Brazil
Packaging Machinery
Market Research Report

The Findings of a Market Research Study Conducted by Indo Bras, exclusively for the Packaging Machinery Manufacturers Institute

February 2004

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I. Executive Summary

The packaging industry market in Brazil represented total investments of US$8.2 billion and a total volume of 6.3 million tons across all sectors in 2002. When compared to 2000 investments of US$10.8 billion, it is clear that currency devaluation has contributed towards much of the decline in investments in US dollar terms over the years. Nevertheless, currency stability coupled with an optimistic economic outlook for 2004 is expected to increase packaging investments across most sectors over the next couple of years – particularly in both Food and Personal Care sectors that together represented a US$42 billion market in 2002.

While Brazil predominantly remains an importer of packaging machines, equipments and spare parts reaching US$117.9 million in 2002, it has significantly reduced its dependence on imports from Germany and Italy – its two largest sources accounting for 33% and 21% of all imports respectively for the same year. A renewed "do-it-yourself" approach coupled with recently announced government tax incentives on the manufacturing of capital goods has not only allowed Brazilian packaging manufacturers to compete on equal grounds with the leading European and North American brands, but also has taken Brazilian packaging machinery to explore regional and European export markets reaching US$26.9 million in exports during 2002.

The US maintains its 3rd rank with a total of US$10.5 million in packaging machinery, equipment and parts exports to Brazil in 2002, falling from US$19.8 million during 2000. While it still accounts for a 12% share of all Brazilian imports, the decline can best be attributed towards an overall decline in packaging machinery purchases during 2001 and 2002 – particularly given the excess production capacity in both Beverage and Pharmaceutical sectors; coupled with an overwhelming preference for European machinery among leading manufacturers in both Food and Beverage sectors.

Vacuum Cartoning, Blistering, Flow-pack, Wraparound, Case pack and Filling and Sealing machines remained the major packaging machinery and equipment imports in Brazil during 2002, amounting to 61.5% of all packaging imports, down from 67.7% in 2000. Most packaging import categories were dominated by either Italian or German manufacturers, with the US leading imports only in cleaning and drying machines for bottles and other recipients.

Late entrance coupled with limited local representation and delayed cultural awareness continue to deter US packaging manufacturers from exploring the true potential of machinery sales into Brazil. Greater interaction with marketing and engineering teams of leading consumer product manufacturers along with partnership opportunities with promising local manufacturers and technical assistance service teams are just some of the recommendations listed

throughout the report to accelerate the learning curve on local packaging requirements by sector.

Similar to the first edition – Brazil Packaging Machinery Market Research Report – issued on January 2002, the purpose of this report is to raise awareness among US packaging manufacturers on real opportunities and challenges in the Brazilian market for 2004 and 2005 across four of the most important consumer sectors: Food, Beverages, Personal Care and Pharmaceutical. The report is divided into several chapters and sub-sections including economic and political outlook, packaging trends across all four sectors, market drivers, domestic machinery acceptance, imported machinery preferences and regulations, sector overviews along with company interviews and final recommendations.

The major component of the study includes an extensive set of interviews – totaling 40 companies across four sectors – aimed at identifying their packaging requirements and new equipment purchasing processes and policies for the upcoming years. All interviews follow a standard template that covers most of the topics discussed throughout the meetings and phone conversations. Any additional information provided beyond the template limitations, are highlighted throughout the report in the sector overviews and final recommendations sections.

A "purchasing potential" scale from "**1"** to **"5"** was assigned for each interviewed company, where **"1"** stands for **"low purchasing potential of packaging machinery during 2004/2005"** and **"5"** stands for **"high purchasing potential of packaging machinery during 2004/2005"**. The average purchasing potential for all 4 interviewed sectors reached **3.0**, an expected figure given the growth projections in both Food (3.4) and Personal Care (3.6) segments offsetting the stagnation of the Beverage (2.3) sector and current excess production capacity of the Pharmaceutical (2.2) sector. The average potential is expected to rise along 2004, as growing real wages lead to a surge in domestic consumer demand requiring companies to acquire additional production lines for new product launches – an opportunity for most US packaging manufacturers that can be best explored through direct contacts with engineering and marketing divisions at each of the interviewed companies, or visits to the recommended trade fairs listed at the end of the report.

According to all 40 interviewed companies across the food, beverages, personal care and pharmaceutical sectors, the following are the **7** major factors that influence packaging equipment purchasing decisions:

1. Scalability of production volumes satisfying immediate demand surges – upgradeable as necessary;
2. Adaptability of machines for the re-use of production lines – particularly for new and improved and seasonal variation packs;

3. Adherence to international quality, health and safety standards imposed by multiple regulatory associations following US, European and domestic guidelines;
4. Reduced maintenance costs with rapid parts repositioning –requiring local inventory at-hand that is readily available – limiting production downtime to a bare minimum;
5. Speedy technical assistance with nationwide coverage at reduced lead times – capable of reaching onsite within 24 hour notice;
6. Attractive Cost vs. Benefit based on production levels and payback time (Return on Investment);
7. Limited on-site training requirements – easy handling with reduced operational hazard track records.

At the end of the document, we highlight sector summaries including strengths and weaknesses along with specific opportunities and challenges for US manufacturers by sector, based on observations recorded throughout the interview process. The last section includes a list of recommended trade fairs scheduled throughout 2004 for US packaging manufacturers by sector preference and whether to participate in a "visitor" or "exhibitor" capacity.

Brazil remains a strongly relationship based culture that requires continuous personal interaction throughout the lead generation process to guarantee interest and secure orders. Indo-Bras is able to provide any additional information along with all the necessary support and follow-on work to ensure that your business succeeds in its packaging dealings in Brazil.

II. Economic & Political Outlook

Following an alarming yet short-lived state of semi-recession during the 1st semester of 2003 when reduced real income, high unemployment levels and high personal credit debt led the average consumer to forcefully cut back on basic category purchases, reduce shopping trips and substitute leading brands with cheaper popular brands; consumer confidence finally showed signs of recovery for the 4th Quarter of 2003. While price remains the primary concern on all purchase decisions, the Christmas season marked the rebound of what is expected to be a strong economic growth throughout 2004.

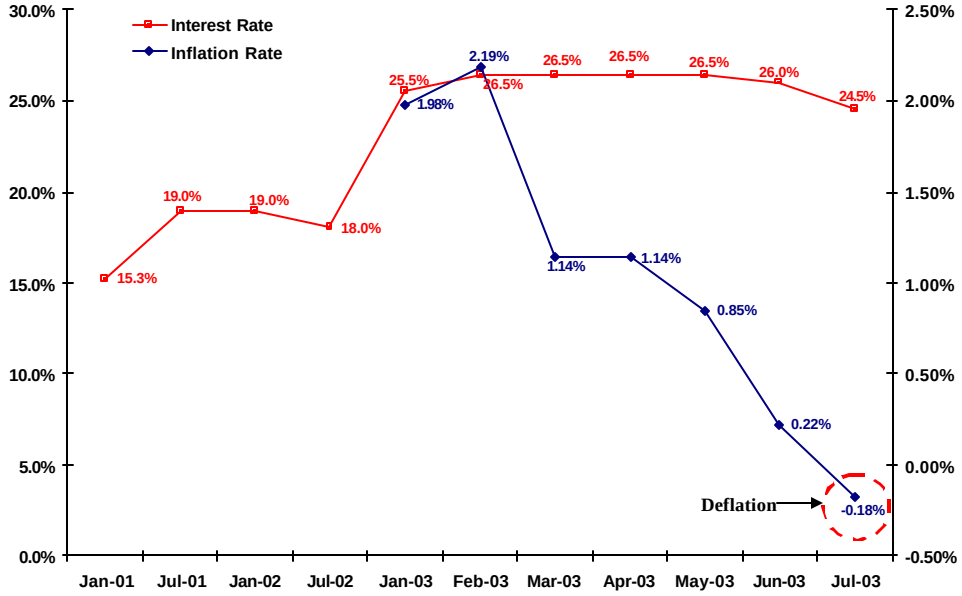
Interest Rate Reductions

The main factors leading to this rebound included the reduction of the prime interest rate (Selic) by more than 6.5% since June 2003 – from 26.5% to 20% – helping reheat the economy. Retailers and suppliers have finally experienced positive sales growth during the 4th quarter of 2003, following several consecutive months of negative growth. The prime rate (Selic) is expected to reach 14% to 15% by 2004.

The recent drop in interest rates is considered as a primary factor in paving the road towards sustained economic growth for the years to come with the opportunity for GDP to progressively grow at 3.0% to 3.5% rates during the next couple of years; provided the government does not accelerate interest rate cuts beyond market limitations. The market remains weary on whether the Central Bank will continue its gradual interest rate reduction policy or whether this will be substituted by an accelerated reduction. A cautious reduction vs. accelerated reduction can best be summarized in the following two market scenarios:

- High Interest Rates: Maintains domestic and foreign capital in country at the expense of limited credit purchases, reduced commerce, increase deflation and potential recession.
- Low Interest Rates: Boosts local production, credit purchases and economic growth at the expense of the flight of both local and foreign capital to international markets.

Interest Rate vs. Inflation Rate



Source: IBGE, Central Bank

Note:
- Interest Rate based on Selic, a reference index used for inter-bank transactions and Central Bank
- Inflation Rate based on IPCA-15, a monthly index on Consumer Prices taking into account all items and categories

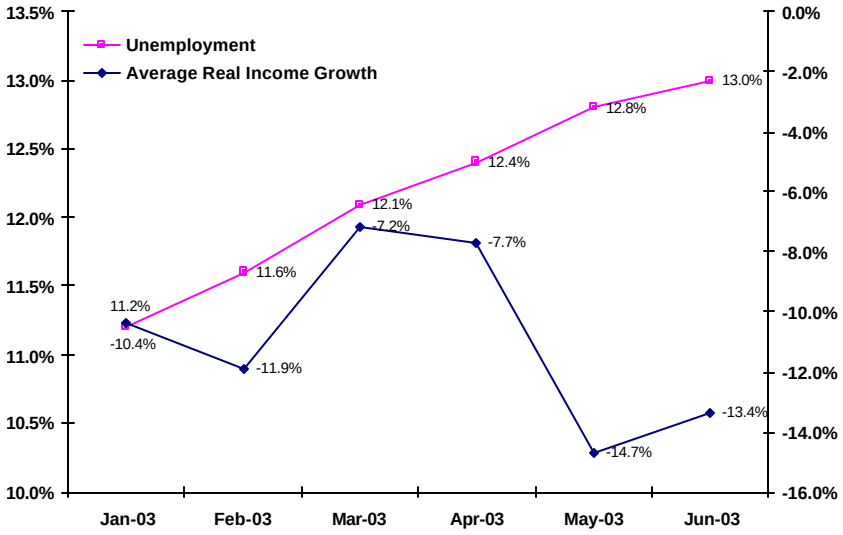
Unemployment & Income Growth

While the economy is expected to grow in 2004, it will remain scarred by the accumulated real income drop of 15% in 1H2003 compared to the same period last year, coupled by the high unemployment rate of 13% - the highest the country has ever witnessed since the Real Plan in 1994 reaching 443,000 unemployed. Today, reduced economic growth has not absorbed all the excess workforce capacity and reduced salaries have caused more family members to enter the workforce. Both of these factors have contributed to the growth in unemployment.

Today, the richest 1% of population in Brazil receives the same income value of 50% of the poor. 10% of the richest families in Brazil earn 18 times more than the 40% of the poor, half the national population earns up to two minimum wages, and 20% of the families in Brazil live with less than half the minimum wage!

Geographic income disparity remains a major issue in Brazil where the Northeast is one of the poorest regions, with 57% of the families living with less than half minimum wage while in Sao Paulo State alone this number falls to 15.5%.

Unemployment Rate & Average Real Income Growth in Brazil (1H – 2003)



Source: IBGE

Note: Average Real Income Growth is compared to the same monthly period of 2002

Consumer Loans & Defaults

The high cost of personal loans and finance as measured by the Procon Interest Rates per month for personal non-preferential loans, only helps discourage consumption in Brazil. According to the Anefac, personal loans may reach anywhere from a steep 112% to an absurd 325% per year, depending on the choice of credit.

Personal Credit Line (Avg. % Rates)	Monthly	Yearly
Commerce	6.63%	116.05%
Credit Card	10.57%	233.92%
Special Check	9.69%	203.39%
Personal Loan (Banks)	6.47%	112.19%
Personal Loan (Financial Cos.)	12.83%	325.69%

Source: Anefac

At the same time, credit rates are high based on the high personal default risk in Brazil today. For every 1,000 personal checks signed, 17.6 bounce representing an increase of 18.1% compared to May 2002. Furthermore, out of all consumer defaults up until May 2003, bounced checks represented 36% and credit cards 31%.

Political Summary

Following his victory in presidential elections last year, Luis Inacio Lula da Silva set 2003 priorities that included:

1. Reconciling the promise of a social revolution to address the problem of widespread poverty, while adopting an orthodox economic policy stance.
2. Regaining investor confidence and maintaining the support of the IMF while reducing the country risk premium.
3. Implementing tight fiscal and monetary policies to control inflation while simultaneously offsetting the high currency devaluation that occurred in the months leading up to the December 2002 elections.

Despite above efforts having stabilized the currency while bringing back limited investor confidence to Brazil through a sustained trade balance surplus (***See Appendix A for further information on Trade Balance – Secex)***; the overall results for the first semester of 2003 were disappointing at best but have been rapidly rectified by late 2004. The economy seems to finally be on the right track and the Lula administration is committed to finding a balance during 2004 between its domestic priorities that include:

- Pension reform for civil servants;
- Agribusiness reform agenda;
- Containing landless workers movement (MST);
- Fostering domestic productivity across multiple sectors.

and its international priorities that include:

- Acceptance and adherence to free-trade practices in Mercosur and Alca;
- Establishing new foreign working relations with USA;
- Exploring new markets in the Europe (Russia), Middle East, Asia (India and China) and Africa.

III. Packaging Machinery Trends 2004

3.1. General Packaging Overview

All of the 4 sectors – Food, Beverage, Personal Care and Pharmaceutical – have been quick to adhere to many health and safety regulations and standards imposed by international markets as a reactive measure to promote exports and dollar receivables as a substitute to the lack-luster domestic economy throughout 2002 and 2003. During the same period, the local government has slowly grown its involvement in the above-mentioned sectors to boost domestic consumption by:

- Providing incentives to medical laboratory R&D departments;
- Revisiting price ceilings on medications;
- Sponsoring associations to promote trade fairs and exports in hygiene & cosmetics segments;
- Monitoring and making plans to invest agribusiness production and distribution; and
- Strengthening health regulation standards in carbonated soft drinks and water segments.

In order to cope with growing export demands and a domestic economy on the rebound, the local manufacturing industries have raised their expectations on both raw material and capital goods suppliers and distributors to maximize production volumes at the lowest cost possible.

By the end of 2002, the packaging industry market in Brazil represented total investment of US$8.2 billion for a total volume of 6.3 million tons.

Source: Datamark & IndoBras Research

Despite the declining US dollar based revenues – largely affected by currency devaluations during 2001 and 2002; the packaging industry has posted a growth in local currency sales along with a slight growth in unit volume consumption over the years growing from 6.1 million tons in 2000 and 2001 to 6.3 million tons in 2002. Total compounded annual growth rates for both US$ sales and unit volume between 1998 and 2002 reached –4.9% and 2.5% respectively.

- ***A surge in food exports coupled with hygiene, oral and hair care innovations catering to a more sophisticated domestic consumer base in both food and personal care sectors are expected to drive much of the growth in the packaging industry during 2004 and 2005.***

- ***Intensified competition in the Carbonated Soft Drinks segment coupled with price-ceilings on medications, unprofitable Generics and excess production capacity in both beverage and pharmaceutical sectors are expected to drive much of the growth in the packaging industry during 2004 and 2005.***

When comparing both food and non-food industries, it is clear that both food and beverage remain the largest but not necessarily the most attractive packaging investment sectors, representing 67.1% of total packaging industry sales and 60.7% of total packaging industry volume.

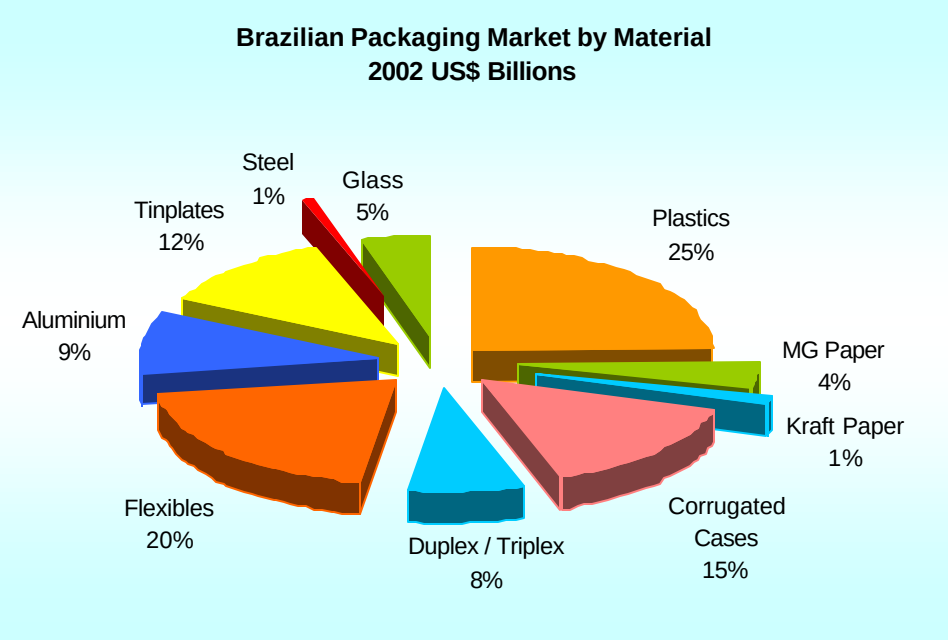
Packaging Market by Material 2002
Food vs. Non-Food 2002

	FOOD			NON-FOOD		
	tonnes 10^3	%	US$ 10^6	tonnes 10^3	%	US$ 10^6
Flexibles	382	87.4	1,413	55	12.6	242
Metals						
Aluminium	211	98.0	735	4	2.0	42
Tinplate / blackplate	549	79.4	776	142	20.6	216
Steel	15	17.5	15	69	82.5	69
Paper						
Kraft / MG paper	113	43.5	212	147	56.5	232
Duplex / triplex	131	33.1	210	265	66.9	423
Corrugated cases	843	39.3	480	1,301	60.7	742
Plastics	749	64.3	1,333	416	35.7	664
Glass	808	92.6	317	64	7.4	60
Overall	**3,801**	**60,7**	**5,492**	**2,465**	**39,3**	**2,690**

Source: Datamark & IndoBras Research

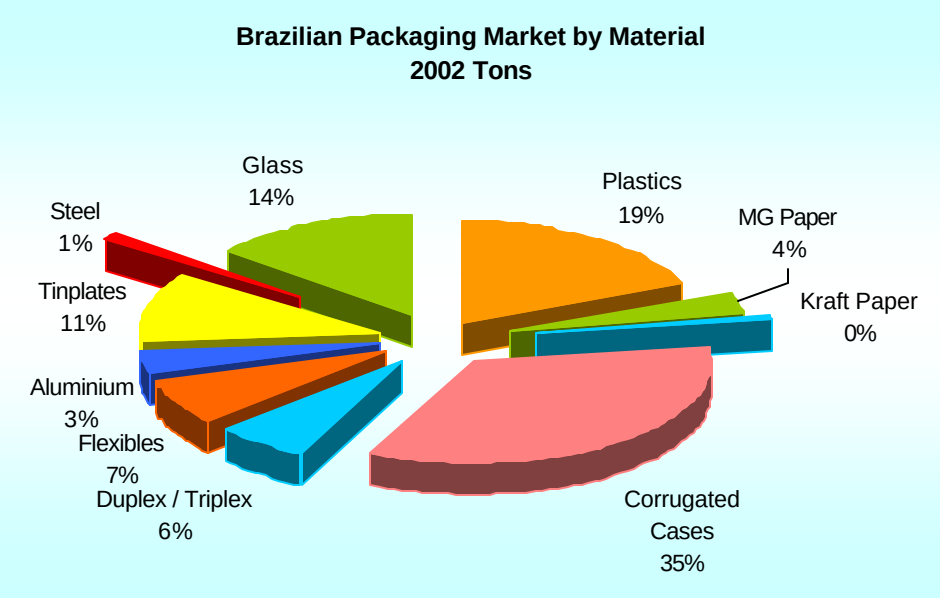
The overwhelming majority of Aluminum (98%), Glass (92.6%) and Triplate/Blackplate metal are used in the food and beverage sectors whereas the bulk of Steel (82.5%) is used in the non-food sectors. All other raw materials present a more even breakdown ranging from 30% to 65% representation of each material for either category.

Plastics are the most widely used raw material, accounting for 25% of all package material sales in Brazil during 2002. Flexibles followed by Corrugated Cases follow in the second-tier representing 20% and 15% of total consumption respectively.



Source: Datamark & IndoBras Research

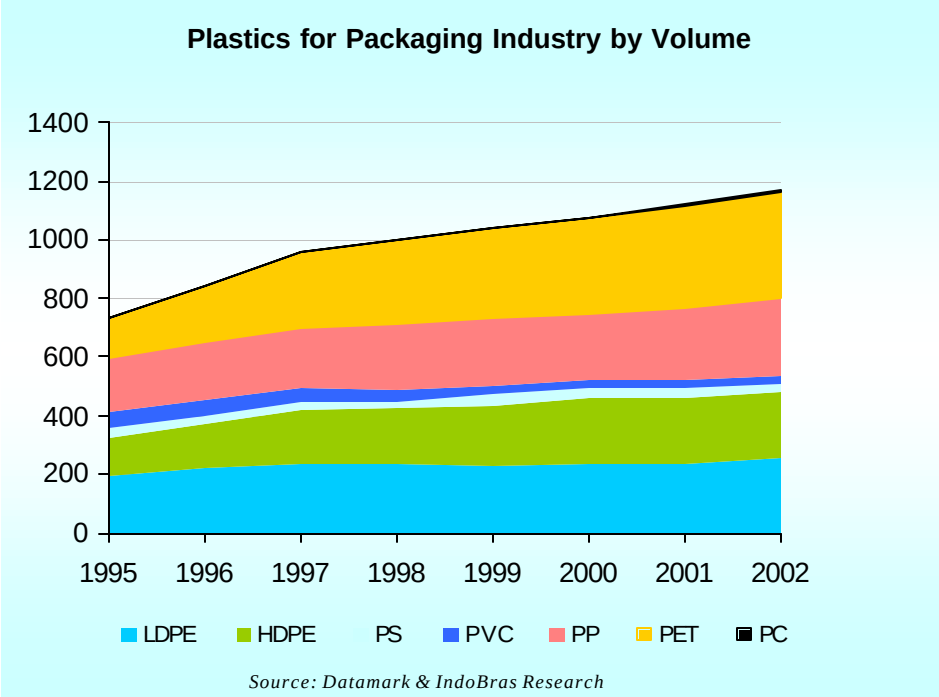
On a tonnage consumption comparison, corrugated cases appears as the most consumed material with 35% followed by plastics and glass with 19% an 14% respectively.



Source: Datamark & IndoBras Research

Plastic growth in consumption has been largely due to the growth in PET – a phenomena that experienced a boost since 1997 with the growing consumer requirements for cheaper, more adaptable and customized packaging in both food and non-food sectors.

PET has been the only plastic raw material to post double digit compounded annual growth rate between 1995 and 2002, reaching 14.6%. Brazil still remains a PET importer but has rapidly leveled-off with local manufacturing companies that have been quick to capitalize on local production opportunities.



Source: Datamark & IndoBras Research

PVC: Polyvinyl Chloride
PET: Polyethylene Terephthalate
LDPE: Low Density Polyethylene
PS: Polystyrene
PP: Polypropylene
PC: Polycarbonate
HDPE: High Density Polyethylene

3.2. Major Packaging Trends Summary by Sector

FOOD	BEVERAGE	PERSONAL CARE	PHARMACEUTICAL
• Shift from Flexibles to Metals – (growth in metallic foils for coffee, dairy, vegetables and meats cans). • Greater focus on family/value packs with new standardized formats. • Eco-friendly packs using recyclable raw materials shaped into different designs. • Growth in Diet/Light segments focused on healthy-living packs. • Launch of new product lines (yogurt/dairy, biscuit/snacks, sweets/candies) requiring innovative packs for both domestic & export-oriented markets.	• Glass bottles making a comeback reducing more expensive aluminum and plastic raw materials. • Growing PET expectations for mineral water and soft drinks (2 liter standards). • Metals (63%) still account for bulk of alcoholic beverages (largely due to Beer) and Plastics (58%) still account for bulk of non-alcoholic beverages (largely due to Soft-Drinks). • Growth in Milk and Mineral Water segments will drive Plastic and Paper consumption.	• Sophisticated consumerism driving innovative packs and designs particularly in shampoo, conditioned creams and hair care products. • Explosive search for new technologies capable of mass-producing specific pack designs of graphical importance with sufficient consumer-appeal to female and recently, to male, kids and ethnic segments. • Internationally recognized hygiene and safety standards in Oral and Hair Care packs and products	• Excess production capacity, declining sales, consistent unit production levels and price limits contribute towards search for cheaper production options across supply chain – i.e. from choice of raw material, choice of in-house vs. outsourced production to choice of packaging machine. • Adherence to local and international health and safety regulations (GMP, FDA, MCA) is taken very seriously. • Increased blister, metal lamination and tubes – focusing on reducing "generics" production costs to pay for R&D and still post profits.

3.3. Best Prospects for Packaging Machinery Sales 2004-2005

Interviews with 40-consumer product manufacturing companies resulted in the following list of best prospects for single or combined packaging-machinery sales over the next two years in Brazil:

Food Sector

- Filling & Sealing
- Wrapping & Sealing
- Forming, Filling & Sealing
- Cartoning & Sealing
- Thermo-filling & Wrapping

Beverage Sector

- Bottling – Glass & Can
- Filling – PET & Glass
- Labeling
- Wrapping
- Washing (glass bottles)

Personal Care Sector

- Filling & Sealing
- Filling & Wrapping
- Sealing & Blistering
- Filling, Labeling, Capping & Shrinking
- Bottling, Cartoning & Wrapping

Pharmaceutical Sector

- Drying, Flowpack, Blister
- Filling, Sealing, Boxing
- Blister, Vertical/Horizontal Cartoning
- Integrated purchases – Form/Fill/Seal & Cartoning

A further analysis on the machinery requirements by each sector may be found in the sector overviews in chapters IV to VII.

3.4. Market Drivers: Factors That Influence Purchase Decisions

According to all 40 interviewed companies across the food, beverages, personal care and pharmaceutical sectors, the following are the **7** major factors that influence packaging equipment purchasing decisions:

8. Scalability of production volumes satisfying immediate demand surges – upgradeable as necessary;
9. Adaptability of machines for the re-use of production lines – particularly for new and improved and seasonal variation packs;
10. Adherence to international quality, health and safety standards imposed by multiple regulatory associations following US, European and domestic guidelines;
11. Reduced maintenance costs with rapid parts repositioning –requiring local inventory at-hand that is readily available – limiting production downtime to a bare minimum;
12. Speedy technical assistance with nationwide coverage at reduced lead times – capable of reaching onsite within 24 hour notice;
13. Attractive Cost vs. Benefit based on production levels and payback time (Return on Investment);
14. Limited on-site training requirements – easy handling with reduced operational hazard track records.

Not much has changed since the January 2002 PMMI report on Brazil regarding the processes companies undertake to acquire packaging equipments. Greater coordination is now available between Engineering, R&D and Marketing departments, focused on identifying new consumption market trends and determining whether the current packaging machinery installed base is capable of satisfying these trends.

Similarly there has been a greater involvement of the Commercial department in the preparation of the feasibility studies in pre-screening potential candidates, receiving greater ammunition from the Engineering department when it comes time to negotiate payment terms and conditions.

The Board of Directors, referred to in this report as the "Executive Committee", is still responsible for the final purchase decision. Some companies are relying on Purchasing Departments that bring all the departments involved in choosing potential suppliers and machines together, before advising the Executive Committee and receiving budget approval to make the acquisition.

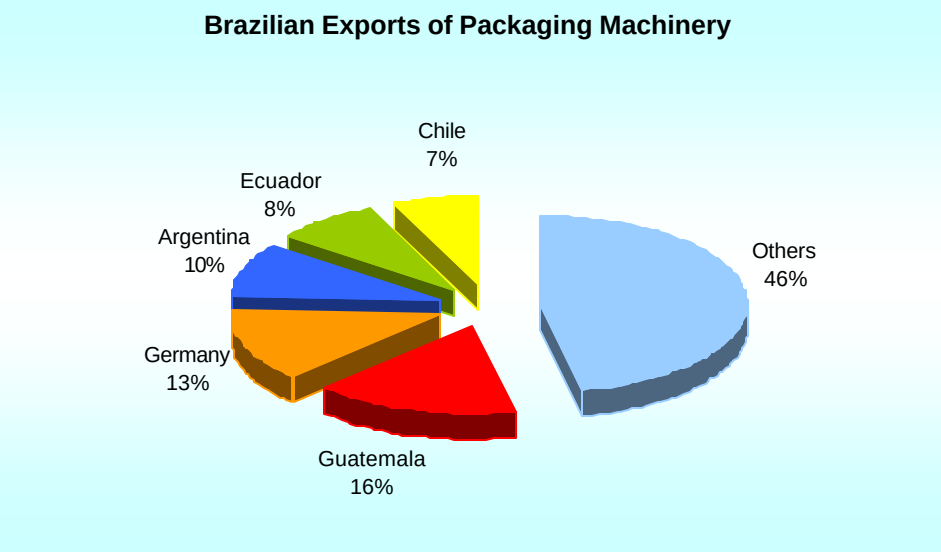
3.5. Domestic vs. Imported Machinery

Brazil has significantly reduced its dependence on imported packaging machinery since 2000, but has yet a long way to go before its local packaging machine production capacity satisfies the tremendous yearly demand for new equipments across all industrial sectors. Nevertheless, it is currently recognized as a leading regional contender for quality packaging machines servicing both domestic and export markets. The recognition of Brazil as a capable packaging machinery manufacturer comes at a time when industries are curtailing production line expenditure purchasing cheaper machinery to produce cheaper products affordable to the average consumer base that has seen his/her real income reduce over the years. The growth in local packaging machine manufacturing can largely be attributed to **3** main reasons including:

- **"Do-it-Yourself" Attitude** – Ongoing servicing of imported machines has created the mechanical know-how with local manufacturers and independent technicians providing low-cost support to these machines for several years. Companies have taken the blueprints and customized packaging machines to fit local market requirements – i.e. co-developing integrated machines with specific clients – while benefiting from recent government incentives for the production of capital goods.

- **Tax Benefits for Local Production of Capital Goods –** The Lula administration signed in mid-January 2004 a decree that reduced by 30% the Industrial Products Tax (IPI) for capital goods that are related to production. Over 600 items had taxes reduced from 5% to 3.5% and other 5 had taxes reduced from 12% to 8%. Total tax reductions currently in the tune of R$1,020 billion should gradually increase reaching R$3 billion by 2006 when the taxes for all capital goods focused on domestic production is expected to reach 0%. The government believes such tax benefits will promote local production and economic growth at a time when there is excess liquidity in the first world markets looking for new investment opportunities in the region. According to the Production Development Ministry, machine costs represent 60% of total investments made in Brazil and a reduction in the IPI tax can rapidly grow foreign direct investments – that reached only US$2.42 billion during 2003 matching 1999 levels but remained far from 1997 record levels of US$16.7 billion. ***(See Appendix B for further information of Import Tariff Exemptions).***

- **Growing Exports -** What started off as a timid attempt to explore regional packaging machinery demands in 2000 has rapidly developed into a striving export business for local machine manufacturers, focusing on Latin and Central American markets for specific sales leads that can translate into repeat purchases in those countries by word-of-mouth to other competitors on the quality of the Brazilian machines purchased.

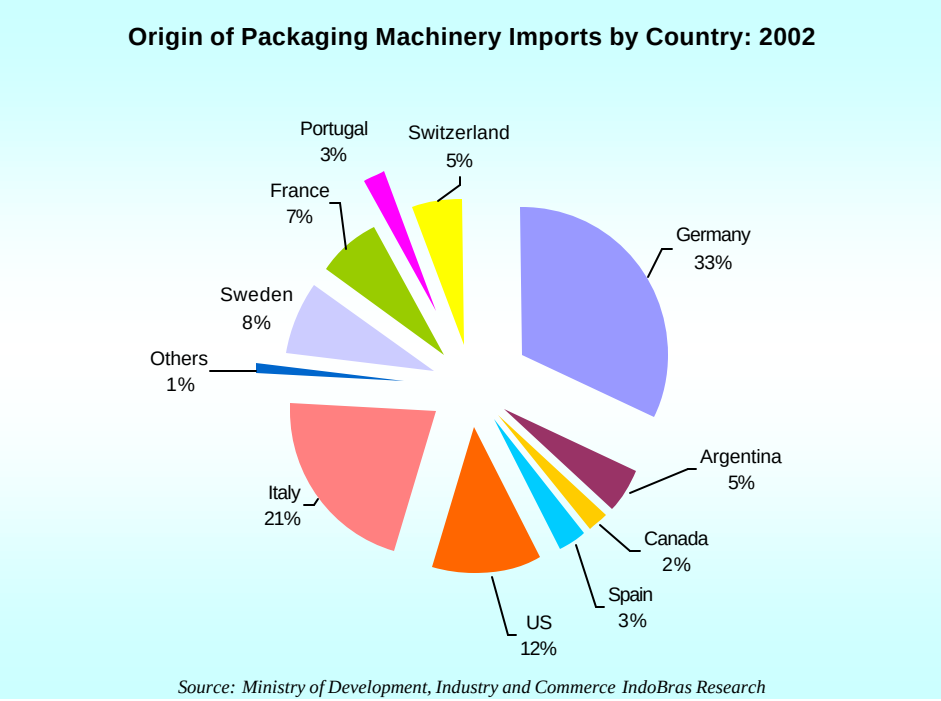


Source: Ministry of Development, Industry and Commerce IndoBras Research

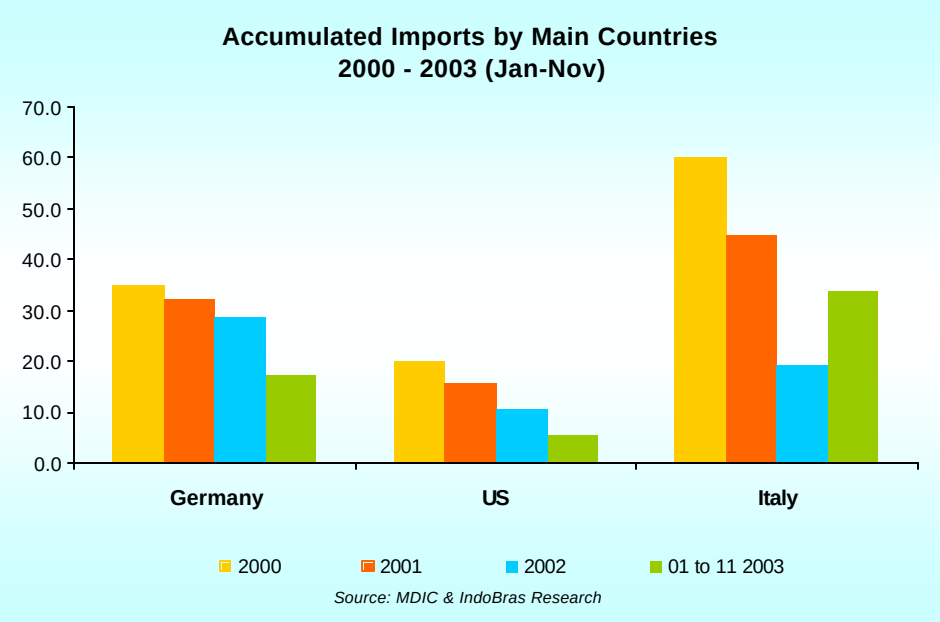
Surprisingly, the largest export market for Brazilian packaging machines, equipments and spare parts is Guatemala (US$4.3 million), followed by Germany (US$3.5 million) and Argentina (US$2.6 million). The main packaging product exports by harmonized product code include: 8422.3010; 8422.3029; 8422.4090 and 8422.9090.

Brazil currently ranks among the top 10 packaging manufacturers of the world, out of a total of 15 countries that actively control the bulk of all packaging machine sales. In the year 2002, its trade balance for packaging machinery was largely skewed towards imports reaching a total of US$117.9 million in imports compared to a total of US$26.9 million in exports.

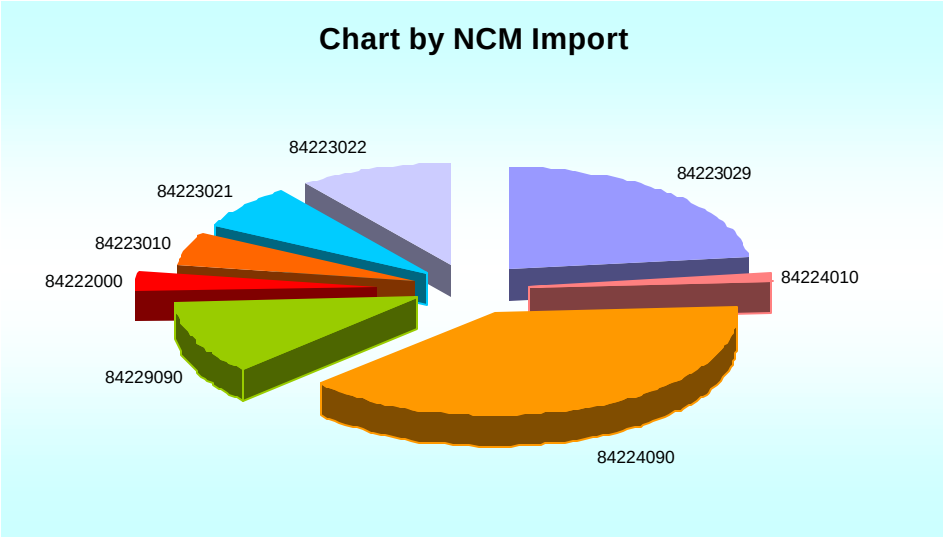
Its reliance on imports has decreased since 2000 when it imported US$155.5 million and in 2001 when it imported US$148.0 million *(See Appendix C for further information on NCM Product Codes for Packaging Machinery Imports by Country).*



Germany (33%) has passed Italy (21%) in total packaging machine imports compared to a total representation of 22% and 39% respectively in 2000. Both US and Argentina representations remains the same as 2 years ago with 12% and 5% respectively.



Based on the first 11 months of 2003, Italy seems to have regained its leading position in imported machinery with Germany falling back to second place and the US falling even further behind.



Source: Ministry of Development, Industry and Commerce IndoBras Research

Out of all the packaging equipment imported during 2002, harmonized product codes **"84224090"** (Other Packaging Machines & Equipments including Vacuum

Cartoning, Blistering, Flow-pack, Wraparound, Case packs and others) and **"84223029"** (Machines & Equipments for Filling / Sealing Cans, Encapsulation including Thermo-filling, Wraparound and others) still accounted for the bulk of imports with 38.5% (compared to 37.5% during 2000) and 23.0% (compared to 30.2% during 2000) respectively.

PRODUCT CODE DEFINITIONS:

- **"84222000" -** MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)

- **"84223010" -** MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)

- **"84223021" -** MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS

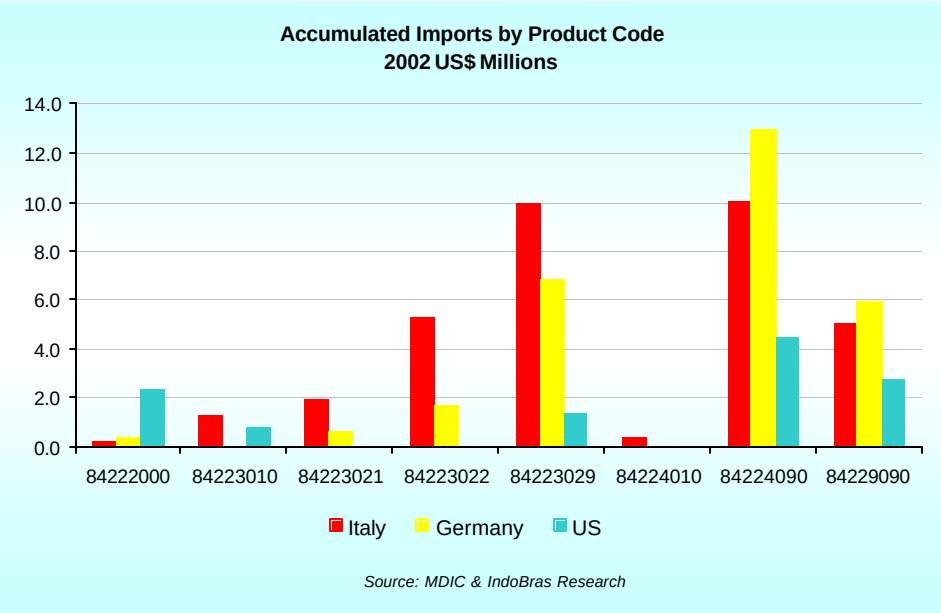
- **"84223022" -** MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"

- **"84223029" -** MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)

- **"84224010" -** OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)

- **"84224090" -** OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)

- **"84229090" -** PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS



Both Germany and Italy have dominated exports across most packaging product codes, losing out only to the US in the 8422.2000 segment that includes cleaning and drying machines for bottles and other recipients.

NOTE: The NCM Product Codes for Packaging Machinery Imports by Country found in Appendix C, is a great source for global packaging manufacturers to verify historic trends along with future import opportunities across different machineries, equipment and spare parts while benchmarking against different country performances. We recommend that each packaging manufacturer analyze the data to draw their own conclusions.

3.5.1. European vs. American Packaging Machinery – Challenges & Solutions

Italy and Germany dominate the Brazilian market for packaging machinery accounting for 54% of total machine imports during 2002. There has been a recent surge in both Argentine and Brazilian machinery offerings in the market with cheaper and reliable machines that have gained credibility among the leading manufacturers across most sectors.

US packaging manufacturers remain with a limited presence in Brazil and are in fact losing ground to European and Mercosur manufacturers. Some of the main reasons for the loss in market share over the years and solutions for expanding market share during 2004/5 are explained below:

CHALLENGES FOR US PACKAGING MANUFACTURERS	SOLUTIONS FOR US PACKAGING MANUFACTURERS
• Late Entrance of US packaging manufacturers paved way for European dominance. Sectors are focusing on "traditional" with "proven local track records" – allowing an easy benchmark among European manufacturing companies that have been operating in the market for years. • Limited local representation reducing technical service and parts repositioning possibilities whereas European companies have built local subsidiaries to attend immediate client demands. • Slow cultural awareness to domestic market necessities and reduced willingness to adapt compared to European packaging manufacturers.	• Greater interaction with marketing and engineering teams of local consumer product manufacturing companies in trade fairs and semi-annual visits to associations to identify market opportunities by sector. • Lobbying for speedy trade tariff reductions for capital goods in the Americas. • Partner or acquire local promising packaging manufacturers that complement machinery options available locally – allowing US manufacturers to set-up a regional manufacturing and services hub for the long-term at limited costs. • Partner with US consumer product manufacturers and US retailers operating in the region that demand specific manufacturing criteria to all its subsidiaries (i.e. products must be packaged using a specific material or design only available by the US packaging machine ensuring standardized production). May lead to US dollar based purchases by US parent company that later distributes machines to its operating subsidiaries. • Offer financing options such as OPIC (Overseas Private Insurance Corporations), EXIM, and others to offset prohibitively expensive local interest rates considered among the highest cost of capital in the world.

3.5.2. Barriers to Entry – Regulatory Frameworks & Import Duties

Brazil is known for its heavy taxation and duties that are applied to literally every production segment. The so-called "Custo Brasil" – (cost of doing business in Brazil), involves the combination of these taxes and duties with the high levels of customs bureaucracy, creating an extremely complicated and inefficient system that holds back international trade.

Brazil's average import taxes reached 25% until 1994 for countries outside the Mercosur region or for those with no special treatment over specific Trade Agreements. These taxes were all exclusive from both federal and regional taxes.

In 1995, the Mercosur Council agreed to implement a new tariff system that would speed up international trade in the region. The creation of the TEC or External Common Tariff, applied to all Mercosur member countries imposing a maximum TEC of 14% to be effective by no later than 2001. This system started to take effect since 1995 in Brazil with annual reductions of 1% per year over all import duties and taxations applied to non-Mercosur members. For Mercosur members the process was inversed, with TEC growing from 0% to 14%, with no pre-determined annual variations.

The agreement also created the "EX" tariffs, consisting of national exception lists to the TEC maximum possible tariff of 14%. These tariffs are based on equal and pre-fixed amounts that can be **precisely** defined according to the "Ex" description.

Packaging Machineries are included in the "Capital Goods" segment and currently fall under a TEC of 14% regardless of product origin and type of equipment. In the event that the equipment **precisely** fits the "EX" descriptions, TEC reaches to only 4%.

Brazil also charges the IPI Federal Tax, known as the Import Duty over Industrialized Products, based on the TIPI (an IPI applicable percentage chart varying by equipment). The average IPI tax applicable for packaging machinery is 5%, but is being revisited based on recent January 2004 government announcements to promote production and economic growth.

The ICMS (Tax over Circulation of Goods and Services) is a State Tax that varies from 7% to 18%, although reimbursable after three year for capital goods by deducting the original investment from regular internal taxes based on the receipts of the actual products manufactured and sold using that investment.

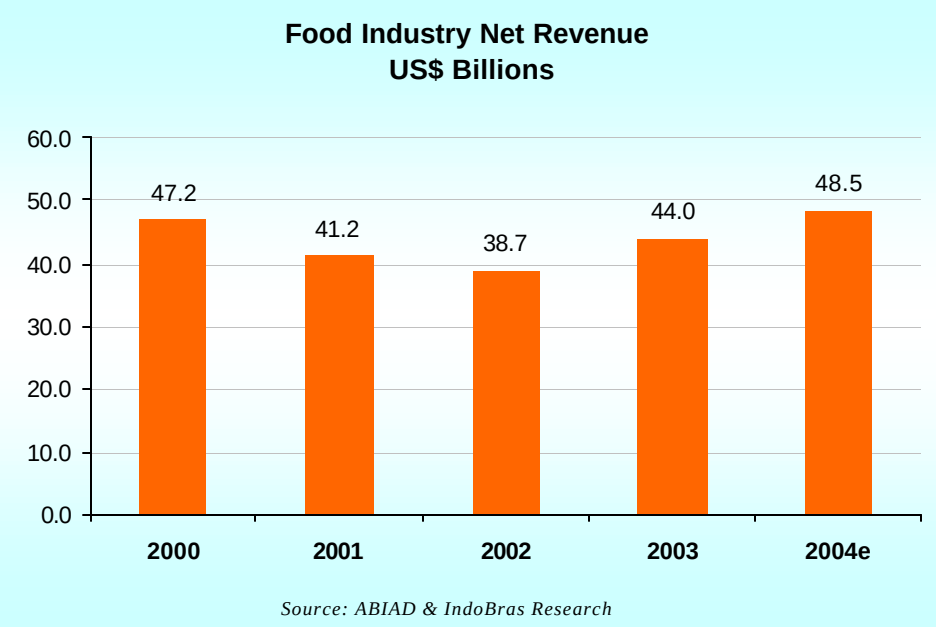
General TEC	14%
Machinery fitting precise "Ex" definition	4%
IPI	5%
ICMS (reimbursable in three years)	From 7% to 18%, varying by State

See Appendix B for further information on Tax Exemption and Appendix D for further information on Doing Business in Brazil.

IV. Food Industry

4.1. Industry Overview

The food sector is atypical from all other sectors given its vast diversity of manufacturing processes to produce thousands of different products following several variations of quality guidelines and hygiene standards. Domestic consumption is currently giving preference to low-priced and basic market basket items including grains, rice, beans, bread and cheap snack items including popular sweets and candies. Meanwhile, export markets are growing their meat, poultry and pork requirements and are expected to drive much of the segment



production for the next couple of years.

The Food Industry posted net revenues of US$44 billion in 2003, up 13.7% compared to the same period in 2002. Food represented 9.2% of Brazil's total GDP in 2003 and Food exports amounted to US$10 billion, responsible for 17% of total Brazilian exports. During 2001, new product and equipment investments represented 1.5% and 0.5% of total net revenues.

Food manufacturers have projected optimistic 2004 forecasts totaling US$48.5 billion, expecting an increased domestic and international consumption compared to previous years. The growth in production will be subject to a continuous build in domestic consumer confidence and local capacity triggered by government incentives to the agribusiness aimed for local consumption. Manufacturers expect the following trends in the segments below:

- Meats, poultry, pork, seafood and derivatives segments has focused mostly on export markets ranging from the Middle East (i.e. UAE) to the Far East (i.e. Singapore) with few companies successfully exporting up to 70% of their total production, eliminating the excess production capacity that they would have if only serving the domestic market.

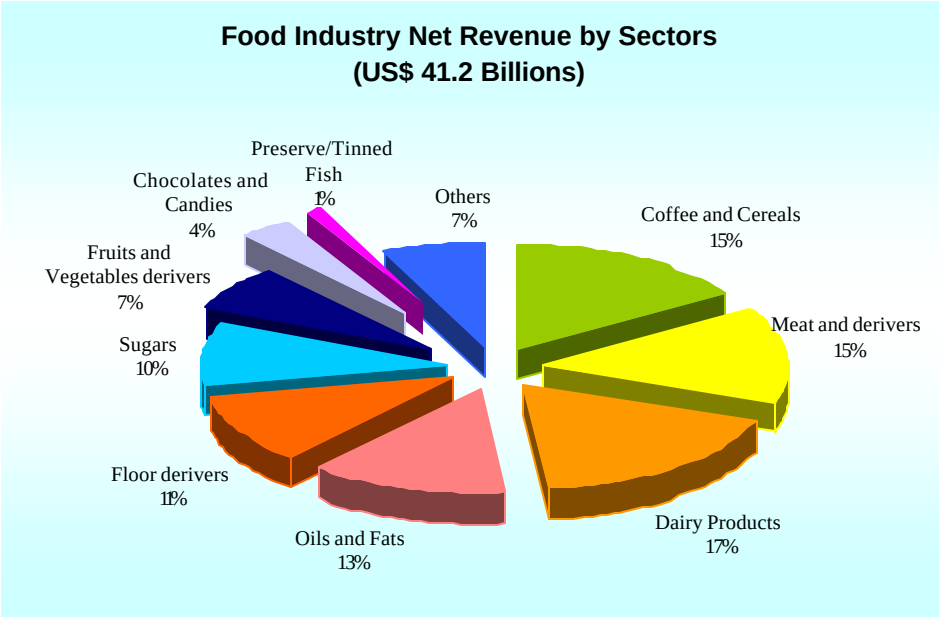
- Sacked product segments including grains, beans, sugar and others are giving preference to domestic packaging machinery due to the cost vs. benefit allowing for a return on investments of up to 5 years in advance of other international machines. Rapid technical assistance and repositioning of parts (machines known for their performance durability) and the non-requirement of advanced technologies, further encourages domestic machine purchases.

- Snacks segments including biscuits, sweets, chewing gum, candy and others, are growing their investments for machine upgrades and new machines that can produce practical packs (i.e. easy to open) with innovative appeal catering to new product launches. These segments represent the greatest opportunity for machine manufacturers given the constant product upgrades and new product launches to stay one step ahead of the intense domestic market competition.

- Canned product segments including peas, beans, corn and others are not showing signs of future investments over the next couple of years, maintaining similar production levels reached in 2003. Machine investments in these segments will be limited to modernization, automation and dosage regulation accuracy allowing different volumes to be packed in different can sizes (i.e. family packs focused on reducing fixed costs per can).

Domestically produced packaging machines for the Food sector is already competing fiercely with European and American machines due to their low final costs, eliminating the need for import tariffs. Nevertheless, most food manufacturers still consider European technology to be superior to domestic technology and are willing to pay a minimum premium to import machines that have a track record of consistent quality and durability.

Raw materials participation in the Food Sector during 2001 was distributed as



Source: ABIAD & IndoBras Research

following:

Dairy products represented 17% of total food net revenues during 2001 followed by Meat & Derivatives and Coffee and Cereals each with 15% representation.

4.1.1. Key Players

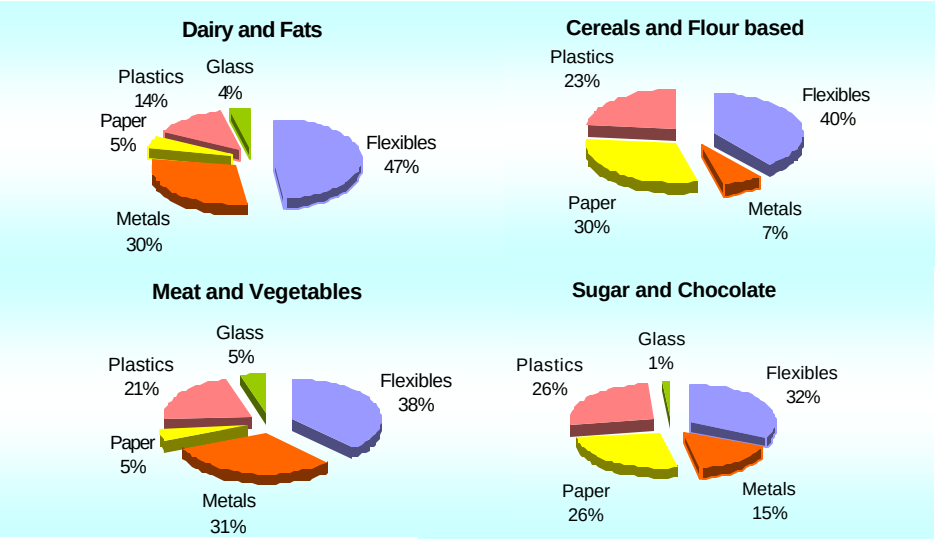
TOP 10 LARGEST FOOD COMPANIES IN BRAZIL BY REVENUE IN 2002

	COMPANYS	Revenues (U$ million)	Sales Growth (%)	Net Profit (U$ million)	NET ASSETS (U$ million)	Control
1	Bunge Alimentos	2,499.0	39.0	-100.5	487.5	Netherlands
2	Cargill	2,161.4	52.0	-130.8	55.2	USA
3	Nestlé Brasil	1,443.9	14.0	54.1	257.0	Switzerland
4	Sadia	1,348.3	-	79.5	425.5	Brazil
5	Copersucar	1,313.1	17.0	-	-	Brazil
6	Perdigao	984.2	21.0	3.2	221.7	Brazil
7	Unilever Best Foods	681.6	-	-	-	UK and Netherlands
8	Coinbra	654.8	-	-	-	France
9	Seara	499.4	24.0	26.6	117.1	Netherlands
10	Bertin	454.4	-	-	-	Brazil

Source: Valor 1000 Maiores Empresas edition 2003 & IndoBras Research

4.1.2. Packaging Trends

- **Growth in Metals** – There has been a growing acceptance of metals – particularly in the "Meat & Vegetables" and "Dairy & Fat" segments, seen as a temporary substitute for flexibles and plastic raw materials due to the increase in petroleum-based products and derivatives such as polyethylene reaching US$970/ton in 2003 compared to US$800/ton in 2002. The demand for metallic foils and cans have resulted in steel manufacturers producing 1 million tons for the packaging industry during 2003, 35% of which were



Source: Datamark & IndoBras Research

destined for exports.

Food manufacturers in the coffee and other canned segments are quickly adapting to new international packaging modifications in the metals segment including family/value packs that create more value for money:

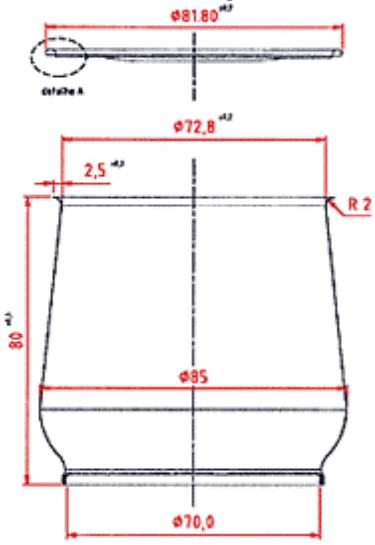
- **Eco-Friendly Packs** – Food manufacturers are focusing on environmental-friendly packs that using recyclable raw materials, shaped into different designs.

- **Growing Diet & Light Segments** – Evolving consumer behavior towards healthy living standards has resulted in tremendous growth for dairy, sugar and chocolate and cereal segments. According to ABIAD, diet and Light segments represented a compounded annual growth rate of 25% between 1990 and 2003 from US$160 million to US$3 billion, respectively.

- **Launch of New Product Lines** – With an expected overall GDP growth of 3.5% to 4.0% companies are investing in new yogurt/dairy and biscuit/snacks production lines with new pack designs over the next couple of years, replacing existing lines. Increased investments are also occurring for export-oriented production lines in meat/poultry and sweet/candy segments.

4.1.3. Summary of Interviews

The packaging machinery installed base of the **18** food companies interviewed consists of the following machines:



Box Filling / Cartoning – 47 machines:

- Mainard (Argentina);
- Fabrima, Fermeck, Indomack, Tavares, PackMachine (Brazil);
- Bosch, Kronis, PPS Subler, Tetrapack (Germany);
- Cavanna, Stiavelli, Euro-Sigma (Italy);

- Semex (France);
- OMC, Ulma (Spain); and
- Sandiacre (USA)

Forming / Sacking / Filling / Sealing / Capping – 385 machines:

- Enzo; Guananuce, Renemac, Janyeper, Pizigmano, Mainard, Meteor (Argentina);
- Fabrima, Tecmar, Indomack, Endomack, Flipack, Frigomack, Duplovack, Cesto (Brazil);
- 3M, Bosch, Sassibe, Tetrapack, Kronis, Optima, Mazzipack, GRC (Germany);
- Stiavelli, Martini, Retiarelli, Sima, Sig Manzini, Comaco (Italy);
- Zack, Serac (France); and
- Bossar, Ulma (Spain)

Labeling – 38 machines:

- Ciclope (Brazil); and
- Kronis, HNN, (Germany)

Palletizing / Pallet Dismantling – 15 machines:

- OMC, San Martin (Brazil);
- Sig Manzine , Sig Comaco, Zukine (Italy); and
- Liber (USA)

Wrapping (Roll, Shrink, Vacuum. Flowpack) – 137 machines:

- Flipack (Argentina);
- Mazzipack, Polipack, Araujo/Selomack (Brazil);
- Nagema, Bosch, Otto Renso (Germany);
- Carmem, Montanari, Gramenha, Khama, Sig-Simonasi (Italy);
- Inauen Maschinen AG VC 999VC (Switzerland); and
- REX (USA)

Others – 91 machines:

- Thermoforming: Selovack (Brazil), Tiromat (Germany), Ulma (Spain);
- Solding: Soldronic (Germany);
- Washing: Promaq (Brazil); and
- Weighing: Enchida (Japan)

There is a limited US packaging machine manufacturing presence in all the segments mentioned above, especially in the Forming / Sacking / Filling / Sealing / Capping segments where there was no mention of US suppliers!

Bosch remains an industry favorite across a wide range of segments contributing to the German superiority in number of machines in the sector, followed by Brazilian, Italian and Argentine machine manufacturers.

The **3** main reasons for new equipment purchases include:

- Increased production requirements for either current or new product launches for both domestic and export markets.
- Replacement of old and obsolete machinery with new technologies available worldwide reducing: (a) production downtimes and (b) maintenance and parts replacement costs.
- Rapid and easy technical service access giving preference to nationwide coverage for companies with multiple production hubs.

Decision making for new equipment purchases includes the following processes:

- **Engineering Department** is responsible for defining production requirements and current machinery installed base overload or excess capacity.
- **Commercial Department** is responsible for pre-screening potential packaging machine suppliers relying heavily on the preliminary feasibility studies performed by the Engineering Department.
- **Executive Committee** is responsible for the final purchase decision ensuring the new machines recommended by both Commercial and Engineering Department are within the pre-established budget for the year; and that the machines can be purchased following preferred payment terms practiced by the company.

4.1.4. Purchase Potential of Companies Interviewed

Out of the **18** food companies interviewed, the average purchase opportunity is of: **3.4** (based on a "purchasing potential" scale from 1 to 5, where "1" stands for "low purchasing potential of packaging machinery" and "5" stands for "high potential of packaging machinery".

Potential purchases for 2004/5 will consist of a combination of the following functions:

- Filling & Sealing
- Wrapping & Sealing
- Forming, Filling & Sealing
- Cartoning & Sealing
- Thermo-filling & Wrapping

Note: Since some companies did not provide budget figures due to confidential reasons, while others provided a total expenditure amount that included building & construction, land and complete processing investments; we did not sum up the total estimated budget for packaging machines in 2004/2005 since the figures would not portray accurate average investment levels of all companies involved.

4.2. Food Company Profiles

ADRIA ALIMENTOS LTDA

A) Summary Box:

Industry:	FOOD
Sub Industry:	Pasta and Cookies
Location:	Fortaleza – CE
Size: (sales)	US$ 88.2 million
Purchasing potential:	5
Specific Business Opportunities:	Cartoning, Filling and Sealing Machines

B) Description:

Adria was created by a group of young Italians wanting to further develop Italian culinary in Brazil. The company was launched in Brazil in the beginning of the 1950s by opening the first industrial plant in Porto Alegre – RS.

Adria adheres to high standards of quality control concerning hygiene and manufacturing processes. The company has tried to encourage more Brazilians to indulge in Italian cuisine and requires top quality recipes to ensure continuous demand for its Pasta products and achieve a growing market share.

Socma Group bought Adria in 1999 and expanded its market share by purchasing other food segments including, Pasta and Cookies. Recently Socma Group was taken over by M. Dias Branco, a Brazilian company based in the Northeast. Now the group covers 25% of Latin American market share for Pasta and Cookies segment.

C) Principal Products Produced and How Are They Packed:

Adria works with a wide range of products within the Pasta and Cookies segment. Majority of the products are packaged in the same way: cardboard boxes wrapped in plastic films (PET and PVC)

D) Packaging Machinery / Countries of Origin

The following machines are based in its São Caetano do Sul – SP to pack Pasta:

Current Machinery Used	Brands	Units	Origin
Cartoning Machine	Stiavelli	1	Italy
Filling Machines	Stiavelli, Bosch, Martini, Retiarelli	5	Italy / Germany
Heat Horizontal Sealing	Private design and	3	Brazil

	development		

Boxing and palletizing processes are done manually. Adria has developed and manufactured three Heat Horizontal Sealing machines at their factories, and are currently in the process of producing two more.

E) Manufacturing objectives driving the purchase of new equipment.

Production studies, including viability analyses on increasing demand and unfilled capacity production contributes to swift purchase equipment decisions.

The Pasta segment has not shown many signs of growth in 2003/4, whereas the Cookies segment is constantly growing. Nevertheless, Adria still plans to launch a new line of Pasta for 2004, which will potentially lead to additional investments in new equipment purchase.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Cookie-Packing line:

Current Machinery Used	Brands	Units	Origin	Year of Purchase
Boxing Machine	Cavanna	n/a	Italy	2002
Wrapping Machine	Sig-Simonasi	1	Switzerland	2002
Wrapping Machines	Mazzipack	2	Brazil	2002
Wrapping Machine (Wall Switch Pack)	n/a	n/a	n/a	2002

In 2003, Adria only acquired production machinery, limiting packaging machinery investments to only 2002 and that too, only in the Cookie segment. The Pasta segment has not received new packaging machinery investments for the past five years and recent plans to launch a new Pasta line for 2004 are expected to result in new machinery purchases with a proposed budget of approximately US$ 1 million.

G) Purchasing Policies.

The first step involves preparation of a production capacity study that is analyzed to determine the new purchasing requirements. Once the requirement is made clear, the engineering department lists three suppliers, technologies and prices available in the market. After a viability analysis, the study is delivered to M. Dias Branco Group for comparison and to reach a final decision. Adria corporate usually contacts the same suppliers, but its individual branded product lines are constantly open to new packaging machinery manufactures.

Adria normally accepts cash payment terms, however, the company sometimes prefers to pay in installments with FINAME resources.

H) Factors That Influence Purchasing Decisions.

Adria believes that the main factors influencing purchasing decisions is reliability of suppliers to provide a packaging machinery that is of a high-tech standard maintaining high security levels, with national technical assistance and easy and rapid parts reposition. Adria also is very loyal to machines that provide a consistent quality throughout the production process while minimizing wastage.

I) Contact Information:

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Email: oswaldo@adria.com.br
Website: www.adria.com.br

Contact 2: Mr. José Ailton
Position: Mechanical Supervisor

ARCOR

A) Summary Box:

Industry:	FOOD
Sub Industry:	Pasta, Cookies, Sweets & Candies & Chocolates
Location:	Bragança Paulista - SP; Argentina
Size: (sales)	US$ 88.9 million
Purchasing potential:	5
Specific Business Opportunities:	Wrapping and Sealing Machines

B) Description:

Today, Arcor do Brasil produces over 1.5 million food products per day, constantly updating techniques, materials, technologies and their own products. Arcor is the largest candy producer in the world and a leader in chocolate manufacturing in Latin America. It is also the largest exporter of sweets and candies in Mercosur.

Arcor has the most advanced chocolate factory in Brazil with one of the best shipping and distribution centers in the country. The Bragança Paulista plant has sufficient capacity to become the leading manufacturing site in sweets and candies in Latin America The Arcor Group has a total of 31 plants in Latin America: 25 in Argentina, 2 in Brazil, 3 in Chile and 1 in Peru.

C) Principal Products Produced and How Are They Packed

Arcor manufactures over 1,500 products within 4 categories: pasta, cookies, sweets & candies and chocolates. The packages that are used are made from plastic film and laminates from various materials.

D) Packaging Machinery / Countries of Origin

The following machines are used to pack candies and bubble gums –based in the Rio das Pedras – SP production facility:

Current Machinery Used	Brand	Units	Origin
Wrapping Machines	Nagema	18	Germany
Flowpacks Machines	Euro-Sigma	5	Italy
Cartoning Machines	PPS Subler	1	Germany
Boxing Machines	Bosch	4	Germany
Wrapping Machine	Tavares	1	Brazil
Wrapping Flow-pack Machines	Flipack	20	Argentina

Palletizing Machines	Liber	2	USA
Wraparound Machines	GD	4	n.a

The machines that are used for wrapping are also used for sealing.

E) Manufacturing objectives driving the purchase of new equipment.

Arcor performs annual studies on consumer trends and has reached the conclusion that it needs to expand its new machinery investments to respond to the increasing demand for its products.

Other reasons for new equipment purchases include the need to replace old equipment and minimize ongoing maintenance costs along with increasing security standards for staff that operate the machinery.

The acquisition of new machinery can also occur as a result of new product launches, which usually happens every year.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Year of Purchase
Boxing Machines	Bosch	2	2002 / 2003
Wrapping Machines	Bosch	4	2002 / 2003
Flow-Pack Machines	Flipack	3	2002 / 2003
Cartoning Machine	Euro-Sigma	1	

Arcor Group has already prepared a packaging budget for 2004. The company has plans to launch a new lollipop line and is considering new packaging machinery for this production line.

The company expects an increasing demand for its products and has plans to raise its current production levels for 2004.

The investment budget for the whole group is expected to reach approximately US$100 million over the next couple of years.

G) Purchasing Policies.

Arcor's policies are based on the analysis performed by an Argentine purchasing group that determines the group's production and equipment performance requirements. The Brazilian plants provide the necessary information regarding their technological requirements and production capacity, so that the Argentine purchasing group can make the final decision.

All payments and technical analysis are done in Argentina. Payments are usually done in cash.

H) Factors That Influence Purchasing Decisions.

The factors that prevail in the purchasing decision for Arcor's machines include:

- The machines must be highly technologically advanced in the market
- The supplier must offer an efficient after sales service and technical assistance
- The maintenance and replacement of parts must be quick and easy
- The level of productivity must be 100% with little or no waste production
- The machines must have the capability to work for long periods of time
- The machines must be able to respond to market demands.

I) Contact Information:

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Telephone: +55 19 3493 9000
Email: b.oliveira@arcor.com.br
Website: www.arcor.com.br

AVIPAL S/A -AVICULTURA E AGROPECUARIA

A) Summary Box:

Industry:	FOOD
Sub Industry:	Processed and frozen chicken
Location:	Porto Alegre – Rio Grande do Sul
Size: (sales)	US$ 309.6 million
Purchasing potential:	2
Specific Business Opportunities:	Wrapping , Closing/Sealing

B) Description:

Launched in 1959 in Porto Alegre – RS, Avipal is one of the top five food meats manufacturer in Brazil focused on both animal protein (poultry and milk) and vegetable protein (grains). During 2002 it produced over 300 thousand tons of poultry and 70 thousand tons of pork meat

Avipal also imports and exports poultry, chicken eggs, hogs, beef cattle, milk, sheep, fish and other animals. It is involved in other agricultural activities including apple cultivation, production of animal feed and related products, and storage of grains.

Avipal has 4 industrial plants that have a combined processing capacity of 712,000 units of poultry per day.

1. Lajeado, RS 282,000 units/ day;
2. Porto Alegre, RS 130,000 units/day;
3. Dourados, MS 150,000 units/day;
4. São Gonçalo dos Campos, BA 150,000 units/day.

Avipal exports its products to Eastern Europe, the Middle East, Europe, Japan, Central America and select African countries. In 2002, exports grew by 142% supported by high capital investments catered to its foreign market demands.

C) Principal Products Produced and How Are They Packed:

To date, there are very few variations in the packaging processes at the industrial plants. Whole chickens are wrapped in plastic film through a fully automated vacuum and sealing process. Animal parts are individually wrapped by Frigomack heat-sealing machines that require limited manual involvement.

Products destined to supermarkets receive an extra plastic bag or interlaced bag while export-oriented products are automatically packed, sealed and frozen to reach their final destinations maintaining quality freshness.

D) Packaging Machinery / Countries of Origin

Current Machinery Used	Brand	Units	Origin
Heat Sealing Machines	Frigomack	8	Brazil; Germany
	Usinox	1	
	Ulma	3	
Vacuum Wrapping Machines	VC	1	Switzerland, Brazil
	Selovack	3	
Roll Wrapping Machines	Polipack	2	Brazil

Avipal uses manual boxing machines supplied by Aplina (Switzerland) to palletize and box products manually.

E) Manufacturing objectives driving the purchase of new equipment.

Avipal has been reorganizing and redistributing its production capacity throughout its plants since 2000. Since the inauguration of its new industrial plant in Bahia, the company has already invested all its new machinery requirements that were announced in 2000.

Avipal believes it is currently well equipped regarding packaging machinery. New purchases will only take place should there be an increasing demand for its products, if there is a new product launch and/or if there are any changes in the labor force and policies. The stability of the Brazilian poultry market has also allowed the company to focus more on its export markets, responsible today for over 70% of Avipal's production.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Avipal did not invest in new equipment during 2002-2003 and does not forecast new purchases for 2004. Growing exports may result in future machinery purchases by 2005.

G) Purchasing Policies.

The production and maintenance department carry out a study in order to identify the need for new machinery. Once this is done, they propose the machines that they require and it is the responsibility of the accounting department to analyze the potential investment. All purchases are done through its Porto Alegre headquarters.

Payment systems remain unchanged since 2000 with cash payments under 28 to 30 day terms for the first deposits. In instances where the machinery manufacturer is not a regular/known supplier, Avipal may prefer a guarantee such as a residual amount to be paid after installation.

H) Factors That Influence Purchasing Decisions.

Avipal gives preference to machines that are the most technologically advanced in the market with efficient after-sales services with quick and easy parts replacement. Machines must also be capable of performing at very high production levels for long periods of time.

Most of Avipal's machinery is from Europe due to the proven track record and availability of more high-tech machines. The US also has high-tech machines however there seems to be little interest and demand for these among the Brazilian poultry manufacturing companies, reducing the market share potential for US machines.

I) Contact Information:

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Website: www.avipal.com.br

CAMIL

A) Summary Box:

Industry:	FOOD
Sub Industry:	Grains
Location:	Itaqui – RS
Size: (sales)	US$ 130.4 million
Purchasing potential:	3
Specific Business Opportunities:	Form, Fill and Sealing

B) Description:

Camil was launched in 1963 with a 2,700m² warehouse to store its grain production. In 1974 the company started to sell small rice packages in the southeast region contributing considerably to the company's sales. Camil was also the first to put up a warehouse in São Paulo to supply directly to the retail market.

The company has three industrial plants in Brazil: São Paulo, Recife and Camapuã. The São Paulo plant has a warehouse of 21,000m^2 with a production capacity of 15,000 tons of rice and 3,800 tons of beans, representing 10% of the company's total production. Recife's plant achieves a total capacity of 120,000 rice bundles a month employing 60 workers and 10 salesmen. The Camapuã plant is the most recent one that was initiated in 2002. Today Itaqui's annual production of grains is at 7 million tons.

C) Principal Products Produced and How Are They Packed:

Camil works specifically with grains (rice and bean) and outsources other products such as oils and flavor additives. .

Packages use plastic PE films and plastic films laminated by a thin aluminum sheet. Other packages from this film include stock bags of weights ranging from 0.5kg to 5kg.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

São Paulo's plant has 8 production lines, which use the following machinery:

Current Machinery Used	Brand	Units	Origin
Filling / Weighing / Heat Sealing Machine	Endomack	14	Brazil
Filling / Heat Sealing Machine	Fabrima	1	Italy

There are also air-compressed systems to assist in the packaging process.

E) Manufacturing objectives driving the purchase of new equipment.

Camil's main objectives driving new equipment purchases is the need to expand production capacity in existing plants and to reduce the high costs in maintaining existing machinery. Camil believes it is well equipped regarding packaging machines, once its units have a life of 15 years and have only been operating since the past 7 years. Currently there are only two new models that are being tested and that have yet to be purchased.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin	Year of Purchase
MF 1000	Endomack	6	Brazil	2000

The company has a permanent annual budget for purchasing, maintenance and part replacement for machinery used. During the last two years, almost US$ 5 million was invested to modernize the Itaqui-RS plant. Camil is currently testing two Brazilian filling machines (Novo Horizonte and Selgron) that may be purchase in 2004.

Camil gives preference to Brazilian machinery, arguing that they have better technical assistance and replacement of parts. There are no purchases forecasted for the São Paulo plant. Camil affirmed that any new purchases would go towards satisfying the requirements of Recife and Rio Grande do Sul plants first.

G) Purchasing Policies.

The technical department analyses the production chain to identify the machinery requirements. Once the need is identified, the department researches the technologies, machines and prices available in the market and delivers the results to the company's senior management who then make the final decision on what will be the best purchase for the company.

Payment terms vary in cash and financed (installments) depending on the final negotiated prices.

H) Factors That Influence Purchasing Decisions.

Camil executives' simplified "magic formula" that influences purchasing decisions includes "good technologies" and "good prices". Other factors driving acquisition are fast production, cost-benefit, good quality production, easy and fast technical assistance and replacement of parts.

According to Camil, the Brazilian market is able to compete with European markets due to the low machinery prices. However, European technology is still at an advantage compared to the national technologies. There were no comments regarding US machinery and their technologies.

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COPERSUCAR UNIÃO

A) Summary Box:

Industry:	FOOD
Sub Industry:	Sugar, Alcohol and Derived sugarcane products.
Location:	Limeira – São Paulo
Size: (sales)	US$ 1.3 billion
Purchasing potential:	2
Specific Business Opportunities:	Filling/Sealing

B) Description:

Copersucar (União-Cooperativa dos Produtores de Cana, Açúcar e Álcool do Estado de São Paulo) - Associated Plants and Distiller Centres -- was launched in 1959, formed by rural producers that together represent over 50% of the national production of sugarcane, sugar, alcohol and derivative products in Brazil.

Copersucar set up an infrastructure to support various operations including experimental projects, economic departments, and advanced research labs. In 1973 Copersucar purchased Companhia União dos Refinadores and improved its production, sugar retail sales and grew its market share. Under Copersucar, União has maintained its sales leadership and today is considered to be the largest sugar brand in Brazil.

The company expanded to exports during 1991 and by 1998 it already exported 2.2 million tons. Copersucar currently produces 3.6 million tons of sugar and 2.5 billion liters of alcohol, representing 20% of the market share in the industry.

C) Principal Products Produced and How Are They Packed

All sugar packaging for retail requirements is done in Polyethylene Bags ranging from 150g to 4 Kg. The company also has industrial pack sizes including:

- Polypropylene sacks 50Kg (crystallized sugars);
- Polyethylene sacks 50kgs (crystal sugar type 1 and 2 of refined granulated 45)
- Big Bag 1,200kgs (all types of crystal and refined sugars)
- Kraft multi-filed paper sacks 30kgs (refined and granulated)
- Polyethylene drums 200kgs (liquid sugar)

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Currently Machinery Used	Brand	Units	Origin

Filling / Weighing / Heat Sealing Machine	Bosch	40	Germany
Wrapping (Plastic Film)	Bosch	40	Germany
Palletizing Machines	San Martin	4	Brazil

Wrapping of plastic films pack ten 1kg and 1/2 kg sugar packages. Packing boxes is done manually.

E) Manufacturing objectives driving the purchase of new equipment.

The company believes the best payback comes from machines that combine speed with quality production. The company would like to increase the production speed and therefore the capacity, by replacing old machines with more high-tech machines that can satisfy the growing demand for its products.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Copersucar has not invested in new machinery since 1999 and believes it is currently well equipped with its packaging machinery infrastructure. The company is committed to new technology investments and spent US$10.5 million during 2002 and 2003 on technological upgrades and improvements.

New industrial plant purchases are not planned for 2004. Plants are currently working 24 hours a day to supply every commercial area and currently are operating within capacity.

G) Purchasing Policies.

The general management carries out a feasibility study to analyze the need for new machinery and all the costs associated with the investment. The results are then sent to the senior directors, the technical department and the commerce department to make estimates on the technologies and prices that are available in the market, before the final decision is made.

H) Factors That Influence Purchasing Decisions.

Copersucar gives preference to Brazilian packaging machinery due to the ease of maintenance and parts replacement. Copersucar machines must work 24 hours a day, seven days a week; therefore, they require high technology machines that offer a high production capacity at a high level of security.

Copersucar believes that the best packaging machineries available in the market are supplied by Bosch.

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DONA BENTA ALIMENTOS

A) Summary Box:

Industry:	FOOD
Sub Industry:	Plain Flour; Cake mixes and Dessert mixes; Pasta; Baking Powder; Microwave popcorn, Desserts.
Location:	Fortaleza – CE
Size: (sales)	US$ 191 million
Purchasing potential:	4
Specific Business Opportunities:	Filling / Heat Sealing

B) Description:

Dona Benta Alimentos belongs to the J. Macedo Group, the second largest Brazilian company producing flour in Brazil responsible for 15% of all national wheat mills. The company is based in Fortaleza – CE where they control seven wheat mills (Fortaleza, Maceió, Salvador, Niterói, São Paulo, Londrina and Itajaí); two pasta plants (Maceió e Salvador) and one cookie plant (Simões Filho).

Dona Benta is a market leader in plain flour; flour mixture for cakes and bread-making mixtures for bakeries.

C) Principal Products Produced and How Are They Packed:

Dona Benta Alimentos manufactures over 200 products from different lines including Plain Flour (for retail market, for industry and for own commerce); Flour Mixture for Cakes and Desserts; Pasta; Baking Powder; Microwave popcorn and Desserts.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

The Fortaleza – CE plant is equipped with the following machinery:

Current Machinery Used	Brand	Units	Origin
Filling / Heat Sealing Machines	Fabrima	6	Brazil
Case Forming & Closing Machines	Fabrima	6	Brazil

Boxing and palletizing processes are done manually.

E) Manufacturing objectives driving the purchase of new equipment.
Dona Benta Alimentos' main objectives driving new purchases are for new product launches and an increased product demand.. The replacement of old machinery is also a significant driver for new acquisitions.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
In the last 2 years Dona Benta has purchased some machinery to support the increasing production capacity:

Current Machinery Used	Brand	Units	Origin
Filling / Sealing Machines	Fabrima	9	Brazil

For 2004, the company forecasts new Filling and Sealing Machines to replace old machinery.

G) Purchasing Policies.
Dona Benta has a team in Fortaleza – CE that carry out feasibility studies on a regular basis. They address issues concerning new technologies, suppliers, technical support and implementation. With all this information, the company is able to make a decision on the most appropriate machine to be purchased. The same procedure is followed by all its branches when considering a new equipment purchase.

The company gives preference to cash payments but also considers installments.

H) Factors That Influence Purchasing Decisions.
Factors influencing purchasing decisions vary according to the segment the machinery is required for. At present, Brazilian machines are in more demand due to their low costs, ease of maintenance and the availability of improved technology. The replacement of parts and technical assistance is also very fast, reducing downtime over long periods.

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ELMA CHIPS

A) Summary Box:

Industry:	FOOD
Sub Industry:	Snacks (Savoury)
Location:	Itu - São Paulo
Size: (sales)	US$ 209.2 million
Purchasing potential:	4
Specific Business Opportunities:	Form / Sealing Machines

B) Description:

Elma Chips was launched in Brazil in 1974 with the fusion of two companies: "American Potato Chips" from São Paulo and "Elma Produtos Alimentícios" from Curitiba. Since the beginning of its activities, Elma Chips has held the leadership in the snacks sector, with a wide range of product lines capturing almost 50% of the Brazilian snack industry market share.

Snacks are produced in three plants: Itu – SP plant (over 50% of total production); Curitiba – PR and Sete Lagoas – MG. The company has over 5,000 employees working nationwide.

Today Elma Chips belongs to PepsiCo Group, the 5th largest company of food and soft drink of the world.

C) Principal Products Produced and How Are They Packed:

Elma Chips has a wide range of snacks made with wheat, corn, potato and other ingredients. Most packages are made from laminated plastic.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

The Itu – SP plant has 10 production lines with the following machinery:

Current Machinery Used	Brand	Units	Origin
Weight Machines	Enchida	82	Japan
Form / Heat Sealing Machine	Bosch	48	Germany / Brazil
	Mazzipack	34	

E) Manufacturing objectives driving the purchase of new equipment.

The increase of demand for snacks is seen as the main driver for new equipment purchases for existing or new production lines. Elma Chips is also considering

substituting old machinery that results in high maintenance costs and has low operational security levels.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin
Form / Heat Sealing Machine	Mazzipack	7	Brazil

The company expects to replace old machinery for new units by 2004 due to increasing maintenance costs.

Elma Chips has given preference to Brazilian machines, due to their cost/benefit. It believes Bosch equipments have better technologies, however their prices are very high compared to Brazilian equipments, evaluated under one example as US$ 250,000 versus US$27,000 respectively. This means that the payback for a Brazilian machine is 9 to 10 times faster than its European counterpart.

Elma Chips has not considered any US packaging machinery suppliers since it has not conducted any research on technologies or prices offered by US potential candidates.

G) Purchasing Policies.

The engineering department researches the technologies and prices available in the market performing a diligent cost-benefit analysis prior to recommending new machineries. The commercial department along with the planning department and senior management participate on the final decision-making process.

According to the contact, the decision-making process involves all company sectors to some degree. Preference is given to cash payments for new machine purchases.

H) Factors That Influence Purchasing Decisions.

Elma Chips looks for constantly updated machine technologies that improve production speed and reduce maintenance costs. It gives preference to long life-term machineries with easy and fast technical assistance, hence the greater consideration to Brazilian machines.

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GRANOL

A) Summary Box:

Industry:	FOOD
Sub Industry:	Vegetable Oils, Soya Grains & Bran and Peanuts
Location:	Bebebedouro – SP
Size: (sales)	US$ 152.3 million
Purchasing potential:	4
Specific Business Opportunities:	Filling PET

B) Description:

Granol is a Brazilian company specialized in grain production and commerce of grains vegetable oils and soya bran. It has as capacity production of 800,000 tons of soy and 50,000 tons of peanuts per year with an employee base of 600 working in its 4 production plants and 4 grain warehouses located across five Brazilian states.

Granol also exports to many countries whole-natural products but mostly manufactured products from its brand and outsourced brands, by using its own port loading and unloading facilities in Vitoria-ES, Santos-SP and Paranagua-PR.

C) Principal Products Produced and How Are They Packed:

Granol manufactures vegetable oils for consumption and industrial use; and bran to feed animals and grains. All products are destined to both local and export markets.

Packages used are PET bottles; Flanders cans with an average volume of 200 ml to 1L.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Granol uses the following machines in its production lines:

Current Machinery Used	Brand	Units	Origin
Fill / Puncture / Capping Machines[1]	Kronis / Sima / Sig Manzini / Sig Comaco	4	Germany / Italy
Fill / Capping Machines[2]	Serac	2	France
Boxing Machine	Fermec	1	Brazil
Labeling Machine	Kronis	1	Germany

Pallet Dismantling Machine	Sig Manzini / Sig Comaco	3	Italy
Shrink Wrapping Machine[3]	Gramenha	1	Italy

[1] To pack cans; [2] To pack PET; [3] To use plastic films.

E) Manufacturing objectives driving the purchase of new equipment.

Granol is continuously searching for new technologies for its packaging machinery, especially in the oil bottling area. New machinery launches in the industry warrant further investigation that may even result in on-site testing to ensure productivity and security levels comply with Granol's requirements.

New machinery acquisitions also result from sudden surges in demand during periods when the current production levels cannot answer the increased demand.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

The company did not purchased any new machinery during the period of 2002-2003. All machinery in the Bebedouro plant are in consignment due to their recent launch which may lead new purchases during 2004, especially for Filling and Capping Machines.

G) Purchasing Policies.

Granol's commercial area constantly realizes feasibility studies on production capacity to analyze overload versus under-utilized production capacity. If current machinery production capacities do not correspond to current requirements, Granol may substitute these with new machinery.

Once feasibility study results are clear, an in-depth analysis of different candidates begins comparing prices, technical proposals, and technologies. Once an option is chosen, the machinery is implemented in the plant to begin its production test-phase. If the machine receives operational approval of both engineering and technical departments, the purchase finalized. Payments are usually done by installments or financing depending on the value of the equipment.

H) Factors That Influence Purchasing Decisions.

Granol constantly looks for new technologies to maintain superior production capacity levels with reduced losses and high quality for its products. It searches for suppliers with market tradition (i.e. well-known brands) that present a high level of technical service and assistance.

To pack PET bottles, the company has established an exclusive agreement with one supplier. Granol believes that PET packages will dominate the market in a

few years, resulting in new packaging machine procurement for PET bottles in the near future. There are no exclusive contracts with suppliers to pack cans.

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ITAMBÉ

A) Summary Box:

Industry:	FOOD
Sub Industry:	Milk and Derivates.
Location:	Belo Horizonte / Pará de Minas / Sete Lagoas - MG
Size: (sales)	US$ 235.8 million
Purchasing potential:	5
Specific Business Opportunities:	Seal / Label / Fitting

B) Description:

Itambé was launch in 1944 and today has 6 production facilities located in 3 different cities in the state of Minas Gerais. The Sete Lagoas – MG plant is considered the most modern of Latin America, focused on canned products. The Pará de Minas plant is responsible for all milk and milk derivate production with a total capacity of 1.5 million liters of milk a day. Itambé is focusing its production only in its large plants with plans to close its smaller facilities in the near future.

C) Principal Products Produced and How Are They Packed:

Itambé manufacture the following products: doubled cream, condensed milk, powdered milk, long life milk, yogurts, "dulce de letche", butter and cream cheese. The packages used are tetra pack, Flanders cover and aluminum; each package ranges from 170g to 400g in size.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Itambé's Teotonio Vilela plant has the following machinery:

Current Machinery Used	Brand	Units	Origin
Filling Machines	Sassibe / Fabrima	16	Germany / Brazil
Sealing Machines	3M	3	Germany
Boxing Machines	Kronis	3	Germany
Sack/Fill & Close Machine	Cesto	1	Brazil
Sack, Fill and Dismantling Machine	Cesto	1	Brazil
Labeling Machines	Kronis	3	Germany
Solding Machine	Soldronic	1	Germany

E) Manufacturing objectives driving the purchase of new equipment.

Itambé usually purchase new equipments to answer to increasing market demand. New purchases also come from the need to replace old machinery with outdated technology, low security labor levels and high maintenance costs. New machineries also bring safer operational standards and procedures.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Recent machinery acquisitions were made in both Pará de Minas and Sete Lagoas plants. In the first semester of 2003, Itambé purchased Filling Machinery from Sassibe with a total production capacity of 500 cans per minute.

New purchases for 2004 are expected to include labeling, boxing and sealing machines to support growing production levels.

Itambé has permanent machinery suppliers but only because it is not aware of other suppliers that can offer similar machinery to fulfill its current requirements. For instance, Itambé is not aware of any other machinery manufacturer that is capable of producing machines equivalent or superior to 3M Sealing machines.

G) Purchasing Policies.

The plant supervisor together with the technical department is responsible for identifying new equipment purchase requirements. Both look for suppliers and suitable technologies and instruct the commercial department to research prices and payment terms to be used depending on the negotiated prices.

H) Factors That Influence Purchasing Decisions.

Itambé prioritizes high technology; superior production quality; reduced wastage; high security labor levels (the brand must be committed and concerned with employee operational security); rapid technical assistance with national coverage; and a machine that allows easy upgrades whenever necessary.

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JOSAPAR

A) Summary Box:

Industry:	FOOD
Sub Industry:	Grains
Location:	Pelotas – RS
Size: (sales)	US$ 131.4 million
Purchasing potential:	2
Specific Business Opportunities:	Sealing and Filling Machines

B) Description:

Josapar launched its company in the 1920s with a small warehouse storing rice and beans for local distribution. The business increased over the years and in 1944, its founder Mr. Joaquim Oliveira, purchased an industry plant that originally manufactured fertilizer and chemical products. In 1973 the brand Tio João had already gained national recognition ensuring Josapar's market leadership in the rice and beans segments.

The company has two very modern and with high-tech rice production plants. The Vila Princesa located in Pelotas–RS), is considered the largest and most technologically advanced rice plant in Latin America. Josapar has several offices across Brazil ensuring a national sales and distribution coverage.

C) Principal Products Produced and How Are They Packed:

Josapar works only with grains: rice, beans and Soya. Packages used are plastic films from PE or plastic films covered with aluminum. The films for rice bags range from 1Kg to 5 Kg sizes. There are also can packages of Flanders sheet ranging including 300g, 350g and 350b and 1liter sizes.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

The Pelotas–RS plant has 45 production lines, with the following machinery:

Current Machinery Used	Brand	Units	Origin
Fill / Weight / Heat Sealing Machines	Indomack	45	Brazil
Dosage / Puncturing Machines	Bossar	2	Spain

Boxing and palletizing processes are done manually.

E) Manufacturing objectives driving the purchase of new equipment.

New machinery purchases are directly proportional to new product launches or increased demand for existing products. Recently, Josapar has also been reviewing its existing installed capacity looking to replace older machinery to reduce maintenance costs.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

New machinery purchased	Brand	Units	Origin
Boxing Machines	Indomack	2	Brazil

Josapar has no plans to acquire new machinery due to its current excess capacity of existing machines that are all in very good condition. New purchases for 2004 will occur only if the engineering department determines the need for new boxing and heat-sealing machines to replace existing machinery and if consumer demand dramatically increases for Josapar products.

G) Purchasing Policies.

Josapar purchasing policies begin with studies performed by the engineering department on current production levels compared with potential increases in market demand. If the report concludes the need to replace machineries or acquire new units, the commercial department together with executive directors begins a bidding process to compare technologies, prices, implementing processes and payment terms to achieve the best cost/benefit option. Final decisions are reached only after a detailed cost/benefit analysis selects the correct candidate.

H) Factors That Influence Purchasing Decisions.

Josapar gives preference to machines with low prices, low maintenance costs, with facility to replace parts and that have proven track records of a good quality production, with reduced waste and that are easy to operate and implement.

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JUNIOR ALIMENTOS

A) Summary Box:

Industry:	FOOD
Sub Industry:	Sauces & Flavoring
Location:	Cotia – SP
Size: (sales)	n.a.
Purchasing potential:	4
Specific Business Opportunities:	Filling Machines

B) Description:

Launched in 1981, Junior Alimentos is responsible for manufacturing individual products for many leading companies in the food sector including McDonald's, Vigor, Nestlé, Sadia, Unilever, Johnson & Johnson, Sakura, Makro, Habbib's, Gonçalves Salles (Aviação Butter) and Segafredo Zanetti. The company has recently developed its first branded product for the Brazilian retail-consumer market.

Junior Alimentos has 220 employees, with 121 in the production area. The company has a manufacturing capacity of 100 million blisters and sachets per month and produces 20 tons of ketchup sachets per day.

C) Principal Products Produced and How Are They Packed:

Junior Alimentos has its own production line comprised of 20 items including sauces; flavored (salt, vinegar and olive oil); low calorie sugar; butter; cheese and pouches. The pouches are manufacture in packages of 1Kg to 6Kg, and are used to provide increased levels of hygiene, practicality at reduced costs.

The main products are derived from seasoning lines including ketchup; mustard and mayonnaise. It also produces creams and stuffing for confection and sweet stores.

Packages used include sachets and blisters with aluminum and plastic combinations of PET, Polyester and PVC.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Cotia-SP plant has the following machines:

Current Machinery Used	Brand	Units	Origin
Fill / Form / Heat Seal / Cutting Machines*	Tecmar; Enzo; Guananuce; Renemac; Janyeper;	18	Brazil / Argentina

	Pizigmano		

*All equipments work as Filling; Forming; Sealing and Cutting machines, i.e. once the raw materials are inserted the sachets or blisters are closed immediately.

Boxing and Palletizing processes are manual.

E) Manufacturing objectives driving the purchase of new equipment.

Today Junior Alimentos has 40 modern equipments to package its food production in individual dosage and/or pouches. Its current production capacity reaches 100 million units per month, allowing it to actively outsource to industry leaders and meet their high demand requirements.

Current equipment fills both liquid and powder products with a new line of tubes tat has recently been launched, but is currently operating in a low production scale.

Objectives driving new purchases include the increased capacity production; replacement of old or obsolete machinery, and focused on maximizing production levels and diminishing waste.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Junior Alimentos frequently invests in new machinery purchases to modernize its equipments. Its last acquisition was a Filling machine, from Tecmar in 2003.

2004 purchases will include **Stick (Filling)** machines to produce sachets and there is a project to implement machineries for tube production lines.

Its current production capacity is capable of fulfilling market demand working in two shifts. Junior Alimentos is expecting an increase in demand for 2004.

G) Purchasing Policies.

Prior to purchases the maintenance, management and production department research and assess maintenance costs, increased production requirements and ensuring the machine complies with internal registry system requirements of both Junior and its clients.

Following the initial assessment a bidding process begins to unite suppliers, technologies and prices. The company gives preference to Tecmar due to its proven track record, trust and payment terms offered. Junior Alimentos also

gives preference to US suppliers depending on the machine specification requirements.

Payments are often done in installments or financing.

H) Factors That Influence Purchasing Decisions.

The main factors influencing new purchases include machine versatility and operational consistency and that allow for ongoing technology upgrades.

Post-sales service, technical service and assistance combined with high levels of labor security are also considered top factors that influence machine purchases.

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KELLOGG'S

Industry:	FOOD
Sub Industry:	Sugar
Location:	Limeira – São Paulo
Size: (sales)	n.a
Purchasing potential:	3
Specific Business Opportunities:	Filling/Sealing Machinery

B) Description

Kellogg has been operating in Brazil for the past 42 years maintaining a market leadership in the cereal segment that exceeds 50%. Kellogg has recently launched a healthy products category targeting young adults and teenagers. It is focused on research and scientific studies on health and nutrition with the aim to promote and develop improved health in the community.

Kellogg products are manufactured in 19 countries and marketed in over 180 countries around the world.

C) Principal Products Produced and How Are They Packed

Kellogg manufactures a range of cereal products in Brazil including Sucrilhos, Chokos, Choco Krispis, Honey Nut'os, Froot Loops; All Bran; Corn Flakes and Kellness healthy line.

Packages include plastic bags of polyethylene of 200g and 750g and cardboard boxes to cover the plastic bags.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Current Machinery Used	Brand	Units	Origin
Fill / Weight / Heat Sealing Machine	Bosch	6	Germany
Cartoning Machine	Fabrima	2	Brazil
Palletizing Machine	Zukine	1	Italy

E) Manufacturing objectives driving the purchase of new equipment.

Kellogg's new equipment purchases are driven by increased demand; the launch of new product lines; the need to replace old machinery or malfunctioning machines; or if new technologies are necessary to maintain or improve current production standards.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Kellogg´s has not been purchasing new machinery for several years due to a stable demand and remaining excess production capacity of its currently installed machinery base.

The company has acquired a Cartoning machine from Fabrima (Brazil) for production in 2004 – a year where it expects increased demand growth that will result in the replacement of existing machinery.

G) Purchasing Policies

The Engineering department constantly analyses the company's production to detect under-utilized or an overload in production capacity; if quality standards are being met and if wastage levels are within their acceptable limits. Depending on the research results, the department determines new technology requirements and scouts potential suppliers that can provide its machinery requirements. The Commercial department realizes a bidding process and together with executive directors reviews and finalizes the decision-making process.

Kellogg's gives preference to Brazilian machinery manufacturers as a way to reduce logistic and implementing costs. Payments are done depending on payment terms available and the company's current financial situation.

H) Factors That Influence Purchasing Decisions.

Kellogg's prioritizes production quality, zero maintenance costs, efficiency with zero wastage, high security labor levels, low implementation costs, easy and rapid technical assistance and parts reposition.

The company is very selective in order not to experience problems with their machines, and therefore considers only those suppliers that offer machines with top technologies and that are easy to manage.

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KRAFT FOODS

A) Summary Box:

Industry:	FOOD
Sub Industry:	Chocolates, Cookies
Location:	Curitiba – PR
Size: (sales)	US$ 361.0 million
Purchasing potential:	5
Specific Business Opportunities:	Wrapping, Sealing, Filling

B) Description:

Kraft Foods Inc. is a subsidiary of Phillip Morris International Group with the following divisions: Kraft Foods North America (KFNA) Canada, United States and Mexico; and Kraft Foods International (KFI) – Europe, Middle East, Africa, Asia Pacific and Latin America. It is the second largest food and beverages company worldwide present in 150 countries with 110,000 employees and over 200 manufacturing plants.

Kraft Foods Brasil has 11 manufacturing lines located in the states of Paraná, São Paulo, Minas Gerais and Ceará. It employs over 10,000 people in Brazil and launched over 70 new / improved products during 2003. Its portfolio comprises of chocolates and dairy products including sauces, condiments, fruit juices and chocolates, all sold under its Nabisco, Philadelphia and Lacta brands.

C) Principal Products Produced and How Are They Packed:

Kraft Foods Brasil manufacture Chocolates, Cookies, Fruit Juices, Powder Fruit Juices, Cheese, Desserts, Baking Powder, and Nuts, among others. The Curitiba plant is responsible for chocolates, cookies and waffles using flow pack, cardboard, polypropylene, wriggled polypropylene and aluminum covers to pack its products.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Curitiba's plant has the following machinery:

Current Machinery Used	Brand	Units	Origin
Wrapping Machines	Carmem Montanari	18	Italy
Shrink-Wrapped Machines	Khama	2	Italy / Germany
	Otto Renso	4	
Labeling Machines	HNN	30	Germany
Cartoning Machines	Bosch	2	Germany / USA
	Sandiacre	1	
Glue Labeling Machine	Ciclope	2	Brazil

Sealing Wax Machines	3M	3	Germany
Flow Pack Wrapping Machines	Carmen Montanari	1	Italy
	Sig-Simonasi	3	

* 3M Sealing Wax Machines are in consignment;

Boxing and palletizing are done manually.

E) Manufacturing objectives driving the purchase of new equipment.
New purchase guidelines are based on increased market demand; replacement of old machinery due to new technological innovations; and new product line launches.

New product line launches result in annual purchases of new equipments, however, Kraft Foods is restricting new equipments acquisitions due to recent losses in market share during 2003.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin	Year of Purchase
Labeling Machines	Mazzipack	1	Brazil	2003/2004

From 1993 to 2003 Kraft Foods invested over then US$700 million in permanent assets in Brazil.

The Curitiba plant is currently well equipped considering it is a 2 years-old plant and therefore does not require new equipment purchases during 2004. Kraft Foods may purchase new **Sealing Wax** machines in 2004 given that its current units from 3M are on consignment.

Kraft Foods expects to acquire **Filling** machines for its fruit juice Tetra pack package and **Wrapping** machines for a range of different products in 2004.

G) Purchasing Policies.
Kraft Foods raises all the information possible for new machinery purchases analyzing technology, prices, functionalities, technical assistance and potential suppliers.

All studies and researches are delivered to the Commercial department and Executive directors to begin a decision-making process. The US headquarters does not influence Brazilian decisions. Each plant has its own budget to expend on purchases and maintenance.

Payment terms are mostly done in cash.

H) Factors That Influence Purchasing Decisions.

The key factors influencing purchase decisions are related to equipment security labor levels, closed structures, types of material used in the machines and if they follow CLP and Allen Bradway regulations.

Production capacity, speed, durability and easy and rapid technical assistance are also key factors considered in new machinery purchases.

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NUTRIMENTAL

A) Summary Box:

Industry:	FOOD
Sub Industry:	Cereal Bars
Location:	São José dos Pinhais - PR
Size: (sales)	n.a.
Purchasing potential:	2
Specific Business Opportunities:	Filling (Powder & Liquid)

B) Description:

Nutrimental Foods was launched in 1968, in Sao José dos Pinhais, PR. It manufactures foods to final consumers, government contracts and raw material and finished foods for the food services companies.

Nutrimental has maintained heavy investments in research and development for different food lines focused on advanced technologies developing high nutrition standards for both domestic and export markets.

C) Principal Products Produced and How Are They Packed:

Nutrimental has cereal bars as its main product line. It also manufactures powdered fruit juice, cereals and milk flour. To pack all these products, Nurimental uses Tetra pack, PVC bottles, aluminum and plastic films.

D) Packaging Machinery / Manufacturers

To pack powdered fruit juice, cereals and milk flour the company uses the following machines:

Current Machinery Used	Brand	Units	Origin
Filling Machines	Fabrima	8	Brazil
Cartoning Machines	Fabrima	1	Brazil
Wrapping Machines	REX	4	USA
Liquid Filling Machines	Tetrapack	1	Germany

The cereal product line uses the following machines:

Current Machinery Used	Brand	Units	Origin
Wrap / Horizontal Heat Sealing Machine	Sig-Simonasi	2	Switzerland

Capping Machines	3M	2	Germany

E) Manufacturing objectives driving the purchase of new equipment.
Increased competition in the cereal bars sector has reduced new equipment purchase potential.

Nutrimental gives preference to Brazilian package manufactures (**Fabrima**), once purchasing prices are low and logistic implementing costs are reduced. It has also mentioned that foreign suppliers based in Brazil, such as Bosch, allow access to European technologies at national prices.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
Nutrimental constantly purchase new equipments to improve its production quality, however, this is not likely to happen in a large scale during 2004. There are plans to increase production capacity of the cereal and cereal bars lines during 2004-2005.

G) Purchasing Policies.
The Commercial department together with the engineering department searches for all equipments requirements and their respective prices to deliver a budget plan to the executive directors. Once the budget is approved, the executive directors will screen the potential suppliers that have already been identified and reach a final purchase decision.

Payments are usually done by financing or in cash, depending on the amount of the investment.

H) Factors That Influence Purchasing Decisions.
Factors influencing purchase decisions include new technologies available in the market; high-speed and quality production capacity; easy and rapid technical assistance; and high standard security labor levels – (the company is highly concerned with the health of its employees).

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Website: www.nutry.com.br

QUAKER BRASIL LTDA.

A) Summary Box:

Industry:	FOOD
Sub Industry:	Oats, Chocolate Milks, Tuna Fish
Location:	Porto Alegre – RS; São Paulo - SP
Size: (sales)	n.a.
Purchasing potential:	1
Specific Business Opportunities:	Liquid and Solid Filling Machines (for grains)

B) Description:

Quaker belongs to PepsiCo, the fifth largest food and beverages manufacturer in the world. It launched its first plant in Brazil in 1953 in Porto Alegre (RS) manufacturing Oat Flakes.

Today Quaker has the following brands under its belt: Coqueiro (tuna fish); Toddy and Toddyinho, and Quaker Oats. It follows strict GMP's (Good Manufacturing Practices) guidelines and adheres to the FDA (Food And Drug Administration) regulations to safeguard consumer health. It employs over 3,100 people across all sectors and has a corporate office in São Paulo responsible for coordinating warehouses, sales offices and its shipping departments. Its São Gonçalo's plant is one of the greatest plants in the world responsible for boxing fishes in aluminum cans.

C) Principal Products Produced and How Are They Packed:

The main products manufactured include chocolate powder, canned fish, oat and corn flour.

Packages used include bottles of PET and PVC; Tetra pack; paper bags covered with plastic films and cardboard boxes.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

- Its chocolate powder production line uses the following machines:

Current Machinery Used	Brand	Units	Origin
Filling Machines	Tetrapack	8	Germany
Tubex Machine	Tetrapack	7	Germany
Heat Sealing Machine	Tetrapack	7	Germany
Cardboard Machine	Tetrapack	8	Germany

Shrink / Forming Ovens	Tetrapack	3	Germany
Filling Machines	Optima, Fabrima, Mazzipack	12	Germany / Brazil
Labeling Machine	Kronis	2	Germany
Sealing Machines	GRC	2	Germany
Capping Machines	Zack	2	France
Washing Machines	Promaq	2	Brazil
Boxing Machines	Semex	2	France
Metal Detectors	Packing	5	USA

Its flour production line uses the following machines:

Current Machinery Used	Brand	Units	Origin
Fill / Sealing Machines	Mainard / Fabrima / Meteor	11	Argentina / Brazil
Cartoning Machine	Mainard	2	Argentina

Palletizing and Pallet Dismantling processes are done manually.

E) Manufacturing objectives driving the purchase of new equipment.

Purchasing guidelines are designs according with currently marketing competition in oat sector today, in which Quaker has the leadership. Therefore production growth follows increasing market demand. The company is expecting market growth for the next few years (2004 – 2005), which means that capacity production will probably to grow.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin	Year of Purchase
Filling Machines	Fabrima	1	Brazil	2003
Filling Machines	Tetrapack	1	Germany	2003

There are no forecasts for new equipment purchases in 2004, once the current production capacity has yet to be optimized.

The oat production lines have not acquired any new machinery for the past 2 years and are not likely to occur in the near future.

G) Purchasing Policies.

The engineering department constantly researches new equipment requirements. If the opportunity presents itself, it interacts with the accounting department and executive directors to reach a final decision comparing different technologies, whether the machine will answer to the company's production demand requirements and if it fits the budget. The group always analyzes a minimum of 3 supplier proposals and payments are generally made in cash.

H) Factors That Influence Purchasing Decisions.

The mains factors influencing decision include the ease and speed of technical assistance, rapid and consistent production, advantageous cost/benefit, warranty, and top technology available in market. Quaker also looks for equipment with production standards that follow GMP and FDA guidelines and regulations.

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SADIA S.A.

A) Summary Box:

Industry:	FOOD
Sub Industry:	Industrialized products, poultry (chickens and turkey) and pork; processed and semi-processed foods
Location:	Concordia - SC
Size: (sales)	US$ 1.3 billion
Purchasing potential:	3
Specific Business Opportunities:	Cartoning Machinery, Sealing Machinery under envelope systems and Flow pack systems.

B) Description:

Founded in 1944, Sadia is one of the leading companies in the food sector in Brazil with over 30,000 operating in 12 industrial plants, several offices and distribution center across Brazil. The group's predominant activities are organized in three major segments: industrialized products, poultry (chickens and turkeys) and pork; all focused on production and commercialization to both domestic and over 60 export markets in Latin America, Europe, Asia and the Middle East.

Wheat flour, lard, sausage and salami, hamburgers and meatballs are among the best selling items in what has rapidly developed into an incredibly diversified product portfolio. The industrialized products segment has been the principal focal point of the group's investments over the last years, and includes products such as refrigerated pizzas and pasta, frozen food, margarine, industrialized poultry and pork by-products, breaded products, a diet line, and sliced and portion products.

C) Principal Products Produced and How Are They Packed:

The main manufactured products are pork, poultry and red meat in a wide range of products supplied to both domestic and export markets.

Sadia has been using the same packages for several years including cellulose (sausages, cartons), collagen, polyethylene plastics (sliced pork, sliced poultry), plastic bags (hamburger, nuggets), PET, cardboard boxes, and customized packs for its ready-to-eat lines provided by Dupont.

D) Packaging Machinery / Countries of Origin

Sadia is still using the same machinery since 2000 which main functions include: wrapping, multivack, sealing, palletizing, boxing, forming and heat sealing, tray sealing, envelope and flow pack, cartooning, coding, weight checking and counting machinery. Equipments are provided from European market (Germany, Italy & Switzerland) and some of them from Brazil. Sadia has close to 300 active packaging machines.

It remains with the same packaging machinery manufacturers since 2000 including **Ulma**, **Multivack**, **KHS**, **3M**, **Bosch, Tiromat**, **and Policlip.**

E) Manufacturing objectives driving the purchase of new equipment.

Sadia equipment purchases originate from increased product demand in existing and new export markets along with the launch of new product lines and seasonal production growth spurts.

Sadia works with both fully automated production lines including its Rio de Janeiro and Sao Paulo units (pork sausages, nuggets and hamburgers) and other production lines that are still performing manual packaging processes including palletizing, dismantling and boxing. Increased investments are expected to automate all production facilities in Brazil.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Sadia is researching the possibility to acquire new equipments focused on production for export markets. There are no expectations for new equipments in 2004 for domestic market production since the current installed manufacturing capacity remains under utilized.

The only new packaging machine acquisition made during 2003 was to produce Sadia's new line of salamis.

G) Purchasing Policies.

Sadia's Engineering Department is responsible for determining new packaging machinery requirements and preparing an annual budget that fits the purchase of these new machines. Recommendations for new machinery are scrutinized by the corporate office located in São Paulo, involving executive directors in the final purchase decision.

New machinery is purchased in monthly installments or in cash with 30-day terms with a residual amount held as security until installation and a one-month test is complete.

H) Factors That Influence Purchasing Decisions.

New equipments must have high operation security levels, large and rapid production capacity with limited wastage and easily available technical assistance offering rapid parts replacement. Machines must also present low

noise levels and follow Brazilian Federal regulations on food production standards.

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SEARA S.A.

A) Summary Box:

Industry:	FOOD
Sub Industry:	Meat, Pork and Poultry derived products.
Location:	Itajaí, SC
Size: (sales)	US$ 500 million
Purchasing potential:	5
Specific Business Opportunities:	Thermo Filling Machinery, Palletizing units, Wrapping under vacuum system.

B) Description:

Seara's main activities are related to the processing and marketing of poultry meat, hog meat, chickens, bovine meat, animal feeds and other related products, destined to both domestic and export markets.

Seara has a total of nine units in Brazil, seven focused on poultry and two in pork products, located across Sao Paulo, Parana and Mato Grosso states. The main production and distribution centers are located in Dourados – MS and Santa Catarina – SC.

C) Principal Products Produced and How Are They Packed:

Seara manufactures poultry, pork and red meat divided into the following categories: ham; salami, sausage, stuffed (nuggets, patties), hamburgers and smoked ham. Packages used include polyamide and PET plastic films and cardboard boxes.

D) Packaging Machinery / Manufacturers

The following machines are currently used:

Currently Machinery Used	Brand	Units	Origin
Sealing Machines	Duplovack	10	Brazil
Thermoforming Machine	Tiromat	1	Germany, Spain, Brazil
	Ulma	2	
	Selovack	3	
Boxing Machines	Ulma	2	Spain
	OMC	5	
Palletizing Machines	OMC	5	Brazil

Sealing processes are both vacuum and manual, depending on products manufactured. Other boxing and un-boxing processes are done manually.

E) Manufacturing objectives driving the purchase of new equipment.

Seara believes it is well equipped regarding packaging machinery. New purchases will be necessary only if there is an increase in domestic demand or to replace obsolete or old machinery that are currently active. It has been considerably growing its exports to both Russia and Singapore that may warrant new equipment purchases for both pork and poultry production lines.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Seara's last purchase was a Thermoforming Machine from Ulma in 2000. It has plans to replace all the old machinery that is currently in its nine production lines, but only if justified by a growth in demand during 2004/5. Similar acquisition plans launched during 2002/3 were cancelled due to market stability not warranting increased demand during that period.

Optimistic growth forecasts due to a growing Brazilian economy are expected to drive new equipment purchases during 2004/5.

G) Purchasing Policies.

The engineering department is responsible for identifying the need for new equipments and screening potential candidates that fit within the annual budget that is defined every year to include new purchases and maintenance costs of existing machines. It is then up to the commercial department to decide with the executive committee from which supplier to choose from based on price, production capacity and payment terms.

Seara still adheres to lease contracts with buy-back clauses for most of its installed machinery base. It performs cash payments under Letter of Credits of 38 days for smaller units as well as financing larger purchases.

H) Factors That Influence Purchasing Decisions.

Seara gives preference machinery with high technology; multifunctional use; cost/benefit and high operational security levels. Machine suppliers must also follow Brazilian federative regulations concerning food production and provide easy and rapid technical support without elevating maintenance costs (i.e. parts replacement) over the long run.

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USINA DA BARRA

A) Summary Box:

Industry:	FOOD
Sub Industry:	Sugar
Location:	Pelotas – São Paulo
Size: (sales)	US$ 136,5 million
Purchasing potential:	2
Specific Business Opportunities:	Filling

B) Description:

USINA DA BARRA S/A is a 100% Brazilian company belonging to the Cosan Group an agribusiness holding producing and distributing sugar and alcohol products from its 12 mills across Brazil, responsible for 4% and 3% of the country's total sugar production and alcohol production respectively.

The company's Barra Bonita – SP plant is one of the largest sugar/alcohol mills in the world. Its distribution centers are located in greater São Paulo and Cachoerinha - RS.

C) Principal Products Produced and How Are They Packed:

Da Barra's Mill manufactures grain sugar, refined sugar and crystal sugar. Sugar is packed in plastic bags ranging from 1Kg to 5Kg. Other Da Barra products are packed in sugar sachets and some products such as low-calorie sugars have outsourced production.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Currently Machinery Used	Brand	Units	Origin
Fill / Weight / heat Sealing Machines	Indomack / Bosch	16	Brazil and Germany
Wrapping Machines	Bosch	12	Germany

Da Barra uses plastic film to wrap packages containing ten 1KG sugar packs each.
Boxing and palletizing processes are done manually.

E) Manufacturing objectives driving the purchase of new equipment.

Da Barra Mills purchase new equipments based on increased production capacity requirements and the need to reduce production costs with machines that have updated technologies.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Last Purchase	Brand	Units	Origin	Year of Purchase
Fill / Sealing Machines	Indomack	5	Brazil	2001

Da Barra believes it is well equipped regarding packaging machineries given that the domestic demand has yet to reach its 100% production capacity. There are no forecasts for new acquisitions in 2004 however studies are already underway to revamp its machinery by 2005/6 to bring updated technology and longer life to its installed machinery base.

G) Purchasing Policies.

The engineering department analyses all manufacturing lines to detect production overload and excess capacity. Once the need for new machinery is detected (whether it is to replace old machinery or increase production levels), the requirements are given to the commercial department that screen potential candidates performing a cost/benefit analysis. It is up to the executive committee to approve new investments and payment terms before a final decision can be reached.

Payments are usually done in cash or installments depending on the final machinery price.

H) Factors That Influence Purchasing Decisions.

Da Barra gives preference to machines with high-applied technology able to increase productivity with no wastage and reduce costs associated to maintenance and part repositioning.

National technical assistance coverage coupled with easy and rapid service is also considered very important since Da Barra cannot afford machine downtime.

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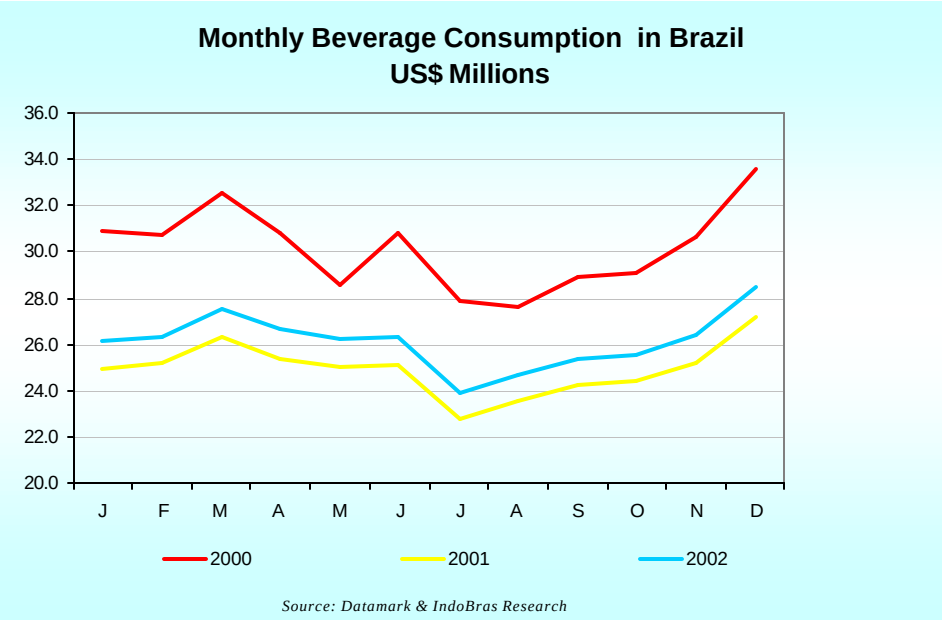
V. Beverage Industry

5.1. Industry Overview

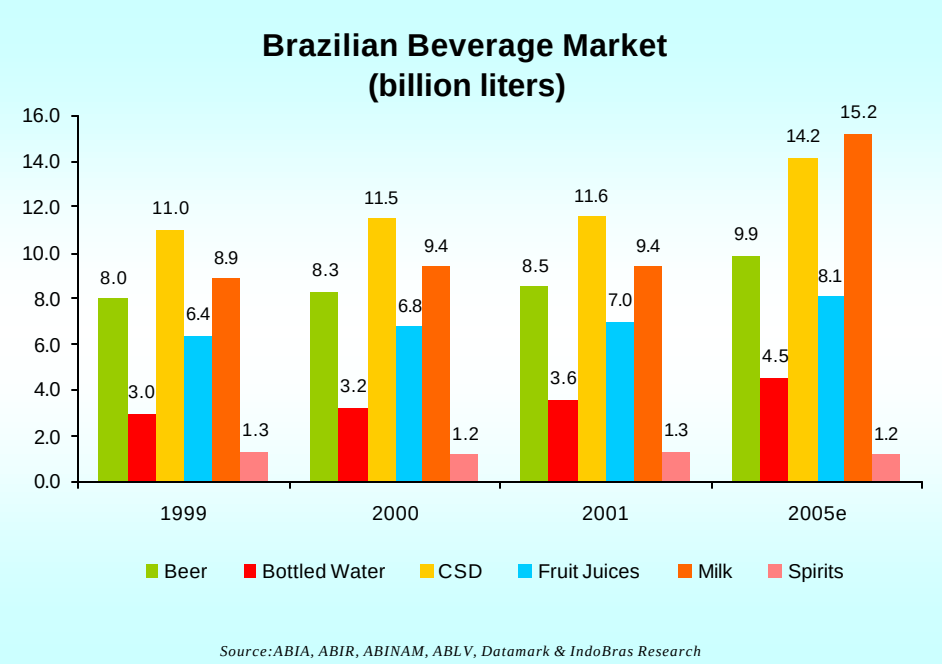
The beverages sector is divided into six segments in Brazil including water, carbonated soft drinks, beer, distilled/spirits, natural/processed juices and Dairy and Bean/Grain products. Overall the market does not present an optimistic growth scenario given the reduced consumption of premium priced products and the already excess production capacity of popular drinks and spirits.

The Brazilian Beverage industry is expected to grow at a compounded annual growth rate of 6.6% between 1999 and 2005, accelerating its growth during 2004 and 2005 with the substitution of alcoholic drinks with carbonated soft drinks (CSD), milk, mineral water, natural juices and low calorie drinks. The industry is experiencing intense competition from smaller companies that evade taxes allowing them to offer basic beer, soft drinks and local spirits at a fraction of the cost. National distilled spirits are particularly under intense pressure with excess production capacity and intense competition with several small local distilleries that engage in such unlawful business practices.



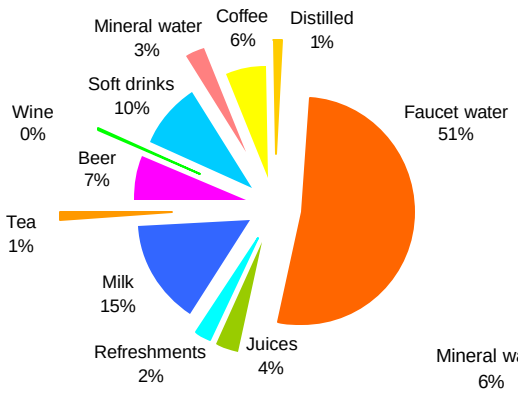
The Beverage sector recovered slightly from 2001 consumption levels in US Dollar sales but has yet to reach 2000 levels. The peak consumption months remain December through March, representing the summer season in Brazil.

With the exception of tap (faucet) water, carbonated soft drinks (CSD) remains the largest consumption segment in Brazil with a total recorded volume of 11.6 billion liters in 2001. Milk is rapidly increasing in sales volume and is expected to surpass CSD by 2005 with a total consumption of 15.2 billion liters.

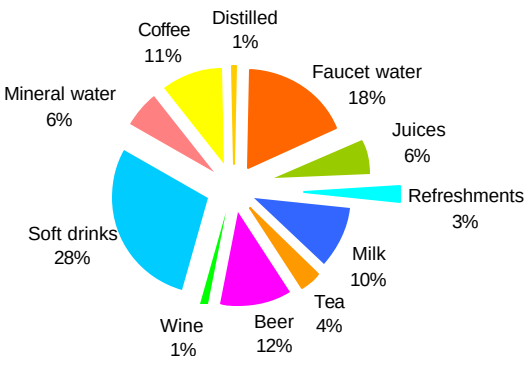


A 1999 "share of stomach" comparison between both US and Brazilian beverage sectors highlight major differences between both markets and where the trends in Brazil are likely to occur. For instance, a 51% share of Faucet/Tap Water in Brazil compared to an 18% share in the US shows that as the Brazilian economy grows with wider variety of beverage options and hygiene standards, faucet/tap water consumption is likely to reduce. Similarly, consumption of Natural Juices, Beer and Carbonated Soft Drinks (to a lesser extent) is expected to grow to

Share of Stomach 1999 Brazil



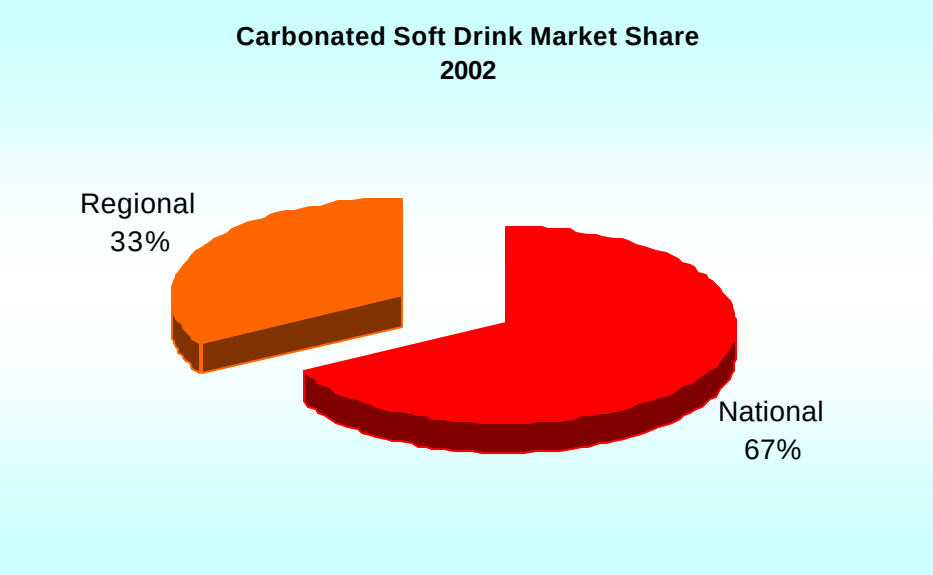
Share of Stomach 1999 USA



reach US Share of Stomach levels.

- **Carbonated Soft Drinks (CSD) Market**

Brazil is the third largest soft drink manufacturer worldwide growing 3.3% between 2001 and 2002. The bulk of its production offered by large-scale manufacturers with nationwide distribution (67%). Companies in this segment include Coca-Cola and Ambev. The remaining 33% belong to regional medium-sized companies that are not as well recognized brands (i.e. Tubainas) offering cheap and generic brands through non-traditional distribution channels however capable of reaching the bulk of the potential consumer for its products.

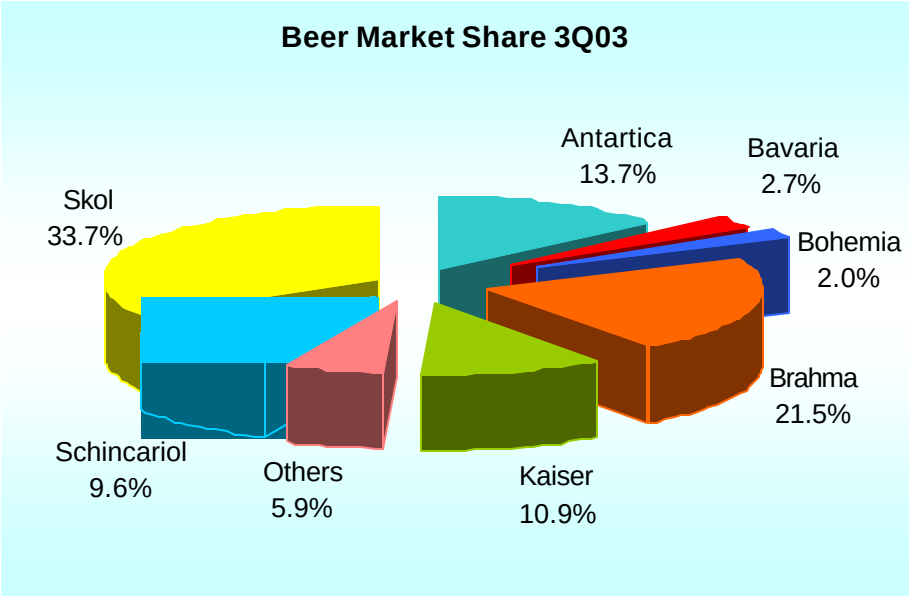


Source: ABIR & IndoBras Research

- **Beer Market**

Following its recent 150-year anniversary, total beer consumption in Brazil reached 8.5 billion liters in 2002, ranking 4th behind USA, China and Germany with 23.6, 18.0 and 11.7 billion liters respectively. The country also ranks among the top 10 beer consumers in liters per capita with 48 liters/year per inhabitant (9th) behind Mexico, UK and well behind Germany with 50, 97 and 123 liters/year per inhabitant respectively. The beer industry corresponds to an R$8 billion market employing over 150,000 people.

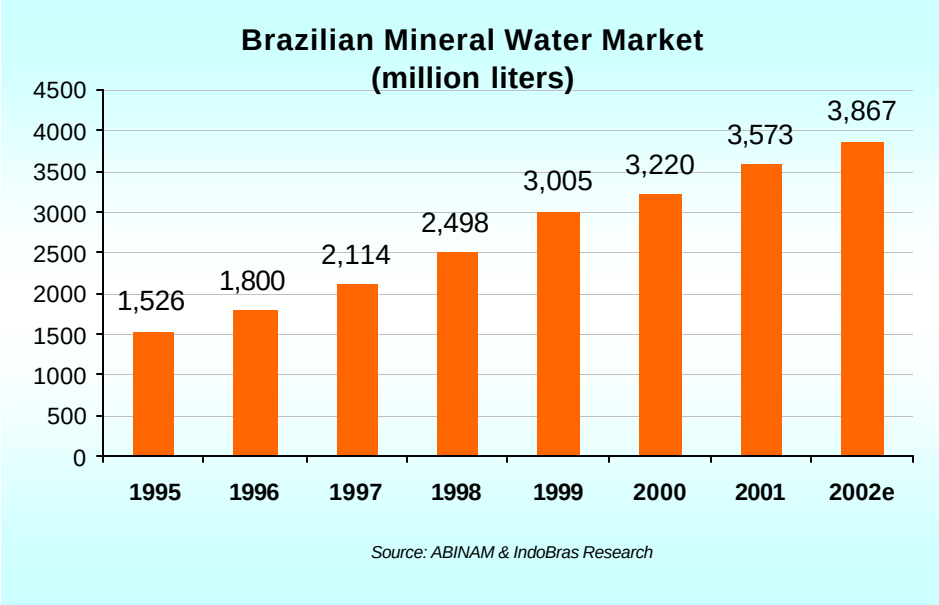
Further consolidation has taken place in the beer industry with Ambev controlling Antartica, Brahma, Bohemia, Kronenbier e Caracu brands becoming the 5th largest beer producer in the world with 5.8 billion liters in 2002. It has recently announced aggressive plans to grow its export market to 20% of the company's total revenues by 2008. Meanwhile, it is also engaged in fierce competition with Coca-Cola's Kaiser to boost domestic consumption during 2004.



Source: Valor Econômico & IndoBras Research

- **Mineral Water Market**

Mineral water has been constantly increasing its sales volume over the past five years (1997-2001), recording a 104% growth, with a current production of 4.3 billion liters. Brazil ranks the sixth country industrializing mineral water and the boost in domestic consumption reflects the consumer's preference for healthier

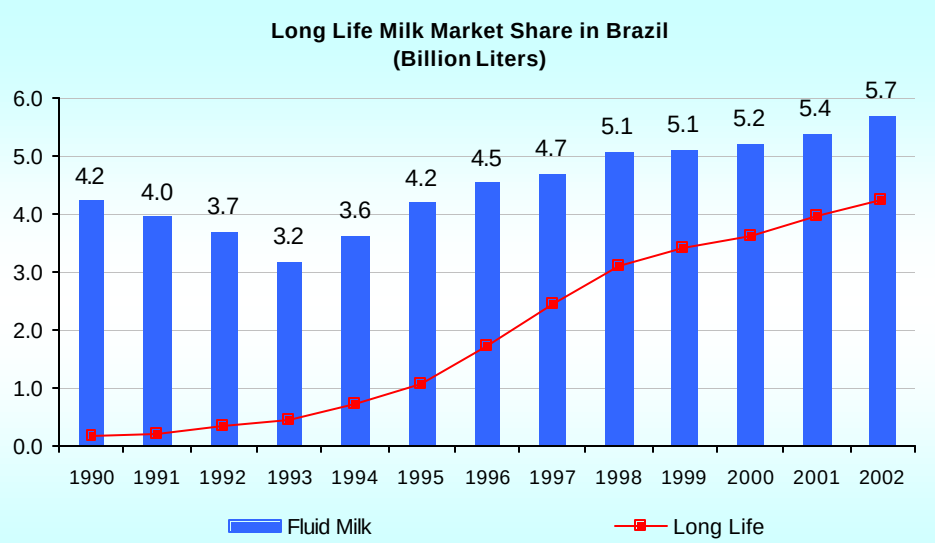


Source: ABINAM & IndoBras Research

drinks.

- **Milk Market**

A segment that has grown considerably over the years in Brazil capturing greater share-of-stomach percentage consumption compared to the US, 15% vs. 10% respectively. Steady growth in Long-Life Milk production (packed in paper cardboard) coupled with technological advances in the Fluid Milk distribution (packed in plastic) segments has stimulated the growth in Milk consumption to reach 4.2 and 5.7 billion liters respectively in 2002. Soy-based consumption has fallen given its premium price over regular milk products and reduced real income of the average consumer during 2003.



Source: ABLV & IndoBras Research

5.1.1. Key Players

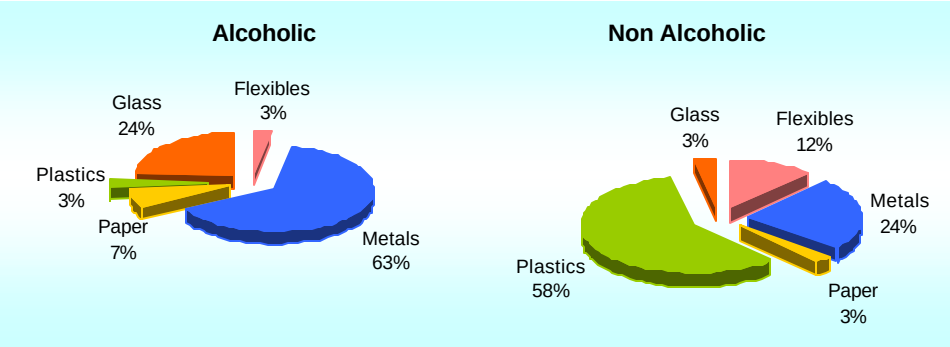
TOP 10 LARGEST BEVERAGE COMPANIES IN BRAZIL BY REVENUE IN 2002

	COMPANYS	Revenues (U$ million)	Sales Growth (%)	Net Profit (U$ million)	NET ASSETS (U$ million)	Control
1	CBB-Ambev	2,283.4	65.6	-125.0	294.4	Brazil
2	Spal Coca-Cola	324.4	6.8	-9.4	122.3	Mexico
3	Kaiser	318.5	-	-	-	Canada
4	Citrosuco	178.7	-	-	-	Brazil
5	Spaipa Coca-Cola	152.3	3.9	-1.7	53.7	Brazil
6	Vonpar Coca-Cola	139.9	8.5	25.3	112.7	Brazil
7	Coinbra-Frutesp	127.1	31.5	13.4	64.8	France
8	Arosuco	101.0	25.4	51.7	34.6	Brazil
9	Shincariol	83.9	59.4	-19.7	176.7	Brazil
10	Ipiranga Coca-Cola	76.5	5.5	24.1	49.4	Brazil

Source: Valor 1000 Maiores Empresas edition 2003 & IndoBras Research

5.1.2. Packaging Trends

End Use Market Consumption by Value 2002



Source: Datamark & IndoBras Research

The superior market share of Metals (63%) in the Alcoholic segment is largely due to the growth in the Beer industry with increased use of cans. Similarly, the

Plastics (58%) dominance in the Non-Alcoholic segment is due to the large share of CSDs and growing acceptance of ready-to-drink juices.

- **Glass** – Glass-bottles are making a comeback in Brazil with several large companies such as Coca Cola and Ambev moving away from more expensive plastic and metal raw materials towards returnable bottles. Glass packaging currently accounts for only 4.6% of the total packaging market in Brazil, however, is expect to reach 7-8% over the next 2 years. Coca-Cola has begun to cannibalize its plastic and aluminum cans, providing the lower-end income consumer markets with bottles in order to aggressively compete with the "Tubainas" – regional generic brands in Brazil. Beer bottles are also expected to increase their glass-usage market share 72% to 77% of total volume in 2004.

- **PET** – PET remains the preferred plastic choice for both soft drinks and mineral water – particularly the 2 liter bottles that represented 72% of the PET market in 2002. Brazil has already adapted to the global trend of mineral water PET bottles and is expected to grow consumption as mineral water increases popularity.

Packaging Preferences by Segment

- Glass bottles are mainly used to pack beers (600ml) and 1 litter alcoholic drinks.

- Aluminum cans are mainly used to pack fruit juices, CSD and some alcoholic drinks.

- Tetra Pack is still mainly used to pack fruit juices and UHT milk. *Tetra pack remains a very strong package due to its reliability to preserve the flavor and beverage security.*

- Plastics are generally used to pack pasteurized drinks, water, teas and sport drinks.

The beverage sector is largely dominated by leading European packaging brands due to their positive and trustworthy track record on quality and working relations, continuously improved technology and ongoing contact with local market requirements. Top manufacturers range from Kronis, KHS and Sig-Simonazi and others that use either German or Italian technology. Despite the reduced potential of new investments in the sector, beverage manufacturers remain on the look out for the following machine characteristics that could warrant an upgrade from their current infrastructure including durability, technical assistance and improved technologies using PET and glass packs.

5.1.3. Summary of Interviews

The packaging machinery installed base of the **6** beverage companies interviewed consists of the following machines:

Blowing – 8 machines:
- Kronis (Germany)

Washing / Cleaning (Bottles) – 15 machines:
- Lies, San Martin (Brazil); and
- Kronis (Germany)

Bottling – 46 machines:
- Kronis, Tetrapack, Sig-Simonazi, KHS (Germany);
- Procmac, Sig-Simonazi (Italy); and
- Shikoto (Japan)

Boxing / Box Dismantling – 25 machines:
- Kronis (Germany)

Electronic Inspection – 12 machines:
- Kronis (Germany)

Filling – 9 machines:
- Kronis, KHS (Germany)

Labeling – 25 machines:
- Kronis, Sig-Simonazi, KHS, (Germany); and
- PE (Italy)

Palletizing / Pallet Dismantling – 50 machines:
- Sig-Simonazi (Argentina);
- San Martin (Brazil); and
- Kronis, Sig-Simonazi, KHS, Okme, Franpack(Germany)

Pasteurizing – 15 machines:
- Kronis, Sig-Simonazi, KHS (Germany)

Wrapping – 28 machines:
- Okme (Argentina);
- Kronis, Sig-Simonazi, KHS, Kisters, Bahlmer, Okme (Germany); and
- Okner, Okme (Italy)

Others – 31 machines:
- 2x Capping – Ferro - (Italy);
- 3x Carton / Form / Fill & Heat Sealing – Okme – (Germany);

- 21x Filling / Sealing / Labeling – Tetrapack – (Netherlands);
- 3x Cartoning – KHS (2), Kronis (1) – (Germany);
- 2x Drying – APV (Brazil)

There is an overwhelming presence of German machinery in this sector – particularly Kronis and KHS machines – recognized for their proven track-record for quality production and the "tradition" element that plays a critical role in the Beer segment.

Contrary to the Food Sector, most palletizing and pallet dismantling processes are fully automated resulting in cost reduction in the shipping and handling processes with the standardization of bottle sizes and cases. Finally, there is no US presence in any of the 6 beverage companies interviewed!

The **4** main reasons for new equipment purchases include:

- Adaptability of machines for different sized volume packages with limited manual labor involvement.
- Proven track record in the market with local presence and confirmed durability – an attribute that is typically extended to companies that have a long-term market presence with machines that have long shelf lives.
- Machine adherence to growing health and environmental regulations that were practically inexistent in 2000 for the Beverage Sector.
- Maintenance reliability ensuring "correct" and "accurate" parts and pieces inventories that can be repositioned at reduced downtimes.

Decision making for new equipment purchases follow a similar process as in the Food Sector where the:

- **Research & Development (Technical / Engineering) Departments** are responsible for defining new machine or upgrade requirements based on continuous detailed studies on volume production levels. Actively involved in bidding process for screening candidates that may range from anywhere between 3 to 6 different suppliers.
- **Commercial Department** prepares the bidding process including prices, technologies and payment terms defined by both Technical/Engineering and New Product Development Departments.
- **Executive Committee** evaluates budget availability and gives the final approval for new acquisitions with varied payment methods including cash, installments with one-month test phases, leasing and financing from local banks such as the BNDES (National Social and Economic Development Bank). There is a greater involvement of executive directors in purchase decisions in this sector when compared to Food, Personal Care and Pharmaceutical sectors.

5.1.4. Purchase Potential of Companies Interviewed

Out of the **6** beverage companies interviewed, the average purchase opportunity is of: **2.3** (based on a "purchasing potential" scale from 1 to 5, where "1" stands for "low purchasing potential of packaging machinery" and "5" stands for "high potential of packaging machinery".

Potential purchases for 2004/5 will consist of a combination of the following functions:

- Bottling – Glass & Can
- Filling – PET & Glass
- Labeling
- Wrapping
- Washing (glass bottles)

Note: Since some companies did not provide budget figures due to confidential reasons, while others provided a total expenditure amount that included building & construction, land and complete processing investments; we did not sum up the total estimated budget for packaging machines in 2004/2005 since the figures would not portray accurate average investment levels of all companies involved.

5.2. Beverage Company Profiles

COCA COLA

A) Summary Box:

Industry:	BEVERAGE
Sub Industry:	Soft drinks, juices, beers, energetic drinks
Location:	Rio de Janeiro, Sao Paulo and Manaus
Size: (sales)	US$ 324.4 million
Purchasing potential:	3
Specific Business Opportunities:	Filling Machinery – PET & Glass

B) Description:

The Coca-Cola Company in Brazil is made up of Coca-Cola Indústrias Ltda., Recofarma Indústrias do Amazonas Ltda., and a total of 16 different groups responsible for 39 bottling and packaging facilities; all under franchising agreements. The Coca-Cola Indústrias Ltda., located in Rio de Janeiro, is the local headquarter responsible for coordinating all the franchising, while Recofarma Indústrias do Amazonas Ltda., located in the tax free zone in the Amazon State, produces and distributes all the soft drink bases and formulae for all Coca Cola soft drinks, juices and energy drinks in Brazil.

Coca-Cola Brazil is the third largest International subsidiary of Coca Cola International and boasts the second largest manufacturing facility, located at the city of Jundiaí – São Paulo, with over 11 different production lines and 600 employees working 24 hours under three shifts.

C) Principal Products Produced and How Are They Packed:

The Jundiai factory produces only soft drinks including Coca Cola, Fanta, Guanará brands and others. Packaging used is: PVC, glass bottles, aluminum cans and cardboard.

All companies under franchising agreements must adhere to corporate production and packaging standards including, bottling and distribution of all Coca-Cola products.

Soft Drinks: **Pet**: 2L, 1,26L, 1L, 600ml, 245ml **Can:** 350ml, **Glass:** 1.5L, 1.25L, 600ml, 300ml, 290ml **Cups:** 300ml, 500ml and 700ml

Juices/Teas: aluminum cans of 340ml, PET bottles of 1.5L and cardboard of 300ml.

Energizers: aluminum cans ("bullet") 250ml

D) Packaging Machinery / Countries of Origin/ Future Purchases:
The 7 production lines that use PET packaging are identified below and packaging capacity ranges from 10,000, 15,000, 17,500, 18,000, 23,000 and 36,000 units/hr.

Equipment	Brand	Units	Origin
Filling Machines	KHS	5	Germany
Palletizing Machines	Sig-Simonazi	7	Argentina / Brazil
	San Martin	2	
Heat Wrapping Machines	Okme	4	Italy; Argentina and Germany
	Kisters	2	
	SMI	1	
	Mainar	1	
	Bahlmer	1	

The two lines that use aluminum cans for packaging have a total capacity of 90,000 cans per hour, based on the following machinery:

Equipment	Brand	Units	Origin
Fillers Machines	Kronis	2	Germany
Washers Machines	Kronis	2	Germany
Capping Machines	Ferro	2	Italy
Wrapping Machines	Kisters	2	Germany
	Bahlmer	1	
Palletize Machinery	Franpack GmbH	4	Germany

The 2 lines that use glass bottles for packaging have a capacity of 48,000 and 17,500 bottles per hour.

Equipment	Brand	Units	Origin
Palletize Machinery	Kronis	1	Germany
Pallet Dismantling	Kronis	1	Germany
Cartooning Machine	Kronis	1	Germany
Filling Machinery	Kronis	1	Germany
	KHS	1	
Washer	San Martin	1	Argentina / Brazil

The PET packaging material (provided by Engpack) is delivered to the production lines already blown and labeled.

E) Manufacturing objectives driving the purchase of new equipment.
At present there are immediate requirements for the purchase of new equipment. Coca-Cola mentioned it would like to invest in a filling machine that is highly efficient in the future one that works with both PET and glass bottling, with different capping options, preferably within the same unit.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
In 2003 a new production line was inaugurated with PET and glass bottle packaging based on KHS equipment.

Even though Coca-Cola Brazil has not yet determined its future purchases for new packaging equipment, it has a set budget for 2004 investments in Brazil of US$170 million.

G) Purchasing Policies.
The engineering department is responsible for identifying the needs for new machines or upgrades of existing machines, by carrying out a detailed study that looks into the production capacity, packaging volumes and costs of these operations. Once this is done, the results are sent to the Executive Board that evaluates and determines whether the current budget is sufficient for the investment. The next step involves a bidding process for new machines involving at least 3 different companies. The last bid conducted in 2003 had a total of 6 different offers.

Methods of payment vary depending on the type of machinery, the total cost and the level of importance. Payment methods include cash, installments, leasing and financing from banks.

H) Factors That Influence Purchasing Decisions.
According to Coca-Cola, packaging machinery manufacturers that provide local technical assistance with fast and reliable maintenance and repositioning of parts are at a better advantage. Packaging companies that have a local and an international presence are of great importance to Coca-cola as well. They usually enquire about the success of their client relations and may follow-up with key contacts within the industry that have used the machine in the past.

Companies that can provide an accurate inventory of parts and pieces are also considered of some importance. Whilst considering different suppliers of packaging machinery, Coca-cola also requires a thorough cost-benefit analysis to compare between different suppliers.

Coca Cola Brasil understands that European packaging manufacturers are the current leaders in Brazil, providing better technology, good working policies and above all, are highly reliable and trustworthy. The company mentioned Kronis and KHS as the best suppliers in relation to cost/benefit and both suppliers still hold a strong presence at the existing plants, sent as potentially long-term suppliers to Coca-Cola.

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ELEGÊ

A) Summary Box:

Industry:	BEVERAGE
Sub Industry:	Milk and Milk Derivates
Location:	Teotonio Vilela – RS
Size: (sales)	US$ 209.2 million
Purchasing potential:	2
Specific Business Opportunities:	Filling

B) Description:

Elegê is an active milk and milk related products manufacturing and commerce company. It was launched in 1996 after Avipal Group purchased CCGL-Cooperativa Central Gaúcha de Leite (founded in 1976) and renamed the company as Elegê.

The company received industrialized 711 million liters of milk in 2002 within its five plants located in Rio Grande do Sul state. Today, the company is the fourth largest Brazilian milk company, with a total process capacity of 4 million liters of milk per day.

The plant in Teotônio Vilela is the largest in Latin America. With a production capacity of 2 million liters of milk per day, the plant represents 70% of Elegê's production. Other plants are based in Ijuí, Santa Rosa, São Lourenço and 3 de Maio, all in Rio Grande do Sul state.

C) Principal Products Produced and How Are They Packed:

Elegê products include long-life milk, chocolate milk, fruit juices, butter, powdered milk, cream, sauces, desserts, condensed milk, double cream and cheeses.

Packages used include: 200ml to 1.5L tetra pack; plastic packages with metal film of 100g and 200g; 20Kg and 10Kg cardboard boxes for sachets of 120g, 200g, 400g, 500g and 1kg; Flanders cans of 400g and 1.6Kg.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

The Teotônio Vilela plant is equipped with the following machinery:

Current Machinery	Brand	Units	Capacity Production	Origin
TBA-19*	Tetrapack	6	6,400 / hour	Netherlands

TBA-8*	Tetrapack	15	6,400 / hour	Netherlands

This machinery works in conjunction with another group of activities, such as filling, sealing and labeling.

Current Machinery	Brand	Units	Capacity Production	Origin
Wrapping Machine	Sig-Simonazi	1	140 tablets / min	Germany
Filling / Wrapping Machine	Own Production (manual)	1	n/a	Brazil

Elegê has its own in-house developed machines for milk derivatives including butter by placing them inside card boxes covered by plastic films that compress the butter in the box.

Current Machinery	Brand	Units	Capacity Production	Origin
Drying Machines	APV	1	2 ton / hour	Brazil
Drying Machines	APV	1	1 ton / hour	Brazil

E) Manufacturing objectives driving the purchase of new equipment.

Machine acquisitions follow growth trends in market demand. Other factors driving purchasing decisions include the need for improved technologies; decrease of operational costs (i.e. reduced high maintenance expenses); avoiding situations when machine breakdowns have no immediate replacements available.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

The company has recently implemented new production lines for condensed milk and has already purchased packaging machinery for these lines.

Elegê believes it is well equipped regarding packaging machinery, and there are currently no plans to purchase new machinery. All plants are well equipped, especially Teotonio Vilela, to satisfy all the production lines that are still not working at full capacity.

G) Purchasing Policies.

A team of production and development directors analyzes the requirements for new purchases and the need for expanding production capacity. The commercial department undertakes all the research responsibility (*bidding process)* on prices, technologies and suppliers available and delivers the results to the executive directors who are in charge of deciding the final purchases of new equipments.

H) Factors That Influence Purchasing Decisions.

Elege prefer modern machines that help reduce company costs on production and maintenance.

Currently, all company machines are automatic and able to fill different sized volume packages.

There is an in-house technical assistance team that is trained to handle most machines. Nevertheless, there is still some technology-related maintenance that requires the supplier's technical assistance to solve, that cannot be solved in-house..

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KAISER

A) Summary Box:

Industry:	BEVERAGE
Sub Industry:	Beer and Drought Beer
Location:	Jacareí - Sao Paulo
Size: (sales)	US$ 318.5 million
Purchasing potential:	2
Specific Business Opportunities:	Filling

B) Description:

The Kaiser brewery was founded by Luiz Otavio Possas Gonçalves, a senior partner of Gonçalves-Guarany, the owner of two large Coca-Cola bottling companies in Brazil, in an attempt to regain market share that was lost in a declining soft drinks industry. Cola-Cola purchased 10% of Kaiser Brewery shares and offered its distribution supply chain to allow Kaiser to be present in over 450 thousand points of sale across the nation.

Kaiser has 8 factories in Brazil with 2,300 employees. The Jacareí factory is the largest one, responsible for 35% of Kaiser product distribution and has 600 employees working 24 hours a day, in 3 shifts.

Kaiser has recently lost some of its market share to AMBEV (Skoll, Antartica and Brahma) but remains the third most sold beer in Brazil.

C) Principal Products Produced and How Are They Packed:

Kaiser's production is dedicated to beers and draught beer only. Packaging is usually in the form of glass bottles, aluminum cans and aluminum barrels.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

It has two complete production lines of aluminum cans, with a total capacity of 120.000 and 60.000 cans/hour:

Current Machinery Used	Brands	Units	Origin
Bottling Machine[1]	Kronis	1	Germany
Bottling Machine[2]	Sig-Simonazi	1	Italy
Wrapping Machinery	Kronis	1	Germany
Wrapping Machinery	Okner	1	Italy
Wrapping Machinery[3]	Shering	2	Germany

[1] Production capacity of 120,000 cans/hour;
[2] Production capacity of 60,000 cans/hour;

[3] Used only to bottle Kaiser Boch (a dark beer product for the winter season only), which utilizes cardboard and plastic packages to group cans.

Three glass bottle production lines, with total capacity of 30,000, 35,000 and 50,000 bottles/hour:

Current Machinery Used	Brands	Units	Origin
Bottling Machine	Kronis / Sig-Simonazi	4	Germany / Italy

One draught beer line:

Current Machinery Used	Brands	Units	Origin
Bottling Machine	Kronis	1	Germany

All bottling machines have a capping system puncturing aluminum cans and for draught beer aluminum barrels.

E) Manufacturing objectives driving the purchase of new equipment.

The main packaging machines used by Kaiser are manufactured by Kronis, KHS and Sig-Simonazi, all of which are considered trustworthy and traditional German machine manufacturers offering the "right" technology for packaging beer. New packaging machineries are usually purchased from existing suppliers.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Kaiser believes that it is well-equipped regarding packaging machinery. Machines are quite new and provide all the production requirements. The company will only acquire new machinery if it decides to develop a new product line or if demand grows significantly.

G) Purchasing Policies.

Kaiser's purchasing policies come from its research & development department that is continuously analyzing market, sales volume and its correlation with current machineries used.

Once the need for a new machine is determined, both factory and corporate office work together to choose candidates and list suppliers and their prices offered.

Kaiser usually purchases machinery by two installments in cash: 30% upon acquisition and 70% after one-month tests, period in which the machine is finally approved.

H) Factors That Influence Purchasing Decisions.

Kaiser analyses machine productivity, quality and the possibility of technology upgrades and how long the machine will last with continuous growth in production.

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MÜLLER

A) Summary Box:

Industry:	BEVERAGE
Sub Industry:	Cachaça (distillated drink from sugar cane), Caipirinha Mix and Brandy.
Location:	Pirassununga - Sao Paulo
Size: (sales)	US$ 69.8 million
Purchasing potential:	1
Specific Business Opportunities:	Bottling

B) Description:

Guilherme Müller Filho, began bottling beer and Cachaça from his truck in Pirassununga, in the state of São Paulo in the 1950s. By the early sixties, Müller opted to change from amber bottles to transparent ones and since then the sales of the Cachaça "51" have grown rapidly resulting in bottle size increase from 600ml to 1 liter.

Müller works closely with its suppliers to improve bottling technologies and has not had to rely much on publicity and advertisements to conquer market leadership for its Cachaça 51 brand. Today, Companhia Müller de Bebidas produces 240 million liters of Cachaça 51 a year along with other alcoholic drinks.

C) Principal Products Produced and How Are They Packed:

Cachaça 51, brandy, soft alcohol drinks and Caipirinha Mix are packaged using glass bottles of 1L, 750ml and 500ml; aluminum cans of 350mil, plastic bottles of PVC of 200ml and 500ml and sachets for Caipirinha Mix.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

The factory has 2 production lines: 1 for Cachaça 51 only and the other for all other products.

Current Machinery Used	Brand	Units	Origin
Pallet Dismantling Machinery	KHS and Okme	3	Germany
Box Dismantling Machine	KHS	1	Germany
Cleaning Machines	Lies	2	Brazil
Bottling Machinery	KHS and Procomac	4	Germany / Italy

Labeling Machinery	Kronis and PE	2	Germany / Italy
Cartoning Machines	KHS	2	Germany
Palletizing Machines	KHS and Okme	2	Germany
Carton Form, Fill and Heat Seal Machines	Okme	3	Germany

E) Manufacturing objectives driving the purchase of new equipment.
Companhia Müller de Bebidas believes that it is currently well equipped with packaging machinery. Its machines are relatively new and provide all the functions required for their production capacity. The company will only invest in new machinery if it develops a new product line or if demand increases significantly.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin	Year of Purchase
Labeling Machinery	PE	1	Italy	2001

The current level of production has yet to reach its maximum capacity, therefore there are no purchases forecasted for 2004. Demand for similar products is being serviced by intense competition from smaller illegal companies that are not paying taxes allowing them to sell cheaper products.

G) Purchasing Policies.
The R&D department carries out regular studies to identify the problems and solutions of the current installed packaging machinery base. It considers factors such as production volumes, sales volumes, machine prices, technology and potential market growth in Brazil and international markets for alcohol drinks.

Most equipment purchases are supported by BNDES – National Social and Development Bank – financing plans.

H) Factors That Influence Purchasing Decisions.
An important factor that affects purchases is the relationship between production levels and their quality. Müller also looks for machines that can adhere to federal environmental and health regulations. National technical assistance and rapid replacement of spare parts are also great purchasing drivers.

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SCHINCARIOL

A) Summary Box:

Industry:	BEVERAGE
Sub Industry:	Beers and Soft Drinks
Location:	Itu - Sao Paulo
Size: (sales)	US$ 83.9 million
Purchasing potential:	5
Specific Business Opportunities:	PET, Glass and Can Bottling, Labeling and Wrapping Machines

B) Description:

Schincariol began its activities in 1939, in a small factory in Itu – SP, producing soft drinks only. In 1989, Schincariol began producing beer and today has 6 plants producing a combined total of 2.1 billion liters of beer. Products include beers, draught beer, soft drinks and mineral water. The company is also an active exporter to Mercosur, Asia and Europe.

Schincariol focuses on low priced high quality products. There have been constant investments and increased attention to new manufacturing processes, understanding high technology standards employed around the world and how these many be brought to Brazil to ensure greater production capacity at a lower cost.

Schincariol currently has approximately 10% of the beer market share, 30% in sparkling water, 2.5% in soft drinks and less than 1% in fruit juice market share. Its main factory is located in Itu – SP, representing 30% of total production. The remaining production facilities are located in the states of Bahia, Maranhão, Rio de Janeiro, Pernambuco and Goiânia.

C) Principal Products Produced and How Are They Packed:

Schincariol's main products are: beer, soft drinks, water, sparkling water and fruit juice. The packages used are aluminum cans, PET and glass bottles.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

In the Itu-SP manufacturing plant, Schincariol has:

- 3 production lines for glass bottles including the following machinery:

Current Machinery Used	Brand	Units	Origin
Bottling Machines	KHS	2	Germany

	Kronis	4	
Palletizing Machines	KHS	2	Germany
	Kronis	4	
Labeling Machines	Kronis	6	Germany
Bottle Washing Machine	Kronis	3	Germany
Pasteurizing Machine	KHS	1	Germany
	Kronis	2	
Box Dismantling Machine	KHS	1	Germany
	Kronis	2	
Boxing Machines	KHS	1	Germany
	Kronis	2	
Electronic Inspection Machines	Kronis	5	Germany
Wrapping Machines	Kisters	1	Germany

- 4 bottling PET lines with the following capacities: 2 lines with 20,000 packages/hour; 1 line with 17,000 packages/hour and 1 line with 10,000 packages/hour:

Current Machinery Used	Brand	Units	Origin
Blowing Machine	Kronis	1	Germany
Bottling Machine	Kronis	1	Germany
Labeling Machine	KHS	1	Germany
Wrapping Machine	Kisters	1	Germany
Palletizing Machine	KHS	1	Germany

- 2 aluminum can lines with a capacity of 30,000 and 60,000 cans/hour.

Current Machinery Used	Brand	Units	Origin
Pallet Dismantling Machine	KHS	1	Germany
Bottling Machines	KHS	2	Germany
Palletizing Machine	KHS	1	Germany
Wrapping Machine	KHS	1	Germany
Pasteurizing Machine	Kronis	1	Germany

In the Cachoeira de Macacu – RJ plant, Schincariol has:

- 2 glass bottle production lines with a total capacity of 60,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	2	Germany
Palletizing Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany
Bottle Washing Machine	Kronis	2	Germany
Pasteurizing Machine	Kronis	2	Germany
Box Dismantling Machine	Kronis	1	Germany

Boxing Machine	Kronis	1	Germany
Electronic Inspection Machine	Kronis	2	Germany
Wrapping Machine	Kronis	1	Germany

- 1 aluminum can production line with a total capacity of 90,000 cans/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	1	Germany
Pasteurizing Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany
Pallet Dismantling Machine	Kronis	1	Germany

- 2 PET production lines, with a total capacity of 20,000 packages/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	2	Germany
Blowing Machine	Kronis	2	Germany
Labeling Machine	Kronis	2	Germany
Wrapping Machine	Kronis	2	Germany
Palletizing Machine	Kronis	2	Germany

In the Alagoinhas – BA plant, Schincariol has:

- 2 lines for glass bottling with a total production capacity of 60,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	2	Germany
Labeling Machine	Kronis	2	Germany
Palletizing Machine	Kronis	1	Germany
Bottle Washing Machine	Kronis	2	Germany
Pasteurizing Machine	Kronis	2	Germany
Box Dismantling Machine	Kronis	1	Germany
Boxing Machine	Kronis	1	Germany
Electronic Inspection Machine	Kronis	2	Germany
Wrapping Machine	Kronis	1	Germany

- 1 line to pack aluminum cans with a total production capacity of 90,000 cans/hour:

Current Machinery Used	Brand	Units	Origin
Pallet Dismantling Machine	Kronis	1	Germany
Bottling Machine	Kronis	1	Germany
Pasteurizing Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany

Palletizing Machine	Kronis	1	Germany

- 1 line to bottle PET with a total production capacity of 20,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Blowing Machine	Kronis	1	Germany
Bottling Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany

In the Caxias – MA plant, Schincariol has:

- 1 line of glass bottling with a total capacity of 60,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany
Bottle Washing Machine	Kronis	1	Germany
Pasteurizing Machine	Kronis	1	Germany
Box Dismantling Machine	Kronis	1	Germany
Boxing Machine	Kronis	1	Germany
Electronic Inspection Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany

- 2 lines to bottle PET with a total capacity of 10,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Blowing Machine	Kronis	2	Germany
Bottling Machine	Kronis	2	Germany
Labeling Machine	Kronis	2	Germany
Wrapping Machine	Kronis	2	Germany
Palletizing Machine	Kronis	2	Germany

In the Recife – PE plant, Schincariol has:

- 1 production line of glass bottling with a total production capacity of 60,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany

Bottle Washing Machine	Kronis	1	Germany
Pasteurizing Machine	Kronis	1	Germany
Box Dismantling Machine	Kronis	1	Germany
Boxing Machine	Kronis	1	Germany
Electronic Inspection Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany

- 1 production line to pack PET, with a total production capacity of 20,000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Blowing Machine	Kronis	1	Germany
Bottling Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany

- 1 production line to pack aluminum cans with a total production capacity of 30,000 cans/hour:

Current Machinery Used	Brand	Units	Origin
Pallet Dismantling Machine	Sig-Simonazi	1	Germany
Bottling Machine	Sig-Simonazi	1	Germany
Pasteurizing Machine	Sig-Simonazi	1	Germany
Labeling Machine	Sig-Simonazi	1	Germany
Palletizing Machine	Sig-Simonazi	1	Germany

In the Alexania – GO plant, Schincariol has:

- 1 glass bottling production line with a total capacity of 60 000 bottles/hour:

Current Machinery Used	Brand	Units	Origin
Bottling Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany
Bottle Washing Machine	Kronis	1	Germany
Pasteurizing Machine	Kronis	1	Germany
Box Dismantling Machine	Kronis	1	Germany
Boxing Machine	Kronis	1	Germany
Electronic Inspection Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany

- 1 line of PET bottling with a total production capacity of 10.000 bottles/hour:

Current Machinery Used	Brand	Units	Origin

Blowing Machine	Kronis	1	Germany
Bottling Machine	Kronis	1	Germany
Labeling Machine	Kronis	1	Germany
Wrapping Machine	Kronis	1	Germany
Palletizing Machine	Kronis	1	Germany

- 1 production line to pack aluminum cans with a total capacity of 30.000 cans/hour:

Current Machinery Used	Brand	Units	Origin
Pallet Dismantling Machine	Sig-Simonazi	1	Germany
Bottling Machine	Sig-Simonazi	1	Germany
Pasteurizing Machine	Sig-Simonazi	1	Germany
Labeling Machine	Sig-Simonazi	1	Germany
Palletizing Machine	Sig-Simonazi	1	Germany

E) Manufacturing objectives driving the purchase of new equipment.

Schincariol is always searching for new machinery launches worldwide that could enhance its products. Research studies are conducted regularly to discover new machines for the beer sector and the commercial department is always open to meet potential suppliers.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

The company has plans to implement new industry plants and consequently to purchase new machinery such as **PET and Glass Bottling, Labeling and Wrapping Machines**. Schincariol's market share growth welcomes technological upgrades whether in their existing machinery or for new machinery purchases.

G) Purchasing Policies.

Research & Development Department (Technical Department) is always studying the market and new technology launches. Their recommendations are presented to the Executive directors that together with the Technical department decide on the best acquisition options for all plant requirements. The Commercial Department start negotiations once the decision has been reached with payments done in cash.

H) Factors That Influence Purchasing Decisions.

Main factors influencing purchasing decisions are reliability and durability of the machines – Schincariol gives preference to machines that have a long shelf life.

Most of Schincariol's machinery comes from Germany, allowing for high constant production volumes with a long shelf life capable of operating 24 hours a day. The technical assistance is efficient, especially for large-scale production lines such as the ones used by Schincariol.

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YAKULT

A) Summary Box:

Industry:	BEVERAGE
Sub Industry:	Yogurt Drinks e Vitamin milk shakes
Location:	Lorena – SP
Size: (sales)	US$ 74.4 million
Purchasing potential:	1
Specific Business Opportunities:	No plans for purchases during 2004. Potential purchases in the cosmetics product line (Filling, Wrapping & Sealing)

B) Description:

Dr. Minoru Shirota developed Yakult in Japan in 1930, becoming the first scientist to successfully isolate and culture a variety of human intestinal lactobacilli through a preventive medicine technique focused on strengthening the intestine linings for a longer, healthier life. In 1955, Dr Shirota founded Yakult Honsha Co. Ltd., consolidating all business operations in one holding company.

Today, Yakult is available in 23 countries and is consumed by more than 25 million people every day worldwide. It prides itself of a door-to-door distribution system known as the "Yakult Ladies" – with the ultimate goal of making home-delivery available to every house in the Japan. The company employs more than 20,000 people worldwide.

Yakult began its activities in Brazil in 1966 launching its industrial plant 2 years later in São Bernardo do Campo – SP for the production and fermentation of milk. In 1999, it launched a new industrial plant in Lorena – SP, considered the most modern plant in the world producing yogurt drinks. In the same year it began its cosmetics product line.

C) Principal Products Produced and How Are They Packed:

Yakult works with fermented milk derived (lactobacilli) products and also manufactures products from soya and vitamin. These products are packed with Tetrapacks and PET bottles.

Over the last few years Yakult has been producing, on a small-scale, cosmetics together with pharmaceutical products focusing on intestinal health.

D) Packaging Machinery / Countries of Origin/ Future Purchases:
The following machinery is based in Lorena – SP:

Current Machinery Used	Brand	Units	Origin
Bottling Machines	Shikoto	10	Japan
Bottling Machines	Tetrapack	3	Germany
Boxing Machines	Minimulti / Marti / Gama	8	Japan / Italy
Palletizing Machine*	n/a	1	n/a

*The company uses automated palletizing.

E) Manufacturing objectives driving the purchase of new equipment.
Yakult believes it is well served with its current machinery installed base since it has a long way to go until it reaches its total production capacity of 6 million bottles, currently producing only 1 million bottles. The driver for new purchases will only occur if either domestic or export demand increases significantly.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin	Year of Purchase
Boxing Machine	Minimulti	1	Japan	2002

Future purchases will focus on cosmetic products with machine requirements including **Bottling, Wrapping and Sealing Machines.**

If Brazilian demand for Yakult products increases, it is possible for Yakult to purchase **Bottling and Boxing Machines**, but the Lorena – SP plant is still at low production levels.

Yakult is planning to divide its production areas by transferring its beverage machinery to the Lorena – SP plant and converting the São Bernardo do Campo – SP plant into a cosmetics production plant only.

G) Purchasing Policies.
Yakult is a Japanese company and gives preference to Japanese machinery and technology. New machinery purchases require the executive directors to visit suppliers and identify new technologies and analyze the implementation of the machines in their plants.

The São Paulo Purchasing Department is responsible for purchasing the machinery previously defined by the Executive Directors for all Yakult plants in Brazil. Yakult prefers paying in installment and/or financing.

H) Factors That Influence Purchasing Decisions.

The important factors include, adherence with Brazilian regulations for health and safety; efficiency; high levels of production; long-life (capacity to work for long periods); and easy and quick technical assistance.

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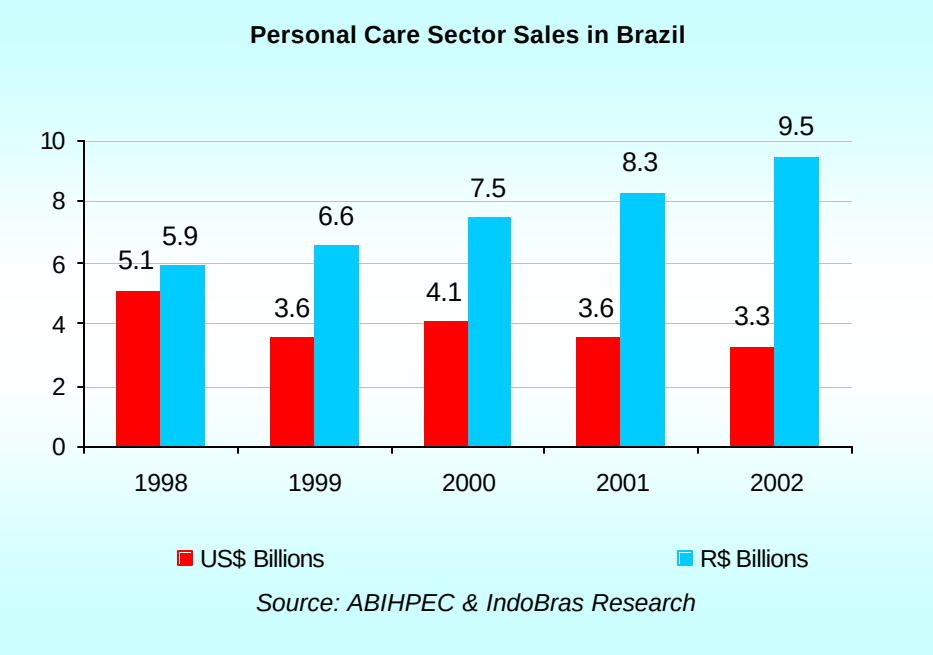
VI. Personal Care Industry

6.1. Industry Overview

The Personal Care Sector includes the following segments: Personal Hygiene, Perfumes and Cosmetics. The sector has experienced a series of changes since 1998 that have helped boost both domestic and export sales, the most important of which include:
Sophisticated Consumerism
Growth in Female Workforce
Continuous New Product Launches
Increased Life-Expectancy & Young-Look

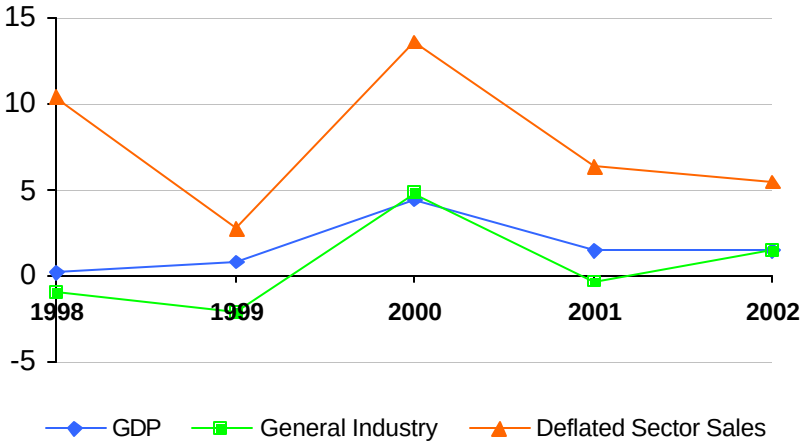
The sector has experienced a deflated local Reais compounded annual growth rate of 12.6% between 1998 and 2002. When comparing US Dollar based growth the sector experienced a negative CAGR growth of –11.4%, largely due to the dollar devaluation during 1999, 3rd Quarter of 2001 and 2nd Half of 2002.



Source: ABIHPEC & IndoBras Research

Despite the differences in currency growth, it is important to note that this sector along with Agribusiness and Defense sectors posted the best growth over the past 12 years in local Reais. When compared to GDP and General Industry growths the sector an average yearly growth of 5% whereas the GDP and General Industry grew only 2% and 0.95% respectively.

Personal Care Sector Growth vs. Economy Growth



Source: ABIHPEC and IndoBras Research

Out of all the trends in the sector, "sophisticated consumerism" represents majority of the new investments on new product launches that cater to changing consumer behaviors in
both male and female segments and the way the industry positions different products across all socio-economic consumer segments in the market. The industry has posted growth in the following segments showing a shift in demand from "want" items towards "need" items beyond the traditional feminine products:

- Healthy living and feeling & looking young products;
- Growth in male hygiene products including cosmetics and hair products;
- Growth in ethnic products catered towards for large Asian and Black consumer base;
- Growth in therapeutic and eco-friendly products; and
- Growth in the "kids" segment including shampoos, dental, lotions and perfumes.

These changes have resulted in renewed investments in technology allowing for greater production volumes at lower prices, continuous product launches requiring new scalable and adaptable production lines along with increased research and development investments with close marketing coordination to better understand consumer preferences and requirements.

Growing technology investments have increased productivity and reduced price increases to the end-consumer compared to the rest of the economy. According

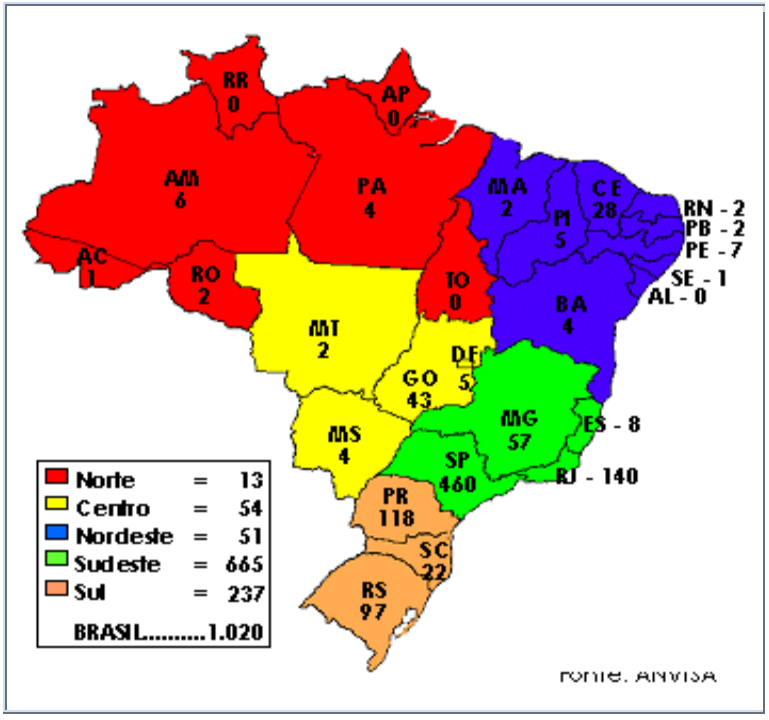
to FIPE price index study, since the currency devaluation in 1995, the Personal Care sector has had its prices reduced by:

- Hygiene: 52% compared to the dollar; and
- Beauty & Care: 48% compared to the dollar;

compared to an economy average of 29% reduction over the same period.

Another factor that has brought growth and prosperity to the sector has been the increased level of competition among multinationals renewing production line investments in Brazil, consequently leading many national companies to increase their investments as well. According to Euromonitor, Brazil had the 6th largest Personal Care sector in the world during 2001 classified in the following segments – 3rd largest in deodorants; 4th largest in hair, oral hygiene perfume, infant, disposable diapers, feminine hygiene; 6th in male products; 7th in sun tan lotions; 9th in bath, makeup and creams.

According to ANVISA, there are currently 1,020 Personal Care companies operating in Brazil, 14 of which are considered large-scale multi-nationals with net sales above US$35 million, representing 73% of the total sector sales. Most of the companies are located in Southeast region of the country as shown in the graph below.



There has been a recent boost in exports – that has yet to reach its true potential – thanks to the high quality of products manufactured by both local and

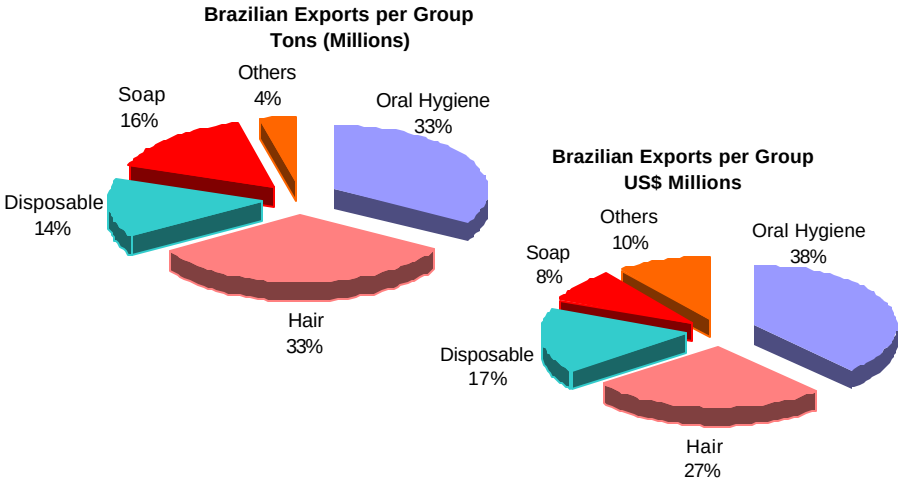
multinational industries in the sector following international eco-friendly and health standards and regulations. Brazilian personal care products are also relying on their advantage of using natural ingredients to explore export markets, growing by 102% between 1998 and 2002 and continuously posting higher growth levels than the industry averages of Basic, Semi-Manufactured and Manufactured products.

Exports - Growth Lastest 5 Years (%)					
Year	Brazil (Total)	Raw Materials	Semi-Manufactured	Finished Goods	Personal Care Sector
1998	-0.35	-10.3	-4.2	0.6	5.7
1999	-6.1	-8.9	-1.7	-7	21
2000	14.7	6.2	6.5	19	27.1
2001	5.7	22.1	-3	1.1	14.8
2002	3.7	10.5	-8.8	0.3	8.7

Trade Balance - Personal Care					
	Imports		Exports		Balance
Year	US$ '000	Growth (%)	US$ '000	Growth (%)	US$ '000
1998	236,223	-2.3	83,150	5.7	153,073
1999	169,510	-28.2	100,571	21	68,939
2000	189,992	12.1	127,864	27.1	62,128
2001	170,495	-10.3	146,730	14.8	23,765
2002	123,619	-27.5	159,506	8.7	35,887

Source: ABIHPEC & IndoBras Research

The growth in exports has been a direct result of a joint effort made by sector industries, associations and governments that are working together to better promote Brazilian products in foreign trade fairs. The co-development of the sector provides necessary support in the acquisition of better technologies and



Source: ABIHPEC & IndoBras Research

equipments through better financing options, lower taxation, simplified export procedures and government coordination regarding registrations procedures in foreign markets. Today, Brazilian personal care products are sold to over 87 countries led by both Oral Hygiene and Hair segments.

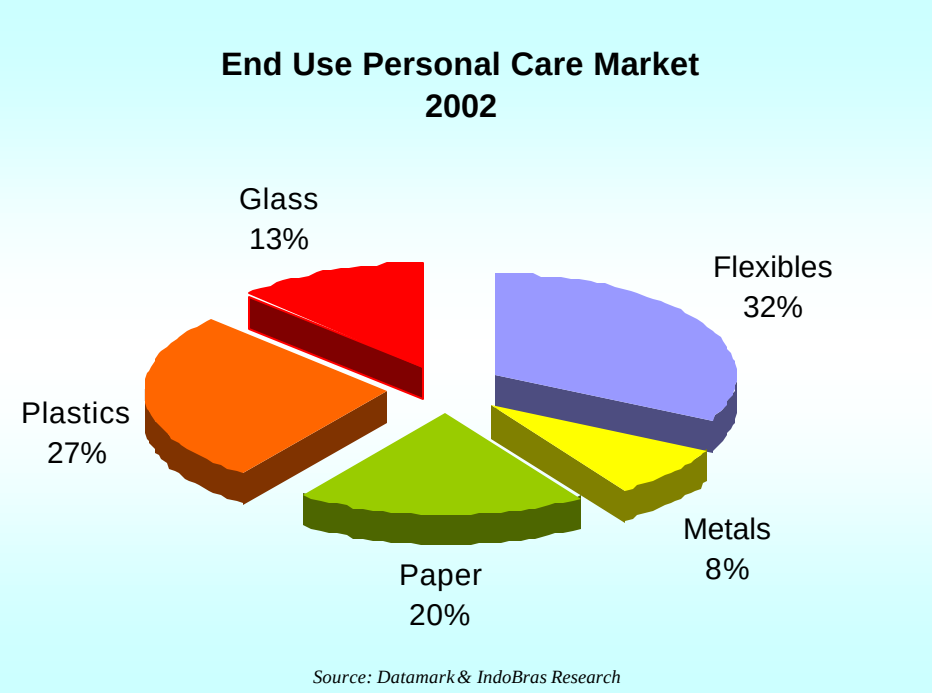
6.1.1. Key Players

TOP 10 LARGEST PERSONAL CARE COMPANIES IN BRAZIL BY REVENUE IN 2002

	COMPANYS	Revenues (U$ million)	Sales Growth (%)	Net Profit (U$ million)	NET ASSETS (U$ million)	Control
1	Gessy Lever	1,265.9	10.9	-	-	UK and Netherlands
2	Johnson & Johnson	411.6	-	-	-	USA
3	Avon	387.8	-	-	-	USA
4	Natura	349.3	20.4	7.3	30.7	Brazil
5	Gillette	207.9	10.8	-	-	USA
6	Bombril	157.8	27.4	203.3	539.0	Italy
7	Reckitt Benckiser	136.0	2.5	1.0	77.6	UK and Netherlands
8	O Boticário	122.8	25.0	11.7	52.6	Brazil
9	L'Oreal	108.2	-	-	-	France
10	Colgate-Palmolive	84.6	-	-	-	USA

Source: Valor 1000 Maiores Empresas edition 2003 & IndoBras Research

6.1.2. Packaging Trends



Source: Datamark & IndoBras Research

The wide variety of different segments in the sector requiring different packs has resulted in an even balance between all packaging options. The continuous search for new technologies capable of mass-producing specific pack designs of graphical importance with sufficient consumer-appeal, may shift the distribution of packaging options at any given year. Bottle (glass) packs are gaining local importance whereas plastics and flexibles participation are expected to remain constant, averaging 30% each.

Safety and innovative packages will receive special attention during 2004 particularly in the shampoos, conditioned creams and hair care product lines. Branded products recognize that many Personal Care products are still classified as "want" items and are currently experimenting with customized smaller sizes along with value packs to ensure the final product cost fits the consumer budgets and can soon become a basic necessity in their shopping trips. Consumer budgets have reduced for this sector during 2003 and have been redirected towards more "need" items found in the food and pharmaceutical sectors.

6.1.3. Summary of Interviews

The packaging machinery installed base of the **8** personal care companies interviewed consists of the following machines:

Blistering – 6 machines:
- BollSherry (Belgium);
- Selovack (Brazil); and
- Ulma (Italy)

Bottling – 36 machines:
- Fabrima (Brazil); and
- Bosch, Kronis, 3M, Optima (Germany)

Box Forming / Cartoning – 26 machines:
- Packform/Patinte, Fabrima (Brazil);
- Bosch, Kronis, 3M, Optima (Germany);
- V2 (Italy);
- Mazda (Japan); and
- Nordens (Sweden)

Capping – 14 machines:
- Promaquina (Brazil);
- Kronis, 3M, Promack (Germany); and
- Maciee, Pneumatic (Italy)

Filling – 29 machines:

- Lipstick, Wada (Brazil);
- Serac, Gasti, (Germany);
- Cavalla, Karr (Italy);
- Nordens (Sweden); and
- Duboi (USA)

Flowpack – 12 machines:

- Avipack (Brazil); and
- Bosch, 3M, IWKA, Optima (Germany)

Labeling – 8 machines:

- CCL (Canada);
- Maciee, Pneumatic (Italy); and
- IWK (USA)

Palletizing – 10 machines:

- Transpallet, Lif Trans (Brazil); and
- Bosch, 3M, IWKA, Optima (Germany)

Sealing (Heat, Card & Others) – 35 machines:

- Dinom (Brazil);
- Gaynor (Argentina);
- Bosch, 3M, Bedo, Optima (Germany);
- Illig (UK); and
- Willet (USA)

Shrink Wrapping – 5 machines:

- Bosch, 3M, Optima (Germany)

Others – 25 machines:

- 3x Decoration – HotStamp (USA);
- 4x Dosage (Piston Pumps) – Erlimaq (Brazil);
- 11x Pipe (Molding) – 10x Aisa-Saeza (Switzerland) & 1x KMK (Germany);
- 4x Silking – Wolts (Germany) & Silks Maquina (Brazil);
- 1x Washing – Ciclope (Brazil);
- 1x Thermoform, Fill & Seal – Zaboransky (Germany); and
- 1x Form, Fill & Seal – IWK (USA)

There is a greater variation of packaging manufacturing brands available in this sector with machines originating from Europe, North America, Latin America and to a lesser extent Asia. The growing market sophistication for new personal hygiene products that appeal to both male and female consumers across all socio-economic income categories, demands input from several suppliers from different markets each with its distinct trends

and packaging innovations. Product manufacturers are more lenient towards new technologies from new packaging machinery manufacturers that do not necessarily have a proven track record, but that can offer innovation to the market in terms of different pack ideas and sizes.

The **4** main reasons for new equipment purchases include:

- Machines that can be quickly adapted for different products and volume surges presenting both design diversity eco-friendly solutions.
- Machines must present a high-level of operational security limiting employee exposure to risk elements during production.
- Rapid technical support available nationwide focused on reducing maintenance downtime at all costs. Potential suppliers must have some type of Brazil representation for quick maintenance resolve.
- Product "appearance", "innovation" and "consumer appeal" factors weigh heavily in new equipment purchases.

Decision making for new equipment purchases includes the following processes:

- **Engineering Department** rely on in-house or external research groups to provide market trend and consumer requirement studies that are later matched with internal capabilities to determine the need to purchase new or replace old machinery. Continuous liaison with internal laboratories is very necessary to ensure proper machine purchase for new and/or improved product launches.
- **Marketing Division** is responsible for helping Engineering and Research & Development Departments match correct supplier candidates with market requirements and trends.
- **Commercial Department** is responsible for analyzing the cost/benefit feasibility study prepared by both Engineering and Marketing Departments and later negotiate with potential suppliers on terms and conditions prior to receiving purchase approval from the Executive Committee. Preference is mostly given towards cash purchases but also include local financing (Finame).
- **Executive Committee** relies on abundant budgets to make quick and decisive purchases to follow constantly changing market trends. These budgets, for the most part, are set and agreed to at the beginning of the year and can be revisited at any time should a great purchasing opportunity arise.

6.1.4. Purchase Potential of Companies Interviewed

Out of the **8** personal care companies interviewed, the average purchase opportunity is of: **3.6** – (based on a “purchasing potential” scale from 1 to 5, where “1” stands for “low purchasing potential of packaging machinery” and “5” stands for “high potential of packaging machinery”.

Potential purchases for 2004/5 will consist of a combination of the following functions:

- Filling & Sealing
- Filling & Wrapping
- Sealing & Blistering
- Filling, Labeling, Capping & Shrinking
- Bottling, Cartoning & Wrapping

Note: Since some companies did not provide budget figures due to confidential reasons, while others provided a total expenditure amount that included building & construction, land and complete processing investments; we did not sum up the total estimated budget for packaging machines in 2004/2005 since the figures would not portray accurate average investment levels of all companies involved.

6.2. Personal Care Company Profiles

AVON

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Lotions, Creams, Cosmetics, Lipsticks, Nail Polish, Shampoos and Perfumes.
Location:	São Paulo and Rio de Janeiro
Size: (sales)	US$ 387.8 million
Purchasing potential:	3
Specific Business Opportunities:	Sealing, Filling, Capping and Shrinking Machinery.

B) Description:

Avon was founded by Mr. David McConnell as the California Perfume Company, when he discovered that the complimentary rose oil perfumes that he used to give out with his books was the reason why people bought his books in the first place. Florence Albee pioneered the company's direct-selling method and the company was named Avon in 1939, in tribute to William Shakespeare's homeland "Stratford upon Avon". Today Avon is the leading direct-sales company in the world with its products sold in 143 countries worldwide.

Avon Cosméticos has been present in Brazil since 1959 with its corporate headquarters and factory based in Sao Paulo. It employs 4,300 workers and has 800,000 resale representatives in Brazil. Avon also has a manufacturing and shipping office in Fortaleza-CE and Osasco-SP.

The Avon Cosméticos do Brasil works in conjunction with the other Latin American business units, including Argentina, Chile, Peru, Bolivia and Uruguay.

C) Principal Products Produced and How Are They Packed:

Avon has vast product lines comprised of shampoos, deodorant, moisturizing creams, lotions, perfumes, make-up products (cosmetics), sun blocks, nail enamel and talcum powder, amongst others.

Current product packaging includes bottles, sachets and other packs made of PVC, PET, PEAD, PEBD and glass. All products are tested in high-tech laboratories and follow strict FDA - Food and Drugs Administration's regulations.

D) Packaging Machinery / Countries of Origin / Future Purchases:
Avon's manufacturing sector works with 54 production lines, with a total of 180 packaging machines of all categories and brands, such as:

Current Machinery Used	Origin
Filling Machinery	Most of the machines come from European markets, and some from both Brazilian and US markets.
Sealing Machinery	
Labelling Machine	
Heat Sealing Machine	
Shrink-Wrapped Machine	
Vacuum Cartoning	
Capping Machinery	

E) Manufacturing objectives driving the purchase of new equipment.
Avon is currently experiencing considerable growth that is expected to continue over the next few years. It is constantly changing its packaging machinery to cater to annual product launches and seasonal sales promotions. Christmas, Summer and Mother's Day are considered very important holidays that influence the company's packaging structure, requiring new package designs and options.

Avon is an environmentally friendly company with a strong market position. Any future investments in packaging equipment should cater to their innovative packaging requirements and follow its environmentally friendly guidelines. Manufacturing speed, work capacity and similarity with existing machinery are also drivers for new machinery investments by Avon.

Avon has not forecasted new purchases for 2004; however, the company has an internal working/research group that studies each production line's capacity, and decides when to purchase new machinery accordingly.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005
Avon has recently acquired 10 machines of the following categories:

Equipment	Year of Purchase
Filling Machinery	2003
Sealing Machinery	2003
Capping Machinery	2003
Shrink-Wrapped Machine	2003

The company usually purchases packaging machinery from Germany, France, Spain, Sweden, Italy and USA. Avon strongly regards European machines as excellent packaging options for its segments however, is also monitoring the recent technological packaging improvements achieved by both Brazilian and US machine manufacturers.

G) Purchasing Policies.

An internal working/research group determines the packaging requirements based on current production levels and efficiency. Once the need for purchasing new equipment is identified (even if replacing an old machine), the research is sent to the engineering division that, together with the production section, initiates a bidding process to suppliers. The bidding process will consider technology, price and production capacity of several machine candidates.

All bids are brought to the decision making party comprised of financial department and executive directors that analyze all the issues concerning the investment, budget and timeframe.

Avon prides itself of being financially sound to make packaging machinery investments at anytime should the executive committee decide to launch new product lines throughout the year. Avon prefers cash payments in installments for all machine purchases.

H) Factors That Influence Purchasing Decisions.

Avon considers product appearance of utmost important in the cosmetics market and is looking for packaging machines that can be innovative by creating different products with high quality standards, design diversity and eco-friendly solutions.

Avon's proactive search for high technology machinery is driven by the following key factors:

to be prepared for Brazilian market growth at all times;

to launch a new product line at anytime – Avon's laboratories are always researching new cosmetic formulas for new and/or improved product launches;

the necessity to replace old machinery in order to avoid high expenses with constant maintenance, higher security levels and specialized labor to operate the machine

The driving factors for purchasing packaging machinery are: up-to-date technology, high security levels for operations, consistent patterns of efficiency, after sales customer service, national technical assistance, facility to operate and greater output.

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Web site: www.avon.com.br

COLGATE-PALMOLIVE

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Oral Health/Hygiene, Toothpastes, Toothbrushes, and Household Cleaning.
Location:	São Paulo – SP
Size: (sales)	US$ 84.6 million
Purchasing potential:	5
Specific Business Opportunities:	Filling and Wrapping

B) Description:

William Colgate, a British immigrant, founded Colgate-Palmolive in 1806 by starting a soap company in Baltimore, USA. Since 1998, Colgate-Palmolive has launched over 90 new products in both oral health and household cleaning segments. At present, its products are commercialized across 179 countries employing over 40,000 professionals. In the late 1920s, Colgate-Palmolive began in Brazil with a factory in Rio de Janeiro – RJ becoming the first company to manufacture and sell oral health products on a large scale.

In 1995, Colgate-Palmolive announced the purchase of the Kolynos toothpaste brand throughout 14 countries, including Brazil. - Since then, the company has invested millions of dollars in modernization of all its production sites including investments in new technologies combined with an intensive training program for all employees. All these upgrades have transformed Colgate-Palmolive operations in Brazil in one of the largest oral hygiene exporters in the country, selling products to over 55 countries.

C) Principal Products Produced and How Are They Packed:

Colgate-Palmolive manufactures products for oral heath/hygiene such as: toothpastes, toothbrushes, whitening products, floss, oral first aid, soaps, deodorants, and a large variety of household cleaning products.

To pack all those products, the company uses cardboard, flow pack and tubes from PET, blisters from PVC with cardboard laminated with PVC or only just PVC.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

The São Paulo – SP factory has the following machinery, distributed in 9 toothpaste lines, 3 floss lines, 6 toothbrush lines, 11 tube lines and 1 whitening product line:

Current Machinery Used	Units	Brand	Origin
Blistering Machines	5	4 Selovacks, 1 Boll-Cherry	Brazil, Belgium
Flow pack Machines	1	Avipack	Brazil
Cartoning Machines	11	2 V2; 9 Nordens	Italy; Sweden
Thermoform, Fill and Seal Machines	1	Zaboransky	Germany
Filling Machines	9	Nordens	Sweden
Packing Machines	9	IWKA	Germany
Palletizing Machines	3	IWKA	Germany
Pipe Manufacturing Machine	11	10 AISA-SAEZA; 1 KMK	Switzerland; Germany
Bottling/Capping Machine	1	Kronis	Germany

The factory at Osasco works with a few production lines with the following packaging processes: Filling, Sealing, Capping, Cartoning and Packing.

All product lines are boxing manually and there may be plans for acquiring new machines in this area.

E) Manufacturing objectives driving the purchase of new equipment.

The increasing demand for Colgate-Palmolive products is the driving force for new equipment purchases. The replacement of old machinery with new high-tech units that can handle a greater production capacity is considered the second driver for new purchases.

Colgate-Palmolive is currently replacing all its older machines in order to modernize its entire manufacturing infrastructure and production lines.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005

Current Machinery Used	Units	Brand	Year of Purchase
Toothpastes			
Filling Machine	01	**N/a**	2003
Cartoning Machines	01		2003
Capping Machine	01		2003
Packing Machines	01		2003
Toothbrushes			
Blistering Machine	01	Selovack	2003

Colgate-Palmolive's forecast for 2004 includes automation of boxing and packing products to accelerate production lead-times. It has yet to decide from which suppliers they will procure the machinery.

G) Purchasing Policies.

New purchases are recommended by the Marketing division, together with General Management, Engineering and Commercial departments. These groups carry out a technical study of machinery requirements that compares suppliers, prices and the implementation procedure. The benchmarking study is part of a new company directive headed by the company's vice-president.

Payment terms include both cash and installments, depending on cash flow and machine prices.

Colgate already has a few existing suppliers, however does not discard purchasing from new suppliers.

H) Factors That Influence Purchasing Decisions.

Colgate-Palmolive seeks suppliers with machinery that will abide by the Brazilian laws concerning the environment, health and safety issues. The company also requires machinery with high security standards and high production levels.

The company gives preference to European machinery, which it considers to be more reliable. It would like to keep itself well informed regarding US packaging machine options however, to date it has not much information on the high-tech machines currently available in the US.

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GILLETTE

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Razors, shaving blades
Location:	Manaus – Amazonas State
Size: (sales)	US$207.9 million
Purchasing potential:	2
Specific Business Opportunities:	Sealing, Blistering

B) Description:

Gillette was launched in 1901 in Boston, USA, with the goal to manufacture safety disposable razors. It began operations in Brazil in 1926, and is currently the leader in the disposable razor market and the 7th largest brand in the country.

Gillette's plant is located in the manufacturing Free Trade Zone area of the Amazon Region manufacturing products in Brazil such as razors and shaving blades, while importing several different product lines. The company has been expanding its Brazilian operations and uses the country as an export base as well as an administration liaison with the Boston based HQs.

C) Principal Products Produced and How Are They Packed:

Gillette manufactures a large range of products that comprises oral hygiene, razors and shaving blades, deodorants, after-shave, shaving cream, shaving gel and batteries. Packages used are blister cards with effective plastic sealing like PVC, PET and cardboard, PET, PVC and aluminum bottles.

D) Packaging Machinery / Countries of Origin

Almost all of Gillette's packaging machineries come from Europe, especially from Germany since its equipment development area in England works together with Germany suppliers. Current machinery used include:

Current Machinery Used	Brand	Units	Origin
Sealing Machinery	Illig	6	Great Britain
Labeling Machinery	IWK	1	USA
Card Sealing Machinery	Bedo	3	Germany
Filling Machinery	Duboi	2	USA
Sealing Machinery	Willett	1	USA
Form/Fill/Sealing Machinery	IWK	1	USA

Capping Machinery*	3M	1	Germany

** Leasing machine.*

E) Manufacturing objectives driving the purchase of new equipment.

Gillette requires an automated process of palletizing and sealing final boxes. Gillette has plans to centralize its packaging center in the Free Trade Zone Area in Amazon Region. Nevertheless, the budget requirements are still under evaluation before and currently there are no expectations of new equipments acquisition for 2004.

New equipments may be purchased should Gillette launch a new product line that requires a new packaging altogether to comply with the growing demands for sophisticated, trendy and health safe products of the Brazilian population. Gillette is currently operating at full production capacity.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Gillette has not expanded production lines in its Manaus plant, limiting new purchases to only Sealing and Blistering Machines.

During the first quarter of 2004, Gillette plans to review all expenses absorbed during 2003 and focus on cost reduction for 2004 onwards. The conservative approach is contrary to the corporate directive focused on plant improvements worldwide to enlarge global production. Brazil is expected to adhere to this global expansion by 2005-7 during which period it will be replacing existing with cutting-edge new machinery.

G) Purchasing Policies.

Gillette do Brasil is responsible for only machine implementation and productivity analysis. All other research including new technologies, purchase investment budgets, payment terms and other acquisition related items are coordinated through its corporate headquarters in Boston, MA – USA where its Marketing, Industrial Engineering, Commercial Departments and Senior Directors are located.

H) Factors That Influence Purchasing Decisions.

Gillette gives priority to high operational security and operational facility. Gillette is already comfortable with capacity, technology and speed production levels since it does not vary much from its existing supplier base.

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JOHNSON & JOHNSON

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Health care and Skin care.
Location:	São José dos Campos – SP
Size: (sales)	US$ 411.6 million
Purchasing potential:	3
Specific Business Opportunities:	Sealing and Wrapping

B) Description:

Johnson & Johnson was founded in 1886 promoting antiseptic surgery suppliers. It has pioneered the launch of several health care products through its innovative research and development departments worldwide. Today Johnson & Johnson has 190 branches throughout 51 countries in all 5 continents, with more than 99,000 employees and sells its products in over 175 countries.

Johnson & Johnson do Brasil is one of the largest foreign subsidiaries supplying the Brazilian market since 1933 with hospital and domestic health products including sterilized cotton, gauze, adhesive plaster and Band-Aid.

The Brazilian manufacturing branch is based in São José dos Campos, SP hosting its entire production and Technology and Research Center occupying an area of 910,000m^2.

C) Principal Products Produced and How Are They Packed:

Johnson & Johnson is using plastics including PET, PP, PVC; corrugated cases; bottles of varying sizes of PET, PP and PVC; and laminated packs.

The company is developing new packs with the same plastic materials currently used but with improved safety features and ease of use for its clients.

D) Packaging Machinery / Countries of Origin / Future Purchases:

Current Machinery Used	Units	Brand	Origin
Bottling Machinery	5	All machinery comes from Bosch, Optima and 3M.	Johnson & Johnson Machinery originates from Europe.
Sealing and Assembly Machinery	17		
Shrink-Wrapped	2		
Cartoning Machinery	10		
Flow Pack Machinery	2		

Palletizing Machinery	2		

*Palletizing and boxing are both manuals.

E) Manufacturing objectives driving the purchase of new equipment.

Currently Johnson & Johnson believes its factories are well equipped with regard to packaging machinery. The requirements that will drive the purchase of new machines are yet to be defined. Nonetheless, according to the contact, the launch of a new product line and the increasing demand and volume production are signs that new equipment purchases may occur in the near future.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005

Equipment	Units	Brand	Origin	Year of Purchase
Diaper and pant-liners				
Bottling Machines	02	Optima		2002

Johnson & Johnson's new packaging machinery purchases will occur with the increase of demand for health care and/or personal care products. The company is aware of the stability of the Brazilian market and is investing only in the personal care segment that has shown signs of constant growth.

Some packaging machinery will be acquired for 2004 but will most likely be coordinated with Johnson & Johnson in the US. These machines will support the company's corporate policies regarding packaging variation and growing production lines.

G) Purchasing Policies.

The engineering department from Johnson & Johnson is always looking for new technologies and prices. Both engineering and commercial departments decide on new machinery purchases and contact suppliers. Supplier proposals are submitted to the decision-making group, headed by J&J's purchasing director.

Payment terms are decided according to the amount of money available at any given moment in Johnson and Johnson Brasil's local cash flow. Preference is given to cash payments and installments subject to a pre-set budget defined by the US holding company for any fiscal year. The Brazilian subsidiary has free decision making autonomy to decide which machines to purchase provided they follow US standard guidelines.

H) Factors That Influence Purchasing Decisions.

Johnson & Johnson prefers to purchase packaging machinery from suppliers that are constantly developing new technologies. It analyses various issues in choosing packaging machines: security aspects, production capacity, worldwide regulations on manufacturing products – including Brazilian, and some internal rules and guidelines developed by Johnson & Johnson itself.

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L'ACQUA DI FIORI

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Perfume, Creams, Deodorants, Make-up, and other personal hygiene products.
Location:	Belo Horizonte – MG
Size: (sales)	US$ 69.5 million
Purchasing potential:	1
Specific Business Opportunities:	Fill / Label / Capping Machines

B) Description:

L'acqua di Fiori began operations in Brazil in 1980 with a manufacturing facility in Belo Horizonte - MG, to manufacture cosmetics, perfumes and personal hygiene products. The brand is recognized for its high quality formula research and development works and operates under a franchising system focused on increasing domestic and export markets share mainly to Europe and Mercosur.

C) Principal Products Produced and How Are They Packed:

Manufactured products by L'acqua di Fiori include perfumes, creams, deodorants, make up, shampoos, and bath product lines including soap, oils, and minerals salts.

Packages used include PET, glass bottles, PVC plastic films, cardboards and sachets.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Current Machinery Used	Brand	Units	Origin
Vacuum Filling Machine	Karr	2	Italy
Dosage (Piston Pumps)	Erlimaq	4	Brazil
Washing Boxes Machines	Ciclope	3	Brazil
Palletizing Machines	Transpallet	2	Brazil
Palletizing	Lif Trans	2	Brazil
Labeling Machines	Maciee	1	Italy
Silking Machines	Wolts; Silks Maquinas	4	Germany; Brazil
Packaging Decoration Machines	Hot Stamp	3	USA
Capping (Screwing)	Maciee	3	Italy

Capping (Puncturing)	Maciee	2	Italy

E) Manufacturing objectives driving the purchase of new equipment.
Increased demand for its products dictate new equipment purchases. High maintenance costs and excess budget availability are also drivers for new acquisitions but not as decisive as demand increases.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005
L'acqua di Fiori did not purchase any machinery between the years of 2002 and 2003, due to market stability and limited growth perspectives. Current machines are still operating with a large excess production capacity.

A slow growth in demand has limited new acquisitions to only the second semester of 2004 or 2005. L'aqua de Fiori has plans to purchase a Filling machine to reduce current maintenance costs, integrating it with washing, capping and labeling processes.

There is no permanent budget to purchase new machineries but rather ongoing feasibility studies that create the budget based on the level of new acquisition requirements.

G) Purchasing Policies.
L'acqua di Fiori constantly researches capacity production and new technologies available in both domestic and international markets, realizing a feasibility study on new purchase costs versus the ongoing need to reduce maintenance costs. It opens a bidding process for every acquisition to determine the latest technologies available in the market.

It is up to the executive directors to reach a final decision on which machinery the company will acquire negotiate prices and payment terms. Depending on the prices, payments can be done by installments or financing.

H) Factors That Influence Purchasing Decisions.
The main factor analyzed by L'acqua di Fiori are the machine's quality and performance levels, reducing waste and speeding up production processes. The company also gives preference for machines with good technologies and low acquisition and maintenance costs.

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L'OREAL

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Shampoos, Creams, Lipsticks, Enamel
Location:	São Paulo/Rio de Janeiro
Size: (sales)	US$ 108.2 million
Purchasing potential:	5
Specific Business Opportunities:	Filling and Sealing Machines

B) Description:

L'Oreal Paris is a worldwide company, present in over 150 countries. The brand has been active in Brazil with two manufacturing facilities in São Paulo-SP and Rio de Janeiro-RJ producing makeup and hair color.

In 2003 most of the products manufactured in Rio de Janeiro were transferred to the São Paulo plant focused on centralizing production and economies of scale in one location. The São Paulo plant has thirteen production lines with 24 hours a day operating in three shifts.

Recently, L'Oreal purchased Colorama, a shampoos, hair color and enamel manufacture.

C) Principal Products Produced and How Are They Packed:

L'Oreal manufactures shampoos, rinse creams, hair creams, moisture creams, body lotions, hair color products, enamel, lipsticks, and a great variety of other body and facial creams. L'Oreal operates under several different brands to achieve the different consumer socio-economic classes and expand its reach and demand for its products. It offers both top brands such as Lancôme and popular brands, such as Elsève and the most recently, Garnier.

The company uses bottles of PVC and PET of 200ml to 500ml to pack shampoos, hair color, body lotions and all varieties of body and hair creams. It uses glass bottles to pack enamel and lipsticks and card and carton boxes to pack end products. L'Oreal also uses other plastic and flexible materials to pack body and face moisture creams.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

L'Oreal operates 4 shampoos production lines, with the following packaging machines:

Current Machinery Used	Brand	Units	Origin
Filling Machines	Serac	3	Germany
Cap / Labeling Machines	Kronis	4	Germany
Heat Sealing Machines	Gaynor	3	Argentina

- L'Oreal operates 3 cream production lines, with the following machines:

Current Machinery Used	Brand	Units	Origin
Filling Machines	Gasti	2	Germany
Capping Machine	Promack	1	Germany

Boxing is done manually with the labels already included in the packages. There is always a stand-by machine for rapid replacement in the event a machine malfunctions.

- L'Oreal operates 2 lipsticks production lines: 1 for liquids (in plastic packages) and the other for traditional lipsticks. All packages already include labels:

Current Machinery Used	Brand	Units	Origin
Filling Machines	Lipstick	1	Brazil
Filling Machines	Cavalla	1	Italy

- L'Oreal operates 4 enamel production lines where raw materials are filled in glasses packages.

Current Machinery Used	Brand	Units	Origin
Filling Machines	Wada	4	Brazil
Cap / Heat Sealing Machines	Pneumatic	2	Italy
Labeling Machines	Pneumatic	4	Italy

E) Manufacturing objectives driving the purchase of new equipment.

According to L'Oreal factors driving purchasing equipments are new product line launches that are constantly happening particularly in the cosmetics segment since its Research & Development department is always investigating new formulas.

The other main factor is the need to implement new technologies that are able to improve packaging qualities and functionality. Colorful packages are also very important in the cosmetic sector.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005

Current Machinery Used	Brand	Units	Origin	Year of Purchase
Blister Machine	Ulma	1	Italy	2003
Capping Machine	Promaquina	1	Brazil	2003

L'Oreal has increasing its preference for Brazilian machinery due to its lower costs compared with European market and the fact that Brazilian technology has gotten better over the years with faster implementation than even some of the most experienced international manufacturers.
L'Oreal has established a strategy to invest more than its annual sales growth. The new strategy aims at achieving a better market share in the mass consumption area. The "B" and "C" socio-economic classes represent a greater population than "A" class that has already been conquered by several of L'Oreal's top product lines including Giorgio Armani, Ralph Lauren, Lancôme and Helena Rubinstein. The company sees a very good opportunity to grow its sales volume by launching new mass population lines.

Moisture creams and sun blocks are expected to have new lines launched in the beginning of 2004 requiring additional machinery purchases including **Filling Machines**.

The shampoo lines from L'Oreal brand catered to the mass population "Garnier Fructis" launched in 2003 has already conquered the third rank in sales volume and the company is still increasing its investments to obtain a better rank during 2004. L'Oreal believes that its Garnier brand is an answer to ongoing consumer demands for cheaper products in the personal care sector. The brand has already launched hair color products and hair creams. Other product lines are expected to launch under the same brand during 2004, requiring additional **Filling** and **Capping** machines.

G) Purchasing Policies.
L'Oreal packaging equipment purchasing process starts with a feasibility study of implementation and market research to compare market demand versus current production. When the study presents a greater market demand than production, the company decides to purchase new machineries.

The same area responsible for the above study is responsible for identifying new technologies and suppliers that are currently available to satisfy the company's requirements.

The final purchase decision make process is done by the Rio de Janeiro office, giving preference for cash payments or financial payments, depending on the amount of the investment.

Recently, the company has invested in new acquisitions before performing a feasibility study, going against company policy, a process that will not repeat itself in 2004

H) Factors That Influence Purchasing Decisions.

L'Oreal believes that the cosmetics market demands products with a very good appearance and no manufacturing errors. Therefore, new machineries must take into account a high production capacity maintaining the highest product quality available.

Cost/benefit, high technology standard and easy and rapid technical service available nationwide also influence purchase decision.

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NATURA

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Perfumes, Shampoos, Cosmetics and Lotions
Location:	Cajamar - SP
Size: (sales)	US$ 349.3 million
Purchasing potential:	5
Specific Business Opportunities:	Filling, Sealing, Cartoning, Wrapping and Bottling

B) Description:

Natura is a Brazilian cosmetics and health care products company launched in 1969. Its objective has been to increase sales through "very personalized service" allows Natura to adopt a direct sales approach based on Avon's successful experience focused on "consultancy for beauty". The company's entrepreneurial style brings human values and eco-friendly solutions to its product lines, making Natura an important icon and reference for the Brazilian cosmetics market. Furthermore, its commitment for sustained development and social projects helps identify Natura as a company that cares for people.

Natura has the greatest research and development cosmetics center in Brazil. It is present in over 4,500 cities in Brazil and has subsidiaries in Argentina, Chile, Peru and Bolivia. The company plans to start working in Mexico and other Latin American countries over the next couple of few years and has strong export growth prospects in 2004 onwards.

C) Principal Products Produced and How Are They Packed:

Natura continues to use glass bottles as well as PVC, PET, IPP and IPE to pack its perfumes and shampoos through automated lines that are palletized manually. The cosmetic line uses PVC and carton materials, very similar to its body lotions line.

The only change found was the introduction of plastic tubes (CUEX) for creams and ointments.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Current Machinery Used	Units	Brand	Origin
Bottling Machines	30	Fabrima	Brazil
Creams			
Cartoning Machine	02	Fabrima	Brazil

Heat Sealing	01	Dinom	Brazil
Shrink-wrapped	03	Penta	Italy

E) Manufacturing objectives driving the purchase of new equipment.

Natura has been operating its existing machinery base for an average of 8 years. It is aware of the need to maintain a high technology level of packaging machinery owing to the fact that the cosmetic market is increasing in Latin America and Europe and that it constantly launches new product lines.

Natura's head engineers of each product line determine the machinery requirements by giving the "go ahead" to purchase new equipment from potential suppliers.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

On June 2003, Natura purchased Fill and Seal Machines from Dimon. It is investing in new technologies and is planning the purchase of 2 new machines in 2004.

The company has a current budget of US$ 1.5 million for maintenance and new equipment purchases.

G) Purchasing Policies.

Each engineering department analyses their respective production line capacity including demand forecasts and product alteration needs. They then submit a capital study report to justify potential investments to be made. This study is compulsory even if the engineers believe no investments are necessary. The company's annual budget must be observed by everyone, but not necessarily followed.

Each of Natura's sub-industry sectors analyze and compare possible suppliers while performing their own technical studies. A final suggestion on the most suitable suppliers is sent to the commercial department for budget approval.

Natura is willing to meet new packaging machinery suppliers. Payment terms are usually in cash or financed through Finame.

H) Factors That Influence Purchasing Decisions.

Natura has preference to national machinery suppliers, given the easy access to technical support and local presence allowing for on-site machine testing availability.

Natura does not eliminate foreign suppliers that do not have Brazilian representation. The company is one of the local companies with the widest variety of packing equipment from different countries, and therefore does not discard suppliers without feasibility assessments and due diligence.

New technologies, high security levels and automation systems are also drivers for Natura to purchase new machinery. The company always looks for improvements in its production lines and prides itself of launching new products that require the latest packaging technology available.

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PROCTER & GAMBLE

A) Summary Box:

Industry:	PERSONAL CARE
Sub Industry:	Hair Care and Personal Hygiene
Location:	Louveira, Itaquaquecetuba, Anchieta and Tamboré - SP
Size: (sales)	US$ 76.5 million
Purchasing potential:	5
Specific Business Opportunities:	Cartoning and Liquid Filling Machines

B) Description:

Procter & Gamble (P&G) began its activities in Brazil in 1988 with the acquisition of Perfumarias Phebo S.A. with its three manufacturing facilities located in Belém – PA, Feira de Santana – BA and São Paulo – SP. During the 1990s P&G began launching its worldwide products in Brazil including shampoos and baby diapers.

Its shampoos, feminine hygiene and baby care products received a high level of acceptance and resulted in the consolidation of its product lines in Tamboré – SP, Itaquaquecetuba – SP and Louveira – SP. In 1996 the company acquired Bombril, a successful household cleaning brand in Brazil. With this acquisition came additional investments including the modernization of its industrial plants located in São Paulo – SP.

Today, Procter & Gamble has branches in 80 countries with products sold in over 160 countries with over 300 brands. It is one of the most successful consumer goods manufacturer in the world and considers Brazil as a priority expansion market.

C) Principal Products Produced and How Are They Packed:

The Procter & Gamble Company manufactures a wide range of products ranging from shampoos, rinse creams, colognes, household cleaners (powder detergents), feminine hygiene, disposable diapers, cough syrups and medicine creams.

Products are packed in PAD, PP or glass bottles, carbon boxes, carton boxes, PET films and aluminum-laminated tubes.

D) Packaging Machinery / Countries of Origin/ Future Purchases:
The Louveira-SP industry plant manufactures shampoo, rinse creams, colognes and medicine creams, using the following machinery:

Currently Machinery Used	Brand	Units	Origin
Filling Machines	n.a*	5	
Labeling Machine	CCL	1	Canada
Sealing Machines	3M, Optima	4	Germany
Box Forming Machines	Packform, Patinte and Mazda	2	Brazil and Japan
Cartoning Machine	n.a*	1	n.a*
Palletizing Machine	n.a*	1	n.a*

* The manufacturer did not disclose some supplier brands due to confidentiality agreements

E) Manufacturing objectives driving the purchase of new equipment.
P&G experienced a sales volume growth of 8% in 2003 compared to 2002. It is currently adapting its production lines to respond to the increasing demand.

P&G's manufacturing objectives are mostly driven by market demand, machines depreciation, maintenance costs and individual machine performance in each of its plants. Ongoing new product lines are also a strong driver for new machine purchases increasing overall production capacity.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
P&G invested over $1.7 billion in research and development in 19 technical centers and nearly 100 universities across the world in 2002. During the same year it did not acquired any packaging machinery in Brazil, focused more on consolidating activities and developing economies of scale through accurate backroom activities including supply chain and inventory level maximization.

In 2003, P&G purchased a Palletizing machine and a Card Box Forming machine. For 2004, P&G expects to increase its packaging machinery purchases including **Cartoning** and **Liquid Filling** machines to increase its shampoo and rinse cream production lines. Supplier scouting efforts are expected to occur following July when the annual budget for new acquisitions is revised.

G) Purchasing Policies.

P&G's engineering and production departments realize studies to detect new machinery requirements. Suppliers are then contacted to offer different technologies, trainee programs, maintenance programs, and prices and payment term conditions.

Depending on the price negotiations, P&G's Cincinnati-US headquarters may get involved in the final decision making process. If the acquisition is of low monetary value, then the factory itself can make the final decision.

Payments are usually done in cash terms using the company's own money reserves.

H) Factors That Influence Purchasing Decisions.

Main factors for future purchases include the necessity of high performance, excellent packaging results, low levels of wastage, high labor security standard levels, MBTS (Medium time between production shifts) and fast production outflow.

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VII. Pharmaceutical Industry

7.1. Industry Overview

The Brazilian Pharmaceutical Sector posted annual revenue of US$ 5.2 billion in 2002, down from US$11.6 billion in 2000, while maintaining constant unit production levels during the same period. The significant revenue reductions in US Dollar terms have been largely due to three reasons:

- Growth in Generics – giving a greater share of low-income population access to much cheaper medication;
- Government Price Controls – Federal Government imposing price ceilings and price freezes on several medications during 2001 and 2002 to avoid monopolistic activities – (medication prices were reduced an estimated 40% between 2000 and 2003); and
- Ongoing Currency Devaluation – further adding to the declining sales in local currency and affecting dollar-based raw material purchases particularly on petroleum derivative products.

In 1998 the Brazilian Pharmaceutical Sector occupied the 7th rank in global sales volume. It has since then moved to occupy the 12th rank and pharmaceutical companies have affirmed that the prices adjustment achieved during the past years have **not** made more medication available to a greater share of the population and are **not** enough to recover investments in Research & Development and production areas.

Brazilian Pharmaceutical Market

		billions		US$ millions		
Years	Global Market Share	Units Sold	Shelf Prices (US$)	Investments	Acc. Taxes	Income Tax
1998	7º	1.29	7.77	357.5	838.5	207.4
2002	12º	1.28	3.89	192.6	441.7	26.5

Source: Interfarma, KPMG & IndoBras Research

Year	Prices Readjustment	Currency Devaluation	Inflation
1999	13.8%	48.0%	8.6%
2000	0.9%	9.3%	4.4%
2001	0.3%	18.7%	7.1%
2002	12.2%	52.3%	9.9%

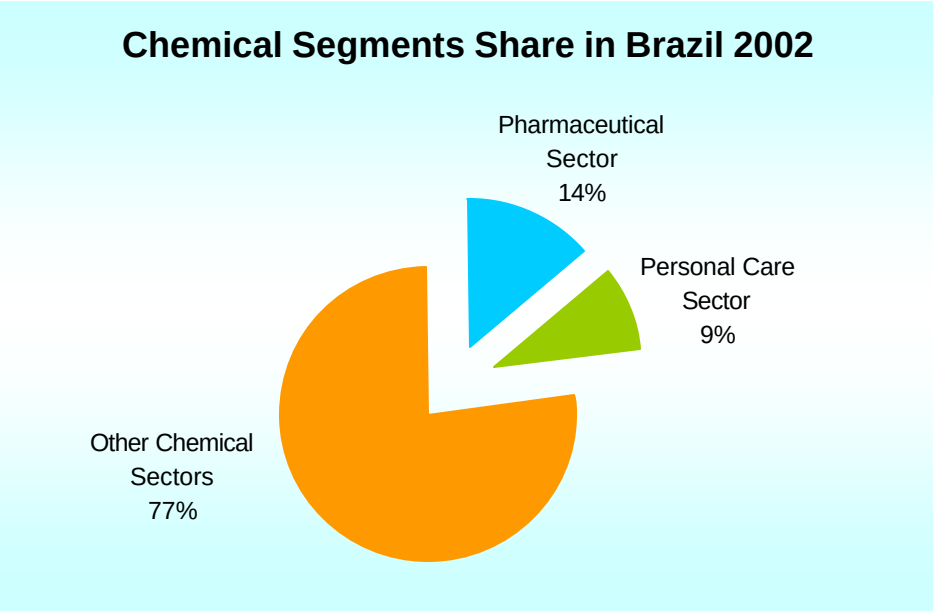
Source: Novartis, Valor Econômico & IndoBras Research

Consequently, companies are seeking to:

- Minimize production line and supply chain costs – including opting for cheaper raw materials and packaging machine alternatives;
- Grow exports focusing on dollar-based receivables;
- Lobby for government bailout programs seeking overall sector recovery; and
- Look for other more promising regional markets to manufacture products with less government interventions on price.

With an excess production capacity reaching 40% in the first semester of 2003, the government along with the Ministry of Health recently announced a priority program for the Pharmaceutical Sector starting with incentives to local laboratories that will double reaching US$28.3 million in 2004, up from US$14.2 million in 2003, promoting technological advancements over the next couple of years. Further incentives are expected in biotechnology, physiotherapy, surgical and chronic medications.

The Pharmaceutical sector currently represents 14% of the total Chemicals Industry, with Personal Care representing 9% and other petroleum-derivative based chemicals and household cleaning products accounting for the remaining



Source: ABIHPEC & IndoBras Research

77%.

- **Generics Proliferation**

While the growth in generic has been very attractive to packaging machinery manufacturers with companies making yearly investments in new production lines, it has resulted in companies seeking cheaper manufacturing alternatives to cover research and development investments and still manage to post profits. On the flipside, government studies show a potential consumer base of 40 million that cannot afford even R$1.00 in medications and would require financial aid. Both private and public sectors are working to reach a joint agreement with more transparent polices on price limits, patent elimination (in certain segments) and reduced medication taxes for generics and other pharmaceutical products to avoid industry stagnation concentrating production to only few large-scale laboratories.

Current generics manufacturers do not have sufficient R&D funds to invest in new medication and are consequently outsourcing production to companies that have excess production capacities, focusing only on volume levels and cost reduction

- **Exports as a Way Out**

Most multi-national pharmaceutical companies are shifting production towards export markets to avoid being caught up in a stagnant domestic sector. Local companies have also adhered to strict international standards (i.e. GMP regulations) to post dollar receivables and improve product quality in light of new free trade area agreements that is expected to further intensify competition in the sector.

Source: Interfarma & IndoBras Research

Mercosur represented 56% of an export market that reached US$215 million in 2001 – less than 5% of the total pharmaceutical sales volume posted that year. Exports have been at a constant growth between 1995 and 2001 with a CAGR of 11.6%.

TOP 10 LARGEST PHARMACEUTICAL COMPANIES IN BRAZIL BY REVENUE IN 2002

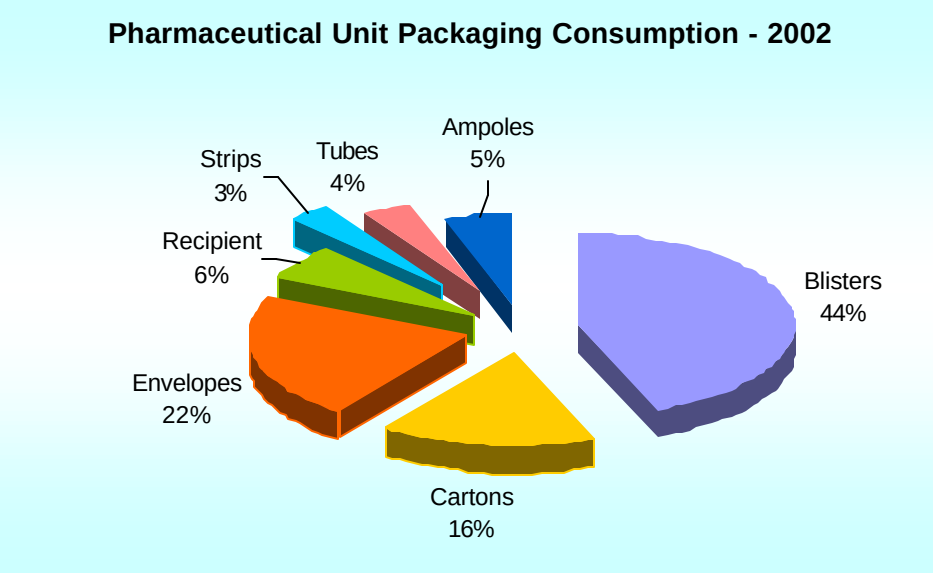
	COMPANYS	Revenues (U$ million)	Sales Growth (%)	Net Profit (U$ million)	NET ASSETS (U$ million)	Control
1	Roche	294.1	16.0	1.4	124.7	Switzerland
2	Novartis Biociência	244.4	15.0	-45.9	27.7	Switzerland
3	Aventis Pharma	232.6	3.0	-	-	France
4	Pfizer	201.2	38.6	-	-	USA
5	Aché	170.6	4.0	19.5	168.9	Brazil
6	GlaxoSmithKline	160.5	-	-121.6	115.4	UK
7	Abbott	142.1	-	-	-	USA
8	Bristol-Myers Squibb	130.6	1.0	-11.4	8.2	USA
9	Schering-Plough	128.2	10.0	11.5	22.2	USA
10	Grupo EMS Sigma Pharma	114.4	-	9.8	34.1	Brazil

Source: Valor 1000 Maiores Empresas edition 2003 & IndoBras Research

7.1.1. Key Players

7.1.2. Packaging Trends

Companies are focusing on high-tech packaging machinery that follow both Federal Ministry of Health Sanitary and Health regulations **and** international guidelines including Good Manufacturing Practice (GMP), FDA and MCA. At the same time, the sector is searching for lower production costs ranging from packaging R&D, raw material selection (i.e. blister, glass, envelopes, tubes) and



Source: EMBAPACK & IndoBras Research

cheaper packaging machines.
The growth in Generic production as a substitute to other more expensive medicines has brought about an increase in blister, envelopes and tubes packs since 2000 results.

Pharmaceutical companies are taking their responsibility for maintaining quality standards throughout the production and delivery process even more seriously than in 2000, engaging in close relationships with packaging and distribution companies along the years that have been strongly cultivated on a regular basis, resulting in slower equipment sell-in processes for new suppliers.

7.1.3. Summary of Interviews

The packaging machinery installed base of the **8** pharmaceutical companies interviewed consists of the following machines:

Blistering – 18 machines:

- Cartopack, IMA (Italy); and

- Ulma (Spain)

Bottling / Capping – 19 machines:
- Bosch (Germany); and
- IMA, Marchesini, Zanasi (Italy)

Cartoning – 70 machines:
- Blipack (Argentina);
- Bosch, (Germany); and
- Fabrima, Cartopack, Vertopack, Zanasi (Italy)

Forming (Case Tray) – 8 machines:
- Blipack (Argentina);
- Fabrima (Brazil); and
- Bosch, Ulma (Germany);

Filling – 9 machines:
- Fabrima (Brazil);
- Bosch, Bash Struball, Islan, Pomades (Germany);
- Comadis, Macofar, IMA (Italy); and
- Cloud (USA)

Form/Fill/Seal – 6 machines:
- DT Kalish (Canada); and
- Zanasi, IMA (Italy)

Labeling – 9 machines:
- Fabrima, Bauch Campos (Brazil); and
- IMA (Italy)

Sealing – 15 machines:
- Fabrima (Brazil);
- 3M (Germany); and
- Zanasi, IMA (Italy)

Wrapping – 10 machines:
- Fabrima (Brazil);
- Ulma (Germany); and
- IMA, Marchesi, Skinetta (Italy)

Others – 4 machines:
- 1x Counting – King (USA);
- 1x Thermopack – Blipack (Argentina); and
- 2x UPS – Ulma (Spain)

3 of the 8 companies interviewed had no plans for future purchases during 2004 and are currently operating with excess capacity. There is also a greater demand for integrated purchases i.e. a machine that performs two or more packaging activities. Such integration including "bottling & capping" and "filling, forming and sealing" machines is largely due to increased government regulations and greater focus on GMP – Good Manufacturing Practices – which call for greater automation, limiting manual involvement to a bare minimum.

Most companies in the pharmaceutical sector are secretive in nature due to intense competition and therefore have not disclosed many of their brands and country origins of packaging machines currently in activity. Nevertheless, preference is given to both Italian and German machines including brands such as IMA, Zanasi and Bosch.

The **3** main reasons for new equipment purchases include:

- Scalable machines that can respond to growing volumes for new product launches with limited upgrade investments.
- Machines that present top of the line technology responding to increasingly stringent local regulations and industry standards including (GMP, FDA and MCA).
- Affordable payment terms with reduced maintenance and part replacement costs supported by access to technical service at a 24 hours notice.

Decision making for new equipment purchases includes the following processes:

- **Engineering/Industrial Departments** is responsible for preparing a feasibility study taking into account production levels and demand along with environmental impacts of new equipment implementation.
- **Commercial Department** is responsible for launching the bidding process for prices, technologies and payment terms. It is also responsible for maintaining relationships with exclusive suppliers that offer specific custom-built integrated machinery or have consistently provided machinery for specific functions for the past several years.
- **Executive Committee** is responsible for budget approval that must concur with parent company investment policies (standardized internal quality standards worldwide) at the risk of being vetoed.
- **Purchasing Department** is responsible for coordinating Commercial, Engineering/Industrial, Equipment Maintenance Departments and Executive Committees to ensure the correct decision is reached before performing the payment in cash, lease and installments.

7.1.4. Purchase Potential of Companies Interviewed

Out of the **8** pharmaceutical companies interviewed, the average purchase opportunity is of: **2.2** – (based on a “purchasing potential” scale from 1 to 5,

where “1” stands for “low purchasing potential of packaging machinery” and “5” stands for “high potential of packaging machinery”.

Potential purchases for 2004/5 will consist of a combination of the following functions:

- Drying, Flowpack, Blister
- Filling, Sealing, Boxing
- Blister, Vertical/Horizontal Cartoning
- Integrated purchases – Form/Fill/Seal & Cartoning

Note: Since some companies did not provide budget figures due to confidential reasons, while others provided a total expenditure amount that included building & construction, land and complete processing investments; we did not sum up the total estimated budget for packaging machines in 2004/2005 since the figures would not portray accurate average investment levels of all companies involved.

7.2. Pharmaceutical Company Profiles

AVENTIS PHARMA

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Anti-inflammatory
Location:	Suzano - SP
Size: (sales)	US$ 242.4 million
Purchasing potential:	1
Specific Business Opportunities:	No purchases planned for 2004

B) Description:

Aventis is specialized in pharmaceutical products across a range of medical areas. It is dedicated to "Sciences of Life" continuously aspiring to improved technologies and health quality products.

Aventis Pharmaceuticals Inc., headquartered in Bridgewater, NJ in the US is responsible for a large part of the company's prescription drug business. Total US sales reached US$6.7 billion in 2002, representing 39% of the company's total revenues. France, and Germany are the largest subsidiaries with total 2002 revenues of US$2.4 billion and US$1.1 billion respectively.

Aventis Pharma Brasil is currently the leader in pharmaceutical unit sales in Brazil with a 5.17% market share and US$ 243 million in 2002 revenues. t employs 1,800 workers and centralizes its manufacturing base in Suzano – SP from where it supplies the domestic market along with Mercosur and other Latin American countries. Aventis launches on average two to three new products per year and spent approximately US$4.3 million in 2003 in clinical studies involving 4,000 patients in 350 research centers across the country for new product improvements.

C) Principal Products Produced and How Are They Packed:

Aventis manufactures medicines including pills, tablets, liquids and syrups, among others. Its focus includes painkillers, anti-inflammatory, antacid to treat a range of medical diseases including inflammation, heart diseases, dermatology, oncology, urology, and others.

Packages used include different compositions of blister, Aluminium/Aluminium, Aluminium/PVC, glass bottles and plastics PET and PVC.

D) Packaging Machinery / Countries of Origin/ Future Purchases:
Internal company policies did not allow the contact to disclose current machinery specifications, quantities and brands. Nevertheless, it was confirmed that Aventis has one of the largest plants in the pharmaceutical sector in Brazil with most of its packaging machinery technologies originating from European countries including Germany, France, Italy and Switzerland. Aventis also uses some Brazilian and US machinery but to a lesser extent.

Aventis has several packaging machines including: Wrapping, Blisters and Heat Sealing (Horizontal and Vertical), Cartoning and Boxing machines. Palletizing is all done manually. Suppliers include Fath, Poli, Glathi, Marquesine, Bosch, Kronis, Ulma, Ima and Paludo, among others.

E) Manufacturing objectives driving the purchase of new equipment.
Aventis new equipment purchases are driven by new product line launches. The company is continuously searching potential supplier solutions to answer to the growing demand for its products in both domestic and foreign markets.

The company gives preference for equipments that limit maintenance service and costs. It is currently engaged in a major restructuring effort to replace obsolete machines with outdated technologies that require continuous parts repositioning.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
Aventis acquired a wide range of new machinery in 2002 and 2003 when it decided to double its production capacity in its Suzano-SP plant thereby answering to the growing demand for its products nationwide. The main purchases for packaging machines included Filling, Boxing and Blistering Machines.

There are few expectations for new purchases during 2004, unless maintenance costs and parts repositioning get too expensive.

G) Purchasing Policies.
Both Industrial directors and marketing departments are involved in new equipment purchases. A production process study and feasibility analysis is prepared taking into account all factors including environmental impact, before determining new equipment implementations.

The Commercial Department starts a bidding process to get prices, technologies, payment terms and suppliers interest. The Purchasing Department, composed of

a committee of different departments including Engineering, Maintenance and Senior Directors, have the final decision and are responsible for nominating the best supplier for the job.

Aventis also has exclusive purchase agreements with strategic suppliers that manufacture restricted/patented packaging machinery.

Payments are normally done in cash employing Aventis' own capital, originating from corporate offices in Germany and France. The foreign corporate offices have “veto power” to block purchases if they believe the new equipment is not necessary.

H) Factors That Influence Purchasing Decisions.

Most of Aventis’ machineries come from Europe, especially from Germany. European machines take advantage over the US and Brazil, due to their higher developed technologies. According to contact, prices are not an important issue if the machinery has the best technology available in market, since good technology means to reliability.

German machines are considered not only to be the most efficient with the best technology, but also present the best technical service and support when maintenance problems arise.

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BOEHRINGER INGELHEIM

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Human Pharmaceuticals, Animal Health
Location:	Sao Paulo
Size: (sales)	US$ 112.3 million
Purchasing potential:	5
Specific Business Opportunities:	Drying, Flow Pack, Blister

B) Description:

Boehringer Ingelheim was launched in 1885 with only 20 people manufacturing tartaric acid salts used by pharmacies and dyeing works. Demand for these products surged in the early years as fizzy lemonade and baking powder became popular. By 1895, Boehringer discovered that it could use bacteria to produce lactic acid on a large-scale for commercial purposes and has since become a leading manufacturer of lactic acid worldwide.

In 1955, new and highly effective drugs were introduced, forming the pillars of Boehringer Ingelheim's research programs: agents for the treatment of respiratory, cardiovascular and gastrointestinal diseases.

Today, Boehringer Ingelheim is one of the world's top 20 leading pharmaceutical companies. The company posted 2002 revenues of over € 7.5 billion, of which € 1,3 billion was reinvested in Research & Development for the continued discovery and development of products of the highest standards.

The Brazilian branch was launched in 1956 with its corporate building located in São Paulo and manufacturing plant in Itapecerica da Serra – SP. Boehringer Ingelheim do Brasil has approximately 1,100 employees.

C) Principal Products Produced and How Are They Packed:

Boehringer Ingelheim manufactures products such as pills, aerosols, syrups, drops, tablets and powders. Packaging includes glass bottles, PET, PVC, cardboard boxes, blisters from aluminum/PVC, aluminum / aluminum, PVC/PVC.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Current Machinery Used	Units	Brand	Production Speed	Production Capacity	Origin	Year of Purchase
Washing, Drying and Bottling Machines	4	IMA	200 units/minute	20ml to 120ml	Italy	1996 / 1997 / 1998
Filling Machines (powder / pills)	2	Cloud	2000 sachets/min each	1 gram		1996
Heat Sealing Machine	2	IMA	17 units/minute	20ml to 120ml	Italy	1996 / 1997 / 1998
Wraparound, Blister, Vacuum Sealing, Case Packs and Flow Packs Machinery	3	IMA Marchesini Bosch	n/a	n/a	Italy / Germany	1991 / 1998 / 2000

E) Manufacturing objectives driving the purchase of new equipment.

Boehringer Ingelheim adheres to Brazilian federal regulations concerning labor and the environment, developing agreements with certain packaging machinery manufacturers in order to meet and surpass regulatory standards. These agreements are not exclusive and allow Boehringer to seek other machine suppliers depending on new technologies and price availabilities.

New equipment purchases are usually to replace old machinery follow new regulation standards and above all to respond to the increasing production demand. Boehringer Ingelheim does not use Brazilian machinery to package pharmaceutical products, but rather prefers European machines and sometimes machines from the US..

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

The company has not acquired new equipments over the past few years. New purchases are forecasted for 2004 and negotiations have already begun for **Blisters and Cooling Machines**. Investments in packaging machinery have diminished over the years and a recently approved budget of US$ 1.2 million is expected to boost new machine purchases for 2004 onwards.

G) Purchasing Policies.

Boehringer Ingelheim's technical support team has to research at least 3 suppliers offering the required technology at a competitive price, before making a purchasing decision.

The decision-making process involves the Engineering Department, Equipment Maintenance Department, Commercial Department and Senior Management. Depending on the price, the purchase can be made following a consensus between the manufacturing subsidiary and the corporate headquarters in São Paulo (Brazil) and Ingelheim (Germany), respectively.

All payment terms are negotiated and performed in cash.

H) Factors That Influence Purchasing Decisions.

Boehringer Ingelheim carefully follows European, USA and Brazilian federal regulations (GMP, FDA, MCA) and expects its packaging machinery to satisfy all these regulations.

The company also looks for nation-wide technical assistance (rapid response and easy), good prices, high quality standards and machines with a long life.

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BRISTOL-MYERS SQUIBB

A) **Summary Box:**

Industry:	PHARMACEUTICAL
Sub Industry:	Medicine and Nutrition Products: solid, liquid, gel and vitamins
Location:	São Paulo
Size: (sales)	US$ 136.1 million
Purchasing potential:	1
Specific Business Opportunities:	No machinery purchases scheduled for 2003-2004.

B) Description:

Bristol Myers Squibb was established in Brazil during the 1940s and is the second largest pharmaceutical enterprise in Brazil with over 113,000 employees. The Brazilian branch is a subsidiary of Bristol-Myers Squibb International present in more than 130 countries.

Bristol Meyers Squibb is specialized in research and manufacturing of antibiotics, cardio, anti-cancer and dermatological medicine. The company also manufactures products of nutritional consumption since 1964, when it purchased Mead Johnson.

C) Principal Products Produced and How Are They Packed:

Products manufactured by Bristol Myers Squibb include syrups, pills, tablets and ointments in the medical area of oncology, cardiovascular and antiviral products. The nutrition products are vitamins and powder substances.

Most of the company's products are packed with plastic bottles, pots and creams packaging of PET, PVC and Polypropylene and Aluminium blisters.

D) **Principal Products Produced and How Are They Packed:**

Currently Machinery Used	Brand	Units	Origin
Blistering Machines	Ima	2	Germany
	Ulma	2	
Filling Machines	Bosch, Bash Struball, Islan, Pomades	4	Germany
Cartoning Machines	Bosh	12	Germany
Tube Filling Machine	Comadis	1	Italy
Filling Machine	Macofar	1	n.a
Sealing Machine	3M	1	Germany

E) Manufacturing objectives driving the purchase of new equipment.
New machinery purchases are expected to replace obsolete equipment that no longer answers to the growing production demand requirements and result in high labor operating costs. Furthermore, production must carefully follow all local sanitation and hygiene standards and regulations, a task that the existing machinery cannot satisfy.

Bristol-Myers does not manufacture a generics line and has no plans to begin one in the near future.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
There have not been any new packaging equipment purchases during 2003 however the company has implemented new technology standards in its production lines. The current infrastructure is capable of answering the relatively stable market demands and there are no packaging machine purchase forecasts for 2004.

Bristol Meyers Squibb will only consider new investments depending on its sales forecast. If 2004 market demand presents some growth the company will likely invest in packaging machines in anyone of the Blistering, Cartoning and/or Filling categories.

G) Purchasing Policies.
Bristol Myers Squibb has not changed its purchasing policies with the engineering department still coordinating all necessary updates and new purchase requirements while identifying potential suppliers.

The commercial department is responsible for requesting technology information and prices from the chosen suppliers and analyzing the company's financial feasibility according to the specific annual budget. All technical reports are analyzed by the engineering department.

If commercial department is not satisfied with any of the candidates, it begins a new pre-selection process based on technology and feature specification feedbacks from the engineering department.

Payment can be arranged in several forms, including direct cash payments for smaller amounts.

H) Factors That Influence Purchasing Decisions.

Technology standards along with specific technical requirements are the most important factor influencing a purchase decision. Technical assistance service, the strict following of GMP regulations and a good production capacity are all factors that take precedence over actual price since packaging orders are made only as needed, thereby reflecting very specific purchases.

The company's annual budget is set on the 4th Quarter of every year by which time all production and new machine acquisition forecasts are prepared.

Bristol Myers Squibb can either directly import machines or purchase from local representatives. The choice of purchase depends mostly on the financial volume involved and given recommendations of other subsidiaries and past experiences.

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GLAXO SMITHKLINE

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Respiratory Line
Location:	Jacarepaguá - RJ
Size: (sales)	US$ 160.5 million
Purchasing potential:	2
Specific Business Opportunities:	Filling, Sealing, Boxing

B) Description:

Glaxo SmithKline (GSK) is a world leader in therapeutic solutions continuously investing in Research and Development to create new medicines and advancing in the biotechnology sector.

GSK earned US$ 26.9 billion in 2002 revenues including medicine, vaccines and health care products. The company has a global presence with operations in more than 130 countries and employs a team of 100,000 employees worldwide. Its headquarters is based in the United Kingdom, with operational centers in the US. Its Latin American branch is based in Rio de Janeiro (Brazil).

The Brazilian branch has 1,400 employees and GSK concentrates its activities in two plants located in Rio de Janeiro – RJ. GSK Brazil supplies only to the local market, however, has plans to expand exports to Mercosur, the Asian Pacific and African regions in the near future.

C) Principal Products Produced and How Are They Packed:

GSK provides medicine and respiratory health-related products including oral liquids, covered and uncovered pills. Products are packed using bottles, blisters, thermoform tubes, all from PVC, PP, PET, PEAD, PEBD, glass and aluminum and naval aluminum laminates.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

GSK has several packaging machines from Europe complying with company regulations. GSK has agreements with its suppliers to maintain high quality standards for its worldwide plants. Some of these suppliers include: IMA, IVK, Fabrima, Merry, Bosch, Boll, BOK, Krigher, mainly from Germany and Italy.

Currently, GSK has the following packaging machines in Brazil:

Current Machinery Used	Units
Bottling Machines	10
Cartoning Machines	10
Blister Thermoforming Machines	3
Sealing Machines	10
Labeling Machines	3

E) Manufacturing objectives driving the purchase of new equipment.
GSK believes that it is currently well equipped regarding its packaging machinery. New purchases will happen only if there are changes in GMP regulations, increasing demand, and the need to enhance/increase production.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
The plants in Brazil have been operational for only 4 years and the equipment used is still highly functional with no immediate need to acquire new machinery.

2 years ago there was a large investment of US$ 250 million in technology systems upgrades to manage a higher production capacity.

G) Purchasing Policies.
A team of engineers and commerce directors carry out an economic and technical study addressing the viability of all new purchase. Once this is complete, the executive directors evaluate the results and decide whether the purchase can be made independently or if they need to involve HQ in London in the final decision making process.

H) Factors That Influence Purchasing Decisions.
GSK must be consistent with their suppliers throughout their worldwide operations. Consequently, suppliers must also have a global presence to maintain consistent quality standards in both machinery and technical support.

Easy and quick technical assistance, high standards of security regarding both labor and federal environmental regulations, high productivity performance, quick replacement of parts are all of significant importance to GSK when making a new equipment purchasing decision..

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MEDLEY

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Tablets, Pills
Location:	Campinas – SP
Size: (sales)	US$ 82.7 million
Purchasing potential:	3
Specific Business Opportunities:	Blister and Vertical and Horizontal Cartoning.

B) Description:

Medley is a Brazilian company that was launched 65 years ago and is now the 7th largest pharmaceutical laboratory in Brazil. The company has two manufacturing plants, 1 in Campinas – SP, where the corporate division is based and 1 in Sumaré – SP. The former works 24 hours a day, divided in 3 shifts for 8 production lines. Medley supplies almost the entire Brazilian market and exports its products only to Mexico.

Medley's main products are for endocrinology and supplies pharmacies that manufacture medicines in their own laboratories.

C) Principal Products Produced and How Are They Packed:

Medleys' total production capacity is 12 million units a month. The company's main products are in the form of pills, tablets and liquid medicine. Packages needed include blisters with 2 to 31 pills per blister, plastic bottles and glass bottles.

D) Packaging Machinery / Countries of Origin:

6 production lines using Blisters and cartridges with the following machinery:

Current Machinery Used	Brand	Units	Origin
Horizontal Cartoning Machines	Fabrima	6	Italy
Vertical Cartoning Machines	Fabrima	2	Italy
Horizontal Cartoning Machines	Bosch	3	Germany
Vertical Cartoning Machines	Bosch	3	Germany
Blister Machines	Ulma	2	Germany
Blister Machines	Cartopack	4	Italy
Wrapping Machines	Skinetta	6	Italy

The Blister Machines start the packaging process. They are reloaded with compressed raw materials to fill the blisters, covered by plastic and aluminum.

Medley also has one production line for its plastic bottles with the following machinery:

Current Machinery Used	Brand	Units	Origin
F-57*	Zanasi	1	Italy
Cartoning Machine (K-150)	Zanasi	1	Italy

* The F-57 Machine works with bottling, assembling other packaging material and screw capping. After the bottles finished they are sent to the K-150 cartoning machine.

Medley also has 2 glass packaging lines:

Current Machinery Used	Brand	Units	Origin
Bottling Machine (F-540)	IMA	2	Italy
Capping Machine (F-550)	IMA	2	Italy
Labeling Machine (Libra 350)	IMA	1	Italy
Cartoning Machine	Bosch	2	Germany
Labelling Machine	Fabrima	3	Brazil
Weighing Machines	n/a	n/a	n/a

Packing boxes are done manually.

E) Manufacturing objectives driving the purchase of new equipment.

Growing market demand is the main reason for purchasing new equipment. It receives feedback from its direct and outsourced sales divisions on market trends and is constantly researching new technologies to implement on its products.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Current Machinery Used	Brand	Units	Origin
Cartopack Machine	n/a	4	n/a
Bottling Machine	IMA	3	Italy

Medley has an annual budget of US$ 1 million for the acquisition of new machinery and maintenance. It allocates capital goods expenditure based on a quarterly plan that is only modified if a machine or its parts need to be replaced urgently.

G) Purchasing Policies.

Medley's engineering department is responsible for researching new machinery technologies available in the market. The search is usually done in trade fairs and packaging machinery conferences. The executive and commercial directors make the final decision.

Once the need for a new machine is identified, the company starts the bidding process to analyze the technologies, performances, prices and methods of payment. Medley usually pays in installments or by a leasing agreement.

H) Factors That Influence Purchasing Decisions.

Medley adheres to Brazilian federal regulations on environment, labor and medicine production. The company also requires national technical assistance (easy and quick maintenance).

The company believes that European machinery dominate the market, owing to their technologies and ability to follow the Brazilian regulations. Medley will only consider other companies if they are more technologically advanced or are more educated of its technology requirements.

Medley has noticed that there are good Brazilian packaging machines with superior technologies, competitive prices and guaranteed national technical assistance. According to our research, importing machinery incurs higher costs with import taxes and long shipment/delivery time.

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MERCK

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Oral solids and Semi-solids.
Location:	Jacarepaguá –RJ
Size: (sales)	US$ 84.5 million
Purchasing potential:	1
Specific Business Opportunities:	No purchases planned for 2004

B) Description:

Merck's history dates back to 1668 in Germany when the pharmacist, Friedrich Jacob Merck purchased the Angel Pharmacy in Darmstadt becoming the first research company to prepare morphine and industrial alkaloids. Merck Laboratories as it is known today, has rapidly developed into a worldwide research and development company selling over 20 million products with 60 industrial plants and 28,000 employees across 55 countries.

Merck began operations in Brazil since 1923, producing reagents, special solvents and laboratory diagnoses. The company's industrial plant is located in Jacarepagua in Rio de Janeiro and has offices in Sao Paulo and three other units in the Northeast of Brazil in the states of Maranhão, Paraíba and Piauí.

C) Principal Products Produced and How Are They Packed:

Merck packaging includes glass, PVC, PVDC, polyethylene and polypropylene recipients, cartons and aluminum blisters.

The solids production line for its Consumer Health Care segment includes several medications using blisters and bottles. The liquid and gel lines use PET and polyethylene recipients. All products have bar codes for identification and control purposes. They are packed in cartons along with educational leaflets.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Current Machinery Used	Units	Manufacturer
Solids		
Counting Machinery	1	King
Form/Fill/Seal –Blister- Associated with Cartoning and Coupon Placing	2	IMA
Sealing Machinery	2	Zanasi
Labelling	1	Bausch Campos
Cartoning and leaflet/coupon placing	1	Bosch
Liquids		
Form/Fill/Seal	2	Zanasi
Capping (screw)	1	Zanasi
Labelling	1	Bauch Campos
Cartoning	1	Bosch
Gel		
Form/Fill/Seal	1	Kalish

Note: There have been no changes in the machinery used since 2000.

E) Manufacturing objectives driving the purchase of new equipment.

Manufacturing budgets are assigned in the beginning of the year based on potential growth sectors in the industry along with the performance of existing machinery and whether these are sufficient for the growing production capacity requirements. There have been no changes since 2000 in Mercks' packaging installed capacity and it has yet to announce purchase plans for both Consumer Health Care and its Generics divisions.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

The company believes that they will set a budget for new machinery acquisition and maintenance by the end of the first quarter of 2004, which will apply for both 2004 and 2005. Its last acquisitions included two IMA machines for its solid lines in 1999 and 2001; a new Swift Pack for blister control in 2001 and a downtime supervision set from Palux US also in 2001.

G) Purchasing Policies.

Purchasing requirements research begins in August of every year, few months after the budget plans are established for the year. Research is carried out by both engineering and maintenance departments comparing the competitive advantage of local candidates against those recommended by the German parent company. Once the required machinery is identified, the commercial and

purchasing departments work together to open and manage the bidding process. The executive directors have the final decision and sign-off on all machinery purchases.

H) Factors That Influence Purchasing Decisions.

The pharmaceutical packaging machinery must adhere to GMP (Good Manufacturing Packs) and federal regulations as well. The purchasing team must consider safety for their work force and top production quality before selecting a machine.

Bosch is considered the best supplier in terms of technology, national technical assistance, pricing and for its adherence to all local regulations and international standards. Merck has a technological "vision" system in its manufacturing plant that analyses performance including volume levels and caps and labels of each pack follow the high quality control standards. Feedback from the vision system helps decide whether it should carry-on with the same brand or explore other opportunities.

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Position: Engineering Director
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E-mail: junior@merck.com.br

NOVARTIS BIOCIENCIA

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Prescription drugs, generics, agriculture development and health
Location:	Rio de Janeiro – RJ
Size: (sales)	US$ 244.4 million
Purchasing potential:	1
Specific Business Opportunities:	No purchase plans for 2004

B) Description:

Novartis Brasil is a subsidiary of Novartis International, with a presence in the pharmaceutical, agricultural and health sector. The company has the second largest laboratory in the country with two factories, 1 in São Paulo and the other in Rio de Janeiro.

C) Principal Products Produced and How Are They Packed:

Novartis works with injections, liquids, tablets, ointments, soluble tablets and pills, amongst other products. Its products are packaged with plastic/plastic and aluminum/aluminum blistering; glass and plastic ampoules along with plastic and glass recipients. After primary packaging, products are arranged in cartons along with leaflets that are added by integrated machines. All products are coded automatically.

D) Packaging Machinery / Countries of Origin:

Novartis' current packaging machinery units have been provided by the following manufacturers:

- Ulma
- Fabrima (IWK)
- Bosch
- Ima
- Marchesini
- Paludo

Current Machinery in Use
Blistering Machinery
Cartoning Machinery
Bottling Lines for liquids
Ampoule Filling Machines

Bottling Line for Solids
Leaflet & Coupon (Integrated)

E) Manufacturing objectives driving the purchase of new equipment.
Novartis recently completed a major modernization effort that began in 1999, fully automating its production processes. The installed machinery has adequate capacity for its current production levels and forecasts.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.
Novartis made most of its significant packaging machinery purchases between 1999 and 2001, and the only acquisition in 2003 was a Shrink Wrapping Machine from Paludo, a domestic supplier. There are no purchasing forecasted for 2004.

G) Purchasing Policies.
Novartis' acquisition policy remains the same since 2000 where the engineering department research and study new machine requirements leaving the decision-making process to both purchasing and commercial departments; with all projects involving more than US$60,000 investments requiring headquarter approval. Most machinery purchases are done in cash.

H) Factors That Influence Purchasing Decisions.
Novartis maintains its preference for packaging companies that are already present in the Brazilian pharmaceutical market, taking into consideration its own past experiences with different manufactures including: adequate technical support and easier/faster delivery of parts and replacements for maintenance and future upgrading negotiations. Novartis also takes into consideration machines that are recognized worldwide for their performance durability.

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E-mail: roberto.tavares@pharma.novartis.com
WebPage: www.pharma.novartis.com.br / www.novartis.com.br

SCHERING-PLOUGH

A) Summary Box:

Industry:	PHARMACEUTICAL
Sub Industry:	Fertility control, image diagnoses and dermatology
Location:	Sao Paulo
Size: (sales)	US$128.2 million
Purchasing potential:	4
Specific Business Opportunities:	Integrated Purchase expected for 2004

B) Description:

Schering-Plough Brazil is a subsidiary to Schering-Plough AG and has been present in Brazil since 1926. In 1998 it engaged in a complete modernization of its Jacarepaguá – RJ manufacturing plant, adopting GMP (Good Manufacturing Practices) for all its divisions. The company is currently divided into four different areas: Fertility Control and Hormonal Therapy; Image Diagnosis by Contrasts; Dermatology and Therapeutic products for Grave Pathologies.

C) Principal Products Produced and How Are They Packed:

Schering's main pharmaceutical products focus on allergic flu and the company has recently increased its focus on sun blocks as well.

The packages used include blisters, bottles, tubes, sachets, strips and PET. Aluminum is also used for conditioning pills along with flow pack systems that wrap the aluminum with plastic.

Products are placed in carton boxes and cases, while the information leaflets are automatically folded and placed along with the products in the cases/boxes.

D) Packaging Machinery / Countries of Origin/ Future Purchases:

Current Machinery Used	Brand	Units	Origin
Cartoning Machine	Zabaze	14	Italy
Cartoning Machine	Cartopack	4	Italy
Cartoning Machine	Vertopack	2	Italy
Cartoning Machine	Blipack	1	Argentina
Cartoning Machine	Bosch	2	Germany
Forming Machines	Blipack	1	Argentina
Thermo Machines	Blipack	1	Argentina
UPS	Ulma	2	Germany

The last purchase was a Cartoning Machine from Bosch. Schering considers UPS from Ulma to be the best machine in terms of technical assistance providing the best technology and production capacity.

Current Machinery Used	Brand	Units	Origin
Blister	Ulma	4	Germany
Case Tray and Forming	Fabrima	2	Brazil
	Ulma	2	Germany
Wrapping (Flow pack system)	Fabrima	1	Brazil
	Ulma	2	Germany
Form/Fill/Seal Machinery*	n/a	1	USA
Case Tray	Ulma	1	Germany

*The only machine that is from the US is used for packing sweeteners.

E) Manufacturing objectives driving the purchase of new equipment.

The final appearance of new products has become more important to Schering-Plough over the years. Cost reduction goals set over the medium and long term, justify new equipment investments to maximize production capacity and reduce downtime due to technical maintenance.

Schering-Plough is very focused on adhering to Federal Health regulations, increasingly relying on automation – with its equipment able to secure superior quality controls and sanitation standards.

F) Past Purchases and future Packaging Machinery Purchase Plans. 2004-2005.

Schering-Plough is researching new machinery to replace old models. The main suppliers that are being considered are Bosch, Fabrima and Ulma, since the company is aware of their improved services, technical assistance and replacement of parts.

Schering-Plough is considering purchasing an entirely new production line for 2004 and has allocated a minimum of US$2 million in additional investments for this project.

G) Purchasing Policies.

The Industrial management department is responsible for researching available technologies and determining what the costs of new machines will be. It makes recommendations and delivers this to the commercial department to begin negotiations. All purchases comply with pre-set annual budgets that allow for sufficient leniency for short-term acquisitions that are usually done in cash payments.

H) Factors That Influence Purchasing Decisions.

Schering-Plough gives preference to suppliers that can provide machines that enable a high quality of production, easy and fast maintenance and rapid parts replacement; therefore the company gives preference to companies that are represented in Brazil. It prefers integrated systems instead of individual machines, to avoid future problems associated with maintenance and technical support of each machine.

Prior to any purchase, Schering-Plough usually visits factories that already have one of the packaging machines under consideration. The operating machinery is examined and compared along with a question and answer session with technical personnel from the company that is using the same equipment.

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VIII. Overall Assessment & Final Recommendations

8.1. Summary of Packaging Machinery by Sector Interviews

	CHECK - LIST	FOOD	BEVERAGE	PERSONAL CARE	PHARMACEUTICAL
➢	**# of Companies Interviewed**	**18**	**6**	**8**	**8**
➢	**Total # of Machines***	**713**	**264**	**206**	**168**
➢	**Machine Dominance by Country of Origin**	Germany / Italy	Germany	Germany / Brazil / Italy	Italy / Germany
➢	**Machine Dominance by Brand**	Bosch; Stiavelli	Kronis	Bosch; 3M; Fabrima	IMA; Bosch
➢	**Machine Dominance by Activity**	Filling; Capping; Forming; Heat Sealing	Bottling; Palletizing / Pallet Dismantling	Bottling; Sealing; Filling	Cartoning; Bottling; Capping
➢	***Purchase Potential (1 = low / 5 = high)***	***3.4***	***2.3***	***3.6***	***2.2***
➢	**Potential Purchases by Activity for 2004/5**	Filling & Sealing; Wrapping & Sealing; Forming, Filling & Sealing; Cartoning & Sealing; and Thermo-filling & Wrapping	Bottling – Glass & Can; Filling – PET & Glass; Labeling; Wrapping; and Washing (glass bottles)	Filling & Sealing; Filling & Wrapping; Sealing & Blistering; Filling, Labeling, Capping & Shrinking; and Bottling, Cartoning & Wrapping	Drying, Flowpack & Blister; Filling, Sealing & Boxing; Blister & Vertical/Horizontal Cartoning; and Integrated purchases – Form/Fill/Seal & Cartoning
➢	**Responsible for Identifying New Purchase Requirements**	Engineering Department	R&D; Technical / Engineering Departments	Engineering, R&D and Marketing Departments	Engineering/Industrial; Equipment Maintenance; and R&D Departments
➢	**Responsible for Screening Potential Suppliers & Feasibility Study / Cost vs. Benefit**	Engineering & Commercial Department	Technical Engineering & Commercial Departments	Marketing; Engineering; R&D; and Commercial Departments	Engineering & Commercial Departments
➢	**Responsible for Negotiating Terms & Conditions**	Commercial Departmen	Commercial Department	Commercial Department	Commercial & Purchasing Departments

		t			
➢	**Responsible for Budget Allocation & Final Purchase Approval**	Executive Committee	Executive Committee	Executive Committee	Purchasing Department; Senior Management; (and in some cases Parent company HQ)

Total # of Machines *: Based only on installed capacity provided during interview. Limited to specific production line(s) and does not necessarily represent the total packaging machinery installed capacity of the interviewed companies in Brazil.

8.2. SWOT for U.S. Packaging Manufacturers in Brazil by Sector

Several observations and trends were recorded from interviews across each sector. These have been structured below in the form of Sector **Strengths** and **Weaknesses** along with **Opportunities** and **Challenges** for US packaging manufacturers planning to invest in Brazil.

8.2.1. Food Sector

FOOD SECTOR STRENGTHS	FOOD SECTOR WEAKNESSES	OPPORTUNITIES FOR US PACKAGING MANUFACTURERS	THREATS FOR US PACKAGING MANUFACTURERS
• Industry growth of 20% between 2002 (US$38.7 billion) and 2003 (US$44.0 billion) and further growth expected in 2004 (US$48.5 billion) • Continuous new product launches particularly in snacks segments replicate competitive US market scenario. • Expansion of Mercosur; increased trade missions to Middle East, Asia and Africa; and slow yet steady formation of Alca trade blocks are expected to boost low-cost domestic production for exports and improved	• Excess production capacity for premium products will remain under-utilized unless domestic consumer confidence picks up in 2004; or manufacturers engage on export-oriented strategies becoming the multi-national's regional manufacturing "hub" for Latin America. • Promises of government incentives for the agribusiness industry in 2004 remain to be materialized halting local production true potential.	• Industry is seeking multiple-use of packaging machinery for different volumes or similar product lines i.e. new and improved products that can be packed by the same machine. • Industry is searching for partners that have a good market level understanding and can contribute with suggestions on improved performance, speed up slow processes and increase packaging options. • Ease of spare parts replenishment coupled with nationwide technical assistance at reduced lead-times. • Adaptation to international standards for growing export market requirements (i.e. culture, religion)	• Growing presence of domestic machine manufacturing base with quality-oriented and cheaper machines (i.e. faster pay-backs) and prevalence of German and Italian machines. • Growth in food imports reduce domestic packaging requirements: (a) Adherence to global pack standardization efforts of multinationals for all subsidiaries have moved manufacturing and packaging to lower-cost production centers that supply ready-packed products to Brazil. (b) Centralized purchasing standards limit choice of packaging machine supplier to HQ decision. • Complaints that

packaging standards and requirements. • Increased investments in eco-friendly, biodegradable / recyclable packs and innovative packs.		and continuous sophistication of domestic consumer base (i.e. increased hygiene, expiration dates, reduced raw material waste, family vs. value packs); welcome machines that already have track record of consistent quality and durability.	international packaging machines do not adhere to domestic norms or meet the consumer local expectations. • Interest rates and taxes make the cost of local financing prohibitively expensive. • Limited presence of US manufacturers across all segments from sample interview base.

8.2.2. Beverage Sector

BEVERAGE SECTOR STRENGTHS	BEVERAGE SECTOR WEAKNESSES	OPPORTUNITIES FOR US PACKAGING MANUFACTURERS	THREATS FOR US PACKAGING MANUFACTURERS
• Expected jump of beverage consumption of 9.3% between 1999 (114.9bn liters) to 2005 (125.6 bn liters), largely due to regained strength of carbonated soft drinks, mineral water and milk. • Boost in small-sized companies bringing intense competition "Tubainas" in early 1999 to the beverage industry continues to promote investments in the sector. • Focus on Latin and Central American	• Lack of government incentives to increase production leads to tax evasion of smaller companies. • Reduced real income of domestic consumer base has limited new product consumption (i.e. focus on only basics – water, beer and popular/affordable soft drink). • Excess capacity in certain segments (i.e. national popular soft and alcohol drinks) are slow to turn their production to export markets.	• Large downtime due to continuous breakdowns and delayed repairs of current packaging machine installed base. Industry is seeking rapid, efficient and reliable technical assistance with national coverage to significantly limit downtime. • Current machines are not durable and have a low shelf life not supporting 24-hour day work shifts. Industry is seeking improved durability and supporting documentation (i.e. other beverage companies or executives that can attest to track record of specific machinery). • Adaptation efforts to	• Over-reliance on European machines – particularly German and Italian technologies that a dominant force due to their tradition and consistent quality. i.e. German-based Bosch factory is already installed in Brazil and Kronis has a stronghold of the Beer segment. • Industry is seeking national presence to ensure "correct" and "accurate" inventory for reduced parts repositioning lead-times. • Purchases that remain largely relationship-based focus on traditional suppliers hinder new machine acceptance (i.e. if it works don't fix it).

markets – particularly in the Beer segment; has increased international exposure and volume productions. • Growing health and environmental regulations in the sector are encouraging higher quality packaging material use.		comply with international market standards including upgrade potential, improved quality, size variances, and innovative packs (lids, caps and bottle formats) • Ongoing growth of PET filling machines in the CSD and Mineral Water segments • General trend towards automation in palletizing and pallet-dismantling processes.	• No presence of US manufacturers across all segments from sample interview base.

8.2.3. Personal Care Sector

PERSONAL CARE SECTOR STRENGTHS	PERSONAL CARE SECTOR WEAKNESSES	OPPORTUNITIES FOR US PACKAGING MANUFACTURERS	THREATS FOR US PACKAGING MANUFACTURERS
• A surge in "niche" markets catered to both feminine and male products across a range of socio-economic income segments (i.e. male cosmetics) has increased production line investments and production outsourcing contracts. • Growth from what was a standardized and saturated sector in 2000 with the industry increasing its technology know-how of different packs available, testing these new packs and monitoring consumer reactions during 2002/3. • Continuous adaptation of production lines to cope with constant new product launches, volume surges and promotional / innovative packs (i.e. greater use of PVC).	• Growth in Reais of R$8.3bn to R$9.5bn between periods of 2001 and 2002 does not reflect actual growth in US Dollars with US$3.6bn and US$3.3bn respectively, largely due to currency devaluation over the period, and thereby reducing "true" purchasing potential of dollar-based raw-materials. • Exports have yet to reach their true potential despite growth of 102% between 1998 to 2002.	• Sophistication of both male and female domestic consumer base is dictating new packaging trends in the industry – seeking innovations (appearance "design" and pack-"appeal") from both US and European manufacturers. • Growing requirements for eco-friendly / recyclable packs. • Industry requires high-level of operational security standards limiting employee exposure to risk elements during production. • Pre-established budgets at the beginning of the year for new capital goods purchases are constantly revisited throughout the year as new production opportunities arise. • Preference given mostly to "Cash" purchases with limited financing requirements. • Propensity to "try-out" new machines is much larger in the Personal Care sector when compared to other Food, Beverage and Pharmaceutical	• Industry requires local service representation for immediate parts replacements based on growing volumes and production line adaptations for new product introductions. • Sample interview base shows a greater presence of US machinery but remains a distant third behind European and Latin American packaging manufacturers.

		sectors.	

8.2.4. Pharmaceutical Sector

PHARMACEUTICAL SECTOR STRENGTHS	PHARMACEUTICAL CARE SECTOR WEAKNESSES	OPPORTUNITIES FOR US PACKAGING MANUFACTURERS	THREATS FOR US PACKAGING MANUFACTURERS
• Ministry of Health incentives to local laboratories are expected to double reaching the tune of US$28.3 million in 2004, up from US$14.2 million in 2003, promoting technological advancements in sector. • Adherence to stringent local regulations and worldwide industry standards (i.e. GMP, FDA, MCA), limiting manual involvement in production line to a bare minimum. • Growth in sector exports between 1995 and 2001 reached 493%; and local associations expect an average export sale of US$135 million per year between 2002 and 2006.	• Price readjustments have not coped with currency devaluation and inflation resulting in significant "real revenue" decline in the sector, that have not been enough to recover investments made by the R&D departments. • Deficit of Healthcare Industry has grown 643% from US$700 million in 1980 to US$5.2 billion in 2002. • While government's "Generics Policy" has arguably increased poor population access for greater medication; pharmaceuticals are being sold for half the price applying considerable pressure for price reductions throughout the supply chain.	• Industry is seeking for scalable machines capable of processing greater volumes with limited upgrade investments. • Industry will prioritize cheap machines with simple payment terms that do not require heavy maintenance costs over the years and receive immediate technical assistance anywhere in the country. • Growing demand for integrated machine purchases performing several activities (i.e. "bottling & capping" or "filling, forming and sealing"). • Industry practices short payment cycles giving preference to cash purchases. Customization of machinery partly built in-house requires sharing of development-ideas from leading packaging machine manufacturers (i.e. know the business and then build accordingly).	• Secrecy on packaging requirements does not allow direct contact with potential lead (i.e. having to go through numerous "gate-keepers" such as commercial secretary before being included in the list of selected supplier candidates). • Limited local US manufacturer representation does not allow "fluid" cross sharing of ideas as experienced by German and Italian manufacturers. • Pressures to reduce costs across supply chain is affecting imports of new machinery with a growing number of companies opting for cheaper local packaging machines. • Sample interview base shows lowest purchasing potential (i.e. 2.2 for pharmaceutical sector compared to average of 3.0 of all 40 companies interviewed). Sector preference is given to Italian and German

		• Growing awareness of US machinery to meet improved hygiene standards set worldwide.	machines i.e. IMA, Zanasi and Bosch.

8.3. Trade Fairs & Events – 2004

The following is a list of trade fairs that we recommend visiting during 2004. Please note that these have been listed chronologically, but the level of importance of each trade fair has also been highlighted for easy identification. For each trade fair listed below, a brief description has been included as a summary for US packaging manufacturers along with participation recommendations in either a "visitor" or "exhibitor" capacity.

08 – 12 March - BRASILPACK 2004
International Packaging Fair
Anhembi – São Paulo – SP, Brazil
516 Exhibitors from 30 countries; 30,000 worldwide attendees; 40,000m^2
+55 (11) 4197 9111.
www.brasilpack.com.br info@brasilpack.com.br
NEXT EDITION : 2006

Packaging Machine Manufacturers catering to ALL SECTORS should consider attending this trade fair in an "EXHIBITOR" capacity.

Brief Description: The Brazilian packaging market moves just under US$ 10 billions/year and expects to produce 7.5 million tons of raw material in 2004. The country is also among the top 10 manufacturers of packaging machines and supplies in the world. The growth potential for this sector is in line with the country's production and export growths. The trade fair in 2004 will attract industries and other sectors interested and requiring packaging machinery and raw material.
Major product lines include: The fair will also have the "Expo Lines Production", one of the most successful current projects regarding business and trade fair promotion. These lines are comprised of packaging machines, equipments and supplies, allowing visitors to closely follow manufacturing process of packages such as plastic, flexibles, cartons, paper, steel and glass among others. The fair will expose: packaging machinery in general, packaging supplies, raw material, process systems, system control, point of sale materials, packaging projects and design, among others.

11 – 13 May - FCE PHARMA 2004
9º International Exhibition for Suppliers to the Pharmaceutical Industry
Transamérica Expo Center – São Paulo, SP, Brasil
250 Exhibitors; 17,000 attendees; 11,000m^2
+ 55-11-3873-0081; Fax: 55-11-3873-1912
www.fcepharma.com.br fce@vnu.com.br
NEXT EDITION : 2005

Packaging Machine Manufacturers catering to the PHARMACEUTICAL SECTOR should consider attending this trade-fair in an "EXHIBITOR" capacity.

Brief Description: The FCE Pharma is the largest Brazilian fair focused exclusively on raw materials, packaging, equipment, processing technology engineering and logistics services for the pharmaceutical industry. According to last edition's trade fair, 45% of the public attending the fair was looking for information and new technologies on packaging sector; and 49% looked for equipments in the sector. The Organization has also designed a partnership with HBA South America, to also gather Cosmetic Industries in the Trade Fair. The Trade Fair will open space for lectures on pharmaceutical production.

20ª International Packaging and Industrial Processes Fair
Anhembi – São Paulo, Brazil
1,838 Exhibitors; 69,000 attendees
+55 (11) 3758.0996; Fax+55 (11) 3758.0165
www.fispal.com tecnologia@fispal.com
NEXT EDITION : 2005

Packaging Machine Manufacturers catering to ALL SECTOR should consider attending this trade fair in an "EXHIBITOR" capacity.

Brief Description: Fispal Technology is the greatest foods' packaging machinery trade fair in Brazil. Moreover, the fair is also bringing exhibitors from other related sectors, such as pharmaceutical, cosmetics and chemistry as a way to increase business opportunities and promote global and regional exchange. Packaging manufacturers like Bosch, Fabrima and Ulma are already confirmed as exhibitor.
Major product lines include: Both packaging and industrial automation processes, such as equipment for the agribusiness; equipment for the dairy, meat, pasta, biscuits and crackers industries; equipment for food processing; equipment for refrigeration; storage systems, movement and logistics; valves, pumps and components.

20ª FISPAL FOODS
Anhembi – São Paulo, Brazil
1,100 Exhibitors; 64,000 attendees; 27,000 m^2
+55 (11) 3758.0996; Fax+55 (11) 3758.0165
www.fispal.com alimentos@fispal.com
NEXT EDITION : 2005

Packaging Machine Manufacturers catering to the FOOD SECTOR should consider attending this trade-fair in an "EXHIBITOR" capacity.

Brief Description: This fair is considered among the most important fairs for food packaging companies, experiencing an exhibiting heavyweight as União Mill among others. The fair has invested in redesigning processes, traineeship program, CRM software's and in a Contact Center to facilitate communication and business development.
Major product lines include: Food industries and commerce and other parallel events, such as 8º Fispal Gourmet Show, 4º Fispal Pizza Show, Model Bakery and Ice-Cream Square. Foods Beverages, Raw Materials, Packing Equipments, and Packaging Equipments Service. Public attendance includes Supermarkets, Distributors, Retail, Wholesales and Food and Beverages Industries.

Hospitalar 2004

01 – 04 June - HOSPITALAR
11th International Fair of Products, Equipments, Services and Technology for Hospitals, Clinics and Laboratories.
Expo Center Norte – São Paulo – SP, Brazil
>750 Exhibitors; 65,000 attendees; 27,000m^2
+55 (11) 3897-6199; Fax: + 55 (11) 3897-6191 www.hospitalar.com
hospitalar@hospitalar.com.br
NEXT EDITION : JUNE 2005

Packaging Machine Manufacturers catering to the PHARMACEUTICAL SECTOR should consider attending this trade-fair in a "VISITOR" capacity.

Brief Description: The Hospitalar trade fair is the leading fair for medical products in Latin America. In spite of its main focus is Hospitals and Laboratories, there is a large number of attendees that are from pharmaceutical industries. The event is a great networking vehicle that can be turned into several business opportunities.

10 – 13 August – MOVIMAT 2004
Logistics, Movement, Storing and Material Transportation Trade Fair
Expo Center Norte – São Paulo – SP, Brazil
Tel.: (11) 5575-1400 Website: www.imam.com.br

Packaging Machine Manufacturers catering to ALL SECTORS should consider attending this trade-fair in an "VISITOR" capacity.

Brief Description: MOVIMAT is a trade fair to open business opportunities in storing, logistics and material transportation. The public attending the trade fair is composed of high professionals and entrepreneurs from areas such as Logistics, Packaging, Transport, Industrial Engineering, among others, searching for new equipments to provide more quality in line production.
Major product lines include: Pallets and Palletizing systems, Automatic movement systems, packaging machineries and other equipments.

31 August – 02 September - 10ª FI - Food Ingredients South America
Technology and Solutions to Food Industry International Fair
Transamérica Expo Center, São Paulo – SP, Brazil
250 Exhibitors; 14,000 attendees; 14,000 m^2
+ 55 (11) 3873-0081; FAX +55 (11) 3873-1912
www.fisa.com.br fisa@vnu.com.br
NEXT EDITION : JUNE 2005

Packaging Machine Manufacturers catering to the FOOD SECTOR should consider attending this trade-fair in an "EXHIBITOR" capacity.

Brief Description: The fair brings together technology Food Industry' professionals and purchasers. The fair is a great opportunity for Food Industry suppliers to interact with a large variety of manufacturers, such as Bunge Alimentos, Coopersucar, Cargill, Usina da Barra and others, that are listed to attend as Exhibitors. It is relevant for packaging manufacturers to attend this trade fair in an exhibitor-capacity, since two other fairs will be occurring simultaneously: Food Safety & Hygiene and Tecnobebida Latin America.

31 August – 02 September - Food Safety and Hygiene
Transamérica Expo Center, São Paulo – SP, Brazil
250 Exhibitors; 14,000 attendees; 14,000 m^2
+ 55 (11) 3873-0081; FAX +55 (11) 3873-1912
www.fisa.com.br fisa@vnu.com.br
NEXT EDITION : JUNE 2005

Packaging Machine Manufacturers catering to the FOOD AND BEVERAGE SECTORS should consider attending this trade-fair in an "EXHIBITOR" capacity.

Brief Description: The fair will be occurring for the first time and at the same time of Food Ingredients South America and Tecnobebidas. The event presents specific technology on food and beverage security – with packaging technology considered as one of the main topics on discussion. Majority of the expected attendance is of professionals from packaging related areas.

31 Aug – 02 Sept – Tecno Bebida Latin America
Latin American Beverage Technology Fair
Transamérica Expo Center, São Paulo – SP, Brazil
160 Exhibitors; 6,000 attendees; 6,000 m^2
+ 55 (11) 3873-0081; FAX +55 (11) 3873-1912
www.tecnobebida.vnu.com.br tecnobebida@vnu.com.br
NEXT EDITION : 2006

Packaging Machine Manufacturers catering to the BEVERAGE SECTOR should consider attending this trade-fair in an "EXHIBITOR" capacity.

Brief Description: This is the most important beverage fair that focuses exclusively on technology for beverage industries. Raw materials, equipments and packaging machines, logistics, services and industrial automation are the main sectors in exhibition. The fair is a great opportunity to explore new businesses, once the majority of professionals are from management, directorship and presidency areas, which usually participate in company decision-making process. The fair will have as exhibitor manufacturers such as Krones and Alcoa.

11 – 14 September - COSMOPROF COSMETICA 2004
International Beauty Trade Fair
Anhembi, São Paulo – SP, Brazil
600 Exhibitors; 85,000 attendees; 30,000 m^2
+ 55 (11) 4197 9111; Fax: +55 (11) 4197-9139
www.cosmoprofcosmetica.com.br info@cosmoprofcosmetica.com.br
NEXT EDITION : 2005

Packaging Machine Manufacturers catering to the PERSONAL CARE SECTOR should consider attending this trade-fair in as "EXHIBITOR" capacity

Brief Description: Cosmoprof Cosmética – International Beauty Trade Fair is the largest and most important event of the sector in Latin America. The event will include the most important companies connected with perfumery, cosmetic products, furnishing and equipment for beauty salons and aesthetic clinics, raw materials, packaging and accessories. Associations and Federal agencies, such as ABIHPEC and ANVISA and heavyweight cosmetic industries such as L'Acqua Di Fiori, OX Cosmeticos, Niasi and others will also be exhibitors.
Major product lines include: Trade industries and suppliers, Wholesalers and Retailers of beauty products, Supermarkets, Owners and buyers of Pharmacy chains and Drugstores, Distributors, Hairdressers, Aestheticians, Other beauty care professionals. The exhibitors representation has the following market share: raw material and packaging industry 10%; perfumes and cosmetics 34%; Hair products 32% and Aesthetic products and equipments 24%.

9 – 12 November – FISPAL RECIFE
2ª Food, Equipments, Packages and Services International Fair
Centro de Convenções Pernambuco – Pernambuco, RE, Brazil
208 exhibitors; 22,000 attendees; 8,000 m^2
+55 (11) 3758.0996; Fax+55 (11) 3758.0165
www.fispal.com alimentos@fispal.com
NEXT EDITION : 2005

Packaging Machine Manufacturers catering to the FOOD SECTOR should consider attending this trade-fair in an "EXHIBITOR" capacity

Brief Description: Fispal Recife brings the opportunity to packaging manufacturers be in contact with regional industries from not only Food sector, but also from Pharmaceutical, Cosmetics and Chemical sectors in the "Fispack" area, where main focus is given to industrial packaging solutions, equipments and raw materials.

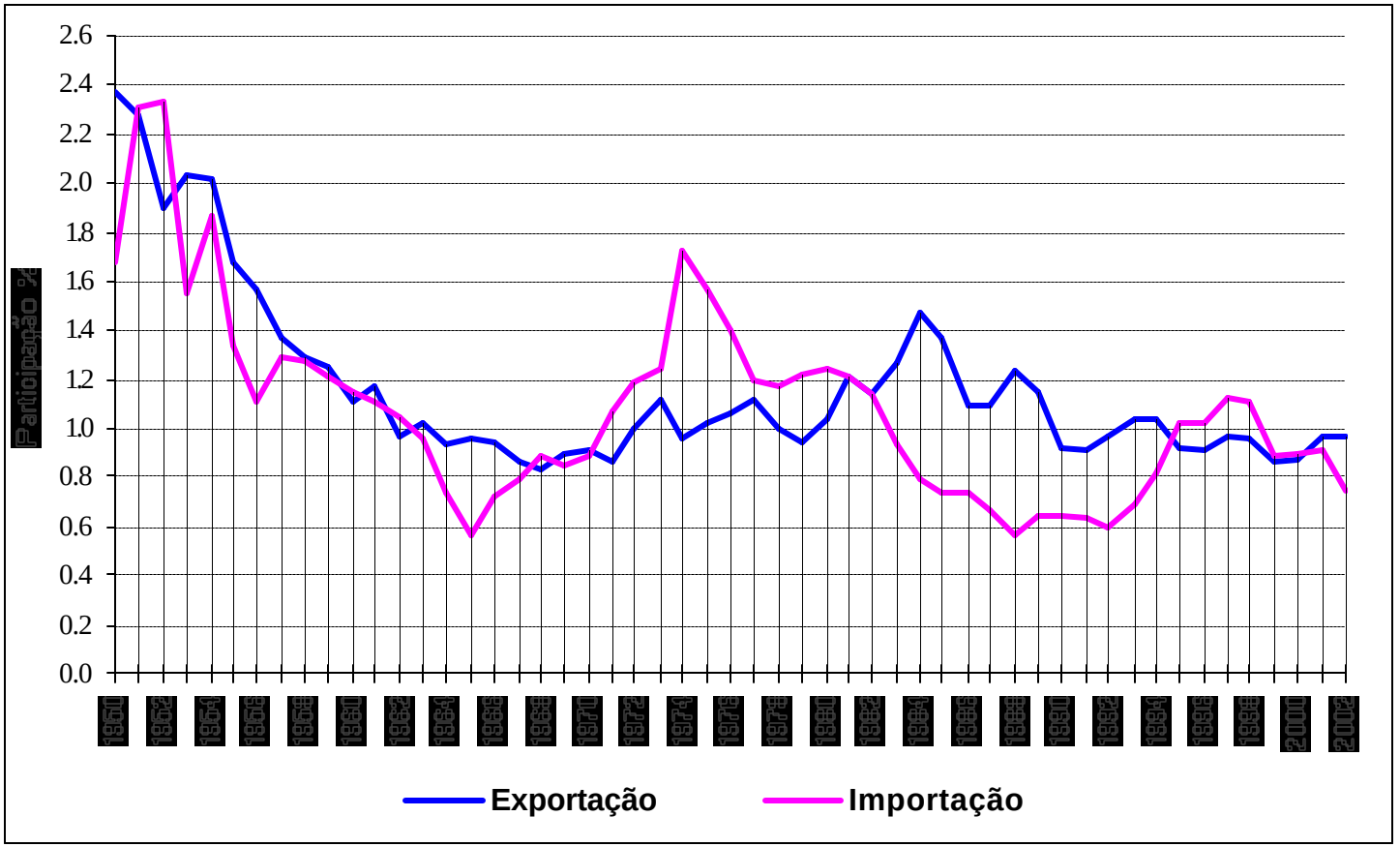
17 – 20 November – 3ª BRASILTEC
Technology and Innovation Fair
Anhembi, São Paulo – SP, Brazil
500 exhibitors; 85,000 attendees; 34,000m^2
+55 (11) 3253-2133; Fax +55 (11) 3289-3832
www.lemosbritto.com.br lemosbritto@lemosbritto.com.br
NEXT EDITION : 2005

Packaging Machine Manufacturers catering to ALL SECTOR should consider attending this trade-fair in an "EXHIBITOR" capacity.

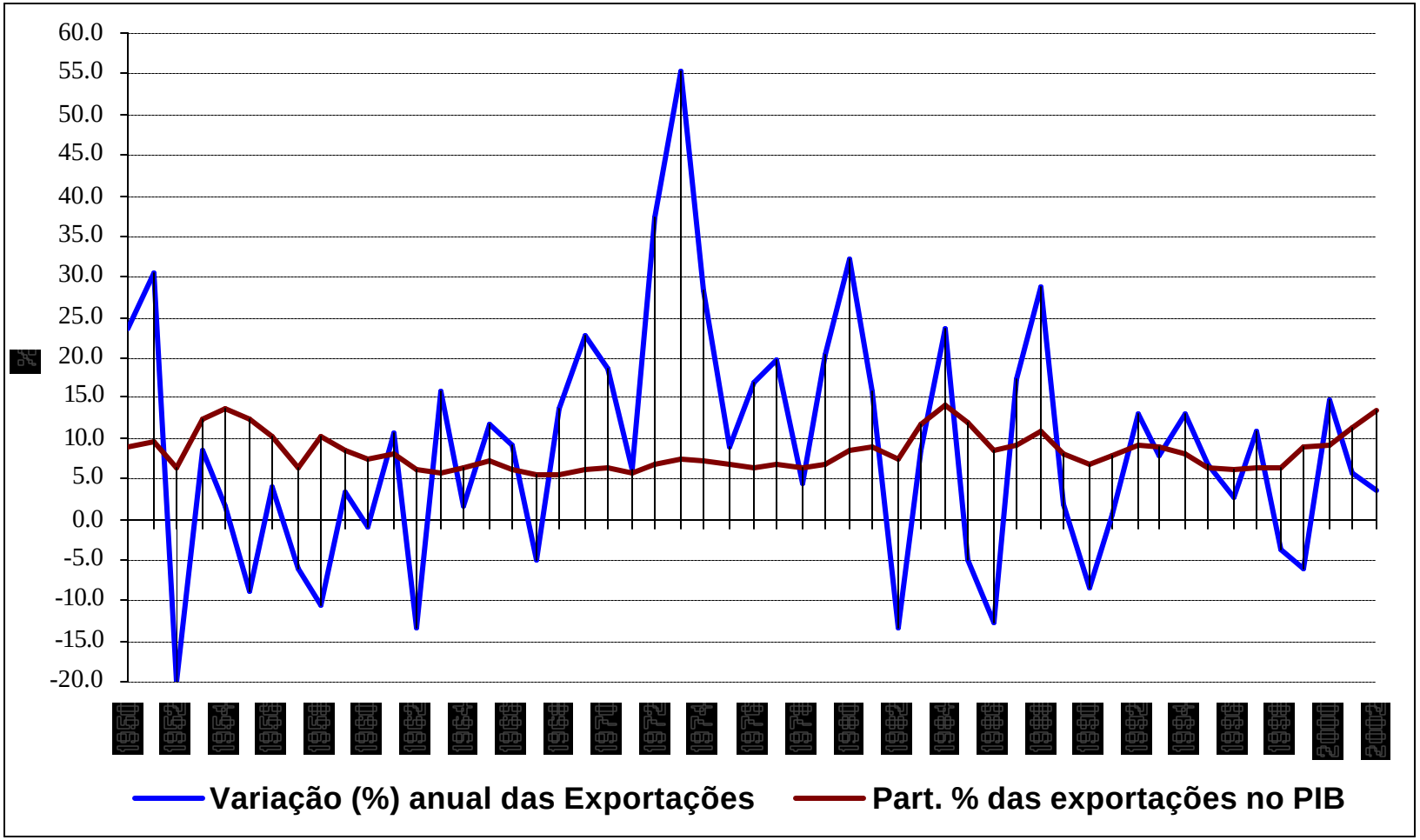
Brief Description: BRASILTEC is an important trade fair on chain production technology that shows innovative know-how for equipments to several industry sectors, such as food, beverage, personal care, pharmaceutical and packaging. The fair creates allows companies to amplify sales and businesses to national and international markets; to make information exchange and joint-ventures and exchange scientific incentives to Research & Development areas, among others. The great majority of attendees come from the Private Sector.

Appendix (A) – SECEX – Commerce Evolution – Brazil

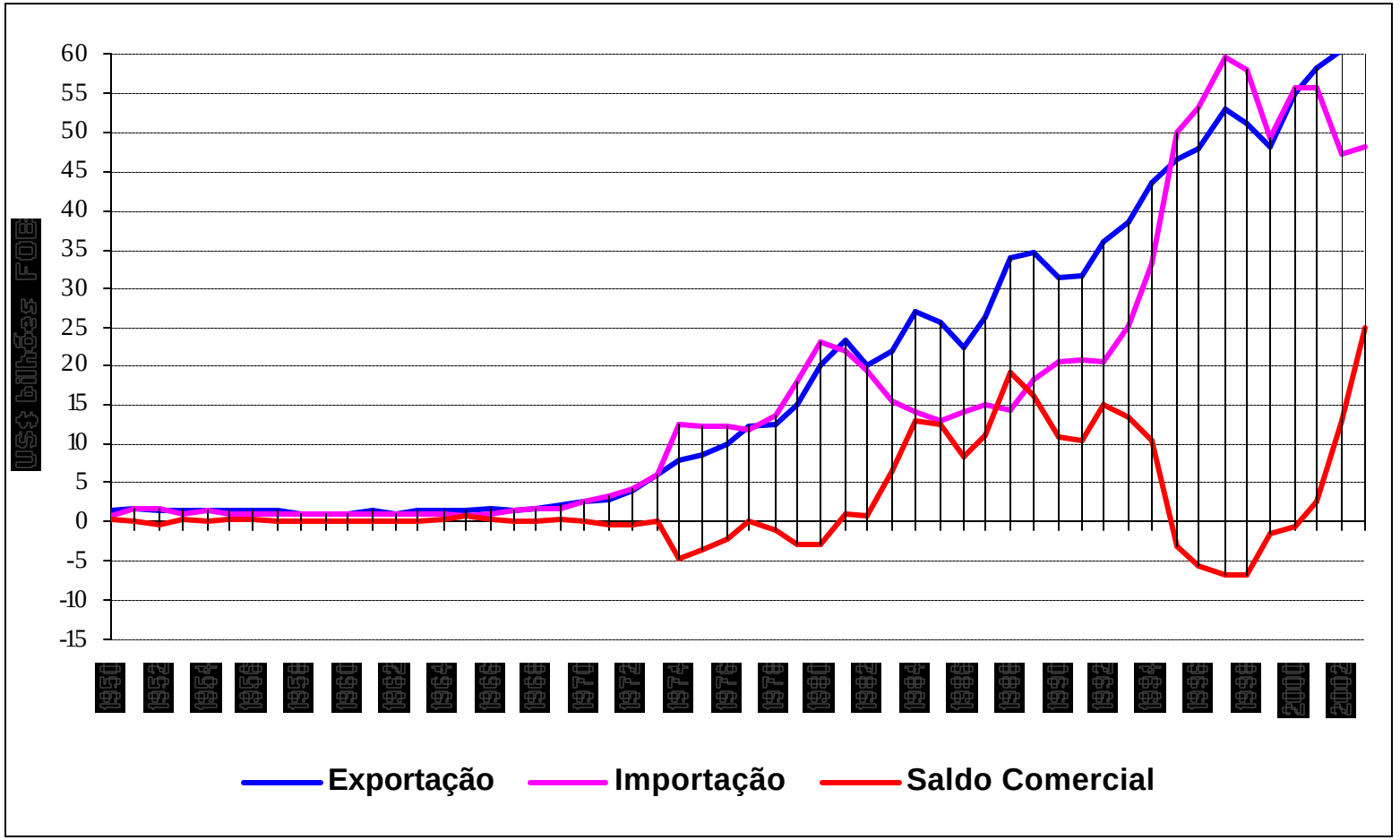
Brazilian % Participation in Worldwide Exports and Imports
1950 - 2002



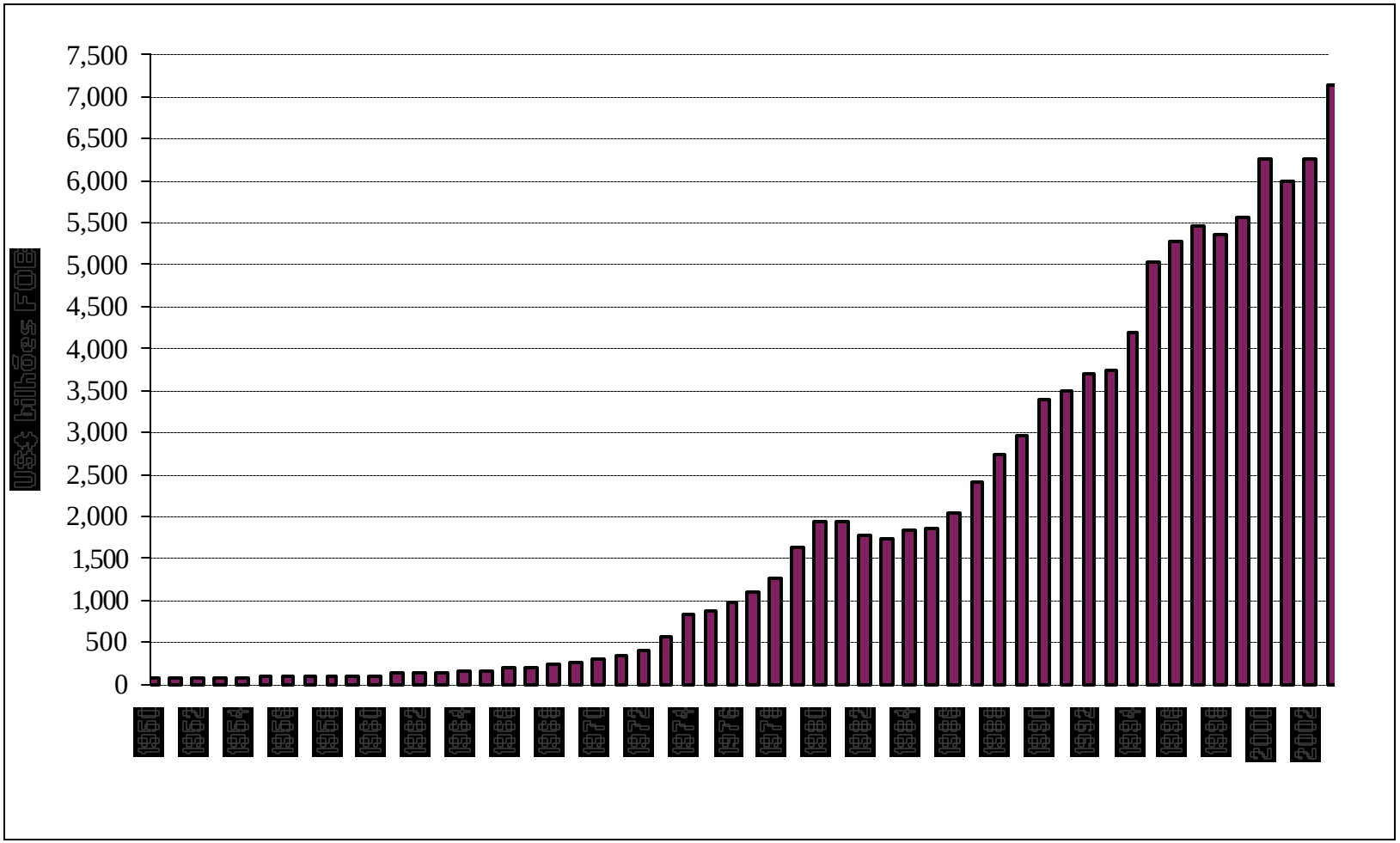
Annual Exports Variation and GDP's Exports Participation (%)
1950 - 2002



Brazilian Trade Balance Evolution
1950 - 2003 - US$ billions FOB



World Exports Evolution
1950 - 2003 (IMF estimative based on data by 2000, September)



Appendix (B) – Tax Exemption Program for the Purchase of Machinery & Equipment (EMBRASC)

TAX EXEMPTION PROGRAM FOR THE PURCHASE OF MACHINERY AND EQUIPMENT

I. Description of Services:

Services contemplated in this program comprise the following **elements (subjects and object):**

1. the existence of a **project** of relevant interest for development and which can be justified as such**;**
2. **an institution, corporation or organization,** heading such project;
3. the existence of either **Brazilian or foreign funds** for its financing;
4. the purchase of **machinery, equipment, supplies, their accessories and spare parts, in the domestic market or by importing. Similarity** problem should be studied on a case-by-case basis.

Scope of services may be summed up as follows: creation of an individual law (ICMS Agreement and administrative acts issued by Federal Authority) whereby it is granted exemption of Import Tax, IPI (industrialized goods tax) and ICMS (Goods and Services Circulation Tax) on the purchase of machinery, equipment, supplies, their accessories and spare parts, destined for projects of interest to development.

This interest is guided by economic and political criteria (we do not mention lobby here, but rather macroeconomic policy), especially with regard to development of health, education, transportation areas, in short, private or public infrastructure sectors having an expressive profile.

The major macroeconomic justification which means, besides, a strong appeal for the creation of directed exemptions, is the **enlarging of the labor employment basis, whether skilled labor or not.**

It is undeniable that justification for the project always involves a populist rhetoric, according to conjunctural trends of client enjoying exemption and client's political basis.

II. A Brief Background:

These services originated in the seventies, with Executive Act nº 1335/74 and 1398/75, emanating from the Federal Government and ICM Agreement 9/75. It was this law which impelled at the time the so-called "Brazilian miracle".

The law rendered it possible for the purchase of machinery and equipment, destined to projects of interest for the country's development, to be exonerated from payment of amount such taxes represent (and still do, needless to say), in the price of each item.

Those laws are no longer in force. They have not been replaced by others, and for that reason, our proposal is feasible and timely.

III. What exemptions are there and their application scope:

Exemptions which may be applied for are as follows:

For the **importing** of **machinery, equipment and supplies, accessories and spare parts:**

1. **Exemption of Import Duty**
2. **IPI exemption in imports**
3. **ICMS exemption in imports, through "domino" effect**

For purchase of **machinery, equipment and supplies, accessories and spare parts,** in **domestic market:**

1. **IPI exemption**
2. **ICMS exemption**

Tribute costs regarding indirect taxes affect significantly budget and resources of organization or institution we may render services to. They may represent, altogether, approximately **thirty per cent** of original FOB price of product, if we consider purchases in domestic market and **an imponderable percentage,** if we consider imports.

This evidence leads us to believe that tribute costs generally define an operation and are a decisive component within a project. This coupled with the fact that Brazil is one of the countries where tax burden is one of the highest in the world.

IV. Procedures:

Collecting documents pertaining to projects and agreements covering purchase of goods destined to projects;
Carrying out studies and project(s) to be filed with the Treasure Ministry and CONFAZ, depending on tax pertaining to exemption envisaged.
Following up of processing of each application, case or project;
Following up of exemption granted to each purchase entitled to it, with respective and subsequent production of evidence to controlling agency.

V. New Clients. Areas of Interest:

As can be gathered from above explanations, interest in this program is enhanced in the case of large corporations which may somehow be committed with the development of important sectors vis-à-vis Brazilian economy.

This amounts to saying that areas of interest will be basic sanitation works, the States and Municipalities (*), electrical sector companies, industries representing increased labor employment through projects to be granted the benefits, etc.

Above preferential grouping does not preclude the possibility of obtaining reduction or elimination of tax burden for purchases destined to companies less significant than Government companies or large corporations. Each case must be examined to ascertain individual possibilities.

As a rule and when in doubt, we would kindly request you to consult EMBRASC, since suitability of incentive model depends on purchasing company's characteristics.

***** *Although States and Municipalities are exempt from paying taxes (and IPI, Import Duty and ICMS are taxes), they must bear the financial cost represented by transferring tax amount built into price of machinery, equipment, their accessories and spare parts.*

I. Tax

A. Import taxation

As a general rule, imports in Brazil are subject to federal import tax ("II"), federal excise tax ("IPI"), state value-added tax ("ICMS"), and Merchant Marine Renewal Tax ("AFRMM").

- II is levied once when the import clears customs. Based on a specific table, rates vary on a selective (ad valorem) basis. The tax basis is the CIF price.
- IPI is levied on imports and domestic sales and transfers of manufactured products. Similar to the II, based on a specific table rates vary also on a selective basis. For imports, the tax basis is the CIF price plus the II.
- ICMS is levied on imports and domestic sales and transfers of goods, and on certain services (e.g., telecommunications, transportation). In the state of São Paulo, the standard ICMS rate is 18%, although certain transactions are subject to different rates (e.g., energy and telecommunications services). For imports, the tax basis is the CIF price plus II and IPI.
- AFRMM is levied on the freight amount. It is calculated based on the amount of freight paid. Rates vary from 10% to 25%, depending on the specific shipping conditions. The applicable rate for ocean shipping is usually 25%.

As a general rule, import exemptions are no longer available in Brazil for private, for-profit companies. Instead, exemptions are available for specific products imported according to pre-established tax classifications or via tax incentives for certain industries.

As noted in our Doing Business in Brazil memorandum, a regular importation into Brazil is subject to government controls from at least three sources: the Foreign Trade Agency (SECEX), which supervises registration and licensing of imports, the Central Bank of Brazil, which approves payments of financed imports, and Brazil's Federal Revenue Department, which reviews valuation for customs purposes. Here again, it is important to have the product's precise tax classification to verify if any such agency has specific requirements.

B. Temporary Admission Regime

The so-called temporary admission regime contemplates imports of products into Brazil for pre-determined terms and purposes. According to the products' destination, import taxes may be totally or partially waived. Total waiver is referred to in the local jargon to "suspension;" partial waiver, to "proportional payments."

Total suspension is available if the product is imported for a "non-economic" purpose. In practice, if the imported product is not used to render a service or produce another product. As a general rule, tax payments result from the product's destination. If the imported product is used only for non-economic purposes such as researches, tests, competitions, shows and expositions, the total suspension regime should apply. If, however, there is any economic use of the product, then it is subject to at least proportional tax payments.

Treasury Ruling No. 150 of December 20, 1999 lists all scenarios where total tax suspension is available. The most significant are:

(i) fairs, exhibitions, conventions and other technical or scientific events;
(ii) scientific research or expedition if listed in pre-approved projects authorized by the relevant agency (CNPq);

(iii) shows, exhibitions and other cultural or artistic events;
(iv) sport competitions or exhibitions;
(v) commercial or industrial fairs and exhibitions;
(vi) commercial promotions, including samples without commercial destination and commercial representatives showcases;
(vii) technical assistance covered by warranties; and
(viii) equipment submitted to function or resistance tests, repairs or restorations (e.g., demo products).

1. Taxation

The actual taxation of both regimes can be summarized as follows:

Total Suspension. II and IPI are totally suspended until the end of the term approved by the authorities. After the term ends, the product may be re-exported free of taxes or it may be "nationalized" as a regular import in which case import taxes are due. ICMS for temporary admissions follows State Agreement (Convênio) No. 158/1999 that sets forth the general rules. States may have their own regulations. As an example, the States of Rio de Janeiro and São Paulo adopt rules similar to the federal rules applicable to II and IPI if the relevant product remains in Brazil for a maximum term of 180 days, which term can be extended only once for another 180 days.

Proportional Payments. II and IPI are determined based on a formula that takes into account (i) the applicable taxes for a regular import, (ii) the term, and (iii) the imported product's depreciation rate in accordance with Treasury Ruling No. 162 of December 31, 1998. The proportional taxes must be paid when Import Declaration is registered. (Import Declaration is the document the importer files with customs, upon clearance.) The difference between the regular tax and the proportional tax is considered suspended. ICMS is taxed as follows: Rio de Janeiro – it is levied at a 17% rate proportionally to the period the imported good will remain in Brazil, identically to the II and IPI. São Paulo – it is levied at an 18% rate based on the total value of the imported product. Differently from federal rules, São Paulo regulations do not contemplate proportional payments. In both cases, the amounts paid as ICMS may be booked as credits (or tax inputs) which can be eventually offset against future payments. This system of credits (inputs) and debits (outputs) is similar to VAT of most European countries. Only the positive difference, or value added, is the amount owed to the State government. Taxpayers have challenged the obligation to fully pay ICMS upon importation under this regime by arguing that this ICMS is due only if and when an imported product is "nationalized," which evidently does not happen under the temporary admission regime.

2. Guarantee

Treasury Ruling No. 150 enables the Federal Revenue Department to request a Responsibility Term from the importer to guarantee, totally or partially, the amount of taxes suspended and also assurance in an amount corresponding to the suspended taxes. The assurance usually is a cash deposit, insurance in favor of the Federal Union, federal public bonds, bank guarantee (bond) or guarantee by a company or individual with net assets five times higher than the amount of suspended taxes or net assets higher than R$1 million (approximately US$335k) if a company is providing the guarantee. The assurance must cover all the suspension term and must be extended if so is the benefit.

3. Term

The temporary admission regime is granted for three months to products unrelated to leasing, rent or loan agreements. This term may be extended only once for three additional

months. If the product is related to leasing, rent or loan agreements, then the term coincides with that of the relevant agreement. Note that the administration may consider the purpose and destination of the imported product to determine the applicable term, which can be extended once for the same original term. The extension is conditioned to a new guarantee.

4. Request of Temporary Admission Regime

Requests for a temporary admission regime can be made through a specific form filled out by the importer. Applicable procedures are set forth in Treasury Ruling No. 150/98. As a general rule, the applicant must file the temporary admission request form along with the Responsibility Term and other relevant documents (e.g., a copy of the lease agreement in case of a lease). Simpler cases can be applied for through a Simplified Import Declaration.

5. Capitalization

It is not possible to capitalize a product imported under such a regime, unless it is "nationalized." In practice, this means that the importer cannot book the proportional taxes paid during the temporary admission regime as a capital contribution. Products, machinery and equipment can be capitalized when the importer decides to keep them in Brazil permanently, but not before the product is nationalized and all taxes are paid.

C. "Ex Tarifario"

"Ex Tarifario" is a tax benefit of actual tax reduction of Import Tax, including full exemption, for capital goods not available in the domestic market. In January 2000, Brazil added 407 products to the ex-tarifario list, bringing the total number of items to 1,450 products. Procedures to obtain the benefit may take up to a year and it is not certain. In addition, there are rumors that Brazil may have to end the ex-tarifario regime in light of WTO and similar international agreements.

However, despite those rumors the legislation concerning the "Ex Tarifario" is still in force and may be considered as an alternative.

According to relevant regulations, an "Ex tarifario" can be requested if the relevant product meets two basic requirements: (i) it is not available in the domestic market and (ii) is marked as a "BK" (capital good) product in the Import Tax Table. Where a product is marked BK, a tax reduction may be available.

The Foreign Trade Agency issues a list with approvals for "Ex Tarifarios" twice a year (by the last working day of June and December). The list is valid for two years.

To request an "Ex Tarifario" the applicant must present technical information of the relevant piece of equipment, catalogs, functional details, tax classifications, among other data.

In the approval process of a request, the Foreign Trade Agency takes into account the existence of the product in the domestic market, the development of the applicable sector, the impact in the Brazil's foreign trade, new technologies absorption and infra-structure improvements. Requests filed by September 30 shall be analyzed to be included in the list of December and those filed by March 30 may be included in the list of June.

D. Transfer Pricing Regulations

Similar to those prevailing in the U.S. and elsewhere, Brazil has transfer pricing rules. Hence, if the Brazilian importer is related to the exporter (e.g., an affiliate), these rules, which

basically discipline pricing for income tax purposes, must be followed. Our Doing Business in Brazil memorandum includes a detailed review of the applicable rules.

E. Environmental Tax Exemptions and/or Benefits

On a no-name basis, we have confirmed with officials of the Federal Environmental Agency (IBAMA) that no tax benefits are currently available for imports of "green products."

II. Product Liability

A. Environmental Liability

Relevant Brazilian laws and regulations provide that anyone who somehow directly or indirectly contribute to environmental damages is liable for repairing the damage from a civil (e.g., tort), administrative and criminal standpoints. Civil liabilities are joint and strict, irrespective of actual fault. Administrative liabilities are strict due to infringement of administrative rules. Criminal liabilities depend on evidence of fault.

Thus, according to Brazilian environmental laws and regulations, if a product causes damage to the environment, irrespective of cause, its manufacturer will be held liable for repairing environmental damages.

With regard to water and wastewater laws and regulations, the State of São Paulo does not comply entirely with federal regulations. This is because the State of São Paulo has had environmental parameters since 1976 (Law No. 997/76 and Decree No. 8,468/76) and federal environmental water and wastewater parameters were established only in 1986. Therefore, these environmental laws and regulations must be carefully reviewed to ensure the relevant product would be in full compliance.

B. Consumer Liability

Brazil's Consumer Protection Code provides for two kinds of product liability: liability resulting from damages caused by the product and liability resulting from qualitative or quantitative defects of the product. For details, see the Consumer Section of our Doing Business in Brazil memorandum.

III. IP (Patent) Issues

EMBRASC recommends a firm in São Paulo specialized in IP matters: Advocacia Pietro & Ariboni. For detailed information on Pietro & Ariboni, see their website, www.ariboni.com.br.

* * *

Source: EMBRASC

Appendix (C) NCM Product Codes for Packaging Machinery Imports by Country (MINISTRY OF INDUSTRIAL DEVELOPMENT AND COMMERCE)

NOTE: Total units for NCM product code 8422.9090 are not included as of mid-2001, due to changes in Ministry of Industrial Development and Commerce records that **exclude** "parts of machines and equipments" from total unit imports.

COUNTRY		GERMANY		ARGENTINA	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	9,881,268.00	492	420,817.00	30
	01/2000 to 12/2000	1,348,009.00	404	100,070.00	4
	01/2001 to 12/2001	336,132.00	345	40,736.00	2
	01/2002 to 12/2002	431,842.00	159	12,680.00	86
	01/2003 to 10/2003	15,376.00	13	0.00	-
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	12,153,103.00	57	2,093,617.00	585
	01/2000 to 12/2000	88,947.00	2	94,750.00	477
	01/2001 to 12/2001	388,600.00	2	19,950.00	2
	01/2002 to 12/2002	289.00	6	53,669.00	6
	01/2003 to 10/2003	125,884.00	27	0.00	-
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	25,043,797.00	359	3,664,407.00	500,101
	01/2000 to 12/2000	252,602.00	1	26,362.00	3
	01/2001 to 12/2001	596,822.00	2	1,418.00	2
	01/2002 to 12/2002	612,842.00	2	14,190.00	3
	01/2003 to 10/2003	1,800,470.00	4	5,913.00	2
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	1,289,993.00	113	204,000.00	896
	01/2000 to 12/2000	1,254,633.00	2	14,520.00	2
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	1,749,928.00	2	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	62,058,164.00	16,709	10,084,262.00	52,344
	01/2000 to 12/2000	14,456,732.00	1,798	5,085,908.00	1,677
	01/2001 to 12/2001	9,480,759.00	1,214	1,054,660.00	2,419
	01/2002 to 12/2002	6,812,092.00	289	2,958,965.00	3,262
	01/2003 to 10/2003	4,151,435.00	634	1,665,428.00	533
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	3,333,872.00	12	475,737.00	100,023
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	94,163,425.00	22,307	16,261,627.00	47,255
	01/2000 to 12/2000	12,274,846.00	19,748	3,171,719.00	12,608
	01/2001 to 12/2001	15,600,022.00	3,368	2,002,715.00	2,955
	01/2002 to 12/2002	12,980,802.00	3,591	498,780.00	19
	01/2003 to 10/2003	7,169,498.00	386	767,367.00	14
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	20,338,159.00	1,178,529	2,981,117.00	36,239
	01/2000 to 12/2000	5,138,165.00	174,564	690,154.00	3,402
	01/2001 to 12/2001	5,811,949.00	166,655	712,265.00	5,203
	01/2002 to 12/2002	5,973,407.00	-	612,202.00	-
	01/2003 to 10/2003	3,858,825.00	-	713,236.00	-
TOTAL BY COUNTRY	**01/1996 to 12/1999**	**228,261,781.00**	**1,218,578**	**36,185,584.00**	**737,473**
	01/2000 to 12/2000	**34,813,934.00**	**196,519**	**9,183,483.00**	**18,173**
	01/2001 to 12/2001	**32,214,284.00**	**171,586**	**3,831,744.00**	**10,583**
	01/2002 to 12/2002	**28,561,202.00**	**4,049**	**4,150,486.00**	**3,376**
	01/2003 to 10/2003	**17,121,488.00**	**1,064**	**3,151,944.00**	**549**

COUNTRY		AUSTRALIA		BELGIUM	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	0.00	-	151,734.00	33
	01/2000 to 12/2000	0.00	-	414.00	1
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	500,480.00	1.178	0.00	-
	01/2000 to 12/2000	103,791.00	9	0.00	-
	01/2001 to 12/2001	6,612.00	26	0.00	-
	01/2002 to 12/2002	18,350.00	1	0.00	-
	01/2003 to 10/2003	26,681.00	1	0.00	-
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	0.00	-	208,066.00	5
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	101,501.00	1
	01/2003 to 10/2003	0.00	-	0.00	-
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	0.00	-	0.00	-
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	531,779.00	5	621,119.00	6
	01/2000 to 12/2000	0.00	-	285,503.00	3
	01/2001 to 12/2001	283,372.00	7	0.00	-
	01/2002 to 12/2002	223,757.00	5	0.00	-
	01/2003 to 10/2003	13,300.00	1	0.00	-
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	560,439.00	16	0.00	-
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00		0.00	-
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	4,593,471.00	10	391,065.00	6
	01/2000 to 12/2000	7,613.00	250	1,035,125.00	2
	01/2001 to 12/2001	0.00	-	370,816.00	2
	01/2002 to 12/2002	185,000.00	2	3,038.00	1
	01/2003 to 10/2003	0.00	-	0.00	-
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	374,804.00	21,313	160,209.00	1,666
	01/2000 to 12/2000	66,354.00	248	32,669.00	793
	01/2001 to 12/2001	23,760.00	-	126,793.00	1,007
	01/2002 to 12/2002	6,300.00	-	115,975.00	-
	01/2003 to 10/2003	4,523.00	-	56,452.00	-
TOTAL BY COUNTRY	**01/1996 to 12/1999**	**6,560,973.00**	**22,522**	**1,532,193.00**	**1,716**
	01/2000 to 12/2000	**177,758.00**	**507**	**1,353,711.00**	**799**
	01/2001 to 12/2001	**313,744.00**	**33**	**497,609.00**	**1,009**
	01/2002 to 12/2002	**433,407.00**	**8**	**220,514.00**	**2**
	01/2003 to 10/2003	**44,504.00**	**2**	**56,452.00**	**-**

COUNTRY		CANADA		CHILE	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	518,235.00	4,549	0.00	-
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	2,686.00	1
	01/2003 to 10/2003	0.00	-	0.00	-
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	357,037.00	87	0.00	-
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	534,086.00	1,320	3,500.00	1,500
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	40,517.00	1	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	0.00	-	1,167.00	905
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	5,200,878.00	201	511,166.00	6,606
	01/2000 to 12/2000	355,563.00	12	0.00	-
	01/2001 to 12/2001	969,088.00	27	536,959.00	3
	01/2002 to 12/2002	32,920.00	9	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	0.00	-	0.00	-
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	5,200,878.00	201	3,086,954.00	235
	01/2000 to 12/2000	355,563.00	12	0.00	-
	01/2001 to 12/2001	1,058,605.00	10,177	327,438.00	19
	01/2002 to 12/2002	1,861,215.00	84	0.00	-
	01/2003 to 10/2003	455,665.00	37	0.00	-
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	0.00	-	618,667.00	22,429
	01/2000 to 12/2000	0.00	-	88,819.00	893
	01/2001 to 12/2001	547,148.00	-	101,552.00	1,834
	01/2002 to 12/2002	141,456.00	-	0.00	-
	01/2003 to 10/2003	70,986.00	-	6,533.00	-
TOTAL BY COUNTRY	**01/1996 to 12/1999**	**11,811,114.00**	**6,358**	**4,221,454.00**	**31,675**
	01/2000 to 12/2000	**711,126.00**	**24**	**88,819.00**	**893**
	01/2001 to 12/2001	**2,574,841.00**	**10,204**	**965,949.00**	**1,856**
	01/2002 to 12/2002	**2,076,108.00**	**94**	**2,686.00**	**1**
	01/2003 to 10/2003	**526,651.00**	**37**	**6,533.00**	**-**

COUNTRY		SPAIN		US	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	1,610,870.00	345	10,359,620.00	608
	01/2000 to 12/2000	278,563.00	2,019	391,955.00	156
	01/2001 to 12/2001	5,958.00	10	785,109.00	77
	01/2002 to 12/2002	4,168.00	2	2,392,981.00	40
	01/2003 to 10/2003	54,360.00	2	252,589.00	79
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	102,991.00	2,009	12,014,109.00	3,639
	01/2000 to 12/2000	0.00	-	1,812,363.00	3,026
	01/2001 to 12/2001	0.00	-	1,289,956.00	5,766
	01/2002 to 12/2002	0.00	-	819,504.00	16
	01/2003 to 10/2003	0.00	-	88,687.00	28
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	2,094,288.00	19,318	13,040,459.00	3,794
	01/2000 to 12/2000	690,940.00	4	0.00	-
	01/2001 to 12/2001	72.00	6	0.00	-
	01/2002 to 12/2002	168,578.00	2	90.00	1
	01/2003 to 10/2003	0.00	-	709,700.00	1
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	28,550.00	3	5,431,069.00	16
	01/2000 to 12/2000	0.00	-	141,980.00	3
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	7,073,009.00	4,031	692,289.00	232,147
	01/2000 to 12/2000	672,177.00	20	5,758,142.00	15,644
	01/2001 to 12/2001	2,669,244.00	463	4,947,654.00	1,973
	01/2002 to 12/2002	$1377856	12	1,348,432.00	625
	01/2003 to 10/2003	$2453886	10	675,495.00	907
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	510,172.00	7	472,781.00	14
	01/2000 to 12/2000	0.00	-	1,291,780.00	8
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	155,000.00	2	35.00	10
	01/2003 to 10/2003	0.00	-	19,892.00	13
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	16,063,503.00	11,364	41,177,711.00	23,281
	01/2000 to 12/2000	3,054,768.00	373	5,185,823.00	14,706
	01/2001 to 12/2001	3,703,545.00	299	4,808,978.00	14,458
	01/2002 to 12/2002	2,153,287.00	251	4,510,404.00	1,420
	01/2003 to 10/2003	1,946,219.00	451	1,442,322.00	712
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	1,347,385.00	1,524,280	18,658,844.00	280,573
	01/2000 to 12/2000	387,336.00	8,578	5,324,764.00	78,663
	01/2001 to 12/2001	346,644.00	-	4,085,073.00	-
	01/2002 to 12/2002	524,150.00	-	2,804,514.00	-
	01/2003 to 10/2003	271,897.00	-	1,784,265.00	-
TOTAL BY COUNTRY	01/1996 to 12/1999	28,830,768.00	1,561,357	101,846,882.00	544,072
	01/2000 to 12/2000	5,083,784.00	10,994	19,906,807.00	112,206
	01/2001 to 12/2001	6,725,463.00	778	15,916,770.00	22,274
	01/2002 to 12/2002	3,005,183.00	269	11,875,960.00	2,112
	01/2003 to 10/2003	2,272,476.00	463	4,972,950.00	1,740

COUNTRY		ITALY		MEXICO	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	5,483,399.00	793	110,196.00	6
	01/2000 to 12/2000	396,935.00	98	0.00	-
	01/2001 to 12/2001	394,196.00	79	0.00	-
	01/2002 to 12/2002	233,731.00	11	0.00	-
	01/2003 to 10/2003	69,073.00	54	0.00	-
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	27,615,281.00	2,602	0.00	-
	01/2000 to 12/2000	3,058,038.00	10,686	0.00	-
	01/2001 to 12/2001	1,950,745.00	3,596	0.00	-
	01/2002 to 12/2002	1,260,560.00	2,083	0.00	-
	01/2003 to 10/2003	1,862,532.00	2,039	0.00	-
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	22,309,999.00	20,333	0.00	-
	01/2000 to 12/2000	646,756.00	13	0.00	-
	01/2001 to 12/2001	2,318,724.00	11	0.00	-
	01/2002 to 12/2002	1,958,762.00	22	0.00	-
	01/2003 to 10/2003	1,326,247.00	5	0.00	-
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	33,855,364.00	69,230	0.00	-
	01/2000 to 12/2000	8,193,819.00	7,562	0.00	-
	01/2001 to 12/2001	6,763,019.00	22	0.00	-
	01/2002 to 12/2002	$5277137	19	0.00	-
	01/2003 to 10/2003	$2305860	7	0.00	-
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	61,030,594.00	86,113	835.00	1
	01/2000 to 12/2000	14,281,949.00	136,673	0.00	-
	01/2001 to 12/2001	15,116,218.00	102,630	42,755.00	1
	01/2002 to 12/2002	10,012,594.00	13,017	3,200.00	1
	01/2003 to 10/2003	8,830,680.00	14,887	0.00	-
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	7,999,762.00	102	427,303.00	556
	01/2000 to 12/2000	50.00	1	0.00	-
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	453,500.00	3	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	104,317,934.00	109,332,502	427,303.00	556
	01/2000 to 12/2000	27,129,442.00	1,925	0.00	-
	01/2001 to 12/2001	26,484,738.00	1,398	0.00	-
	01/2002 to 12/2002	10,078,185.00	8,412	53,400.00	1
	01/2003 to 10/2003	14,691,830.00	11,788	0.00	-
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	24,478,642.00	802,099	200,305.00	655
	01/2000 to 12/2000	6,398,047.00	198,002	0.00	-
	01/2001 to 12/2001	6,800,934.00	-	94.00	2
	01/2002 to 12/2002	5,091,626.00	-	0.00	-
	01/2003 to 10/2003	2,882,896.00	-	0.00	-
TOTAL BY COUNTRY	**01/1996 to 12/1999**	**287,090,975.00**	**110,313,774**	**1,165,942.00**	**1,774**
	01/2000 to 12/2000	**60,105,036.00**	**354,960**	**0.00**	**-**
	01/2001 to 12/2001	**59,828,574.00**	**107,736**	**42,849.00**	**3**
	01/2002 to 12/2002	**29,088,958.00**	**23,567**	**56,600.00**	**2**
	01/2003 to 10/2003	**29,663,258.00**	**28,780**	**0.00**	**-**

COUNTRY		SWEDEN		FRANCE	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	292,054.00	79	1,520,824.00	199
	01/2000 to 12/2000	177,188.00	97	344,698.00	2,237
	01/2001 to 12/2001	54,926.00	4	342,379.00	516
	01/2002 to 12/2002	3,107.00	1	175,043.00	41
	01/2003 to 10/2003	136,429.00	8	214,722.00	32
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	0.00	-	2,650,917.00	27
	01/2000 to 12/2000	0.00	-	322,742.00	2
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	234,540.00	5
	01/2003 to 10/2003	0.00	-	0.00	-
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	14,082,642.00	12,055	2,345,714.00	89
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	0.00	-
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	40,616,181.00	154,547	1,735,496.00	9
	01/2000 to 12/2000	5,577,876.00	16	307,505.00	4
	01/2001 to 12/2001	6,596,862.00	23	571,906.00	3
	01/2002 to 12/2002	10,116,622.00	36	656,431.00	3
	01/2003 to 10/2003	5,850,090.00	16	0.00	-
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	8,727,801.00	5,168	12,376,389.00	486
	01/2000 to 12/2000	772,805.00	9	4,515,861.00	91
	01/2001 to 12/2001	1,440,849.00	15	2,239,828.00	47
	01/2002 to 12/2002	962,745.00	15	1,894,067.00	45
	01/2003 to 10/2003	1,586,481.00	76	773,857.00	836
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	0.00	-	18.00	30
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	24,329,877.00	65,294	10,070,627.00	32,451
	01/2000 to 12/2000	3,357,552.00	56	520,204.00	12
	01/2001 to 12/2001	3,529,625.00	44	1,110,823.00	13
	01/2002 to 12/2002	6,462,010.00	85	2,808,885.00	21
	01/2003 to 10/2003	4,864,176.00	72	1,424,324.00	11
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	9,547,644.00	309,145	2,445,524.00	36,408
	01/2000 to 12/2000	3,765,444.00	33,607	637,756.00	7,892
	01/2001 to 12/2001	4,290,116.00	44,173	616,130.00	-
	01/2002 to 12/2002	0.00	-	911,620.00	-
	01/2003 to 10/2003	0.00	-	903,618.00	-
TOTAL BY COUNTRY	**01/1996 to 12/1999**	**97,596,199.00**	**546,288**	**33,145,509.00**	**69,699**
	01/2000 to 12/2000	**13,650,865.00**	**33,785**	**6,648,766.00**	**10,238**
	01/2001 to 12/2001	**15,912,378.00**	**44,259**	**4,881,066.00**	**579**
	01/2002 to 12/2002	**17,544,484.00**	**137**	**6,680,586.00**	**115**
	01/2003 to 10/2003	**12,437,176.00**	**172**	**3,316,521.00**	**879**

COUNTRY		PORTUGAL		SWITZERLAND	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	132,782.00	214	807,977.00	18
	01/2000 to 12/2000	19,451.00	35	183,971.00	2,203
	01/2001 to 12/2001	23,691.00	45	153,988.00	3
	01/2002 to 12/2002	25,320.00	55	807,797.00	7
	01/2003 to 10/2003	0.00	-	2,906.00	2
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	41,167.00	3	288,949.00	2
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	0.00	-	129.00	1
	01/2002 to 12/2002	160,000.00	1	138,867.00	1
	01/2003 to 10/2003	0.00	-	48,660.00	2
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	7,350.00	2	2,914,912.00	428
	01/2000 to 12/2000	0.00	-	158,216.00	1
	01/2001 to 12/2001	0.00	-	78,898.00	4
	01/2002 to 12/2002	0.00	-	9,505.00	1
	01/2003 to 10/2003	0.00	-	131,919.00	10
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	0.00	-	369,815.00	1
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 12/2001	78,460.00	1	0.00	-
	01/2002 to 12/2002	0.00	-	316,600.00	1
	01/2003 to 10/2003	0.00	-	365,500.00	1
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	336,652.00	3,129	8,050,591.00	2,193
	01/2000 to 12/2000	704.00	1	717,814.00	1,547
	01/2001 to 12/2001	138,333.00	2	1,097,480.00	1,653
	01/2002 to 12/2002	2,152,245.00	9	770,574.00	1,128
	01/2003 to 10/2003	845,962.00	6	1,119,709.00	747
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	0.00	-	1,131,027.00	18
	01/2000 to 12/2000	0.00	-	0.00	-
	01/2001 to 11/2001	0.00	-	0.00	-
	01/2002 to 11/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	691,378.00	610	7,141,358.00	13,216
	01/2000 to 12/2000	411,383.00	9	1,767,782.00	30
	01/2001 to 12/2001	17,227.00	3	1,795,075.00	77
	01/2002 to 12/2002	37,182.00	46	3,087,657.00	35
	01/2003 to 10/2003	44,598.00	3	2,157,798.00	21
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	209,834.00	3,204	3,508,910.00	31,646
	01/2000 to 12/2000	167,738.00	626	718,911.00	3,555
	01/2001 to 12/2001	379,021.00	2,567	563,404.00	3,393
	01/2002 to 12/2002	0.00	-	0.00	-
	01/2003 to 10/2003	0.00	-	0.00	-
TOTAL BY COUNTRY	**01/1996 to 12/1999**	**1,419,163.00**	**7,162**	**24,213,539.00**	**47,522**
	01/2000 to 12/2000	**599,276.00**	**671**	**3,546,694.00**	**7,336**
	01/2001 to 12/2001	**636,732.00**	**2,618**	**3,688,974.00**	**5,131**
	01/2002 to 12/2002	**2,374,747.00**	**111**	**5,131,000.00**	**1,173**
	01/2003 to 10/2003	**890,560.00**	**9**	**3,826,492.00**	**783**

COUNTRY		TOTAL BY NCM		MERCOSUR	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	31,289,776.00	7366	430617	31.00
	01/2000 to 12/2000	3,241,254.00	7254	10007	4.00
	01/2001 to 12/2001	2,137,115.00	1081	40736	2.00
	01/2002 to 12/2002	4,089,355.00	403	12680	86.00
	01/2003 to 10/2003	745,455.00	190	0	0.00
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	57,817,651.00	10189	2093617	585.00
	01/2000 to 12/2000	5,480,631.00	14202	9475	477.00
	01/2001 to 12/2001	3,655,992.00	9393	22950	3.00
	01/2002 to 12/2002	2,685,779.00	2119	53669	6.00
	01/2003 to 10/2003	2,152,444.00	2097	0	0.00
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	86,249,220.00	559304	3664407	500,101.00
	01/2000 to 12/2000	1,774,876.00	22	26362	3.00
	01/2001 to 12/2001	2,995,934.00	25	1418	2.00
	01/2002 to 12/2002	2,905,985.00	33	14190	3.00
	01/2003 to 10/2003	3,974,249.00	22	5913	2.00
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	83,531,635.00	225720	204	896.00
	01/2000 to 12/2000	15,490,333.00	7589	1452	2.00
	01/2001 to 12/2001	14,010,247.00	49	0	0.00
	01/2002 to 12/2002	18,116,718.00	61	0	0.00
	01/2003 to 10/2003	8,521,450.00	24	0	0.00
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	177,295,528.00	409139	10084262	52,344.00
	01/2000 to 12/2000	46,903,158.00	157475	5085908	1,677.00
	01/2001 to 12/2001	40,017,199.00	110454	1054660	2,419.00
	01/2002 to 12/2002	28,549,447.00	18417	2958965	3,262.00
	01/2003 to 10/2003	22,116,233.00	18637	1665428	533.00
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	14,911,111.00	100778	475737	100,023.00
	01/2000 to 12/2000	1,291,830.00	9	0	0.00
	01/2001 to 11/2001	0.00	0	0	0.00
	01/2002 to 11/2002	608,535.00	15	0	0.00
	01/2003 to 10/2003	19,892.00	13	0	0.00
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	327,917,111.00	109549288	16261627	47,255.00
	01/2000 to 12/2000	58,271,820.00	49731	3171719	12,608.00
	01/2001 to 12/2001	60,809,607.00	32813	2002715	2,955.00
	01/2002 to 12/2002	44,719,845.00	13968	513797	20.00
	01/2003 to 10/2003	34,963,797.00	13495	767367	14.00
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	84,870,044.00	4248186	2981117	36,239.00
	01/2000 to 12/2000	23,416,157.00	510823	690154	3,402.00
	01/2001 to 12/2001	24,404,883.00	224834	739087	-
	01/2002 to 12/2002	16,181,250.00	0	632288	-
	01/2003 to 10/2003	10,553,231.00	0	743813	-
TOTAL BY COUNTRY	01/1996 to 12/1999	863,882,076.00	115109970	35991588	737,474.00
	01/2000 to 12/2000	155,870,059.00	747105	8995077	18,173.00
	01/2001 to 12/2001	148,030,977.00	378649	3861566	5,381.00
	01/2002 to 12/2002	117,856,914.00	35016	4185589	3,377.00
	01/2003 to 10/2003	83,046,751.00	34478	3182521	549.00

COUNTRY		EUROPEAN UNION		NAFTA	
NCM PRODUCT CODE & DESCRIPTION	Period	US$ FOB	UNITS	US$ FOB	UNITS
"84222000" - MACHINES AND EQUIPMENTS FOR CLEANING, DRYING, BOTTLES AND OTHER RECIPIENTS (including units over 1,000 kg, under 1,000 kg and Integrated Systems)	01/1996 to 12/1999	23,242,848.00	2803	10,988,051.00	5163
	01/2000 to 12/2000	2,983,418.00	5092	391,955.00	156
	01/2001 to 12/2001	1,504,164.00	5775	785,109.00	77
	01/2002 to 12/2002	1,006,546.00	419	2,392,981.00	40
	01/2003 to 10/2003	590,590.00	329	252,589.00	79
"84223010" - MACHINES AND EQUIPMENTS FOR FILL/CAP AND SCREW BOTTLES, RECIPIENTS, CANS, BAGS, BOXES AND RELATED MATERIAL (including mono-block, thermo-filling, automatic machinery for labeling and capping)	01/1996 to 12/1999	42,615,015.00	28118	12,371,146.00	3726
	01/2000 to 12/2000	3,469,727.00	1069	1,812,363.00	3026
	01/2001 to 12/2001	2,564,517.00	3606	1,289,956.00	5766
	01/2002 to 12/2002	1,655,389.00	2095	819,504.00	16
	01/2003 to 10/2003	2,371,903.00	2073	88,687.00	28
"84223021" - MACHINES AND EQUIPMENTS FOR FILLING BAGS AND SACS WITH POWDER AND GRAINS	01/1996 to 12/1999	69,535,771.00	62293	13,574,545.00	5114
	01/2000 to 12/2000	1,650,872.00	19	0.00	0
	01/2001 to 12/2001	2,915,618.00	20	0.00	0
	01/2002 to 12/2002	2,841,683.00	27	40,607.00	2
	01/2003 to 10/2003	3,212,738.00	11	709,700.00	1
"84223022" - MACHINES AND EQUIPMENTS FOR FILLING/SEALING OF "TETRAPACK" AND "ESCA-SERAC"	01/1996 to 12/1999	78,224,052.00	223939	5,431,069.00	16
	01/2000 to 12/2000	15,362,651.00	7585	141,980.00	3
	01/2001 to 12/2001	14,010,247.00	49	0.00	0
	01/2002 to 12/2002	17,800,753.00	61	0.00	0
	01/2003 to 10/2003	8,155,950.00	23	0.00	0
"84223029" - MACHINES AND EQUIPMENTS FOR FILLING / SEALING CANS, ENCAPSULATION (including thermo-filling, wraparound and others)	01/1996 to 12/1999	162,242,306.00	129073	5,894,002.00	232349
	01/2000 to 12/2000	36,042,116.00	156102	6,113,705.00	15656
	01/2001 to 12/2001	31,956,531.00	104435	5,959,497.00	2001
	01/2002 to 12/2002	24,086,642.00	13440	1,384,552.00	635
	01/2003 to 10/2003	18,975,344.00	16462	675,495.00	907
"84224010" - OTHER MACHINES AND EQUIPMENTS WRAPING GOODS (including heat-sealing machinery)	01/1996 to 12/1999	12,600,156.00	182	900,084.00	570
	01/2000 to 12/2000	50.00	1	1,291,780.00	8
	01/2001 to 11/2001	0.00	0	0.00	0
	01/2002 to 11/2002	608,500.00	5	35.00	10
	01/2003 to 10/2003	201,750.00	4	19,892.00	13
"84224090" - OTHER PACKAGING MACHINES AND EQUIPMENTS (including vacuum cartoning, blistering, flow-pack, wraparound, case-packs and others)	01/1996 to 12/1999	276,893,936.00	109476812	46,805,892.00	24038
	01/2000 to 12/2000	52,292,585.00	2247	5,541,386.00	14718
	01/2001 to 12/2001	53,935,454.00	5192	5,867,583.00	24635
	01/2002 to 12/2002	38,273,649.00	12465	6,425,019.00	1505
	01/2003 to 10/2003	31,552,016.00	12744	1,897,987.00	749
"84229090" - PARTS OF MACHINES AND EQUIPMENTS FOR CLEANING / DRYING / FILLING / SEALING AND OTHERS	01/1996 to 12/1999	66,281,904.00	4223419	18,859,149.00	281228
	01/2000 to 12/2000	18,100,386.00	538926	5,324,764.00	78663
	01/2001 to 12/2001	20,650,174.00	-	4,632,315.00	2
	01/2002 to 12/2002	18,998,255.00	-	2,945,970.00	0
	01/2003 to 10/2003	11,082,261.00	-	1,855,251.00	0
TOTAL BY COUNTRY	01/1996 to 12/1999	731,635,988.00	114146639	114,823,938.00	552204
	01/2000 to 12/2000	129,901,805.00	711041	20,617,933.00	112230
	01/2001 to 12/2001	127,536,705.00	119077	18,534,460.00	32481
	01/2002 to 12/2002	105,271,417.00	28512	14,008,668.00	2208
	01/2003 to 10/2003	76,142,552.00	31646	5,499,601.00	1777

Appendix (D) – Doing Business in Brazil (FARROCO & LOBO ADVOGADOS)

Brazil's Legal System

As its full name indicates, Federative Republic of Brazil, Brazil is organized as a union of states, municipalities, and the Federal District (i.e., Brasília, Brazil's capital). The union cannot be broken and in any manner separated.

Brazil is a typical civil law country. Its legal system is codified. Based on specific authority, laws are enacted by the federal, state and local legislatives. Court decisions are based on those laws and, if there is not such laws, decisions are based on analogy, customs and general legal principles. Even though court precedents are not binding except for the relevant parties involved, more and more case law influences the Brazilian judicial system.

Brazil's Constitution provides for specific legislative authority of federal, state and local governments thus avoiding conflicts. With due regard to principles contained in the Federal Constitution, legislative authority of the federal government is higher than that of state governments, which in turn is higher than local or municipal governments.

Forms of Doing Business in Brazil

Introduction. As a general rule, nonresident investors can invest in any business in Brazil. As an exception to the general rule, Brazil still has a few regulated activities requiring local interest ownership or control. These include certain media and telecommunications services. In these areas, nonresident investors usually choose to enter into joint ventures with Brazilian individuals or entities. Evidently nonresident investors oftentimes choose joint ventures not only in restricted areas but also as a means to quickly join in a going concern.

Formal Presence. Investors can have a formal presence in Brazil by organizing a branch, representative office or agency of a nonresident entity, or a local company.

Branch, Representative Office, Agency of a Nonresident Entity. Investors can freely organize entities in Brazil with the sole exception of branches of nonresident entities: these are still linked to the former Corporation Law (Decree No. 2.627 of September 26, 1940) and require the prior approval of Brazil's President. Not only is the process lengthy (e.g., 6 months), it is entirely discretionary. Moreover, branches may generate adverse liability and tax consequences and, in practice, are usually discarded.

Local Companies. Investors can usually organize a company in Brazil without the need of any prior governmental approval. Most nonresident investors have found advisable to organize one of the following three forms of companies: *sociedade anônima* ("SA") where liability is limited to the invested capital amount, *sociedade por quotas de responsabilidade limitada* ("*limitada*"), which is a rather flexible form of a limited liability company or LLC, and *sociedade em nome coletivo* ("*coletivo*"), a general partnership where all partners are liable for the company's obligations.

The basic requirements of an SA are as follows:

- Shareholders. There must be at least two; no residency or nationality requirement applies.
- Capital. At least 10% of the stated capital must be paid in at the time of initial incorporation. No minimum is required except to carry out certain regulated activities (e.g., banking, insurance and export/import -- trading companies). The SA capital is divided into

shares, which may be represented by stock certificates. Depending on the rights they afford, shares may be common or preferred. Preferred shares are non-voting as a matter of law, though they may acquire voting rights in certain circumstances.

- Management. At least 2 officers (*diretores*) must manage an SA; they must be residents of Brazil. No Board of Directors *(conselho de administração*) is required unless the SA trades its shares in the stock exchange or in the over-the-counter markets, issues debentures, or has authorized capital. Nonresidents of Brazil can be members of the Board of Directors provided they empower a local attorney-in-fact resident to receive summons locally.

- Audit. SA by-laws must contemplate a shareholders' auditing committee *(conselho fiscal)*; it may become operational at a shareholders' meeting. If the auditing committee becomes operational, then its annual report to the shareholders must be published along with the SA's financial statements, except if the conditions mentioned in the following item are complied with.

- Meetings and Publications. Shareholders' meetings must be held at least once a year to approve the SA's financial statements. Calls for meetings must be published unless all shareholders are present. Minutes of meetings also must be published. Closely-held SA with less than 20 shareholders and whose net equity is R$1 million maximum are not required to publish their financial statements, balance sheets, auditing committee's annual reports and other relevant information, provided that certified copies of those documents and minutes of the shareholders' meeting are registered with the Commercial Registry.

The basic requirements of a limitada are as follows:

- Quotaholders. There must be at least two; no residency or nationality requirement applies.

- Capital. No minimum is required either upon organization or to carry out business, except for specific activities. Limitadas do not qualify to carry out certain regulated activities (e.g., banking, insurance). A limitada's capital is divided into quotas; unlike SA shares, quotas are not represented by stock certificates but instead are simply noted in the articles of organization.

- Management. Limitadas are managed by the quotaholders themselves, if residents, or by one or more managers appointed by the quotaholders. Nonresident managing quotaholders must delegate their daily managerial powers to Brazilian resident individuals (so-called delegated managers).

- Audit. None is required.

- Meetings and Publications. None are required.

The basic requirements of a coletivo are as follows:

- Partners. There must be at least two; no residency or nationality requirement applies.

- Capital. Except for regulated activities, no minimum is required either upon organization or to carry out business. Like a limitada, the coletivo capital is not represented by separate stock certificates but instead in the articles of organization.

- Management. The coletivo must be managed by its partners who may delegate management powers to one or more individuals residing in Brazil. Nonresident partners must delegate day-to-day management powers to Brazilian resident individuals.

- Audit. None is required.

- Meetings and Publications. None are required.

Foreign Exchange Controls

Introduction. Law No. 4,131 of 1962 (the "Foreign Investment Law"), as amended, regulates nonresident investments in Brazil. This law requires nonresident investments to be registered with the Central Bank of Brazil (the "Central Bank") to enable the nonresident investor to pay dividends abroad or to repatriate capital in foreign currency. The Foreign Investment Law provides for broad rules governing earnings' reinvestment and payment of royalties and technical assistance fees.

Investments. Nonresident investments under the Foreign Investment Law include:

- Direct cash equity investment.
- Imported in-kind capital contributions (e.g., machinery, equipment, technology).
- Capitalized foreign-currency funds that can be repatriated.
- Transfer of foreign-currency funds to Brazil.

Registration of Foreign-Currency Investments. Once the Brazilian recipient receives the funds, the in-kind contributions or the credits, it must register the investment electronically with the Central Bank. Registration is made in the currency in which the funds were actually transferred to Brazil or the investor's currency in case of machinery or technology. Registration is required for payment of dividends in foreign currency, reinvestment and repatriation.

Registration of Brazilian-Currency Investments. Nonresident investors may also choose to invest in local businesses in Brazilian currency. The Central Bank registers these investments if the relevant funds were in a bank account that the nonresident investor has maintained in Brazil in accordance with the regulations in force.

Reinvestments. After-tax profits not otherwise paid may be reinvested in the same or in a different company in Brazil. Reinvestment is also registered electronically with the Central Bank in the currency of the investor's country.

Dividends. The Foreign Investment Law enables the Brazilian company to pay dividends corresponding to all after-tax profits belonging to the nonresident investor.

Capital Repatriation. Upon certain transactions (e.g., divestment, capital reduction), the foreign-registered investment can be repatriated. Repatriation is tax-free up to the amount of foreign currency registered with the Central Bank. If the nonresident investor sells its equity interest to a local buyer in Brazilian currency for a price in excess of the amount registered with the Central Bank, the balance (i.e., capital gain) can also be repatriated (subject to Central Bank approval) but it is subject to capital gains, withholding income tax.

Loans. Foreign-currency loans are no longer subject to Central Bank approval but principal repayment conditions and interest rates must fall within a certain range the Central Bank accepts, and which varies from time to time. Loaned funds must be used in economic activities and the relevant financial terms and conditions must be commensurate with those prevailing in the international market.

Importing into Brazil

Import Licensing. Imports into Brazil are subject to government controls from at least three sources: the Secretary of Foreign Trade (SECEX), which supervises registration and licensing, the Central Bank of Brazil, which approves payments of financed imports, and Brazil's Revenue Service (the "IRS"), which reviews valuation for customs purposes.

Since January 1, 1997 a new system exists to control and authorize imports through the so-called SISCOMEX. SISCOMEX is a computer system with a network linking SECEX, the Central Bank, and the IRS. As a first step to import into Brazil, the local importer must register with SISCOMEX.

Currently there are two kinds of imports: "automatically licensed imports" and "non-automatically licensed imports." Goods submitted to the "automatically licensed imports" in principle need no authorization from any local authority before they can be shipped to Brazil and clear customs.

In contrast, "non-automatically licensed imports" need prior examination and special control by certain governmental agencies. Before shipping the goods from abroad or, at SECEX's discretion, before the goods clear customs, the importer must register the import with SECEX.

Because of their nature, certain products must be specifically controlled and can be imported only after approval by certain agencies. These include arms and ammunition (Army), herbicides, pesticides and beverages (Ministry of Agriculture), and narcotics, human blood and food (Ministry of Health).

SECEX may deny import licenses if it has sound reasons to believe that the imports could threaten free trade, manipulate prices, jeopardize Brazil's trade balance, constitute dumping or unfair competition, or risk the economy. SECEX may also deny import licenses for products of countries that discriminate against Brazilian products.

Price Control. SECEX monitors imports' prices strictly. This is because lower-than-actual prices deprive the administration from collecting its rightful share of duties and taxes, whereas higher-than-actual prices result in excessive payments in foreign currency, which violates foreign exchange controls.

SECEX thus requires the Brazilian importer to submit nonresident exporters' price lists and catalogs. If exporter does not publish or have catalogs or price lists, then SECEX may accept a *pro forma* invoice. If SECEX has reasons to believe that the prices quoted are not commensurate with international prices, it may require the exporter to state that the prices are in fact normal in the exporter's market.

Moreover, SECEX compares prices the exporter submits with prior import prices and with information made available by branches of Brazil's federal bank, Banco do Brasil. If SECEX determines that the importer is consistently over- or under-invoicing, it may penalize the importer; penalties vary from suspension to cancellation of registration, thereby actually preventing the importer from obtaining further import licenses.

Finally, if SECEX's price review indicates that the relevant prices are lower than what prevails under similar circumstances in the international market, it may rely on its sources and arbitrate a higher price for duties and taxes.

Agents. Commission agents may be paid in Brazil in local currency or abroad as part of the import price. Commissions have no minimum or maximum yet they seldom exceed 10% of the import amount.

Local Similarity Test. To qualify for special tax or financial benefits or incentives, an import must meet the "local similarity test" *(teste de similaridade nacional*). This test is met when SECEX confirms that a similar product is not available in Brazil.

Imports of Used Products. Though used products may be imported, SECEX subjects them to close scrutiny to avoid fraud related to obsolete products. Moreover, used products may be imported only if the same or similar products are not available from Brazilian manufacturers, and if their importation is of interest to the local economy.

Temporary Admission Regime. Products imported under the so-called temporary admission regime are subject to taxes levied on importation (Law No. 9,430 of December 30, 1996). Tax basis are reduced based on the period the products actually remain in Brazil (Decree No. 2,889 of December 21, 1998).

Bonded Warehouses. Importers may also store imported products in bonded warehouses. In this event the products remain in custody of customs officials. The importer pays storage fees only (and no customs duties) while the products remain stored in bonded warehouses. Only upon actual importation does the importer pay duties, and it will pay no such duties if the products are re-exported.

Financial Lease. Cross-border leases are acceptable to SECEX under certain financial conditions (which vary from time to time); they need to be approved by the Central Bank.

Exchange. Once SECEX-approved products are actually imported, the importer may exchange local for any other currency to pay the exporter by means of regular banking channels (e.g., wire transfers). Imports with due terms longer than 360 days are subject to the Central Bank's control; control is implemented by means of the so-called *Registro de Operações Financeiras* (ROF).

Taxes and Duties. Imported products are subject to the following taxes and duties:

- Import tax due on the CIF import amount at *ad valorem* rates;
- Federal excise tax due on the import amount grossed up by the import tax, also on selective rates;
- State sales and service tax due on the import amount grossed up by the import tax and the federal excise tax at rates which vary but are usually 18%; and
- Maritime transport fee due on the freight cost, usually 25%.

Taxes are levied on the invoice price accepted by SECEX plus import costs. As noted above, the tax basis can be accepted or adjusted. Under- and over-invoicing are subject to a penalty of 100% the under- or over-invoiced balance. If the price quoted varies 10% or less from normal amounts, customs agents may choose to ignore this balance and not impose penalties. If the price varies 10% or more from normal amounts, customs agents should apply a penalty which is 50% of the tax difference.

Freight. As a general rule imports can be transported by Brazilian or non-Brazilian flag carriers. There are exceptions to this general rule (e.g., imports affording tax exemptions) where Brazilian flag carriers are required.

Insurance. Coverage of imported products must be provided by insurance companies organized in Brazil. Brazilian importers may contract only FOB or C&F terms, not CIF or C&I, because the amount corresponding to the insurance may not be transferred abroad.

Latin American Integration Agreement. Brazil is a member of the Latin American Integration Association (LAIA or ALADI) created by the Treaty of Montevideo of August 12, 1980. ALADI members enjoy mutual preferential duty treatments. ALADI members include Argentina, Bolivia, Brazil, Colombia, Ecuador, Mexico, Paraguay, Peru, Uruguay and Venezuela.

Southern Cone Common Market (MERCOSUR). Brazil is also a MERCOSUR member, a treaty that has functioned as a free trade zone and customs union. By 2006 it is expected that MERCOSUR will become a truly integrated common market. It now allows most products and services to circulate among its members free from tariff and non-tariff barriers; it provides for a common external tariff *(tarifa externa comum* or TEC) for most products that member countries import from non-MERCOSUR countries.

Brazilian-Argentine Binational Corporations. On June 29, 1992 Argentina and Brazil signed the Treaty to Establish Brazilian-Argentine Corporations. The treaty purpose is to provide economic integration between Argentina and Brazil at the corporate level. This arrangement enables free transfer of profits and employees between member states. Qualifying binational corporations and their subsidiaries and affiliates are treated as national entities of both Argentina and Brazil in connection with legal rights and access to domestic sources of credit, financing and tax incentives. A binational corporation must be controlled by Argentine or Brazilian capital.

Manaus Free Trade Zone. The Manaus free trade zone was designed to encourage manufacturing for export and local sales. Raw materials, parts, pieces and components imported into the Manaus free trade zone enjoy duties' deferment and federal excise tax exemption. These benefits apply to products entering the Manaus free trade zone only by Manaus Airport or Manaus Harbor. They do not apply to imports of weapons and ammunition, perfumes, tobacco products, beverages or automotive vehicles.

Antitrust

Introduction. Brazil's Constitution contains principles maintaining and encouraging free enterprise and competition. The principles aim at protecting the economy as a whole. Enterprise is a synonym of competition, which has the implicit meanings of "the pursuit of an advantage, victory, or reward and fight, challenge, contest, rivalry as well as struggle for survival in which the stronger competitors in each given market win." The idea of rivalry and aggressiveness thus requires State control to contain and punish abuses. However, before punishing abuses, the principal State duty is to preserve free competition, capable of generating economic growth.

In Brazil protection of the economic order is contained in Law No. 8,884 of June 11, 1994 (the "Antitrust Law"). Antitrust enforcement is incumbent upon *Conselho Administrativo de Defesa Econômica* – CADE (Administrative Council of Economic Defense) who entertains cases after receiving the economic opinion of *Secretaria de Acompanhamento Econômico* – SEAE (Economic Supervisory Department) and the legal opinion of *Secretaria de Defesa Econômica* - SDE (Economic Defense Secretariat) or *Agência Nacional de Telecomunicações* – ANATEL if the relevant transactions involve telecommunications.

The federal administration intends to create a new agency, the National Agency to Protect Consumers and Competition (ANC)[1]. If the Bill is passed into law, ANC will change both the current structure and laws to contain violations against the economic order.

Legislation overview. According to the Antitrust Law, violation of the economic order (i.e., any conduct actually or potentially causing one of the following effects):

- Limits, falsifies, or in any way impairs free competition or free enterprise;
- Causes domination of a certain market of goods or services; and
- Arbitrarily increases profits thus leading to a dominant position in an abusive fashion.

[1] In accordance with bill of law that Brazil's President had prepared and submitted to public consultation on October 26, 2000.

The Antitrust Law lists certain typical "suspect conducts" as abusive, if they aim at causing, or which may result in, any of the violations listed above. We single out the following conducts:

- Establish or practice, in agreement with a competitor, in any manner, sales prices and conditions for goods or service rendering;
- Obtain or influence adoption of uniform or arranged business conduct between competitors;
- Divide service, finished or semi-finished product markets, or raw material or intermediary product supply sources;
- Limit or prevent access of new companies to the market;
- Create difficulties for the incorporation, operation or development of a competitor company or supplier, purchaser or financier of goods or services;
- Impair a competitor's access to input, raw material, equipment or technology sources, or to distribution channels;
- Previously arrange prices or adjust advantages in public or administrative competition;
- Use misleading means to trigger price fluctuation;
- Regulate goods or service markets, establishing agreements to limit or control technological research and development, the production of goods or provision of services, or hinder investments intended for the production of goods or services or their distribution;
- Discriminate against purchasers or suppliers of goods or services by means creating different prices or sales or service provision operating conditions;
- Refuse to sell goods or provide services within normal payment conditions;
- Create a monopoly or impair the free exploitation of industrial or intellectual property rights or technology;
- Subordinate the sale of goods to the purchase of other goods or service, or subordinate service rendering to use of another service or purchase of goods.

Given the scope used in the language of the list of conducts, various business contracts or transactions could easily be considered unlawful *per se*, even if they were not *de facto* unlawful. Certain conducts may even in a certain way limit, falsify or impair free competition or free enterprise, which does not necessarily constitute violation of the economic order. If there is doubt, the antitrust authorities have authority to decide or commence administrative proceedings to review the potentially abusive conduct.

To decide if a certain conduct is abusive, the authorities use the so-called "rule of reason" according to which only those conducts or contracts causing unreasonable restrictions on businesses are held as abusive and, thus, unlawful. "Unreasonable" is construed as the act or contract that actually restricts competition in a significant and unjustifiable manner. One must also consider the economic situation at the time of the act, and the effects of the relevant circumstances.

The reasons to approve competition restriction usually include, joint or severally:

- Increase of productivity;
- Quality improvement of products and services; and
- Efficiency and technological or economic development that cause no damage to the consumer.

If the rule of per se unlawfulness is dismissed, one may reach the same result by reviewing whether there is "abuse in the exercise of a right" because of course only the abuse is unlawful, not the appropriate exercise of a right. Hence, in accordance with this concept, whoever does not hold a dominant position cannot be capable of right abuse.

Antitrust Control. In view of the above, events taking place in Brazil that may at least potentially violate the economic order are subject to the scrutiny of Brazil's antitrust authorities. The Antitrust Law deems as domestic nonresident companies with a formal presence in Brazil (e.g., subsidiary, branch, agency, office). As a result they must submit to the jurisdiction of the Brazilian antitrust authorities[2]:

- Acts (as those listed above) or agreements that may limit, harm or adversely affect unrestricted competition; and/or
- Agreements that may cause economic concentration (including companies' consolidation, merger and acquisition, organization of a company to control others, economic concentration in a relevant market of goods or services that imply the market share of a company or group of companies results in 20% or more of the relevant market or in which any of the participants or companies of their economic groups have annual gross revenues in excess of R$400 million worldwide[3].

Antitrust clearance may be before or after the fact[4]. If after, filing must occur within 15 business days from the first binding act or document the relevant parties enter into. Failure to timely file subjects the parties to penalties ranging from about R$64,000 to R$6.4 million without prejudice of CADE's commencing administrative proceedings against them.

Administrative Process. Business practices are always subject to SDE's scrutiny, which may be *ex officio* or commence by a third-party claim. If there are reasonable grounds, an administrative proceeding commences. If not, the case is discarded and the relevant materials are kept in files, for the public interest; confidentiality rules apply if be the case.

At the start of an administrative proceeding, the represented party has time for defense. The antitrust authorities may, if applicable, request more investigation or evidence (e.g., clarification, testimony from witnesses, documents).

When discovery concludes, SDE decides if the proceeding will be forwarded to CADE or ended. No appeal is available at this stage. At CADE the proceeding is forwarded to a Reporting Councilor who at his turn forwards it for opinion of the General Attorney's Office. New or complementary investigations may be required in this phase. Decision takes place in a Plenary Sitting. Absolute majority and at least 5 CADE members are required. If CADE members have reasons to believe that there is violation of the Antitrust Law, they may:

- Decide which procedures the parties must adopt to cease violation;
- Determine the term (commencement and end) of such procedures;
- Apply penalties; and
- Apply a daily fine if violation is on-going.

Based on the infringement nature and the infringer's economic situation, penalties vary. Penalties to legal entities range from 1% to 30% of their gross revenues in the preceding year. Penalties to administrators directly or indirectly responsible for the company's infringement range from 10% to 50% of the company's penalty. Penalties to other legal entities or individuals range from R$6,400 to R$6.4 million. Upon recurrence all such penalties double.

There is no administrative appeal. CADE must ensure decisions are fulfilled. If they are not, the Attorney General's Office may seek judicial enforcement.

If there is reasonable indication that a certain situation may jeopardize or harm the market such that repair is difficult, SDE or CADE representatives may enforce a preventive order. As an

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[2] In accordance with the Bill now pending in Congress, ANC would have this authority.

[3] The Bill considers annual gross revenue of R$150 million (approximately US$75 million) only in Brazil in any of the last three preceding years; market share shall no longer be taken into account.

[4] As in most other jurisdictions, the Bill makes prior clearance mandatory.

example, in addition to penalties, they may order the immediate cessation of the abusive practice and reversal to the previous status. This order is subject to appeal to CADE's Plenary. At any time during the administrative proceeding can the parties execute a commitment to immediately stop the challenged action. This does not imply admission of *de facto* issues or the conduct's unlawfulness yet it affords CADE specific performance.

New focus. With the antitrust rules summarized above, and the Bill pending in Congress, the federal administration, until now focused on review of concentration acts, should henceforth focus on cartels. In this regard, leniency agreements have been recently introduced in Brazil's legal system whereby individuals and entities in violation of the economic order who assist investigations, especially by identifying other violators, can be dismissed from investigative proceedings (criminal or administrative) or have penalties reduced by one- to two-thirds.

Consumer Protection

Introduction. Brazil's Consumer Protection Code (Federal Law No. 8,078 of September 11, 1990 -- the "Code") provides for legal principles and requirements applicable to consumer relations in Brazil. *Inter* alia the Code regulates product and service liability, contractual clauses, commercial practices, advertising and relevant information about products and services to consumers. The Code also includes rules on civil procedure for individual and collective claims, including class actions, and administrative and criminal sanctions.

Suppliers and Consumers. Definitions. The Code defines supplier as a private or public individual or entity, Brazilian or foreign, who manufactures, assembles, creates, builds, transforms, imports, distributes or markets products or renders services to consumers.

The Code defines a consumer as any end-user (whether an individual or an entity) who acquires or uses products or services. Accordingly, the Code governs not only retail sales to consumers but also sales of products and services to manufacturers who are as well treated as consumers when they are end-users of products and services. This is an important (and controversial) approach at business relationships that differentiates the Code from consumer protection laws of other jurisdictions.

Consumers' Rights. The Code includes the following among basic consumers' rights:

- Protection of life, health and safety against risks related to the supply of hazardous or harmful products and services;
- Right to proper information regarding the correct use of products and services;
- Right to clear and correct information regarding quantity, characteristics, composition, quality, price and potential risks of products and services;
- Protection against misleading and abusive advertising and coercive or unfair business practices;
- Amendment of contractual clauses which are excessively burdensome;
- Effective protection from damage or compensation for property damage; and
- Access to courts of law and administrative agencies to protect consumers' rights.

Information and Advertisements. The Code provides that suppliers liable for any and all information and advertisement regarding their products or services. The Code also contains specific provisions prohibiting misleading or abusive advertising.

Potentially hazardous or dangerous products and services are required by law to bear clearly visible and adequate information about any risks of usage. The information must be in Portuguese.

The manufacturer, producer, builder, service provider or importer, regardless of nationality, is strictly and jointly liable for damages caused by insufficient or inadequate information on the use and risk

factors associated with the product, as well as if damage is a direct result of services rendered or of the product's defective design, manufacturing, construction, assembly, formula, manipulation, presentation or packaging.

Contractual Rights and Protection. Specific provisions under the Code ensure consumers' contractual rights and protection. The Code provides that certain clauses will automatically be deemed invalid if included in a contract, if they:

- Limit the suppliers' liability;
- Restrict the consumers' right to return products or services and to reimbursement;
- Transfer the suppliers' liabilities to third parties;
- Shift the burden of proof to the consumer in the event of litigation;
- Create excessive disadvantages to the consumer; and
- Require the consumer to bear costs of collection.

The Ministry of Justice's Economic Law Department included new clauses that will be deemed automatically invalid.[5] They include:

- Preventing consumers from taking advantage of a more favorable event, in accordance with a contractual guarantee term;
- Imposing sanctions in case of delay in complying with an obligation or default by a consumer;
- Electing a Court to resolve disputes arising from consumer relations, other than courts of jurisdiction where the consumer lives;
- Hindering, reducing or impairing enforcement of the Consumer Protection Code's rules on disputes arising from air-transportation agreements, which time bars hospitalization other than those prescribed by a doctor.

Product Liability. The Code provides for two types of product liability: liability resulting from damages caused by the product (Section 12), and liability resulting from qualitative or quantitative defects of the product (Section 18).

Liabilities resulting from damages caused by the product. The manufacturer, producer, builder, or importer, regardless of nationality, will be held both strictly and jointly and severally liable if the consumer incurs damage resulting directly from the product's defective design, manufacture, construction, assembly, formula, manipulation, presentation, or packaging. They will be held liable if the damage is a direct result of the services rendered or of insufficient or inadequate information regarding the product's use and risks. In addition, if the damage is caused by a component or device that was incorporated to a product or service, the manufacturer, builder or importer and the third party responsible for such incorporation will be held both strictly and jointly and severally liable, unless they can evidence that they did not market the product, the defect deemed as cause of the damage does not exist, or the damage resulted from the consumer or a third party's exclusive fault.

Liabilities resulting from qualitative or quantitative defects of the product. Suppliers (individuals and entities, regardless of nationality, who perform activities of production, assembling, creation, construction, transformation, importing, exporting, distribution, or commercialization of products or services) are jointly and severally liable, regardless of fault, for qualitative or quantitative defects of products. For the purpose of this provision, a product is considered defective when it presents qualitative or quantitative changes that make the product inadequate or unfit for its ordinary purpose, diminish the product value, or result from differences between the product and the related data of packages, recipients, labels or publicity messages, unless these differences are inherent to the product's nature.

The Code also provides for administrative and criminal penalties that may be applied against suppliers (e.g., seizure and destruction of products, penalties and imprisonment).

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5 Administrative Rulings 4/98, 14/98 and 3/99, published on March 13, 1998, June 22, 1998, and March 19, 1999, respectively.

Warranty. The Code provides for two different kinds of warranty: the legal warranty and the contractual warranty. The legal warranty is comprised of a series of Code provisions that provides for a minimum set of consumer protection requirements, including the imposition of strict civil liability for damages caused by the product or service or for the product's imperfections, which may not be disclaimed as a matter of public policy that cannot be waived.

When a product is covered by legal warranty, the consumer can demand replacement of defective parts. If the supplier does not correct the imperfection within 30 days from the consumer claim, the consumer may choose to demand replacement of the product by another of the same kind, or immediate reimbursement of the amount paid without prejudice to his right to recover losses and damages, or proportionate price reduction.

Contractual warranties are those suppliers offer at their own discretion. They are deemed complementary to legal warranties and must be stated in (clear) Portuguese. The relevant warranty document must be standardized and adequately clarify exactly what the warranty covers (including form, term and place where it may be honoered, and charge to the consumer).

Statute of Limitations. The Code provides for time limits during which consumers can enforce legal warranty rights and raise product liability claims against suppliers.

- 30 days for non-durable and 90 days for durable products and services from delivery date for immediately and easily verifiable defects;
- The same as above from the date concealed defects are revealed; and
- 5 years for claiming damages caused by a defective product or service to third parties.

Limitation of liability. The Code clearly admits no contractual provisions limiting or excluding supplier's responsibility for adequacy of, or damages caused by, products or services. The only exception relates to consumer agreements between legal entities where they can limit the amount of supplier's indemnification in certain justifiable situations.

Intellectual Property, Licenses, Transfer of Technology

Overview of the Brazilian Industrial Property Code

Introduction. The Industrial Property Code (Law No. 9279 of May 14, 1996) (the IP Code") is the primary law for trademarks and patents. It provides for registration and legal protection of trademarks, patents, industrial designs and geographical indications by Brazil's Patent and Trademark Office (literally, National Institute of Industrial Property -- "INPI"). It also has provisions on unfair competition and crimes and other violations arising therefrom. It further provides for registration of licensing, transfer of technology and franchising agreements.

The IP Code is an updated collection of rules; it is adapted to the World Trade Organization (WTO)'s requirements relative to laws related to industrial property rights (commonly referred to as TRIPS). Brazil is a member of WTO and several other international conventions and agreements with a view to protect industrial property (e.g., Paris Convention, Patent Cooperation Treaty).

Patents. Inventions and utility models are not protected by patents if they are immoral, contrary to good customs, public security, order and health. Similarly, substances, materials, mixtures, elements or products of any kind (including the modification of their physical-chemical properties and processes for their obtainment or modification), resulting from the transformation of the atomic nucleus, cannot be protected by patents.

Living beings, in whole or in part, also cannot be patented, except for transgenic micro-organisms which present the prerequisites of patentability and provided that they are not a mere discovery. Transgenic micro-organisms are organisms (except for the whole or parts of plants and animals), which express, by means of direct human intervention in their genetic composition, a feature the species do not obtain under normal circumstances.

The IP Code eliminated former restrictions on the patentability of chemicals, pharmaceuticals and food products and processes.

Requirements. Creations are protected by patents if they are novel, inventive and fit for industrial use. To be protected by a patent the creation must be new (i.e., not included in the state of the art). State of the art includes everything that has become public (by written or oral description, usage or other means), in Brazil or abroad, before the application is made. If during a period of 12 months before the application date there is disclosure, it will not harm the patent application, if the inventor or third parties disclose the subject of the patent.

An invention is actually inventive if to experts in the particular field of endeavor it does not obviously result from the state of the art. A Utility model is inventive if it does not ordinarily result from the existing state of the art. The other requirement for protection is that the patent must be considered capable of industrial application (i.e., used or produced industrially).

Priority. A priority right is granted to the application filed in a country which is a treaty country with Brazil or which is a member of an international organization to which Brazil is a member.

Documents, Proceedings. Patent applications must be supported by a petition, specification of the invention, claims, drawings (if any), abstract of the invention and evidence of fee payment. If the application involves biological material, to enable the practical reproduction of the object of the application by the examiner, such material must be submitted to the agency authorized by INPI or appointed through an international agreement.

Once filed, the patent application will be kept under secrecy for a term of 18 months; then it will be published. Publication may occur sooner at applicant's request. Review of application must commence 60 days from publication, provided that the applicant has requested the examination within a term of 36 months from the date of filing of the patent application.

After publication, and until the end of the examination period, third parties may submit to INPI documents and information that may be relevant to the decision (including documents and information opposing grant thereof). After the examination request, and whenever INPI so requires, the applicant must submit within 60 days the searches for prior art, and examination results for the granting of the same application in other countries when a priority right is claimed and other documents are required for review.

The examiner must then opine on the application, if it can be granted, its consistency with the type of protection claimed, reformulation or division thereof and technical requirements. If the opinion is unfavorable to the patentability, if the application is formally incorrect, or if the examiner requires further action, the applicant will be notified to reply within 90 days. Failure to comply will result in definitive shelving. If the application is accepted, an official fee must be paid and the application is granted.

Validity. Patents for inventions are valid for 20 years; patents for utility models, for 15 years. The starting date is the date of filing. Validity terms will never be less than 10 years for an invention and 7 years for a utility model, as of grant date, except if INPI is prevented from deciding as a result of force majeure or court orders.

Scope of Protection. The patent provides protection to its owner against the unauthorized manufacture, use, marketing, sales or importation of the patented product or process or product directly obtained from a patented process, by third parties, except when the unauthorized use is for non-commercial or experimental purposes that do not harm the patent owner's economic interests. Otherwise, indemnification will accrue as of the date of its occurrence, including the period of exploitation prior to the date of grant. Third party good faith exploitation of a patent before the application is filed entitles the party to continue the exploitation under same form and conditions at no cost.

Administrative and Judicial Invalidity. At the administrative level, a patent may be declared invalid in the event of formal flaw in the registration process. The invalidity proceeding may start by INPI or a third party with legitimate interest within 6 months from the date of grant.

In these proceedings the patent owner may answer within 60 days. With or without an answer the examiner must opine and another 60-day term will commence for claimant and owner to reply. After this term INPI's chairman must decide the proceedings, thus ending the administrative level. In addition to administrative, any time during the patent validity term can INPI or a third party file a judicial invalidity suit before a Federal Court.

Voluntary and Mandatory Licenses. Patents may be assigned or have its use voluntarily licensed to third parties. The license agreement must be registered with INPI to be effective against third parties but such registration is not required for purposes of evidencing the patent use. A patent owner may request INPI to offer to third parties a license for its use. Such a voluntary offer may not be for a license on an exclusive basis.

The advantage of putting a patent for voluntary license is that, during the period in which the patent is placed under license offer through INPI, the cost of the annuity is reduced by 50%.

INPI may impose mandatory patent licensing if the patent holder enforces its rights in an abusive manner so decided by an administrative or court decision.[6] When a patent is not fully exploited (other than for reasons of lack of economic viability) such patent may also become subject to mandatory licensing. Such licenses may be requested only by an interested third party who is technically and economically qualified to efficiently exploit the patent. The products resulting from such licensing must be earmarked mostly for the domestic market. Public interest and national emergency, declared by the Federal Government, may create a mandatory license when the patent owner or its licensee does not meet the need, but without prejudice to the owner's rights. Mandatory licenses will be granted only on a non-exclusive basis and sublicensing is not allowed. If licensee does not commence exploiting the mandatory-licensed patent within a year, the owner may request cancellation thereof.

Addition Certificate. The new patent law also contemplates protection for an improvement or development introduced in the subject matter of the invention by granting an Addition Certificate, which is added to the patent. The certificate's validity shall coincide with the patent's validity.

Termination of Patent Rights. The following will terminate patent rights: termination due to lapse of time, failure to pay annual dues, forfeiture for failure to cure the abuse or misuse of the patent, and the failure to appoint a local attorney in fact to receive summons.

[6] To date there is no record of any such decision.

Annual Fee. Regardless of actual granting of a patent, payment of the annual fee is due as of the third year following the filing date; thereafter, the fee must be paid annually. Reactivation of the application or patent may be requested upon payment of a specific fee and within three months following the shelving/extinction of the application/granted patent due to lack of timely payment.

Creations pursuant to Employment or Service Agreements. As to inventions and utility models that occur during employment or service relationships, the creation belongs exclusively to the employer when the creative activity is implied in the employment agreement. If the employer contributed to the employee's creation by providing resources and other means used in the creation, even if the creation was not the employee's duty contained in the employment agreement or naturally resulting from it, such employer will be entitled to one half of the ownership rights and to the exclusive exploitation license. The patent owner employer, at its discretion, may grant the employee (author of the creation) participation in the profits resulting from the patent exploitation (yet the participation is not incorporated in the employee's salary).

Industrial Designs

Creations that can be registered. An industrial design is a bi-dimensional representation (ornamental assembly of lines and colors) or tri-dimensional object (ornamental plastic form) which may be applied to a product, affording a new and original look in its external configuration, and which may be used for industrial production. Creations having a purely artistic nature are not considered industrial designs. Industrial designs are protected by registration and, as a result, are not considered a patent.

Requirements. The requirements to register an industrial design are novelty and originality. Novelty is defined as for patents (see above). The exemption term during which disclosure of the design will not be deemed to include it within the state of the art is 180 days. Originality is defined as an original and distinct visual configuration when compared to other, previously known objects. Common or ordinary forms of an object, or those of a technical or functional nature, are not deemed to be industrial designs. Immoral designs do not qualify for registration.

Registration Process. After filing, the application will be immediately published and registered, unless a term of secrecy has been claimed. Aspects of novelty and originality are not reviewed before registration. Upon publication, the applicant may ask novelty and originality review; if the examiner finds that the creation lacks such requirements, administrative invalidity proceedings will be initiated. Judicial invalidity actions may be proposed before a Federal Court at any time during the registration validity term.

Registration is valid for 10 years and may be renewed for 3 successive periods of 5 years each and a fee must be paid every 5 years.

Trademarks. Any visually perceptible, distinctive sign that is not prohibited by law qualifies for registration as a mark. The IP Code has enabled registration of tridimensional trademarks but is silent on registration for audio or olfactory trademarks.

Marks are divided into 3 categories: products or service marks, certification marks and collective marks. A product or service mark is the trademark used to distinguish a product or service; a certification mark is used to assert compliance of the product or service with certain standards of quality or technical specifications; a collective mark is used to identify products or services originated from members of a certain group.

Trademarks are registered for 10 years and can be renewed for other 10-year terms.

Marks that cannot be registered as Trademark. The following may not be registered as marks: official public, domestic, foreign or international escutcheons, coats of arms, medals, flags, emblems, badges and monuments, their designation, shape or imitation; any isolated letters of the alphabet, numbers or date (except under a stylized form); any expression, figure, drawing and other signs which are immoral, offensive or discriminative; designations or acronyms of public entities (except when requested by the respective entity); the reproduction or imitation of the main element of a corporate name or title of a place of business; signs commonly used to describe the nature, nationality, weight, value, quality and time of production of a product or service; advertisement slogans, colors and their designation (except under a peculiar and distinctive form); false indications of geographical origin; the name of an event, except when authorized by the entity promoting the event; reproduction or imitation of an official currency (whether domestic or foreign); civil names or signatures, except upon consent of the holder of the right; the names and titles of literary, artistic or scientific works protected by copyright (except upon consent of the owner); technical terms used in connection with the product or service; reproduction or imitation of a mark belonging to a third party for identical, similar or related products (except upon consent of the author or owner); common or necessary form or packaging related to the product; forms protected by industrial designs belonging to third parties; the reproduction or imitation of a mark with which the applicant, by virtue of the activity in which it is engaged, could not evidently be unfamiliar.

Famous and well-known Marks. Special protection shall be afforded to a mark registered and deemed famous in Brazil, covering all classes of products and services available under Brazilian law. The mark that is well-known in the field of activity where it is used, as defined under the Paris Convention, is also afforded special protection, regardless of whether it was previously filed or registered in Brazil. This also holds true for service marks.

Priority. A right of priority is afforded to applicants in Brazil as stipulated under the Paris Convention, or by inter-governmental agreements which extend recognition to the applicant's home registration.

Requirements. The applicant may be an individual, a private or a public entity. The applicant may only claim classes related to the business activity in which it is engaged, directly or through controlled companies. The applicant for a collective mark must be a legal entity representing the relevant group; it may have a business purpose differing from the activities in which the members are engaged. With regard to certification marks, the applicant may only be a person without commercial or industrial interest in the certified product or service.

Registration Process. After filing application is published and the examiner has not yet reviewed if the mark can be registered; third parties seeking to prevent the mark's registration may file an opposition within 60 days. Once the opposition term elapses, review will take place. If no opposition was filed, the examiner will accept, issue an official action to correct the application or provide the required documents, as the case may be, or reject the application. Failure to comply with an official action will result in shelving the application. If accepted, the certificate of registration will be issued and a fee must be paid.

Registration may be cancelled through administrative invalidity proceedings when a mark is granted in violation of the law. Such invalidity proceedings may be initiated by INPI or interested third parties within 180 days from grant. INPI's chairman will decide the case, thus terminating the administrative instance.

In addition to the aforesaid administrative proceedings, INPI or third parties may seek court action to cancel a trademark registration. The statute of limitations for such an action is 5 years from the registration date.

A trademark application or registration may be transferred or licensed.

Geographical Indications. INPI will register geographical indications, which are defined as either those geographical names of countries, cities or regions which became known as centers for the extraction, production or manufacture of a certain product or the rendering of a certain service, or those geographical names that are used to designate a product or service qualities or features present only or essentially in the particular geographical environment.

However, the name of a geographical region which has become commonly used to designate a product or service will not be considered a geographical indication. Only those manufacturers or service providers who that are actually established in the geographical area can use the corresponding geographical indication.

Parallel Imports. Parallel imports or gray-market imports is defined as non-authorized importation of a product (legitimate and legally protected by a patent and/or trademark) by a party other than the legitimate holder of such patent and/or trademark, authorized licensees or distributors.

In this event the patent owner may stop the import, but it cannot stop the use, marketing and sales of such product when the import was made by the patent owner himself, or with the owner's consent. The patent owner's right to oppose those imports is limited in the event the patent owner itself imports the patented product instead of manufacturing it in Brazil or when a mandatory licensee imports the patented product during an allowed importation period of one year as of the license grant.

With regard to trademarks, the same principle applies. Further, if the owner of a patented product bearing a trademark registered in Brazil decides to exploit the patent by importing such product, then a third-part import of the product may not be blocked based on the trademark.

Parallel imports of gray products are not a crime. The only available action is thus civil lawsuit aimed at preventing the illegal imports and, possibly, obtaining indemnification for losses and damages.

Exhaustion of Industrial Property Rights. The patent/trademark owner's industrial property rights are exhausted when he first sells such patented or trademarked product within the domestic market. Such rights are not exhausted when the first sale is placed in the international market, with the exceptions noted above.

Crimes Against Industrial Property. As a general rule, the protection afforded to a patent, a trademark, or an industrial design allows the owner to prevent a third party from manufacturing, using, reproducing, offering for sale, selling or importing the object protected by the patent, or obtained by the patented process, or bearing the trademark, or embodying the industrial design, without the owner's consent. Such right equally exists against those who contribute to prohibited acts practiced by third parties.

The penalty (fine or imprisonment from 3 months to 1 year) is increased by 1/3 to ½ the penalty imposed when the violating party is a sales representative/agent, an authorized individual, company representative, partner or employee of the patent/registration owner or its licensee, and also if the violated trademark is famous, well-known, certified or a collective mark.

Among other remedies applicable to the particular case, the owners may seek search and seizure of such products, indemnification for losses and damages, injunctive relief stop manufacture of counterfeited products,.

Reproduction and deceiving imitation of official domestic or foreign symbols, or the sale or offering for sale of products bearing such symbols, or their use with economic purposes without

authorization, on a trademark, corporate name, insignia or advertising slogan, and the untrue geographical and other false indications may constitute crimes subject fine or imprisonment of 1 to 3 months.

Unfair Competition. A false statement, the disclosure or employment of fraudulent means for the purpose of obtaining an advantage, the diversion of clientele, the deliberate misleading of the consumer and use without consent of a third party's corporate name, packaging or confidential information, bribery, and other fraudulent acts mentioned in the law are defined as acts of unfair competition resulting in fine or imprisonment of 3 months to 1 year. The above mentioned acts, as well as other acts of unfair competition not defined as crimes, are subject to civil lawsuits and may entitle the damaged competitor to losses and damages.

Intellectual Property Licenses, Transfer of Technology

Introduction. Most agreements encompassing licensing and transfer of patented or unpatented technology, know-how, trademarks and technical assistance should be registered with INPI. If INPI does not register these agreements, the owner of the industrial property cannot claim royalties or other consideration, and payer will be denied Brazilian tax deductions otherwise available. Failure to obtain INPI's registration also presents difficulties in enforcing the agreements against third parties. As a general rule, agreements with payments in foreign currency must also be registered with the Central Bank.

Guidelines for Technology License and Transfer. As a general rule INPI should not interfere with payments for royalties, trademarks, technology, and technical assistance fees. If the parties choose to provide for fees in excess of what the law allows as a business, tax deductible expense, they are free to do so, as long as their actual deduction remains within the legal parameters. For income tax purposes, deductibility of payments is limited to a certain percentage of net sales (as specified in the law), which varies depending on the specific products covered by the transaction, and royalties may not exceed 5% of net sales for patents and1% of net sales for trademarks.

However, the law limits allowable fees for related companies (e.g., parent-subsidiary or similar relationship). The maximum limit is equal to what the law allows as a maximum deduction and maximum foreign-currency payment by subsidiaries to controlling companies abroad. That amount is 5% of net sales, unless specific regulations call for a lesser amount (which shall be no less than 1%).

Agreements INPI Accepts. INPI usually accepts the following agreements:

- **Patent license agreements.** The term is restricted to the remaining life of the patent. Depending on the subject matter (as noted above), Brazilian patents are valid for 15 or 20 years from the date of application. Patents of invention have a term of 20 years and utility models, 15 years.
- **Trademark license agreements.** As in the case of patent license agreements, the term of a trademark license cannot exceed the trademark validity. Although trademark registrations are valid for only 10 years, the holder can renew it for successive 10-year periods. Tax deduction of royalty payments for trademark licenses is capped at 1% of the licensee's net sales (see comments above).
- **Technology transfer agreements.** INPI registers agreements in which the owner transfers unpatented know-how or technology applicable to the manufacture of goods, parts or components.
- **Specialized technical services agreements.** This category includes agreements in which a person or entity performs particular services (e.g., engineering projects or programs for the assembly, installation and operation of industrial equipment) for another person or entity. Payment in such cases must be calculated on the basis of daily or hourly fixed rates for work actually rendered.

- **Franchise agreements.** The trademarks involved in a franchise arrangement must have been applied for in Brazil before the corresponding franchise agreement is executed. Law No. 8,955 of December 15, 1994 governs franchise agreements. Among other requirements, franchisors intending to operate in Brazil must send an Offering Circular to franchisees before signing any agreement or receiving any payment.

Consulting Services and Professional Services Agreements. Payments abroad are allowed for consulting or professional services of a technical, financial, legal or administrative nature without prior specific approval from INPI or the Central Bank, provided that the payments are not for transfer of technology.

Copyright Fees. Copyright fees may also be paid abroad. The regulation for such transfer is less strict than the rules covering the payment of royalties and technical assistance fees. Payments for copyright licensing may be based on a percentage of net sales or on a fixed price for each copyrighted item. At least in principle the agreement is not subject to prior review by any agency, although as part of its foreign exchange control duties the Central Bank routinely reviews the amounts of such payments, which must be within international parameters. Certain types of copyright fees must be approved by governmental agencies, such as those related to audiovisual works.

Withholding Income Tax. Royalty payments to nonresident licensors related to licenses for copyrights and use of rights, technology transfer and technical assistance are subject to withholding income tax of 15% based on the gross royalty paid (except where tax treaties allow a lower rate). Service payments not involving transfer of technology (e.g., consulting services) are subject to withholding income tax of 25%. The tax may be borne by licensor or licensee.

Contribution for Intervention in the Economic Domain. This contribution ("CIDE") was created on December 29, 2000 by Federal Law No. 10,168. CIDE Is levied at 10% upon payments related to licenses for use of rights, technology transfer and technical assistance; the rationale is to stimulate Brazil's technological development. The Brazilian party must pay CIDE based on amounts paid, credited, delivered, used or remitted to nonresident beneficiaries as of January 1, 2001.

Financial Tax. A financial tax of 25% was imposed on the net remittance of royalties, technical assistance fee payments and copyrights to nonresidents but since June 1997 it has been reduced to zero.

Software. Software is protected under specific statute. The Software Law currently in force is Law No. 9,609 of February 20, 1998. It affords software copyright protection. Software fees may thus be paid to the program owner as described in the copyright section above. Also, software, maintenance and customization fees may be paid abroad without any prior approval.

Sales Representatives and Distributors

Sales Representatives or Agents. The Brazilian legal concept of a sales agent is rather broad, including practically any independent agent who works as an intermediary in the sale of products or services. Given the size of the country, many companies employ sales representatives so that they may best take advantage of Brazil's vast potential market. As a result, a number of rules have been established, creating an extremely protective environment for sales representatives in Brazil.

General Requirements. Law No. 4,886 of December 9, 1965, as amended by Law No. 8,420 of May 8, 1992, regulates the activities of independent commercial representatives ("sales agents") in Brazil. The law provides that sales agents are individuals or legal entities that, without the

existence of an employment relationship, are responsible for negotiating commercial transactions and soliciting purchase proposals or orders on behalf of one or more persons (the "principals").

Certain minimum protection is provided to these non-employee sales agents, along with the same general principles of labor laws for the protection of employees. The law requires that sales representative agreements in Brazil include general terms and conditions of the representation, a general or specific identification of the products or articles on which representation is based, the term (definite or indefinite) of the representation, the territory, the nature (exclusive or non-exclusive) of the representation and the duties and responsibilities of the contracting parties.

Brazilian law does not prohibit an agency contract for a fixed term. However, a contract in force for a fixed term may be renewed for an indefinite term, only. Likewise, an agency contract executed by the same parties within 6 months after termination or expiration of another agent contract shall necessarily be in force for an indefinite term.

On the other hand, the sole difference between an agent and an employee is that the latter works under the command of the employer. The giving of orders by principal to agent, as well as the payment of benefits typically due to employees such as Christmas bonus and vacation, could characterize an employment relationship between principal and the agent. Thus, so as to avoid such claim and its heavy economic burdens, it is if crucial relevance that the represented company includes the following restrictions in all its agency contracts: sales agents must always be established as a company formed by at least two partners; principals must avoid giving orders directly to the partners of the representative company or to its personnel. Also, these same orders must be restricted to the performance of the obligations of the sales agent.

Indemnification. The law also provides for the indemnification of sales agents upon termination of a contract by the principal without "just cause" or by the agent with "just cause." The conditions calling for indemnification are clearly favorable to and protective of sales agents, setting the minimum amount at one twelfth (1/12) of the agent's total compensation during the term of representation, in case of indefinite term representation contracts. In case of termination of a fixed-term contract, the indemnification shall be equal to the monthly average of the commissions paid until the date of termination, multiplied by one half (1/2) of the number of contractual months, as set forth in Law No. 8.420/92. Apparently there is a typo in Law No. 8,420/92 as the indemnification should be the average commission calculated as above, multiplied by one half of the number of the remaining months of the contract. However, thus far such typo has not been corrected.

Furthermore, in case of indefinite term contracts, if the contract is terminated without cause, the terminating party is required to give 30-day advance notice of termination or to pay a compensation equal to 1/3 of the commissions earned by the agent in the past 3 months.

Exclusivity of Representation. The agent is also guaranteed exclusive right to the zone of activity specified in the contract, unless otherwise stated. This exclusivity means that the agent is guaranteed the whole commission for that region, even if the sales are carried out by the company itself. The agent is not prohibited from representing other companies with the same or similar products in that zone unless otherwise agreed with the company.

Venue Court. Judgment of controversies arising from the contract shall be discussed before the venue court of the agent’s domicile.

Distributors. Law No. 4,886 of 1965 applies only to sales agents. Distributors who purchase products and resell them in their own name and for their own account are not afforded the specific protection outlined in Law No. 4,886, nor are they provided with a means of indemnification by law.

There being no specific legislation protecting distributors, distribution agreements are governed by the Brazilian Civil and Commercial Codes. In the event of breach of a definite term contract before the end of the contractual term, the breaching party may be liable for damages. These damages include direct and (sometimes) indirect losses, but not punitive damages.

Due care should be exercised whenever terminating a distribution agreement with a Brazilian party contracted for an indefinite term. It is recommended that the terminating party give as much prior notice as possible (e.g., three to six months), so as to allow the other party sufficient time to reorganize its business and to eliminate any basis for damages for unreasonable termination.

The manufacturer cannot under any condition impose the product's resale prices on the distributor, because such procedure constitutes an infraction against the economic order. The manufacturer may, however, suggest the final prices for the product, without this constituting an obligation for the distributor.

One exception to the absence of specific legislation covering distribution agreements is Law No. 6,729 of 1979 (as amended by Law No. 8,132 of 1990), which regulates the distribution of automotive vehicles in Brazil. This statute is very specific and is only enforceable with respect to Brazilian automotive industry distribution agreements.

Arbitration

In Brazil, the arbitration institute is regulated by Law No. 9,307/96. The innovation brought by such law consists in two aspects: it ratified the validity of the arbitration clause, establishing a specific regime for this institute and it simplified the execution of procedure of arbitral awards, exempting them from homologation by the Supreme Court of Brazil. Moreover, the principle of independent will was firmly established as the parties are allowed to choose the applicable law of litigation.

According to such legislation, individuals and entities that are legally qualified to enter into agreements may resort to arbitration to settle disputes concerning their property rights. The legal rules governing arbitration may be freely established, including general principles of rules, custom, usage and international trade rules.

Therefore, the Brazilian legislation on arbitration opened a new alternative for foreign investors to avoid local decisions from courts, preventing them from the high judiciary costs and bureaucratic proceedings.

Disputes subject to arbitration are analyzed by specialists, with greater celerity and more flexible procedures. The parties may, by mutual agreement, define the procedure for selecting arbitrators and, so, the arbitration may be subject to the rules of a given institutional arbitration organization or specialized entity.

An arbitrator is the counterpart of a court, as a matter of fact and of law. The final decision on an arbitration procedure is not subject to appeal or to validation by the judiciary system.

The attorney is not an obligatory party of the arbitration system, the parties may put forward their claim through their attorneys but will at liberty to designate other persons to represent or assist them.

The arbitration procedure is similar to the judicial procedure; it consists of a report, ground for decision, ruling and issuance of award.

According to the referred law, in order to be recognized or enforced in Brazil, a foreign arbitration award shall be subject to the provisions set forth by the international treaty executed with the interested country, with due regard for the Brazilian legislation. In the absence of such a treaty, however, a foreign arbitration award will only be subject to confirmation by the Supreme Court of Brazil.

Regarding foreign judgments, they may be recognized and enforced in Brazil, by the Federal Supreme Court and the competent Brazilian lower court, irrespective of the existence of reciprocity from the part of the country from which such judgment is originated or a specific international treaty or convention between the country of origin of the judgment and Brazil. In addition to the restriction, the recognition will depend on the confirmation that the judgment is not contrary to national sovereignty, public policy or good custom.

Various Arbitration Chambers are being created in Brazil, such as the Chamber of Mediation and Arbitration of São Paulo, linked to FIESP – Federation of Industries of São Paulo, in which a significant number of arbitration procedures are underway.

Last but not least, in July 1998, the Agreement on International Trade Arbitration of Mercosur was signed in Buenos Aires and it shall be in force with only one more ratification, as Argentina did ratify it on January 2000.

Health Laws, Products Controlled by Public Health Agencies

Introduction. Health laws fall under the realm of Administrative Law and are meant to regulate matters related to:

- the prevention of diseases, contagion and proliferation of transmissible illnesses;
- the production and commerce (import, transport, storage and distribution) of foodstuffs, pharmaceuticals, cosmetics, personal hygiene products, medical equipment (appliances, instruments and materials for medical and hospital use) and home sanitation products (insecticides, cleaning products);
- hygiene of public and other establishments where economic activities are carried out;
- potability of water;
- environmental clean-up;
- migration control and health requirement compliance of ports, airports and border areas; and
- the practice of certain public health professions and occupations.

National Agency of Health Requirement Compliance (ANVISA). In the end of 1998, beginning of 1999 the National Agency of Health Requirement Compliance (ANVISA) was created. The ANVISA is a special government agency under the Ministry of Health, with administrative and financial autonomy and is in charge of executing the actions and measures of the National System of Health Requirement Compliance (SNVS). SNVS is a group of actions and measures taken by the government in order to protect public health in general by controlling the sanitary conditions of production, commerce and services related to health.

ANVISA started its activities on April 26, 1999 upon the publication of its Internal Statutes. The Ministry of Health continues to formulate the national health requirement compliance policy and to establish the general directives of the SNVS, and also monitor and evaluate the execution of same. ANVISA, on the other hand, is responsible for the execution and coordination of this policy and other directives, and is in charge of supervising each one of the steps of the production and commerce of products related to health, including the processes, input materials, technologies and establishments related to such products and services, as well as any other activities which are part of its organizational purpose.

A Health Requirement Inspection Tax started being charged on May 10, 1999 and it is assessed on various services to be provided by the ANVISA, such as product registration, issuance of authorizations, approval of import / export operations, etc. Micro, small and medium companies may obtain discounts from 15% up to 95% on these taxes, depending on their annual invoicing.

Foodstuffs. In theory, decree-law no. 986/69, the basic law in force regulating foodstuffs under the federal constitution, gives the ministry of health the authority to register and inspect food products. nevertheless, a few laws have been passed giving the ministry of agriculture the authority to classify and register certain products such as beverages and a few types of food (especially that of animal or plant origin). In actuality, a "grey zone" has been formed between the authority of these ministries, and in many cases the same products may be classified, registered and inspected by both.

Each business or industrial division of a company in the food business must have an "Operating License" issued by the State Health Agency or by a local agency when authority is decentralized. In order to obtain this License, each division is first inspected by the health authorities in order to verify compliance with local health requirements, which establish the minimum conditions for each division to exercise each type of activity (production, storage, commerce or transport of foodstuffs).

In order to simplify bureaucratic procedures and focus its attention on inspection activities, ANVISA exempted several types of foodstuffs from registration (approximately 70%) and the remaining part may only be exposed to consumption if duly registered before Ministry of Health / ANVISA.

In the performance of their activities, foodstuff producers (including packagers, dividers and transporters) must follow the "Proper Production Practices," which are a collection of procedures established by federal and State laws to ensure sanitary quality in food. ANVISA will be in charge of issuing the Certificate of Proper Production Practices.

All foodstuffs are subject to "Control Analysis." For imported products, this occurs at the time of customs clearance. If the foodstuffs are produced in Brazil, this step occurs during approval for consumption. This Control Analysis is performed by laboratories accredited by Brazilian authorities and is designed to verify the conformity of the products with the standards of quality and identity established by the Ministry of Health / ANVISA or Agriculture, as applicable. In addition to the Control Analysis, the health authorities may, at any time, take a sample of the food product offered for sale or consumption and send it for "Inspection Analysis," which is a process similar to Control Analysis.

Pharmaceuticals, Cosmetics, Personal Hygiene Products, Medical Equipment and Home Sanitation Products. Pharmaceuticals, cosmetics, personal hygiene products, medical equipment and home sanitation products are also subject to Health rules. These items may only be produced and sold (or imported, distributed, stored and transported) if they are first registered with the Ministry of Health / ANVISA.

In such case, ANVISA also exempted low risk cosmetic and home sanitation products (classified as level 1) from registration before the Ministry of Health. Thus, lipsticks, some types of shampoos and soaps, home cleanser, among others are no longer subject to registration.

In order to apply for a product registration or exemption of registration, the producer, importer or merchant must have an "Operating Authorization" or a "Special Operating Authorization" (related to the type of product or activity) issued by the Ministry of Health / ANVISA.

To obtain this Authorization, it is first necessary to present an Operating License of its facility. Similar to companies dealing with foodstuffs, each division of companies producing, importing

and selling pharmaceuticals, cosmetics, personal hygiene products, medical equipment or home sanitation products must be compliant with the corresponding health requirements. The divisions are first inspected by the health authorities to verify compliance with the minimum requirements (type of floor, ceiling, measurements, ventilation, zoning, etc.) established by the laws of each State or municipality.

As such, only those companies established in Brazil may obtain an Operating License and Operating Authorization, and subsequently apply for registration of their products with the Ministry of Health.

Another important requirement is the need to hire a duly certified professional (e.g. chemist, pharmacist or engineer, depending on the type of activity the company carries out) to act as the technician responsible for the company and its products. This professional, as well as the producer or importer, must also be affiliated with the respective regulatory council for the area of activity to be performed in Brazil.

Each type of product is covered by numerous guidelines, mostly administrative rules issued to regulate production, commerce, importation and registration procedures and documentation. Over one thousand administrative rules are issued by ANVISA, which makes this branch of Law an extremely dynamic one, faced with the ever-growing need to keep in line with applicable international standards and maintain compatible standards with other countries, especially those in Mercosur.

Other Products Under Health Rules. Cigarettes, beverage, human plasma, vaccine, vitamins, functional foodstuff, controlled drugs, toxics among others are also products regulated by Ministry of Health/ ANVISA.

Labelling, Packaging and Advertising. Labelling and packaging for products under health rules are also issues of great importance. In addition to generic labelling standards established in the Brazilian Consumer Protection Code, or even in administrative rules issued by the Ministry of Health or Agriculture, many types of products are already covered by specific labelling rules. These rules have been constantly updated in order to adapt to new technological concerns, such as the migration of packaging waste to the products themselves. Advertising materials of products mentioned herein are also subject to health rules and its use depends on ANVISA's prior approval.

Violations and Criminal Aspects. With respect to penalties, in addition to the inspections held by the appropriate authorities, producers, importers and merchants of products subject to health requirement compliance which do not comply with the pertinent health rules are also subject to civil and criminal action. In this vein, two new laws in the criminal sphere have recently been passed (Law No. 9.677/98 and Law No. 9.695/98) which establish severe punishment for those causing damage to public health in general. This may happen, for example, as a result of selling products beyond their expiration dates, by adding raw materials which have not been authorized or which have been tampered with, by selling products without the pertinent registration or having incorrect labelling. Violators are subject to fines, the closing of their establishments and even imprisonment.

With respect to the sanctions applicable to the crimes against public health, such as search and seizure of property and judicial disposal of same, the ANVISA's powers were expanded to include the right to attach bank accounts held by violators as well as any company owners and managers responsible.

Methods Applicable to Imports and Export of Goods, Services or Rights

Comparable Uncontrolled Price Method. This method is defined as the arithmetical average of sales price of goods, services or rights, either identical or similar, prevailing in the Brazilian or foreign markets, on transactions of purchases and sales, under similar payment conditions. In other words, the taxpayer shall compare its costs, expenses and charges of goods, services or rights acquired from a related party, during a given period of time, with such arithmetical average. If the costs, expenses and charges incurred by the taxpayer exceed the arithmetical average, the exceeding amount shall then be added back as taxable income.

Although Law No. 9,430 is silent, Treasury Ruling No. 38 provides for some adjustments between controlled and uncontrolled prices. For identical goods, services and rights, Treasury Ruling No. 38 permits adjustments related to:

- Payment conditions;
- Quantities negotiated;
- Obligations related to warranty for the good, service or right;
- Obligations related to promotion of the good, service or right by means of marketing and advertising;
- Obligations for quality control, standard of services and health conditions;
- Agency costs in purchase and sale transactions carried out by unrelated parties;
- Packaging;
- Freight and insurance.

For similar goods, services or rights, besides the adjustments listed above, the regulations permit the taxpayer to make adjustments relating to physical differences between the goods, services or rights taken into consideration for comparison purposes.

Still with respect to the arithmetical average, only transactions carried out between unrelated purchasers and sellers will be taken into consideration for purposes to calculate such average. In addition, it is important to note that neither Law No. 9,430 nor Treasury Ruling No. 32 elects a preferred jurisdiction, whether local, state or foreign, in which "uncontrolled prices" are adopted in transactions between unrelated parties. Thus, a taxpayer may take into account, for purposes to calculate the arithmetical average price of goods, services or rights, "uncontrolled prices" adopted in either local, state or nationwide markets, or in import/export transactions, as well as in transactions carried on outside the Brazilian territory.

Resale Price Less Profits Method. Under the old rules and regulations enacted late 1996 and mid-1997, importers could not use the resale price method when imported goods or rights were subject to another manufacturing process that would result in a new product. In these cases, the importer had to use one of the two remaining methods that is, the comparable uncontrolled price method or (foreign) cost-plus method.

On October 7, 1999, the President of Brazil issued Provisional Measure No. 1,924/99 (that eventually became Law No. 9,959/00) introducing some changes to Brazil's transfer pricing rules. The most relevant change is the adoption of a new resale price method for imports of goods or rights that will be subject to another manufacturing process in the country. Under the new rules, there is a bifurcation of the resale-price-less-profit method, depending on whether the importer will submit the imported products to manufacturing process within Brazil.

For imported goods or rights to be subject to a further manufacturing process by the importer or a related entity, the resale-price-less-profit method is defined as the arithmetical average of resale prices of goods or rights (in Brazil) less:

- Unconditional discounts granted[7];

[7] Unconditional discounts are those granted at the time resale takes place, provided they are expressly shown in the corresponding tax invoice.

- Taxes and contributions;
- Imposed on sales; or commissions and brokerage fees paid[8];
- A profit margin of 60% calculated over the resale price after deducting the above three items and the value added in the country.

For goods or rights imported into the country and not subject to a manufacturing process locally, the old rules continue to apply. In this case, the resale-price-less-profits method is defined as the arithmetical average of resale prices of goods or rights (in Brazil) less:

- Unconditional discounts granted;
- Taxes and contributions imposed on sales;
- Commissions and brokerage fees paid; and
- A profit margin of 20% calculated over the resale-price-profit margin of 20% calculated over the resale price.

The resale price to be considered for purposes of this method is the price adopted by the taxpayer in the wholesale or retail markets with unrelated purchases, with either individuals or legal entities. Differences in payment conditions can be adjusted according to the interest rate adopted by the taxpayer in its regular sales.

Finally, as to profit margins, the regulations accept profit margins other than those set forth in the specific methods, provided the taxpayer proves them based on publications, surveys or reports prepared by foreign governments, foreign tax authorities, or companies or institutes of notorious technical knowledge.

Production Cost Plus Profits Method. The third method used to determine arm's-length prices for imports of goods, services or rights is the production cost plus profit. It is defined as the average production cost of goods, services or rights, either identical or similar, in the country where they have been originally produced, and the taxes levied on exports in such a country and a markup of 20% calculated over the production cost.

According to the regulations, the following items can be computed in the (production) cost for purposes of this specific method:

- Acquisition costs of raw materials, intermediary products and packaging material used in the production of the good, service or right;
- Costs of other goods, services or rights used or consumed in the production of the relevant good, service or right;
- Cost of the personnel used in the production of the good, service or right, including those for production supervision, maintenance and security of production facilities and corresponding social charges;
- Costs of rents, leases, maintenance and repair, and depreciation and amortization charges of the goods, services or rights used in the production of the relevant good, service or right;
- Reasonable losses in the production process, since admitted by the tax legislation in the foreign country.

Therefore, to determine the maximum deductible costs, expenses and charges according to this method, the taxpayer is required to prove they do not exceed the production cost, plus taxes and a 20% profit margin in the country the goods, services and rights have been produced. The profit margin of 20% applies over the production costs before the taxes levied on exports.
Update: July 2002

[8] Include all taxes included in the sales price, e.g., ICMS, ISS (Municipal Service Tax), P.I.S. and COFINS contributions (turnover taxes).

Appendix (E) – List of Local Associations

Brazilian Gifts Association	ABUP	www.abup.com.br	3322 7240	3322 7241
Brazilian Textiles Association	ABIT	www.abit.org.br	3823 6100	
Brazilian Aerosol Association	ABAS		5505.1663	240.5528
Brazilian Aluminum Association	ABAL	secretaria@abal.org.br	5084.1544	549.3159
Brazilian Cosmetology Association	ABC	abc@abc-cosmetologia.org.br	240-5466	240.5528
Brazilian Food Engineering Association	ABEA	abea@abea.com.br	3032 1568	
Brazilian Cellulose Exporters Association	ABECEL		(021) 507-1218	
Association of Brazilian Manufacturers of Blow Molded Plastic Packages	ABEFEPS		212-4763	212.4763
Brazilian Rotoflex Paper Converters Association	ABFLEXO	tecnica@abflexo-fta.org.br	5085.0033	
Brazilian PET Manufacturers Association	ABEPET (A)	secretariaabipet@abipet.org.br	3078 1688	
Brazilian Chocolate Manufacturers Association	ABFC		287-5633	
Brazilian Food Industry Association	ABIA	abia@abia.org.br	3030 1353	3814.6688
Brazilian Coffee Industry Association	ABIC	abic@abic.com.br	(021) 516-8595	263.0398
Brazilian Association Of Cocoa, Chocolates, Candies and Byproducts Industries	ABICAB	abicab@abicabsweetbrazil.org.br	3266 4366	
Brazilian Cartoning Association	ABICART		816.3644	856.0222
Brazilian Soluble Coffee Industry Association	ABICS	abic@abic.org.br	021 2516 8595	
Brazilian Milk and Derivatives Industry Association	ABIDEL		279-5593	
Brazilian Adhesive Labeling Industry Association	ABIEA	abiea@abiea.org.br	5087-7777	5087-7733
Brazilian Industrialized Meat Exporters Association	ABIEC	abiec@abiec.org.br	3813 1277	
Brazilian Association of Flexible Plastic Packages Industry	ABIEF	abief@abief.com.br	3032 4092	
Brazilian Pharmaceutical Industry Federation	Febrafarma	febrafarma@febrafarma.org.br	3046 9292	
Brazilian Graphic Industry Association	ABIGRAF	abigraf@abigraf.org.br	5087 7777	
Brazilian Association for the Personal Care, Perfumery and Cosmetic Industries	ABIHPEC	sipatesp@wm.com.br	3372 9899	3266 5387
Brazilian Equipment and Machinery Manufacturers	ABIMAQ	diaec1@abimaq.org.br	5582-6300/ 6377	5582.6302

Association				
Brazilian Mechanically Processed Wood Industry Association	ABIMCI	abimci@abimci.com.br	41 225 4358	
Brazilian Association for Graphic Equipment and Machinery	ABIMEG		3060-9686	
Brazilian Association for the Mineral Water Industry	ABINAM	diretoria@abinam.com.br	3167 2008	3167 2542
Brazilian Electric and Electronics Association	ABINEE		251.1577	288.7857
Brazilian Association of non-textiles	ABINT	www.abint.org	3839.7457	3839.7459
Brazilian Plastic Industry Association	ABIPLAST	abiplast@abiplast.org.br	3060.9688 / 6962.6299	3060.9686
Brazilian Pharmaceutical Industry Association	ABIQUIF	abiquif@abiquif.org.br	(021) 220-3005	220-3005
Brazilian Chemical Industry and Derived Products Industry Association	ABIQUIM/ plastivida	abiquim@abiquim.org.br	3232.1144	3232.0919
Brazilian Association for the Carbonated Soft Drinks Industry	ABIR	abir@zaz.com.br	(021)262.3426	
Brazilian Ink Industry Association	ABITIM	airton@abitim.org.br	3262 4566	289 5780
Brazilian Glass Industry Association	ABIVIDRO	abividro@abividro.org.br	3255-3033	3255.4457
Brazilian Polyvinyl Chloride Association	ABIVINILA		543.5033	543.5197
Brazilian Materials and Metallurgy Association	ABM	abm@abmbrasil.com.br	5536-4333	
Brazilian Technical Regulations Association	ABNT	abnt@abnt.org.br	3289.6966	222.4443
Brazilian Polymers Association	ABPol	abpol@linkway.com.br	(016) 274-3979	
Brazilian Advertisements Association	ABP	abp@abp.com.br	(021) 2518 4629	21 2518 4630
Brazilian “B” Milk Producers Association	ABPL		221-3599	
Brazilian Corrugated Cases Association	ABPO	abpo@abpo.org.br	3831.9844	3836.6801
Brazilian Beverage Association	ABRABE		3079-6144	3064.6381
Brazilian Resin Manufacturers Association	ABRAF		287.9539	284.9812
Brazilian Christmas and Party goods Manufacturers Association	ABRAFE		816.3644	211.0226
Brazilian Wood Package Products Association	ABRAPEM		3255-8566	3255.8566
Brazilian Supermarket Association	ABRAS		3838.4500	3837.9933
Restaurants and Bars Association	ABREDI	abredi@abredi.org.br	3663 6391	3663 1872

Brazilian Association of Plastic Materials recyclers	ABREMPLAST		3887.2437	3887.2437
Brazilian Yogurt Industry Association	ABRINI		279-5593	
Brazilian Toy Industry Association	ABRINQ	abrinq@abrinq.com.br	3816.3644	3031 0226
Brazilian Pulp & Paper Technical Association	ABTCP	nit@abtcp.org.br	5574-0166	5571.6485
Brazilian Graphic Technology Association	ABTG	abtg@uol.com.br	6693 9535	
Beverage Distributors to the São Paulo State Association	ADIBE	adibe@adibe.com.br	6221 7343	
Beers and CSD Distributors to the São Paulo State Distributors Association	ADCR		3861-0590	
Graphic Designers Association	ADG	gerencia1@adg.org.br	3082 9688	3088 1322
Brazilian Sales and Marketing Drivers Association	ADVB	advb@advbfbm.org.br	3372 3800	3372 3820
Brazilian Coca-Cola Manufacturers Association	AFBCC		(021) 541-3387	
Brazilian Metal Packages Association	AFEMBRA		21 223 3182	
Brazilian Association of Fiber Products	AFPOL	afpol@plastico.com.br	5574.0311	5549.8760
Professional Pulp Sellers National Association	ANAVE	anaveassoc@uol.com.br	3284 1457	3284 0998
Pulp & Paper Manufacturers National Association and Brazilian Paper and Pulp Association	ANFPC + ABECEL = BRACELPA	bracelpa@bracelpa.com.br	3885-1845	3885.3689
Supermarket Association from São Paulo City	APAS	Apasnet@uol.com.br	3022.2350	3022.3967
Brazilian Logistics Association	ASLOG	info@aslog.org.br	3661 4657	3663 5569
Brazilian Rigid Plastic Association	ASPLAR	asplar@asplar.org.br	3719 0098	
Brazilian Association for the Tropical Fruit Processing Industry	ASTN		(079) 211.2877	
Business Compromise for Recycling	CEMPRE	cempre@cempre.org.br	3889-7806	3889-8721
Packages Technology Center	CETEA	adiceta@ital.org.br	(019) 241-5222	241.8445
Industry National Confederation	CNI	sac@cni.org.br	(061)317.9000	317.9527
Regional Chemical Council	CRQ - 4ª Região –	www.crqiv.com	(061) 224-5316 (11)3106.8041	239.5759
Brazilian Commercial Automation Association	EAN BRASIL	ean@eanbrasil.org.br	3064.8772	3064.9471

Electronics Association	ELETROS	eletros@eletros.org.br	5181.8821	
São Paulo's Industry Federation	FIESP		3252.4453	3252-4630
Brazilian Institute for Marketing and Packaging Professionals	IBEM	ibem@packibem.com.br	3813.1154	3867.9649
Brazilian Fruit Industry	IBRAF	ibraf@uol.com.br	223.8766	223.8766
PVC Institute www.institutodopvc.org	IPVC	info@institutodopvc.org	5506.5211	
Food Technology Institute	ITAL	silviatde@ital.org.br	(19) 3743 1700	(19) 3743 1799
Recyclable and Ecologically Friendly Steel Institution	Disque-aço		874.4000 r.4035	
Jewelry Distributors Union ibgmsp@nw.com.br	Ajesp/Sindijóias		284.0233/0448	284.0545
Grant and Incentive Program for the Use of Metal Packages	PROLATA	prolata@prolata.com.br	289-2856	289.2856
Micro and Small Companies Support and Service in São Paulo	SEBRAE-SP		3270-3988	3270-0265
Paper Artifacts Union	SIAPAPECO		3285 4006	3266 8277
Metal Stamping Industry Union of São Paulo State			289.2856	
Plastic Materials Industry Union of Rio de Janeiro State	SIMPERJ		(021) 2220.9726	
National Beers Syndicate	SINDICERV		3071 3478	3168 5830
Plastic Industry Union	SINDIPLAST	sindiplast@sindiplast.org.br	3060 9688	3060 9686
Interstate Optical Industry Union	Siniop		3287.5633	3287.5633
Paper and Cartoning Industry Union from São Paulo State	SINPESP	sinpesp@sinpesp.org.br	831.9844	

Appendix (F) – List of Local Packaging Manufacturers (ABIMAQ)

ARGENTA CONSULTORIA IND. E COM. DE EQPTOS. LTDA.
RUA SANTA CATARINA 4785
JOINVILLE SC
CEP : 89233-000
TELEFONE : (47)426-0206 FAX : (47)426-0206
e-mail : ilsona@ig.com.br
Site : http://www.argenta.com.br
Products: filling for gravity counting and by weighing and wrapping by weighing

BALANÇAS CAUDURO LTDA.
AVENIDA BRASIL 1174
CACHOEIRA DO SUL RS
CEP : 96503-490
TELEFONE : (51)3722-2534 FAX : (51)3722-2534
e-mail : balancascauduro@uol.com.br
Site : http://www.balancas-cauduro.com.br
Products: animal scaling, plate scaling, universal scale

BIASINOX INDÚSTRIA E COMÉRCIO LTDA.
RUA FRANCISCO DE BIASO 100
LAMBARI MG
CEP : 37480-000
TELEFONE : (35)3271-3030 FAX : (35)3271-1988
e-mail : biasinox@transmineral.com.br
Site : http://www.biasinox.com.br
Products: liquid shaker, plate heater, tubular heater, beater (continuous, conventional), transport carts, drainage, filling-dozer, filling-sealer, transport belt for fermentation, cheese former / slicer, hot water generator, powder mixer, tubular refrigeration, horizontal/vertical tank (not pressurized), sanitary valve

BRUCH INDÚSTRIA E COMÉRCIO DE MÁQUINAS LTDA.
RUA VICTOR WRUCK 188
BLUMENAU SC
CEP : 89060-390
TELEFONE : (47)338-3494 FAX : (47)338-3109
e-mail : bruchmaq@zaz.com.br
Products: ourela opening, industrial cart, recorder cilinder

COBRA CORRENTES BRASILEIRAS LTDA.
RUA EVARISTO DE ANTONI,1136
CAXIAS DO SUL RS
CEP : 95041-000
TELEFONE : (54)224-2188 FAX : (54)224-2377
e-mail : cobra@cobra.ind.br
Site : http://www.cobra.ind.br
Products: transporter (various)

DEDINI S/A.INDÚSTRIAS DE BASE
RODOVIA RIO CLARO-PIRACICABA KM 26,3 CX.P. 1249
PIRACICABA SP
CEP : 13414-970
TELEFONE : (19)3403-3222 FAX : (19)3421-6705
e-mail : dedini@dedini.com.br
Site : http://www.codistil.com.br
Products: plate heating, pasterizer (various), dryer

DWA INDÚSTRIA ELETRÔNICA LTDA.
RODOVIA BR-470 KM 91 N.2118
ASCURRA SC
CEP : 89138-000
TELEFONE : (47)383-0303 FAX : (47)383-0074
e-mail : diretoria@dwa.ind.br
Site : http://www.dwa.ind.br
Products: weight controller

ENGEPLAN EQUIPAMENTOS INDUSTRIAIS LTDA.
RUA TENENTE SALES 207 - 2º ANDAR - SALA 32
SAO BERNARDO DO CAMPO SP
CEP : 09720-130
TELEFONE : (11)4339-1174 FAX : (11)4339-1930
e-mail : engeplan@uol.com.br
Products: industrial elevator, feeding table, transporting (various)

FERINOX MÁQUINAS E EQUIPAMENTOS ESPECIAIS LTDA.
RUA VALDIR ROBERTO DE CAMARGO 121
INDAIATUBA SP
CEP : 13330-000
TELEFONE : (19)3875-6377 FAX : (19)3834-4470
e-mail : ferinox@ferinox.com.br
Site : http://www.ferinox.com.br
Products: shaker (various), filling (various), mixing (various), tank (various), transporting (chain)

FLOWCENTER DO BRASIL INDÚSTRIA E COMÉRCIO LTDA.
RUA SALVADOR MASTROPIETRO 126/132
SAO PAULO SP
CEP : 03159-170
TELEFONE : (11)6966-7799 FAX : (11)6966-4911
e-mail : spraytec@flowcenter.com.br
Products: packaging machine (general) serving itw dynatec, equip. graco, bicos pnr, bicos silenciosos silvent

FUTURA MÁQUINAS DE EMBALAGEM LTDA.
RUA JOAO ROBERTO THUT 305-A
SAO PAULO SP
CEP : 02751-010
TELEFONE : (011)3935-1900 FAX : (011)3935-1900
e-mail : futura@futura.ind.br
Site : http://www.futura.ind.br
Products: wrapping (static film)

HAGANE FACAS E SERRAS INDUSTRIAIS LTDA.- EPP
RUA SERRA DE SÃO DOMINGOS 1264
SAO PAULO SP
CEP : 08290-370
TELEFONE : (11)6524-3887 FAX : (11)6524-9817
e-mail : comercial@hagane.com.br
Site : http://www.hagane.com.br
Products: knives for lamination / slicing (various)

HIMAFE IND.E COM.DE MÁQUINAS E FERRAMENTAS LTDA.
RUA FERREIRA VIANA 761
SAO PAULO SP
CEP : 04761-010
TELEFONE : (011)5686-3133 FAX : (011)5524-0483
e-mail : himafe@himafe.com.br
Site : http://www.himafe.com.br

Products: closing & sealing machines

HUHTAMAKI DO BRASIL LTDA.
RUA BRASHOLANDA 01 CP 1250 / 6116
PINHAIS PR
CEP : 80001-970
TELEFONE : (41)661-1000 FAX : (41)661-1170
e-mail : elessandre.santos@br.huhtamaki.com
Site : http://www.huhtamaki.com
Products: liquid shaker, plate heater / cooler, coding (manual / paint), filling-doser (various) forming-filling-closing

INCAPRI EQUIPAMENTOS P/IND.DE ALIMENTOS LTDA.
RUA BENTO FRANCO DE CAMARGO 42
MOGI GUACU SP
CEP : 13840-000
TELEFONE : (19)3841-9802 FAX : (19)3841-9802
e-mail : incapri@terra.com.br
Products: rotating pump, pressure filling machines, filling-dosing machines

INDÚSTRIA DE MÁQUINAS PIROG LTDA.
AVENIDA SANATORIO 1957
SAO PAULO SP
CEP : 02238-000
TELEFONE : (11)6242-6315 FAX : (11)6243-3993
e-mail : joaomattos@pirog.com.br
Site : http://www.pirog.com.br
Products: wrapping by count machines, dropping machines, vertical tank

INDÚSTRIA MECÂNICA MELRRU LTDA.
RUA OLÍMPIO DE OLIVEIRA CHALEGRE 63
SAO PAULO SP
CEP : 04777-040
TELEFONE : (11)5667-2366 FAX : (11)5667-5081
e-mail : melrru@ieg.com.br
Site : http://www.melrru.com.br
Products: forming for pizza pack

INDÚSTRIAS R.CAMARGO LTDA.
AVENIDA CAPITAO LUIZ BRANDAO 85
SAO CARLOS SP
CEP : 13567-390
TELEFONE : (016)274-3833 FAX : (016)274-3833
e-mail : rcamargo@rcamargo.com.br
Site : http://www.rcamargo.com.br
Products: forming-filling-sealing in plastic bags by count, freezing machines, liquidifier industrial, specialized machines for ice-cream

JOCAR INDÚSTRIA E COMÉRCIO DE MÁQUINAS LTDA.
AVENIDA BERNARDO MONTEIRO 61
ARARAQUARA SP
CEP : 14808-033
TELEFONE : (16)3334-7040 FAX : (16)3334-7042
e-mail : jocar@jocar.ind.br
Site : http://www.jocar.ind.br
Products: filling-dosing machines by weight transporting (various)

JONFRA AUTOMAÇÃO INDUSTRIAL LTDA.
RUA LÁZARO DIRCEU MARTIMBIANCO 95
MONTE MOR SP
CEP : 13190-000
TELEFONE : (19)3879-4004 FAX : (19)3879-4005

e-mail : alexandre.melo@jonfra.com.br
Site : http://www.jonfra.com.br
Products: plastic blowing (shrinking tunnel)

L.J.INDÚSTRIA E COMÉRCIO DE MÁQUINAS LTDA.
RUA HERCULANO DE FREITAS 580
SAO CAETANO DO SUL SP
CEP : 09520-270
TELEFONE : (11)4229-9255 FAX : (11)4229-9828
e-mail : ljmaquinas@hotmail.com
Site : http://www.ljmaquinas.com.br
Products: filling – dosing (volumetric) machines

LIEME INDÚSTRIA METALÚRGICA LTDA.
ESTRADA MONTE BERICO 325
CAXIAS DO SUL RS
CEP : 95001-970
TELEFONE : (54)218-8311 FAX : (54)211-9305
e-mail : lieme@lieme.com.br
Site : http://www.lieme.com.br
Products: storage chamber (breads), oven (various), mixing (various), moulding (various), discartable sealing machines

MAK E PACK DO BRASIL LTDA.
RUA DOM JOSÉ MARCONDES 240 - SALÃO 05
SAO PAULO SP
CEP : 02863-090
TELEFONE : (11)3989-3255 FAX : (11)3989-3255
e-mail : makpack@uol.com.br
Site : http://www.makpack.com.br
Products: static film wrapping machine, forming, filling, sealing machine, transport (chain) shrinking tunnel

MARIA NEUSA RODRIGUES VIANA - ME
RUA EDGAR PEREIRA 251
SAO PAULO SP
CEP : 04312-020
TELEFONE : (11)5017-7428 FAX : (11)5017-7428
Products: gravity filling (various), filling / dosing (volumetric)

MASIPACK IND.E COM.DE MÁQUINAS AUTOMÁTICAS LTDA.
RUA MIRAGAIA 13
SAO BERNARDO DO CAMPO SP
CEP : 09689-000
TELEFONE : (11)4178-8099 FAX : (11)4178-8813
e-mail : masipack@masipack.com.br
Site : http://www.masipack.com.br
Products: coding, wrapping (various), forming, filling, sealing of plastic bags, by count and weight machines

MECTRONIC EQUIPAMENTOS ELETRÔNICOS LTDA.
RUA JOSE DE MOURA REZENDE 299
POMPEIA SP
CEP : 17580-000
TELEFONE : (14)452-1367 FAX : (14)452-1367
e-mail : mectronic@uol.com.br
Site : http://www.mectronic.ind.br
Products: ingredient feeding, plate heating, fruit – specific processing (various) , coding (various), dosing (various), cleaning – fruits (various), mill (various), pasteurizer (various), pressing (various), refrigeration (various), horizontal/vertical tanks, transporting (various), heat-changer (various)

MEG METALGRÁFICA INDUSTRIAL LTDA.
RUA FRANCISCO CEARA BARBOSA 149

CAMPINAS SP
CEP : 13082-500
TELEFONE : (019)3246-2362 FAX : (019)3246-2362
e-mail : meg@megmetalgrafica.com.br
Site : http://www.megmetalgrafica.com.br
Products: expansion – labeling

METALÚRGICA JALMAK LTDA.
ESTRADA MAURICIO CARDOSO 2900 RST 287 KM 0,8
MONTENEGRO RS
CEP : 95780-000
TELEFONE : (51)632-2211 FAX : (51)632-3611
e-mail : jalmak@terra.com.br
Products: metal-specific packaging

MUT FAC FACAS INDUSTRIAIS LTDA.
RUA ITAJUBA 580
GUARULHOS SP
CEP : 07222-030
TELEFONE : (011)6488-8999 FAX : (011)6488-8999
e-mail : multfac@multifac.com.br
Site : http://www.multfac.com.br
Products: knives / sharpening (various), plastic rolls (various)

NEMAQ EQUIPAMENTOS INDUSTRIAIS LTDA. - EPP
RUA GERALDO RIBEIRO 28
ITU SP
CEP : 13309-110
TELEFONE : (11)4025-2558 FAX : (11)4025-4074
e-mail : neife@neife.com.br
Site : http://www.neife.com.br
Products: capsule closing, filling, dosing, cap-sealing, labeling pressure capping machines

NOVELPRINT SISTEMAS DE ETIQUETAGEM LTDA.
AVENIDA DRACENA 450
SAO PAULO SP
CEP : 05329-000
TELEFONE : (11)3768-4111 FAX : (11)3714-1356
e-mail : vendas@novelprint.com.br
Site : http://www.novelprint.com.br
Products: auto-adhesive labeling

PACKER EQUIPAMENTOS INDÚSTRIA E COMÉRCIO LTDA.
AVENIDA DOUTOR EDUARDO COTCHING 268
SAO PAULO SP
CEP : 03356-000
TELEFONE : (11)6675-2100 FAX : (11)6675-2277
e-mail : packer@packer.com.br
Site : http://www.packer.com.br
Products: gravity fill by count and weight filling-sealing machines, capping machines

PRISCELL INDÚSTRIA E COMÉRCIO LTDA.
RUA MARCO AURELIO 294/298
SAO PAULO SP
CEP : 05048-000
TELEFONE : (11)3873-2666 FAX : (11)3873-3368
e-mail : priscell@priscell.com.br
Site : http://www.priscell.com.br
Products: glue application, forming, filling, sealing, cartridging, palletizing, adhesive pistols

R-BAIÃO INDÚSTRIA E COMÉRCIO LTDA.
RUA VEREADOR BENEDITO AUGUSTO VIEIRA 385
UBA MG
CEP : 36500-000
TELEFONE : (32)3531-3293 FAX : (32)3531-7053
e-mail : vendas@rbaiao.com.br
Site : http://www.rbaiao.com.br
Products: vacuum sealing (various), chain transport, shrink tunnel

ROCEL INDÚSTRIA DE MÁQUINAS LTDA.
RUA ANTONIO JOSE MACEDO 14
JARAGUA DO SUL SC
CEP : 89253-570
TELEFONE : (047)370-7063 FAX : (047)370-7063
e-mail : rocel@rocel.com.br
Site : http://www.rocel.com.br
Products: WRAPPING, (FILM STATIC), SHRINKING TUNNEL

ROOL MÁQUINAS E EQUIPAMENTOS LTDA.
RUA COROADOS 111
TUPA SP
CEP : 17600-010
TELEFONE : (14)442-5502 FAX : (14)442-5757
e-mail : roolmaquinas@terra.com.br
Products: coding, thermotransfer, filling-sealing by weight

SCHEFFER LOGÍSTICA E AUTOMAÇÃO LTDA.
RUA PEDRO MEZZOMO 256
PONTA GROSSA PR
CEP : 84071-210
TELEFONE : (42)236-5722 FAX : (42)227-9917
e-mail : scheffer@scheffer.com.br
Site : http://www.scheffer.com.br
Products: industrial elevator (cargo various), transport (various)

SELGRON INDÚSTRIA E COMÉRCIO DE MÁQUINAS LTDA.
RUA HERMANN ALTHOFF 220
BLUMENAU SC
CEP : 89066-350
TELEFONE : (047)338-1944 FAX : (047)338-1255
e-mail : falecom@selgron.com.br
Site : http://www.selgron.com.br
Products: grain classification, volumetric packaging

SUND-EMBA BHS INDÚSTRIA DE MÁQUINAS S/A.
RUA CONSTANTINO FALCAO 102
CURITIBA PR
CEP : 82020-050
TELEFONE : (041)335-4422 FAX : (041)335-1231
e-mail : sundemba@sundemba.com.br
Products: wrapping by weight

TECNOTOK INDÚSTRIA DE MÁQUINAS LTDA.
RUA MANOEL FRANCISCO DA COSTA 4967
JARAGUA DO SUL SC
CEP : 89257-000
TELEFONE : (047)370-2740 FAX : (047)370-1329
e-mail : empacotamento@empacotamento.com.br
Site : http://www.empacotamento.com.br
Products: scaling, wrapping (various)

TETRA PAK HOYER INDÚSTRIA E COMÉRCIO LTDA.

RODOVIA CAMPINAS-CAPIVARI / KM 23,5
MONTE MOR SP
CEP : 13190-000
TELEFONE : (19)3879-8290 FAX : (19)3879-8290
Products: heating plates/tubular, pumps, rotors, dosing-mixing, ice-cream specific machines, liquid refrigeration

TUDELA IND.E COM.DE MÁQUINAS E FERRAMENTAS LTDA.
RUA PIRAMBOIA 401/413
SAO PAULO SP
CEP : 03425-030
TELEFONE : (011)295-7235 FAX : (011)6941-6930
e-mail : tudelaindustria@bol.com.br
Site : http://www.tudelaindustria.cjb.net
Products: coding, thermotransfer, auto-adhesive labeling

VCN MÁQUINAS LTDA.
RUA PROFESSOR UBALDO DE MAIO 174
SAO PAULO SP
CEP : 02263-070
TELEFONE : (11)6241-8818 FAX : (11)6241-6398
Products: paper bag machines

VELLUTO REBELO IND.E COM.DE MÁQS.DE BEBIDAS LTDA.
ESTRADA DOS ESTUDANTES 236 KM 28 RODOV. RAPOSO TAV
COTIA SP
CEP : 06707-050
TELEFONE : (011)4612-2755 FAX : (011)4612-2478
e-mail : vellutorebelo@uol.com.br
Site : http://www.vellutorebelo.com.br
Products: vacuum-capping machines, filling, capping machines

VIAMACKMANN INDÚSTRIA E COMÉRCIO DE MÁQUINAS LTDA.
RUA CAETANO PINTO 261
SAO PAULO SP
CEP : 03041-000
TELEFONE : (011)3207-9000 FAX : (011)3276-4036
e-mail : viamac@uol.com.br
Site : http://www.armitex.com.br
Products: discartable forming machines