Brazil’s Chemical Industry
Brazil’s chemical industry is one of the world’s 10 largest and is also the industry leader for the Southern Hemisphere. Its earnings in 2004 amounted to $59.4 billion, roughly R$173.8 billion. Revenues increased 30.5% in dollars and 24.1% in reais compared to 2003. As calculated by the Brazilian Chemical Industry Association (Abiquim), production of chemicals for industrial use has grown, by volume, at a rate of 7.58% per year. Domestic sales increased by 9.25%, and exports broke all volume and sales records.

With revenues from industrial chemicals standing at $33 billion, the industry shows an increase of 36.9% over 2003. Fertilizers, herbicides and pesticides, personal-care products, perfume and cosmetics, drugs, soap and paints—the end-user segment of the chemical industry—had aggregate revenues of $26.4 billion, a 23.4% increase over 2003.

Expanding exports of manufactured products and growing domestic markets have increased not only aggregate demand for chemicals, but also awareness of the interconnectedness of the chemical industry and
Vaccine production – FIOCRUZ - Rio de Janeiro - RJ
its importance to all sectors of the economy. Studies conducted by Abiquim indicate that if Brazil’s economy keeps growing at present rates (4.9% in 2004), it may well outpace that industry’s production unless new investments are made, and promptly, in the chemical industry. Investment in chemicals for industrial use amounted to approximately $1 billion in 2004. This is well below the amount needed to stave off significant increases in volume of chemicals imported.

Brazil’s increased consumption of chemicals in recent years was largely supplied by imports. A monthly survey run by Abiquim and based on a sampling of 86 products shows that from 1990 to 2004, the nation’s apparent consumption of industrial chemicals grew by 83.32%—an average yearly rate of 4.42%. Production increased 49.72% during that same period—an average rate of 2.92% per year, while exports increased by 53.61%—an average yearly increase of 3.11%. Brazil’s chemical imports for industrial use have increased at a much faster rate: 513.78%—an average rate of increase of 13.84% per year.

**Trade Balance**

Chemical price increases in the international market, a result of growing global demand outpacing supply, have also affected Brazil’s trade balance in chemicals. In 2004 Brazil exported a little over $5.9 billion worth of chemicals, up 23.2% over 2003. The volume of overseas sales grew by 3%, to some 7.5 million tonnes—a 19.9% increase over 2003.

Runaway demand, added to prices already high in 2004, resulted in a chemical trade deficit for Brazil of $8.6 billion. This clearly points to opportunities for investment in increasing Brazil’s chemical plant capacity.
During the first half of 2005, Brazil exported over $3.5 billion worth of chemicals, up 34.2% compared to the same period in 2004. Chemical imports into Brazil during those same six months of 2005 added up to just over $7 billion—11.4% higher than the first six months of 2004. Brazil’s balance of trade in chemicals remained at approximately $3.5 billion during that interval.

Brazil’s partners in Mercosul form the primary market for the nation’s chemical exports. In 2004, Argentina, Paraguay and Uruguay imported more than $1.7 billion worth—equivalent to 29% of all of Brazil’s chemical exports. Compared to 2003, chemical sales by Brazil to other Mercosul countries increased 32.3%. Argentina imported close to $1.4 billion worth, an increase of 31.9% over the previous year.

Canada, the United States and Mexico imported over $1.1 billion worth of chemicals made in Brazil during 2004. Chemical sales by Brazil to those same countries came to roughly $4.3 billion last year. Compared to 2003, Brazil’s chemical exports to Canada, the United States and Mexico grew 21.8% while its imports from those same countries increased by 29.3%.

The European Union is still Brazil’s largest supplier of chemicals, at 31.5% of all chemical imports. Chemical imports from the European Union in 2004 came to over $4.5 billion, up 30.9% compared to 2003. Brazil’s chemical exports to the European Union totaled $973 million, a 14.1% increase over 2003.
Price swings for oil and petrochemical naphtha—an important raw material for chemical plants—strongly influenced the local market. Dollar prices for Brent oil increased by 36% in 2004. Petrochemical naphtha prices on the international market went up 41% that year.

Brazil currently consumes ten million tonnes of petrochemical naphtha a year—approximately 40% of which is imported. One Abiquim study indicates that by the end of the decade, Brazil’s naphtha requirements will be somewhere between 15.8 and 19.4 million tons—assuming the economy grows at an average rate of between 3% and 4.5% per year. Natural gas is identified in another Abiquim study as an important alternative source of raw materials for the petrochemical industry. The chemical industry accounts for about 45% of all the natural gas consumed by industry in Brazil. That’s more than 8.7 million m³/day. Of that total, some 30% is used as raw material. Projections show that natural gas consumption by the chemical industry could exceed 8.7 million m³/day, going as high as 11 million m³/day in 2008—with more than 50% of that volume used in the form of raw materials.

During the past 15 years, Brazil has lowered some domestic market barriers to allow more competition from products manufactured abroad. This opening up of trade can be seen in import tariff schedules. A study conducted by Abiquim shows that the weighted average tariff on chemical imports fell from the 25% charged in 1989 to 7.3% in 2004.
RESPONSIBLE CARE

Brazil’s own version of the Responsible Care program was passed in 1992, and is in place at all Abiquim-member chemical companies. The program, dedicated to continuous improvement in Health, Safety & Environmental Quality, has brought very good results and ensures that Brazil’s chemical industry will be able to comply with legislative requirements in the most demanding markets—this with regard to liability requirements imposed on chemical manufacturing companies.

Through implementation of the Responsible Care program, chemical facilities represented by Abiquim have reduced their discharges of liquid effluent from 4.19 m³ per ton produced in 2001 to 3.05 m³/ton in 2004. Hazardous wastes produced fell to 6.15 kg per ton, and carbon dioxide emissions were cut to 382.56 kg per ton produced.

THE OUTLOOK FOR GROWTH

Chemicals are present in nearly all industries, as well as in agriculture. Production shortfalls in Brazil would entail growing reliance on imports and, in many cases, serious curtailments to growth in important sectors of the nation’s economy. It is true that major chemical industry expansion projects were announced in late 2004. Studies undertaken by Abiquim show, however, that much more investment is needed to meet expected growth in demand over the next 10 years—especially if the Brazilian economy resumes its growth at reasonable rates.
The Brazilian government is watching this issue and has been taking steps to encourage investment in the industry. In 2004, the government acceded to some of the claims pressed by the chemical and other industrial sectors by eliminating the cumulative effect of the Social Security tax, lowering tariff rates and reducing the excise tax on capital goods. Still, other issues—of likewise importance in their effect on investment decisions—remain unresolved. Interest rates, which have increased, are an example. For an industry increasingly global in the scope of its operations and laying the groundwork for new international agreements to reduce existing tariff rates, it is imperative that all barriers to competition be quickly removed.
Glass. Laboratory glass tubes
Abiquim centers its work around the potential for renewed economic growth and increased investment. Recent projections indicate that Brazil's economy will grow close to 3% in 2005—not a high rate, but one that implies significant growth in demand for chemicals. Brazil's economic stability, with low inflation, a floating exchange rate and important trade surpluses in the balance, holds out great promise for potential new investment in the Brazilian chemical industry.

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