019,485	18%
1994	5,698,155	933,391	16%
1996	5,136,703	842,014	16%
1999	5,003,642	835,782	17%

\* For the years 1959, 1970, 1975, and 1980 the Industrial Censuses give information only about the number of establishments instead of firms.

Sources: Adapted from IBGE, *Censos Econômicos: Recenseamento Geral do Brasil, 1940*, Rio de Janeiro, 1950, Série Nacional, Volume III, pp.145-243; IBGE, *Censo Industrial*, Rio de Janeiro, 1957, Série Nacional, Volume III, Tomo 1; IBGE, *Censo Industrial de 1960: VII Recenseamento Geral do Brasil*, Rio de Janeiro, 1960, Volume III; IBGE, *Censo Industrial: Dados Gerais*, Rio de Janeiro, 1980, Volume 3, Tomo 2, Parte 1, Número 1; IBGE, *Estrutura Produtiva Industrial Brasileira – 1994*, Rio de Janeiro, 1997; and IBGE, *Pesquisa Industrial*, Rio de Janeiro, 1999, Volume 18, Empresa.

Besides its economic importance, as shown above, the food processing industry was also one of the largest employers among the manufacturing sectors in Brazil. In 1940, labour force in the food processing industry represented around 18.1% of the Brazilian industrial labour force, as shown in Table 3. This percentage decreased to 14% in 1950 and continued to decrease steadily to 13.8% in 1970, 12.9% in 1975, and to 12.4% in 1980. However, in 1985 the percentage of people employed in the food processing industry increased again to 18.2%, declining again throughout the 1990s: 16.4% from 1994 to 1996, as shown in Table 3. In 1999, the industry employed 16.7% of the Brazilian industrial labour force<sup>6</sup>. It seems that this percentage was even bigger when we take into consideration the informality of the sector.

According to McKinsey, one out of five workers in the food industry were informally employed in the 1990s. The largest concentration (60%) of informal employees was employed in the production of milk and meat<sup>7</sup>.

Thus, Brazilian food processing industry represented one the main sources of industrial employment throughout the 20<sup>th</sup> century, employing nearly one fifth of the Brazilian industrial labour force.

### 3. The Food Processing Firm

Taking variables such as the number and size of firms that constituted the industry, and the nature of the ownership, this section shows that the industry at the end of the 1990s was no longer a business dominated by small firms, largely controlled by the local capital. In the last decade of the 20<sup>th</sup> century, the food industry became the competitive arena of large firms, most of them subsidiaries of foreign multinationals. The pattern of competition in the industry, then, changed its nature, becoming more characterized by large scales of production and by the exploitation of economies of scope through product diversification.

#### 3.1. Dispersion

Although big from the point of view of employment and aggregate added value, there was large firm dispersion in the food processing industry. In fact, the food industry was born dispersed in terms of firms in Brazil and remained like that for most of the 20<sup>th</sup> century. However, in the last decades of the 20<sup>th</sup> century it is possible to observe a process of firm concentration in the industry.

**Table 4 – Number of Firms: Brazilian Industry, Food Industry and Relative Participation of the Food Industry, 1940-1999.**

Year	Number of Firms – Brazilian Industry	Number of Firms – Food Industry	Percentage – Food Industry /Brazilian Industry*
1940	39.937	12.147	30%
1950	74.133	26.241	35%
1959*	110.771	33.534	30%
1970*	164.793	46.815	28%
1975*	187.238	48.205	26%
1980*	214.156	49.366	23%
1985	175.652	36.690	21%
1994	240.160	44.879	19%
1996**	108.159	16.543	15%
1999	117.838	18.519	16%

\* For the years 1959, 1970, 1975, and 1980 the Industrial Censuses give information only about the number of establishments instead of firms. \*\* In 1995 IBGE changed its methodology.

Sources: Adapted from IBGE, **Censos Econômicos: Recenseamento Geral do Brasil, 1940**, Rio de Janeiro, 1950, Série Nacional, Volume III, pp.145-243; IBGE, **Censo Industrial**, Rio de Janeiro, 1957, Série Nacional, Volume III, Tomo 1; IBGE, **Censo Industrial de 1960: VII Recenseamento Geral do Brasil**, Rio de Janeiro, 1960, Volume III; IBGE, **Censo Industrial: Dados Gerais**, Rio de Janeiro, 1980, Volume 3, Tomo 2, Parte 1, Número 1; IBGE, **Estrutura Produtiva Industrial Brasileira – 1994**, Rio de Janeiro, 1997; IBGE, **Pesquisa Industrial**, Rio de Janeiro, 1996, Volume 15, Empresa; and IBGE, **Pesquisa Industrial**, Rio de Janeiro, 1999, Volume 18, Empresa.

At the beginning of the 1940s the number of firms in the food processing industry represented 30.4% of total number of manufacturing firms in Brazil, as shown in Table 4. This percentage increased to 35.4% in 1950, evidence of the increasing dispersion of the firms in this industry during the 1940s, especially when we consider that the relative participation of the industry in the value added of the Brazilian industry declined during the same period (see Table 2). The censuses for 1960, 1970, 1975, and 1980 give data only for the number of

establishments, instead of the number of firms, what makes comparison with the two previous decades impossible. Nevertheless, the number of establishments for these years increases in absolute terms, growing from 33.534 establishments in 1959 to 49.366 establishments in 1980, while it decreases in relative terms compared to the Brazilian industry as a whole, as shown in Table 4. It is important to point out that the decrease in the relative number of establishments is also followed by a smaller participation of the food processing industry in the value added generated by the Brazilian industry (see Table 2) and by the smaller percentage of people employed in the industry (see Table 3). Thus, this relative decrease in the number of establishments reflects the smaller participation of the food industry in the Brazilian manufacturing sector. In 1985, whereas there was a reduction in the number of firms in the Brazilian industry of about 18%, when compared to 1980, the decrease in the food processing industry was even more dramatic (25.7%). At the same time, value added of the food processing industry grew from 10% in 1980 to 12% five years later (see Table 2), undisputable evidence of the growing firm concentration in the industry already taking place.

Thus, in the second half of the 1980s it was taking place a clear process of firm concentration in the Brazilian food industry that would intensify in the following years. In the first half of the 1990s, the number of firms in the food industry grew again, but at a slower pace than that for the Brazilian industry as a whole, as shown in Table 4. The data for the years after 1994 is influenced by methodological changes introduced by IBGE in its industrial censuses and surveys. Nevertheless, it is possible to observe that the percentage of food firms in the Brazilian industry grew between 1996 and 1999 (15.3% and 15.7%, respectively) and that the number of firms in the industry grew faster than that for the Brazilian industry as a whole, as shown in Table 4.

Regardless the difficulties in measuring the number of firms from the mid-1990s onwards, it is possible to observe a more general trend in what relates to firm dispersion in the food industry: although in absolute terms the number of firms in the food industry grew, its relative participation in the Brazilian industry as a whole declined in the decades following the 2<sup>nd</sup> World War. Until 1980, this decline was the result of a smaller participation of the food industry, both in value added and in the number of people employed, in the Brazilian manufacturing sector. From 1985 onwards, the participation of the food industry in the Brazilian industry – both in terms of the number of employees and value added – grew, whereas the relative number of firms continued to decrease. This is undisputable evidence that from the mid-1980s onwards firms were becoming more concentrated in the food industry and the pace of this process would increase in the following decade. At the end of the 1990s the number of food processing firms grew faster than that for the Brazilian industry as a whole. However, this phenomenon does not seem to have been the result of a fiercer competition between smaller firms. Other data indicate that fiercer competition was among larger firms in the food industry. Therefore, the comparison of the average size of the typical firm in the food processing industry with the average size of the typical firm of the Brazilian industry in terms of output revenue can be revealing.

### **3.2. The Typical Firm by Output Revenue**

The typical firm in the food processing industry was, throughout the half century that followed the beginning of the 2<sup>nd</sup> World War, a small firm when compared to the average typical firm of the Brazilian industry. However, in the last decades of the 20<sup>th</sup> century firms in the food industry went into deep transformations and restructuring, increasing their size and becoming more concentrated.

In analysing the data for average output revenue per firm, it is possible to observe that in 1939 average output revenue of the typical firm of the food industry was equivalent to 93% of the average output revenue of the typical firm of the Brazilian industry, as shown in Table 5.

Throughout the following decades the typical firm of the food industry became even smaller. In 1949, average output revenue of the typical firm of the food industry represented 89% of that of the typical Brazilian industrial firm. As observed earlier, data for the 1959, 1970, 1975, and 1980 industrial censuses and surveys refer to average output revenue per establishment instead of per firm, what distorts the comparison with the other years. Nevertheless, it is possible to observe that in 1985 average output revenue of the typical firm in the food industry reaches its lowest level (73%) when compared with that of the typical firm of the Brazilian industry. This is due to at least to two factors: (1) the establishment of higher value added industries and (2) the firm dispersion in the food processing industry. At the end of the 20<sup>th</sup> century it is possible to observe an intense growth of the average output revenue of the typical firm of the food processing industry. In 1996, average output revenue of the typical firm of the food industry had overcome that of the typical Brazilian industrial firm by 12.1%, as shown in Table 5.

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**Table 5 – Average Output Revenue per Firm, in the Food Processing Industry, and in the Brazilian Industry: 1939-1999.**

<i>Year</i>	<b>Brazilian Industry Output Revenue (In Cr\$ 1.000)</b>	<b>Food Industry Output Revenue (In Cr\$ 1.000)</b>	<b>Food Industry Output Revenue (%)</b>	<b>Average Output Revenue per Firm: Brazilian Industry (In Cr\$ 1.000)</b>	<b>Average Output Revenue per Firm: Food Industry (In Cr\$ 1.000)</b>	<b>Average Output Revenue per Firm: Food Industry (%)</b>
<b>1939</b>	17.479.393	4.927.324	28%	437	405	93%
<b>1949</b>	108.390.946	34.313.679	29%	1.462	1.307	89%
<b>1959*</b>	1.194.784.551	284.987.045	24%	10.786	8.498	79%
<b>1970*</b>	118.427.561	23.542.676	20%	718	502	70%
<b>1975*</b>	793.645.650	126.834.756	16%	4.238	2.631	61%
<b>1980*</b>	9.738.340.472	1.332.500.457	14%	45.473	26.992	59%
<b>1985</b>	1.132.812	172.321	15%	6.450	4.700	73%
<b>1994**</b>	249.765.003	41.680.360	17%	1.039	928	89%
<b>1996**</b>	338.410.081	58.020.481	17%	3.128	3.507	112%
<b>1999**</b>	455.046.893	76.925.908	17%	3.861	4.153	107%

\* For the years 1959, 1970, 1975, and 1980 the Industrial Censuses give information for the number of establishments only; \*\* Figures in Reais.

Sources: Adapted from IBGE, **Censos Econômicos: Recenseamento Geral do Brasil, 1940**, Rio de Janeiro, 1950, Série Nacional, Volume III, pp.145-243; IBGE, **Censo Industrial**, Rio de Janeiro, 1957, Série Nacional, Volume III, Tomo 1; IBGE, **Censo Industrial de 1960: VII Recenseamento Geral do Brasil**, Rio de Janeiro, 1960, Volume III; IBGE, **Censo Industrial: Dados Gerais**, Rio de Janeiro, 1980, Volume 3, Tomo 2, Parte 1, Número 1; IBGE, **Estrutura Produtiva Industrial Brasileira – 1994**, Rio de Janeiro, 1997; and IBGE, **Pesquisa Industrial**, Rio de Janeiro, 1999, Volume 18, Empresa.

Thus, from the analysis of the average output revenue of the typical firm of the food industry it is possible to observe a process of firm concentration much more intense in the food processing industry than in the Brazilian industry as a whole in the 1990s. The food processing industry seemed to begin to be dominated by larger firms.

### **3.3. The Typical Firm by the Number of Employees**

Comparing the average number of people employed per firm in the food processing industry with that of the Brazilian industry as a whole (see Table 6), it is possible to observe two interesting two phenomena: (1) in the 1950s there was a large firm dispersion in the food industry, as the average number of employees per firm decreased to less than half of that of the typical Brazilian industrial firm; and (2) from 1996 onwards the average number of employees per firm in the food industry overcomes that for the typical Brazilian industrial firm, further evidence of firm concentration in the food processing industry in the 1990s.

Thus, at the end of the 20<sup>th</sup> century the food processing industry was constituted by larger firms, either in terms of output revenue or number of people employed.

**Table 6 – Number of Employees per Firm: Brazilian Industry and the Food Industry, 1940-1999.**

Year	Average Number of Employees per Firm – Brazilian Industry	Average Number of Employees per Firm – Food Industry
<i>1940</i>	26	14
<i>1950</i>	17	07
<i>1959</i>	16	08
<i>1970</i>	16	08
<i>1975</i>	21	10
<i>1980</i>	23	13
<i>1985</i>	31	27
<i>1994</i>	24	21
<i>1996</i>	47	51
<i>1999</i>	42	45

Sources: Adapted from IBGE, *Censos Econômicos: Recenseamento Geral do Brasil, 1940*, Rio de Janeiro, 1950, Série Nacional, Volume III, pp.145-243 e IBGE, *Censo Industrial*, Rio de Janeiro, 1957, Série Nacional, Volume III, Tomo 1; IBGE, *Censo Industrial de 1960: VII Recenseamento Geral do Brasil*, Rio de Janeiro, 1960, Volume III; IBGE, *Censo Industrial: Dados Gerais*, Rio de Janeiro, 1980, Volume 3, Tomo 2, Parte 1, Número 1; IBGE, *Estrutura Produtiva Industrial Brasileira – 1994*, Rio de Janeiro, 1997; and IBGE, *Pesquisa Industrial*, Rio de Janeiro, 1999, Volume 18, Empresa.

Further evidence of this can be obtained from Mergers and Acquisitions (M&A) transactions in the industry. According to KPMG, from 1992 to 2000 there were a total of 2,308 operations of M&As involving firms established in the country. From those, the food industry was responsible for 269 M&As (the largest number of M&As among all the Brazilian economic sectors)<sup>9</sup>.

Therefore, the typical firm of the food processing industry in 1990s went through deep transformations, becoming more concentrated, with a larger output, and employing a larger number of people. M&A seems to be responsible for an important part of firm concentration in the industry. However, firm concentration in the food industry in the second half of the 1990s occurred at the same time that a massive inflow of FDI in the sector was occurring.

### 3.4. Multinationals in the Brazilian Food Processing Industry

The food processing industry is considered – along with the textile industry – the starting point of the largest business groups in Brazil, predominantly owned by the private national capital<sup>10</sup>, which dominated the industry for most of the 20<sup>th</sup> century. However, in the last decade of the last century it is possible to observe a larger participation of foreign capital, at least among the largest firms of the industry. Indeed, one of the most conspicuous characteristics of the Brazilian food processing industry in the 1990s, especially in the second half of the decade, has been the arrival of a large number of multinationals.

**Table 7 – National and Foreign Capital Participation in the Brazilian and the Food Industry by Capital Invested: 1940.**

Capital Invested (Cr\$ 1.000): 1940				
	Firms	Total Capital Invested	National Capital (%)	Foreign Capital (%)
<i>Brazil</i>	39,937	7,273,025	4,288,045 (59%)	2,984,980 (41%)
<i>Food Ind.</i>	12,147	1,375,980	1,030,979 (75%)	345,001 (25%)

Source: Adapted from IBGE, *Recenseamento Geral do Brasil: Censos Econômicos*, Rio de Janeiro, Série Nacional, Volume III, 1950.

As shown in Table 7, in 1940 foreign capital represented 41% of the capital invested in the Brazilian industry. Nevertheless, in the food industry foreign capital had a much smaller participation (25%). Thus, contrary to what happened in other industrial sectors in Brazil, the food processing industry was a sector predominantly controlled by national capital until the beginning of the 2<sup>nd</sup> World War. From the following industrial censuses produced by IBGE it is not possible to evaluate the participation of multinationals either in the Brazilian industry or in the food processing industry. Nevertheless, data from the Brazilian Central Bank on the inflow of FDI suggests a very different picture on multinationals participation in the Brazilian food industry in the 1980s and the 1990s.

Between 1980 and 1995 only five sectors (chemicals, automobiles, electronics, mechanics, and metallurgy) received more FDI than the food industry. During this period the food industry attracted more FDI than the banking sector and the pharmaceutical industry, which has been historically dominated by giant multinationals<sup>11</sup>. Furthermore, in 1995 the stock of foreign capital in the food industry totalled US\$ 2.3 billions. This figure represented 5.4% of the total stock of foreign capital in the Brazilian economy during that year. The stock of foreign capital in the food industry was only smaller to that in the chemical industry (US\$ 4.7 billions), in the automobile industry (US\$ 2.8 billions), and in metallurgy (US\$ 2.5 billions)<sup>12</sup>. Between 1995 and 2000, only the chemical industry (around US\$ 8.1 billions) and the automobile industry (around US\$ 7.2 billions) received more FDI than the food and beverage industries (around US\$ 5.2 billions)<sup>13</sup>. In 2000, the food industry was the second largest receptor of FDI in the manufacturing sector (US\$ 975 millions), behind only the chemical industry (US\$ 1.1 billion). Outside manufacturing, only the recently privatised sectors, such as telecommunications (US\$ 10.8 billions) and electricity (US\$ 2.9 billions), or the recently deregulated sectors, such as financial services (US\$ 6.3 billions)<sup>14</sup>, received more FDI. Therefore, it is possible to conclude that one of the main factors explaining firm concentration in the food processing industry in the 1990s was the massive inflow of FDI in the industry. Further evidence of this comes from the consultancy firm KPMG. According to it, Brazil and the Brazilian food processing industry had become in one of the preferential destinies of FDI in the 1990s:

*“Several nationalities decided to enter in Brazil investing in expanding sectors. (...) The food industry had a strong participation throughout the decade and had occupied for several years a leading position in KPMG’s surveys in terms of the number of transactions. Large organizations, such as Cargill, Arisco, Sadia, and Parmalat, stuffed their shopping baskets with small and medium-sized firms during the decade. In our survey, the food industry was at the top of the ranking with 269 transactions, 57% of them with the presence of foreign capital.”<sup>15</sup>*

However, the analysis of the 550 largest firms in Brazil in the 1990-1999 period shows the extension of the FDI in the Brazilian food industry. In 1990 national private capital controlled 71% of the largest firms in the Brazilian food processing industry. In 1999 it controlled 40%. In 1999 sales of multinational subsidiaries represented 60% (against 29% in 1990) of the total sales of the largest Brazilian food firms<sup>16</sup>.

Furthermore, as shown in Table 8, of the top 20 largest firms in the Brazilian food industry in 1990 by gross operational revenue, six were multinationals. Nestlé was the largest firm of the industry and one of the oldest firms in the sector in the country. The company started manufacturing production in the country in 1921<sup>17</sup>. Cica had been one of the largest food companies in the country in the 1980s. Founded in 1941, the company was part of the ninth largest private group in the country, the Bonfiglioli, which also owned the Banco Auxiliar. In 1980s the bank went into liquidation, but Cica remained under the control of the Bonfiglioli group until 1993<sup>18</sup>, when it was sold to Gessy Lever<sup>19</sup>, the Brazilian subsidiary of Unilever. Nevertheless, as shown in Table 8, at the beginning of the 1990s the Brazilian food

processing industry was still a manufacturing sector clearly dominated by domestic firms, as 14 firms out of the top 20 largest in the industry were nationally owned firms. However, this picture would change dramatically as the 1990s went on.

**Table 8 – Top 20 Largest Firms in the Brazilian Food Industry by Gross Operational Revenue, 1990.**

Firm	Revenue (in US\$ millions)	Sales/Firm (in US\$ thousands)	Nationality
Nestlé	1,609.9	116.8	Swiss
Coopersucar	1,582.6	614.6	Brazilian
Ceval	878.2	76.5	Brazilian
Sadia Concórdia	805.5	57.3	Brazilian
Sanbra	534.0	152.2	Argentine
Perdigão Agroindustrial	515.9	37.4	Brazilian
Refinaria de Milho Brasil	458.9	131.2	US
União	451.1	Not Available	Brazilian
Frigobrás	418.1	58.8	Brazilian
Cargill	394.7	Not Available	US
Cica	340.4	78.5	Italiano
Citrosuco Paulista	305.2	Not Available	Brazilian
Leite Paulista	274.4	75.8	Brazilian
Cutrale	263.5	Not Available	Brazilian
Garoto	256.1	88.7	Brazilian
Arisco	249.8	Not Available	Brazilian
Lacta	244.5	57.5	Brazilian
Braswey	214.1	83.1	Brazilian
Olvebra Industrial	213.8	89.1	Brazilian
Fleischmann Royal	209.7	Not Available	US

Source: Adapted from *Exame Melhores & Maiores*, São Paulo: Abril, 1991.

**Table 9 – Top 20 Largest Firms in the Brazilian Food Industry by Gross Operational Revenue, 1995.**

Firm	Revenue (in US\$ millions)	Sales/Firm (in US\$ Thousands)	Stocks in Market	Nationality
Nestlé	3,372.3	256.1	No	Swiss
Copersucar	2,071.3	1,627.7	No	Brazilian
Ceval	1,735.0	119.5	Yes	Brazilian
Santista Alimentos	1,572.2	261.4	Yes	Argentine
Sadia Concórdia	1,532.1	72.2	Yes	Brazilian
Cargill	1,234.3	304.2	No	US
Perdigão	959.9	79.8	Yes	Brazilian
Parmalat	943.2	133.3	No	Italian
Sadia Frigobrás	916.1	135.4	Yes	Brazilian
RMB	830.7	240.4	No	US
Kibon	711.9	128.1	No	US
Leite Paulista	598.1	230.3	No	Brazilian
Central Itambé	545.3	178.4	No	Brazilian
Garoto	464.2	150.9	No	Brazilian
Quaker	450.3	154.2	No	US
Lacta	440.9	108.2	Yes	US
Danone	433.3	236.6	Yes	French
Chapecó Alimentos	331.3	68.5	No	Brazilian
J.B. Duarte	323.1	1,219.3	Yes	Brazilian
J. Macedo	319.5	117.3	No	Brazilian

Source: Adapted from *Exame Melhores & Maiores*, São Paulo: Abril, 1996.

In 1995, nine multinationals ranked among the top 20 firms in the food processing industry, as shown in Table 9. As in 1990, Nestlé was the largest one and the largest Brazilian firms continued to be Coopersucar, Ceval, Sadia, and Perdigão. Only one third of the multinationals had their stocks negotiated in the stock exchange market, showing that multinationals preferred to maintain the capital of their subsidiaries closed in Brazil. In August 1997 Bunge, from Argentina, bought Ceval, a firm owned by the Hering group, from the southern state of Santa Catarina and the third largest firm in the food industry in 1995<sup>20</sup>. Finally, Arisco, one of the top 20 in 1990, was sold to the US Bestfoods in February 2000<sup>21</sup>.

Multinational participation in the Brazilian food industry continued to grow in 2000. As shown in Table 10, half of the top 20 firms by gross operational revenue were controlled by foreign capital. At the same time, the bottom half of the top 20 in 2000 was mostly constituted by domestic owned firms, such as, Aurora, Itambé, Caramuru Alimentos, Mocrusul, Citrosuco Paulista, J.Macedo, Garoto, and Elege. From those, the last big national chocolate company (Garoto) was about to be purchased by the giant of the sector (Nestlé) at the beginning of 2002. Garoto was controlled by the Meyerfreund family and was founded in 1929, with its headquarters in Espírito Santo, in the South Eastern region of the country. Since the death of the founder (Henrique Meyerfreund) in 1973, the company was part of a bitter dispute within the controlling family. Employing 2,400 people, with annual sales of R\$ 400 millions (about US\$ 138 millions) and a productive capacity of 100 thousand tons of chocolate per year in 2002<sup>22</sup>, the company was an obvious target for multinationals wanting to increase their share in the Brazilian market. Furthermore, only two Brazilian firms ranked among the top ten in 2000: Sadia and Perdigão. Kraft Lacta was the result of the acquisition of one of the most traditional Brazilian chocolate brands (Lacta) in 1996 by a US multinational (Kraft Foods)<sup>23</sup>. Comparison between Tables 10 and 8 shows how dramatically were the changes in the Brazilian food industry in 1990s.

**Table 10 – Top 20 Largest Firms in the Brazilian Food Industry by Gross Operational Revenue, 2000.**

Firm	Revenue (US\$ millions)	Number of Employees	Stocks in Market	Nationality
Nestlé	2,574.8	12,369	No	Swiss
Bunge	1,961.9	8,700	No	Bermuda
Sadia	1,740.6	28,845	Yes	Brazilian
Cargill	1,664.0	5,000	Yes	US
Perdigão	1,037.9	17,569	Yes	Brazilian
RMB	791.6	8,336	No	US
Parmalat	731.6	6,761	Yes	Italian
Kraft Lacta	513.3	3,994	No	US
Fleischmann Royal Nabisco	508.2	3,312	Yes	US
Seara (Bunge)	496.0	10,000	No	Bermuda
Aurora	409.8	6,100	No	Brazilian
Itambé	388.2	3,040	No	Brazilian
Danone	341.9	5,585	No	French
Caramuru Alimentos	338.3	1,240	No	Brazilian
Mocrusul	336.2	3,718	No	Brazilian
Frangosul	332.6	6,795	Yes	French
Citrosuco Paulista	322.0	1,059	Yes	Brazilian
J. Macedo	319.2	1,917	No	Brazilian
Garoto	315.4	3,147	Yes	Brazilian
Elegê	311.9	1,539	No	Brazilian

Sources: Adapted from **Exame Melhores & Maiores**, São Paulo: Abril, 2001, [www.cargill.com.br](http://www.cargill.com.br), and [www.seara.com.br](http://www.seara.com.br).

Thus, it is possible to conclude that firms in the Brazilian food processing industry became larger and more concentrated, especially after the opening of the Brazilian economy in the 1990s. This process was paralleled by an increasing participation of multinationals, especially among the largest firms. Firm concentration in the food industry resulted not only in larger scales of production, but also in extensive and diversified portfolio of products, changing patterns of competition in the Brazilian food industry that prevailed until the beginning of the 1990s. Even multinationals long established in the country, such as Nestlé, had to resort to this kind of strategy.

Nestlé is, certainly, the most emblematic of multinationals within the sector in Brazil. Since its establishment in the country in 1921, Nestlé has introduced a large number of products, ranging from milk and its by-products, to chocolates, biscuits, ice cream, coffee, frozen foods, soups, sauces, deserts, juices, mineral water, food for pets, and lines of products targeting large consumers, such as, restaurants, hotels, hospitals<sup>24</sup>, as shown in Table 11. But growth was not restricted to internal expansion. As shown in Table 11, throughout its history in Brazil Nestlé acquired several local firms, some of which owned traditional brands and had large shares of the Brazilian market.

**Table 11 – Nestlé: Product Portfolio and Firm Acquisitions, 1921-2003.**

Year	Products	Acquisitions
1921	Condensed milk	
1924	Powdered milk	
1927		Sociedade Anonyma Companhia de Laticínios Santa Rita and Indústria de Laticínios Santa Ritense
1928	Leite em pó	
1932	Powdered chocolate	
1935	Canned milk cream	
1953	Soluble powdered coffee	
1957	Candies, chocolate bars, and sweets	Chocolate Gardano S.A.
1961	Soups and sauces	
1964	Foodservices	
1967		Fábrica de Biscoitos São Luiz
1972	Frozen food	
1973	Ice-cream and yogurt	
1988		Fábrica Ailiram de Biscoitos
1993		Fábrica de Biscoitos Tostines
1996	Fruit juices and dried cereal breakfasts	
1997	Animal food	
1999	Hospital nutrition and mineral water	
2003		Chocolates Garoto

Source: [www.nestle.com.br](http://www.nestle.com.br)

Nestlé's strategy of growth was partially followed by Sadia, the most successful Brazilian firm in the food industry at the end of the 20<sup>th</sup> century. Founded in 1944, by Attilio Fontana, growth of Sadia was also characterized by a strategy of diversification. However, contrary to its Swiss competitor, diversification in this case was not restricted to horizontal diversification through the expansion of the portfolio of products and the acquisition of firms in the food industry. Sadia verticalized its operations in order to compete in the main consumer markets within Brazil and abroad.

In the 1950s, for example, Sadia expanded its initial portfolio of products, which by then included mainly flour and ground flour, to take advantage of the by-products produced the slaughtering of pigs, such as, grease, salted-meat, tender, ham, salami, and sausages, a clear strategy of economy of scope. Furthermore, with industrialization, urbanization, and the resulting changing habits of urban food consumption in Brazil the company began to expand

its own distribution network, by opening in 1947 a distribution unit in São Paulo. The expansion of the company in the 1950s imposed a new challenge: how to transport perishable products from Concórdia to the cities of São Paulo and Rio de Janeiro? The inexistence of meat trucks and the precarious conditions of roads turned the journey long and unreliable. Thus, in 1952 the company started to lease planes from Panair do Brasil to ship meat from Concórdia, Santa Catarina, to São Paulo and Rio de Janeiro, by then the main Brazilian consumer markets. In 1955, the company founded an airway company, Sadia Transportes Aéreos, and soon the airway company began transporting also passengers and became an independent company in 1972, being renamed Transbrasil. Growth throughout the following decades included vertical and horizontal diversification, through internal expansion and M&As. In the last case, for example, in 1999 Sadia took over the control of Miss Daisy, a manufacturer of frozen deserts, and of Granja Resende, one of the largest Brazilian chicken processors.

However, diversification was not restricted to multinationals or the largest firms of the food industry in Brazil. The case of Vilma Alimentos, a firm from Minas Gerais, in this sense is very illustrating.

### **3.5. Vilma Alimentos**

Vilma Alimentos has grown from a very small and family concern in the late 1920s to become an important player in the 1990s, successfully competing with the new the multinational firms that entered in large numbers the Brazilian food industry in the post mid-1990s. This part analyses the evolution of Vilma Alimentos in order to show that globalisation in the 1990s Brazil did not mean the completely marginalization of local firms and how they were able to grow while the economy was virtually not growing at all and had become a very competitive market.

Domingos Costa and his wife (Josefina) founded Vilma Alimentos in 1925<sup>25</sup>. Both had emigrated from Italy to Brazil in 1917 and began working in a small pasta plant owned by Costa's elder brother. In the plant worked only Costa, his wife, his brother, and three of his brother's elder children. The plant was a little more than a machine to make pasta. As the business began to grow, Domingos Costa and his wife founded their own company with the name of Domingos Costa Indústria Limitada. At the beginning, the company began producing only pasta<sup>26</sup> and the company was only formally constituted several years later in 1937<sup>27</sup>. During this year there were 603 manufacturing firms in Belo Horizonte, Minas Gerais, employing a total of 9,766 people. Of the 603 manufacturing firms, 105 were food industries, the largest industry in terms of the number of firms at that time. Most of them were small concerns due to the fact that the production was destined for the consumption of the Belo Horizonte's market (which was small) and the scarcity of capital. Of Domingos and Josefina's six children only one (Paschoal) decided to work in the firm<sup>28</sup>, first helping in the production and gradually taking more important managerial roles. Having lived through three wars and an emigration process, the late Domingos Costa soon decided to retire. Eventually, Josefina and Paschoal were in charge of the business. In the 1950s Paschoal decided to expand vertically into the flourmill business, even against his father's opinion, to whom flourmill was a multinational business. However, constant problems faced to import raw material, due to the scarcity of foreign currency that country faced in the years following the end of the 2<sup>nd</sup> World War, which usually disrupted the supply of raw material, convinced Paschoal that vertical integration was vital for the pasta business<sup>29</sup>. The equipment for the flourmill was all imported from Italy and the mill was inaugurated in 1959. The flourmill was the second to be established in Belo Horizonte<sup>30</sup>. In 1967, the military regime decided to concentrate in its hands the supply of flour to the Brazilian market and prohibited the establishment of new flourmills in the country as well as the growth of the productive capacity of the existing ones.

The government direct interference in the market helped the company to consolidate and to grow, as it prevented outraged competition between firms and largely regulated the market. In the early 1970s Paschoal decided to set up another flourmill in Montes Claros, in the Northern part of Minas Gerais. The State government offered generous subsidies to firms that were willing to establish manufacturing operations there. The new mill was inaugurated in 1975 and while Paschoal was in charge of the new flourmill, Josefina and her son, also named Domingos Costa, were in charge with the management the company<sup>31</sup>. In the following year, the Domingos Costa Indústrias Alimentícias S/A ranked 34<sup>th</sup> among the top 50 flourmills in Brazil<sup>32</sup>. However, in 1991, the newly elected President (Fernando Collor de Melo), decided to deregulate the Brazilian flourmill market. From then on, import of flour was free as well as the establishment of new flourmills in the country and the enlargement of production capacity of the existing ones. This has changed completely the rules of competition that had been going on for more than two decades. Throughout this period, the market has grown from about 1,5 million tons in 1967 to around seven millions at the beginning of 1990s. Furthermore, several flourmills were not prepared to compete due to their distance from the consumer market. However, the pasta business has kept the company more attuned with the market needs and helped it to grow<sup>33</sup>. In 1997, the year in which Paschoal passed away, the Domingos Costa Indústrias Alimentícias S/A group employed 1,500 people<sup>34</sup>. Since then, Domingos Costa bought the totality of the company's shares, becoming its sole owner and chairman. Vilma was the brand of a popular pasta, which the market usually related the company with and more recently the company has adopted it as its official name<sup>35</sup>. In 1998, the company was the leader in the pasta market of Minas Gerais and the sixth in Brazil, according to the Nielsen Institute<sup>36</sup>. Using on a database of more than 20,000 active customers<sup>37</sup>, the company decided to expand its portfolio of products. In 1991 the portfolio of products of the company included 47 items. Seven years later it had jumped to 367 items<sup>38</sup>. In 2003 it had six different categories of products (flour powder, pasta, mixtures for cakes, refreshments, and deserts) and 380 items<sup>39</sup>. According to the production director of Vilma Alimentos, in 2003 the company was among the top 20 largest flourmills and among the top five in pasta, cakes, and refreshments in Brazil<sup>40</sup>. Asked why the company has been able to grow in an economy that virtually did not grow in the 1990s and in a market more and more crowded with multinationals, the chairman of Vilma Alimentos answered that:

*“The Brazilian market is too big, with different regions having specific tastes, that the multinationals usually are not able to fully understand. Furthermore, their tendency to globally homogenise brand outlook and product portfolios, in order to gain economies of scale, usually damage the identity of a traditional product with the consumer market. Finally, and also in order to obtain economies of scale, multinationals used large retailers, which tended to squeeze their profit margins.”*<sup>41</sup>

Thus, relying on its intimate knowledge of the consumer market and being able to have access to newly developed technologies, such as the German software SAP and Swiss microelectronic based equipment<sup>42</sup>, the company was able not only to compete on equal foot to its multinational counterparts, but also to grow in a more internationalised and competitive market that had not grown whatsoever in the last decade of the 20<sup>th</sup> century.

This brief account of Vilma Alimentos' history shows that even local medium-sized firms in the 1990s were able to have access to the latest technological developments both in hard and software, thus decreasing the strategic importance of these technologies. Furthermore, the company followed similar general strategic paths adopted by their multinational counterparts, such as the exploitation of economies of scale and scope and more flexible production. However, Vilma Alimentos was able to explore one of the few strategic advantages of local companies, which is its deep understanding and close contact with a consumer market so susceptible to culture issues.

## Conclusion

The analysis of the evolution of the Brazilian food processing industry in the 20<sup>th</sup> century has, although in a very preliminary fashion, enabled this paper to show that though there are resemblances with the previous decades, the 1990s brought important and completely new structural changes to the Brazilian economy. As it has become more fully integrated with the international economy, it has paved the way to an unprecedented scale of new FDI in the country. This new wave of FDI has brought with it tougher competition for the firms long established in the country, either domestic firms or multinational subsidiaries. These firms were, thus, forced to adapt themselves to a completely new pattern of competition, as a result of the unfolding and the maturing of the IT. Furthermore, this new wave of FDI was not concentrated to a specific set of economic sectors, as has happened in the three decades that followed the end of the 2<sup>nd</sup> World War. This time they were more widely spread in the whole Brazilian economy. It is also important to point out that in the 1990s the State had a much smaller and less conspicuous direct role in the development of businesses in the country. Not only there were fewer state-owned firms around, but also, as the case of Vilma Alimentos has shown, deregulation of the market has changed completely the rules of the game. The conjunction of these factors has fostered a new business environment, in which new challenges were posed to entrepreneurs, businessmen, and managers alike. Finally, as firms became larger and more diversified they began to enter into new segments of the food industry, becoming direct competitors. Thus, multinationals and local firms, irrespectively of their size, began to face fiercer competition due to the process of firm concentration and diversification that took place in the 1990s.

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<sup>1</sup> For this discussion see, among others, W. Suzigan, **Indústria Brasileira: Origem e Desenvolvimento**, São Paulo: Brasiliense, 1986; W. Baer, **Brazilian Economy: Growth and Development**, Westport: Praeger, 5th ed., 2001; and S.O. Birchall, **Entrepreneurship in Nineteenth-Century Brazil: The Formation of a Business Environment**, London: Macmillan, 1999.

<sup>2</sup> See W. Baer, **Brazilian Economy: Growth and Development**, Westport: Praeger, 5th ed., 2001.

<sup>3</sup> M.M. Moreira, 'A Indústria Brasileira nos Anos 90. O que já se pode dizer?', In: F. Giambiagi e M.M. Moreira (orgs.), **A Economia Brasileira nos Anos 90**, Rio de Janeiro: BNDES, 1999, p.295.

<sup>4</sup> <http://www.bcb.gov.br/pec/indeco/Port/ie1-55.xls>

<sup>5</sup> McKinsey, **Produtividade no Brasil: A Chave do Desenvolvimento Acelerado**, Rio de Janeiro: Campus, 1999, p.211.

<sup>6</sup> IBGE, **Censos Econômicos: Recenseamento Geral do Brasil, 1940**, Rio de Janeiro, 1950, Série Nacional, Volume III, pp.145-243; IBGE, **Censo Industrial**, Rio de Janeiro, 1957, Série Nacional, Volume III, Tomo 1; IBGE, **Censo Industrial de 1960: VII Recenseamento Geral do Brasil**, Rio de Janeiro, 1960, Volume III; IBGE, **Censo Industrial: Dados Gerais**, Rio de Janeiro, 1980, Volume 3, Tomo 2, Parte 1, Número 1; IBGE, **Estrutura Produtiva Industrial Brasileira – 1994**, Rio de Janeiro, 1997; e IBGE, **Pesquisa Industrial**, Rio de Janeiro, 1999, Volume 18, Empresa.

<sup>7</sup> McKinsey, **Produtividade no Brasil: A Chave do Desenvolvimento Acelerado**, Rio de Janeiro: Campus, 1999, p.211.

<sup>8</sup>

<sup>9</sup> KPMG, **Fusões e Aquisições: Análise dos Anos 90**, São Paulo, 2001, pp.5, 8-9. It is important to point out that the survey included in the food industry also beverages and tobacco.

<sup>10</sup> P. Evans, **A Tríplice Aliança: As Multinacionais, as Estatais e o Capital Nacional no Desenvolvimento Dependente Brasileiro**, Rio de Janeiro: Zahar, 1980.

<sup>11</sup> P. Evans, **A Tríplice Aliança: As Multinacionais, as Estatais e o Capital Nacional no Desenvolvimento Dependente Brasileiro**, Rio de Janeiro: Zahar, 1980, pp.114-22.

<sup>12</sup> Banco Central\BC Censo Capital Estrangeiro 95-98\Banco Central do Brasil -Apresentação.htm

<sup>13</sup> Banco Central do Brasil, Diretoria de Assuntos Internacionais, Departamento de Capitais Estrangeiros e Câmbio – DECEC, **Investimentos Diretos: Distribuição por Atividade Econômica de Aplicação dos Recursos, 1995-2000**.

<sup>14</sup> Banco Central\BC Censo Capital Estrangeiro 95-98\Banco Central do Brasil -Apresentação.htm

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<sup>15</sup> KPMG, **Fusões e Aquisições**, p.5.

<sup>16</sup> S.O. Birchal, 'Globalização e Desnacionalização das Empresas Brasileiras, 1990-1999', In: A.M. Kirschner, P. Cappellin e E.R. Gomes (orgs.), **Empresa, Empresários e Globalização**, Rio de Janeiro: Relume Dumará, 2002.

<sup>17</sup> See J. Heer, **World Events, 1866-1966: The First Hundred Years of Nestlé**, Nestlé, 1966, p.131; Nestlé, **Nestlé in the Developing Countries**, Nestlé Alimentana S.A., 1975, pp.20-2; [www.nestle.com.br](http://www.nestle.com.br), **A História da Nestlé**, p.3.

<sup>18</sup> 'A Grande Aventura dos Negócios', [www.portalexame.com.br](http://www.portalexame.com.br)

<sup>19</sup> [www.cica.br/institucional/historico](http://www.cica.br/institucional/historico)

<sup>20</sup> 'Por que o Bunge quer a Ceval?', <http://portal.abril.com.br/exame>

<sup>21</sup> 'Feitas para Durar', <http://portal.abril.com.br/exame>

<sup>22</sup> 'Nestlé compra Garoto e passa a liderar setor no Brasil', <http://portalexame.abril.com.br/exame>

<sup>23</sup> 'Faltou combinar com os suíços', <http://portal.abril.com.br/exame>

<sup>24</sup> See [www.nestle.com.br](http://www.nestle.com.br)

<sup>25</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>26</sup> Interview with Domingos Costa, on 17/12/2003.

<sup>27</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>28</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>29</sup> Interview with Domingos Costa, on 17/12/2003.

<sup>30</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>31</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>32</sup> Quem é Quem na Economia Brasileira, Visão, 31 de agosto de 1976, p.455.

<sup>33</sup> Interview with Domingos Costa, on 17/12/2003.

<sup>34</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>35</sup> Interview with Domingos Costa, on 17/12/2003.

<sup>36</sup> [www.vilmaalimentos.com.br/noticias](http://www.vilmaalimentos.com.br/noticias) In: Diário do Comércio, 'Vilma é Líder em MG no Mercado de Massas', 30/06/98.

<sup>37</sup> Interview with Domingos Costa, on 17/12/2003.

<sup>38</sup> [www.vilmaalimentos.com.br/noticias](http://www.vilmaalimentos.com.br/noticias) In: Diário do Comércio, 'Vilma é Líder em MG no Mercado de Massas', 30/06/98.

<sup>39</sup> [www.vilmaalimentos.com.br/historico](http://www.vilmaalimentos.com.br/historico)

<sup>40</sup> Interview with Sérgio Fernando de Macedo Moura, on 28/11/2003.

<sup>41</sup> Interview with Domingos Costa, on 17/12/2003.

<sup>42</sup> [www.vilmaalimentos.com.br/empresa](http://www.vilmaalimentos.com.br/empresa)