

## Chapter 4: Leading Sectors for U.S. Export and Investment

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### Agricultural Equipment

#### Overview

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(in US\$ millions)	2008	2009 (est.)	2010 (est.)
Total Market Size	6,369	6,465	6,788
Total Local Production	6,799	5,303	5,568
Total Exports	3,048	1,493	1,567
Total Imports	2,618	2,655	2,787
Imports from the U.S.	785	796	836

\*Assumes exchange rate of R\$ 2.0 = US\$ 1.0

Note: Figures include tillers, wheel tractors, crawler tractors, combines, loaders and backhoes.

Source: ANFAVEA

Brazil has thirteen industrial production units owned by seven large agricultural equipment manufacturers. Most of the international agricultural machinery producers are manufacturing locally and exporting agricultural machinery to other South American countries. These manufacturers include Agco, Agrale, Caterpillar, John Deere, Komatsu, Valtra, and CNH (Case, Fiat Allis and New Holland). Total installed production capacity in Brazil is 86,000 machines per year.

In 2008, according to Brazilian Automotive Vehicles Manufacturers Association (ANFAVEA), sales of agricultural machinery increased 42% in Brazil, in comparison with the previous year, and reached 54 thousand units. Brazil produced 53 thousand agricultural machines in 2008, 30% more than in 2007, and imported 1,680 units in 2008.

According to industry specialists, production of agricultural machinery in Brazil in 2009 is estimated to have shrunk to 66 thousand units, a 22% decrease from the previous year.

A large portion of the agricultural machinery manufactured in Brazil is for export, with South

American countries representing over 56% of Brazilian exports of machinery. Exports of tillers, wheel tractors, crawler tractors, combines, loaders and backhoes, were seriously affected by the devaluation of the dollar in face of the Real, and analysts estimate that in 2009, Brazilian exports of this machinery decreased 51% when compared to 2008, not even reaching 15 thousand units.

## Best Prospects/Services

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Top U.S. export prospects in this sector include sophisticated, state-of-the-art machinery with higher efficiency levels such as the following: post-harvest machinery; field refrigeration units; storage for tropical fruits; fruit, grain, seed and vegetable cleaning, sorting and grading machinery; GPS and precision agriculture devices; and poultry equipment.

## Opportunities

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Brazil is a major producer of a variety of agricultural commodities and is the world's largest producer of coffee, sugarcane and oranges. It is also the world's second largest producer of soybeans, cattle meat, poultry, tobacco leaves, bananas and Brazil nuts, and the third largest producer of maize, pineapples, pepper and cashew nuts.

Besides already being an agriculture powerhouse, Brazil is also one of the few countries still capable of increasing its planted area. In fact, Brazil has more unused commercially viable agricultural land than any other country in the world.

This strength in the agricultural sector means there is growing demand for agricultural equipment that improves the quality and yield of crops and reduces costs. Moreover, since farms are generally large, Brazil is ideally suited to incorporate a wide range of American agricultural machinery and technology.

## Resources

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**Aircraft Parts**

(in US\$)	2008	2009	2010 (est.)
Total Market Size	2.6b	2.7b	2.7b
Total Local Production	0.8m	1.0m	1.2m
Total Exports	2.1b	2.0b	2.1b
Total Imports	1.6b	1.8b	1.2m
Imports from the U.S.	0.9b	1.2m	1.2m

\*Assumes exchange rate of R\$ 2.0 = US\$ 1.0

\*\* The above statistics are unofficial estimates

Source: MDIC – Ministry of Development, Industry & Trade/ Embraer/ Brazilian Association of Aerospace Industry

**Aviation**

Brazil is ranked as the fifth largest aviation market in the world. The tremendous increase in demand is driven by economic growth that forecasts 5-8% growth per year over the next 10 years. TAM Airline remained the market's leading airline for domestic flights with a 45.4 percent market share. Gol Linhas Aereas, Brazil's No. 2 air carrier, lost market share last year, falling to 41 percent from about 42.4 percent in 2009. Smaller airlines, led by WebJet and Azul, had their combined market share rise to about 13% from 7.3% in 2009, according to ANAC – National Agency of Civil Aviation.

**Best Prospects/Services**

Brazilian aircraft manufacturing company Embraer is ending 2009 with a solid performance. The company's orders totaled US\$ 16.6 billion by year end. Aircraft sales for domestic companies such as Azul and Trip, sales of Phenom 100 Executive Jets, and two large defense contracts contributed to this positive result. Embraer estimates that the air transportation industry will react positively, after the end of the current economic crisis, maintaining a long term growth trend. Embraer estimates that the Brazilian Development Bank (BNDES) and the Export Guarantee Fund (FGE) will fund 60% of commercial aircraft deliveries by the company in 2010.

Brazil has the seventh largest helicopter fleet in the world, with approximately 1,255 helicopters. 42% of this total is concentrated in the State of São Paulo. In 2010 the helicopter market should continue its growth with the Sao Paulo market leading the way with 17% growth expectations. The offshore segment should also be a growth market due to major government investments being made in the pre-salt oil fields.

**Opportunities**

As Brazil's aviation market continues to expand, imports of parts and components will continue to increase, representing good business opportunity for U.S. suppliers. The products expected to have the most potential are the following: parts and components for defense and executive aircraft. In the long term, the law enforcement segment should also present good business prospects as Brazil prepares for the World Cup in 2014 and Olympic Games.

- Embraer: [www.embraer.com.br](http://www.embraer.com.br)
- Ministry of Defense: [www.defesa.gov.br](http://www.defesa.gov.br)
- Brazilian Aeronautic Committee in Washington: <http://www.cabw.org>
- AIAB - Associação das Indústrias Aeroespaciais do Brasil: [www.aiab.org.br](http://www.aiab.org.br)
- Ministry of Development, Industry and Trade Commerce [www.mdic.gov.br](http://www.mdic.gov.br)
- ANAC - National Agency of Civil Aviation [www.anac.gov.br](http://www.anac.gov.br)
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City/ State	Airport	Investments (2009 – 2014) (in US\$ millions)
Guarulhos/ São Paulo	Antonio Frnaco Montoro International Airport	842
Sao Paulo	Congonhas Airport	167
Campinas/ Sao Paulo	Viracopos Airport	590
Rio de Janeiro	Antonio Carlos Jobim International Airport	461
Rio de Janeiro	Santos Dumont Airport	44
Confins/ Belo Horizonte	Tancredo Neves International Airport	230
Belo Horizonte	Pampulha	3
Brasília/ Federal District	Juscelino Kubitschek Airport	390
Porto Alegre	Salgado Filho International Airport	359
Curitiba	Afonso Pena International Airport	47.5
Recife	Gilberto Freire International Airport	19.4
Salvador	Salvador	25.3
Fortaleza	Pinto Martins International Airport	164
Manaus	Eduardo Gomes International Airport	140
Cuiabá	Marechal Rondon International Airport	20
Natal/ Rio Grande do Norte	Sao Gonçalo do Amarante Airport	67*

Source: Infraero Presentation – Airport Infrastructure for the World Cup 2014 – Dept. of Engineering.

Ministry of Defense Presentation – Airports World Cup 2014 – Minister Nelson Jobim

Assumes exchange rate of R\$ 2.0= US\$ 1.0

\*Total of investment received until 2010

## Best Prospects/Services

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The Brazilian Government is planning several investments in the airport sector in Brazil in preparation for the World Cup 2014. Some of the major investments in the sector include:

- Construction of the third terminal of passengers and expansion of the existing tarmac and runways at the International Airport of Guarulhos in São Paulo. Total investment would be US\$ 842 million.
- Construction of a new passenger terminal and tarmac at the Viracopos Airport in Campinas, Sao Paulo with an investment of US\$ 590 million.
- Expansion of the south passenger terminal and tarmac at Brasilia International Airport with a US\$ 390 million investment.
- Refurbishment of passenger terminal 1 at Galeão International Airport in Rio de Janeiro with investments around US\$ 460 million.

Most of the projects are coordinated by INFRAERO through public tenders. International companies are welcome to participate in the bids. However, they need to have a local representative. INFRAERO is responsible for designing, building, operating and managing 67 airports and 81 navigation support stations, all of which have air traffic control, telecommunications services, and flight protection systems and services. INFRAERO is headquartered in Brasília and has seven regional business centers located in Belém, Brasília, Manaus, Porto Alegre, Recife, Rio de Janeiro, and São Paulo.

## Opportunities

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There are several business opportunities for U.S. companies to provide passenger bridges, baggage systems, handling equipment, checking conveyors, x-ray integration, claim carousels, X-ray machines and other safety and security equipment.

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- INFRAERO: [www.infraero.gov.br](http://www.infraero.gov.br)
- ANAC - National Agency of Civil Aviation [www.anac.gov.br](http://www.anac.gov.br)
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## Telecom Equipment and Services

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Brazil remains Latin America's largest telecom market. Gross revenue from telecom equipment including services as of September 2009 was nearly US\$ 68 billion and the market is expected to reach US\$ 90 billion in 2012. Sector revenues are split among fixed carriers (28%), mobile carriers (34%), manufactured products (17%) and services (21%). Motorola, Nokia, Nortel and Cisco have manufacturing facilities in Brazil, giving the country one of the region's best telecom infrastructures.

Strong competition is expected to continue in the coming years, highlighting the need to enhance the existing network. Telecom equipment suppliers in Brazil expect total revenues to reach US\$ 9.6 billion in 2010 or 10% above 2007's estimated sales.

(in US\$ millions)	2008	2009	2010* (est.)
Total Market Size – Equipment & Svcs.	8,991	8,726	9,600
Total Local Production – (Telecom Eq.)	5,788	6,436	7,080
Total Exports (Telecom Eq.)	2,540	1,651	1,815
Total Imports	3,203	2,290	2,519
Imports from the U.S.	962	970	1,067

(\*) Trade / Industry Source - 2009 Estimated Exchange rate value US\$ 1 = R\$ 2.00

### Telecommunication Market - General Indicators – # of Subscribers

(in US\$ millions)	2007	2008	2009 (as of 9/09)
Wire line Telephony	39.4	41.1	41.6
Wireless Telephony	121.0	150.6	166.1
Pay TV	5.3	6.3	7.5
Broadband	7.7	10.0	13.7

Estimated Exchange rate value US\$ 1 = R\$ 2.00

### Best Prospects/Services

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#### Cellular Phone Services

The mobile phone market is dominated by GSM-based technologies. Telecom operators recognize the need to broaden their offerings in order to win the loyalty of new customers, retain existing users, and benefit from the market potential of non-voice services. Price cutting, value-added services such as faster data transmission and enhanced multimedia capabilities are the most critical strategies for gaining customers.

#### Satellite

After years of stagnation, the satellite market grew 9% in 2009. The demand for this service is still growing especially in the video segment, e-learning and broadband services in the remote areas of the country. New compression technologies will force the reduction of prices for this type of service and as a result of that, regional broadcasters are planning to change the current

microwave distribution infrastructure for a satellite solution. There are good prospects for trunking services for regions where there is no optical fiber.

## **Broadband**

As of September 2009, Brazil had approximately 13.7 million subscribers, a significant increase as compared to the previous year. In November 2009, the Brazilian Government unveiled Brazil's national broadband plan (NBP) aimed at addressing Brazil's soaring broadband usage demand. The proposal, entitled "A National Plan for Broadband - Brazil at high speed," lays out the government's goals, to be accomplished by 2014 when Brazil hosts the World Cup. The objectives are increasing individual access to fixed broadband service in Brazil to 30 million people, providing 60 million users with mobile broadband access, and connecting all government agencies, public schools, public health facilities, public libraries, and federal state and local law enforcement agencies to the plan's expanded broadband network. The plan also calls for the construction of 100,000 new community telecenters with broadband access designed to reach the rural areas of Brazil. The NBP is essential to sustaining Brazil's economic growth, increasing its economic global competitiveness, and enhancing the social welfare of its citizens. The plan envisions a concession model that utilizes existing telephone fiber optic networks, and calls for government investment of US\$ 26 billion and private investment of US\$ 49 billion in private investment.

Power Line Communications (PLC) – In 2009, Anatel, the Brazilian body equivalent to the FCC, approved regulation for broadband transmission over power lines. The document sets guidelines for the use of this technology in the band between 1.705 kHz and 50 MHz. Companies like AES Eletropaulo Telecom and Copel, are testing the technology to decide about investments to be made in order to provide these services.

## **Pay TV Market**

The Brazilian market for Pay TV generated gross revenue of 2.7 billion as of September 2009 with approximately 6.8 million subscribers. This market is expected to grow at least 10% in the next year mainly because of the increase of the broadband penetration in country.

## **Auction of 3.5 GHz WiMAX bands still on hold**

Brazil's telecommunications regulatory agency, ANATEL, is planning to auction the 3.5 GHz frequency band in the first half of 2010. After public consultations the agency is still evaluating the best model to auction this frequency in order to increase competition among players and minimize the prices of services to final customers. The main issue is whether fixed line operators can take part in the auction in regions where they already provide telephony services.

## **Opportunities**

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Opportunities for U.S. suppliers exist in the areas of 3G-network maintenance, Long Term Evolution (LTE) and WiMax services and applications, broadband internet infrastructure, application software, and wireless communication networks. Trends continue to be toward convergence, i.e., adding telecommunications services, to maximize the benefits derived from investments and efficient operations.

Best prospects for U.S. suppliers include all type of solutions to improve the broadband market via cable modem, home networking platforms, IP telephones, IPTV software and video-on-demand services, among others.

## Resources

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- ABINEE [www.abinee.org.br](http://www.abinee.org.br)
- Telebrasil [www.telebrasil.org.br](http://www.telebrasil.org.br)
- ANATE [www.anatel.gov.br](http://www.anatel.gov.br)
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- For more Market Research: [www.export.gov/marketresearch.html](http://www.export.gov/marketresearch.html)
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Despite the turbulence that marked 2009, the Brazilian market for software and services maintained its 12th place in the world, reaching US\$ 15 billion.

In 2009, computer programs developed in the country reached 32.5% of the total Brazilian market for software. Although representing a slightly smaller share than in the previous year, this market still shows a growth trend when compared to 2004, when participation was 27%.

This market has nearly 8,500 companies, dedicated to the development, production and distribution of software and services. From those who work in the development and production of software, 94% can be classified as micro and small companies.

The industrial and financial sectors represented almost 50% of the user market, followed by services, trade, government, agriculture and others. In terms of growth, agribusiness and finance were the sectors that showed the biggest increase in investment, with positive variations of 39% and 41% when compared to 2008.

Brazil has a large and diversified economy that offers U.S. companies many opportunities to export their goods and services. Software sales in Latin America are expected to increase by 5% this year. Given the forecast for steady growth of the Brazilian economy over the next several years, Brazilian IT spending should increase at a healthy pace. The most significant topic in this sector is the increase of data in cellular telecommunications, which is expected to continue growing for the next few years.

US\$ millions	2008	2009	2010 est*	<b>Best Products and Service</b>
Market Size	15,255	16,100	16,660	
Local Production	8,330	9,100	9,300	
Exports	366	335	360	
Imports (Global)	6,550	6,670	6,968	
Imports from United States	4,330	4,450	4,670	
(*) Trade / Industry Source - 2010 Estimated Exchange rates: values US\$ 1 = R\$ 2				

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There is a new trend for acquisitions in Brazil to merge IT, infrastructure, network and telecommunications. The unanimous opinion shared by analysts is that the trend shows a movement towards consolidation and convergence of technologies. As Brazilian IT companies mature, they are attracting the interest of competitors and capital investment funds.

Within the software segment, 37% of the market represents purchases of enterprise applications such as CRM, ERP or SCM solutions while systems infrastructure solutions, such as platforms for administrating and running software assets, contribute 36%.

E-commerce is gradually becoming part of the daily routine of Brazilians as companies overcome the initial lack of trust that usually accompanies new business concepts. The sector's growth perspectives for this year are 40%, with a sales volume of US\$ 7 billion. With an eye on

such forecasts, E-commerce companies in Brazil have made investments to finance their expansion while adopting measures to lessen capital costs.

The “Business to Business” (B2B) segment is still small in Brazil and is only concentrated among a few large companies. Brazilian companies know they must rush to do their homework and catch up with the rest of the world. Although a large number of Brazilian and multinational companies made significant investments to develop e-business platforms, results indicate more time is needed for this segment to take hold in Brazil.

## Opportunities

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Recently, city, state and federal government procurement offices in Brazil have been debating a possible preference for "open-source" software (known as *Software Livre* in Brazil). Several bills have been introduced in the Brazilian Congress requiring federal agencies to acquire and use free, unrestricted open-source systems. Some state and local governments in Brazil have either enacted or are debating laws that call for open-source systems.

For medium-sized enterprises (MEs) in Brazil, the two largest drivers of this year's growth in Brazil's software market are the increasing use of enterprise applications, and the systems infrastructure software segment. Data security and data backup or recovery will be investment priorities in the upcoming months. IT security is also a priority for companies in Brazil, concerned with protecting themselves against hackers and viruses. With increasing network and Internet-based connectivity, combined with frequent electronic attacks from viruses and worms, Brazilian MEs are realizing their vulnerability and have begun systematically implementing IT security measures.

Other market trends are:

- Compliance to best practices
- Compliance to national and international regulations
- Great number of VOIP projects
- Consolidations of SOA as a market reality

## Opportunities

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## Transportation

### Infrastructure Investment Growth Map Comparing 2003/2006 to 2008/2011

Sectors	Investments US\$ (billions)		Growth % Annual	Growth Contribution in Investments	
	Realized	Forecast		US\$	(%)

	2003-06	2008-11		billions	
Infrastructure	86.0	160.1	17.7	74.0	100
Energy	28.2	69.8	26.6	41.6	56.2
Communications	40.0	37.9	-1.0	-2.19	-2.9
Sanitation	9.4	33.2	38.9	23.8	32.1
Railroads	5.1	13.7	26.9	8.6	11.6
Ports	2.0	4.7	25.1	2.7	3.7

Estimated Exchange rate value US\$ 1 = R\$ 2.00

## Ports Overview

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(in US\$ millions)	2008	2009	2010 (est)
Market Size	735	655	781
Local Production	397	353	430
Imports (Global)	367	298	359
Imports (USA)	140	123	150

Estimated Exchange rate value US\$ 1 = R\$ 2.00

With a coastline of 8,500 km (5,600 miles), Brazil has a port sector that handles around 768 million tons of goods annually and is responsible for more than 85% of its exports. The maritime modal has one of the lowest costs for the transportation of cargo in Brazil. The Brazilian port system is made up of 37 public sea and river ports. Of this total, 18 have operations authorized by the state and municipal governments. There are 42 terminals for private use and three port complexes that operate under concession to private enterprise. The importance of port efficiency becomes even more relevant with export growth, which has been gaining volume every year until recently. The private sector is increasingly involved in developing the major ports including investment in equipment necessary for terminal operation. The public sector is responsible for construction and maintenance of port infrastructure, including dredging, land access, environmental and safety infrastructure projects, in addition to supervising the port activities.

## Best Prospects/Services

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### Prospects and Investment Trends in the Industry

According to a report from the Department of Transportation and Logistics, the Brazilian National Economic and Social Development Bank (BNDES) expects investment in the sector to be US\$ 1.7 billion covering a set of 25 port projects - 11 of which are in progress and 14 are

under evaluation. The disbursements forecasted by BNDES, by the year 2010, reach more than US\$ 1 billion, and consider an average participation of the Bank in 60% of the required investment.

Companies from the Association of Port Terminal Operators plan on investing US\$ 9 billion in the next 5 years. Another US\$ 8 billion should be invested by non- associated port operators.

## Railways Overview

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US\$ (millions)	2008	2009	2010 (est.)
<b>Market Size</b>	435	344	407
<b>Local Production</b>	235	253	298
<b>Imports (Global)</b>	201	216	258
<b>Imports (USA)</b>	78	83	99

Source: trade/Industry Resources. Estimated Exchange rate value US\$ 1 = R\$ 2.00

The Growth Acceleration Plan (PAC) foresees investments of US\$ 296 billion in infrastructure. The PAC announced by the federal government in 2007 assured that US\$ 296 billion would be invested in infrastructure by 2010. Of the total, 87%, or US\$ 256.5 billion, would come from the state and private sector, while the remaining US\$ 30.5 billion would come from the federal government.

Investments under PAC will be strong on logistics infrastructure, including highways, ports, railways, airports and waterways. The objective is to facilitate transportation of cargo and goods to have a positive impact on the cost of the products. By the end of 2010, investment in logistics should reach US\$ 34.3 billion.

## Opportunities

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In spite of real growth achieved since the privatization of the railroads in 1997, the potential for future growth of the rail freight business in Brazil is still immense. With a budget of US\$ 15.6 billion to invest in the expansion of the system the Brazilian railroad network should jump from its present 239 thousand kilometers to 361.4 thousand by 2016 – more than 50% increase and 122 thousand kilometers in 6 years.

Specialists of the “freight on tracks movement” guarantee that a promising future is based on basic rules of arithmetic. A railroad freight car can carry a load equivalent to three 35-ton trucks. Since railways operate on a much bigger scale, freight is on average six times cheaper than trucks to transport cargo, based on 1 ton per thousand kilometers.

Pleased with the results obtained so far, rail operators have not been afraid to invest. Vale (formerly known as CVRD) operates four railroads: EFC, Norte Sul, EFVM, and FCA. Vale plans on spending US\$ 3 billion in 2010. As is the case with other sectors, railroads are being impacted by the international economic crisis. Logistics companies directly related to the

transportation of iron ore and agricultural expect to continue capital investments in the belief that the current downturn will soon return to normal.

Vale Logistica, for example, will not change its investment plan for 2010, while Latin American Logistics estimates investments of US\$ 700 million for the period. Transnordestina Logistics expects to invest approximately US\$ 2 billion.

The commercial manager of Ferrovia Centro Atlantica (FCA) stated that "although the present scenario is complicated, new opportunities are presenting themselves. Therefore, we decided to maintain our expansion plans." The investment plan announced by Vale Logistics adds up to US\$ 12 billion by 2012, including four railroads that the company manages, and investments of resources in other modals, such as additional port capacity. Investments in logistics account for 20% of Vale's investments. In 2008 the amount was close to US\$ 1 billion.

## Passenger Operators

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Brazil is working to expand its urban transportation in time for the Soccer World Cup in 2014 and the Olympic Games in 2016.

The city of Sao Paulo's top priority is the expansion of its subway system. The Metro of São Paulo's planning director said that the company will invest US\$ 4.1 billion by 2010. The resources would be used to improve efficiency, reduce the time between trains, improve signaling and communication systems, and control centers. The São Paulo Metropolitan Train Company expects to invest US\$ 2 billion to upgrade its system from metroliner to light rail system by 2014. Metro-Rio plans to double its daily passenger capacity from the present 550 thousand to 1 million by 2010. The company's plans include opening of new branches and stations. The subway projects spread all over the country should use up almost half of US\$ 35 billion allocated for urban mobility projects.

## Resources

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- Market research: <http://export.gov/mrktresearch/index.asp>
- U.S. Ex-Im Bank: <http://www.exim.gov>
- Brazilian Ministry of Transport: <http://www.transportes.gov.br>
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## Insurance

### Overview

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In 2008, the Brazilian insurance market reached US\$ 42.0 billion, approximately 3.4% of Brazil's GDP, and almost half of South America's Insurance market. *(Figures for 2009 still estimated)*. The Brazilian insurance industry has grown for six years at higher rates than GDP, doubling since 1994, with life and health insurance showing the greatest growth. The market's potential continues to attract foreign companies - in 1994, Brazilian companies controlled 95% of the market – but today, foreign companies have 40% market share (U.S. insurers 21%).

(in US\$ billions)	2008	2009 est*	2010 est*
<b>Market Size</b>	49.30	49.52	58.43

<b>Foreign Insurer Participation</b>	19.72	19.80	23.37
<b>U.S. Insurer Participation</b>	10.25	10.30	12.30

- Exchange rate by the end of 2008 of R\$ 2.00/US\$ 1.00, by the end of 2009 R\$ 1.74/US\$ 1.00
- Statistical data are unofficial estimates from trade sources
- 2009/2010 figures are estimates.

## Regulatory Environment

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Brazil's government regulates private insurers through:

*The National Council of Private Insurance (CNSP):* CNSP sets insurance policy guidelines and rules, regulating insurer creation, organization, and activity. CNSP establishes guidelines for insurance contracts, reinsurance rules and sets general accounting and statistical standards. CNSP is comprised of representatives from the Ministries of Finance, Justice, and Planning; the Office of the Superintendent of Private Insurance, IRB (the state owned reinsurer), Brazil's Central Bank, and four private insurers.

*Superintendent of Insurance (SUSEP):* SUSEP is an independent agency subject to the Ministry of Finance. SUSEP monitors the insurance and private pension market through a solvency index; establishes and monitors operational risk limits; supervises technical reserves; regulates open pension funds; and regulates insurance brokers.

*IRB-Brasil Resseguros SA:* IRB is a 51% state-owned company offering re-insurance.

*New Regulatory Agency:* Brazil is creating a new insurance sector regulatory agency, similar to those in Canada, Japan and Scandinavia, is being studied. The new agency would combine SUSEP, CVM (Brazil's Security and Exchange Commission) and part of the Finance Ministry that oversees pension fund administration.

## Best Prospects

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### Property & Casualty Insurance

Brazil's property and casualty insurance market is dominated by auto insurance, a segment that continues to be one of the best opportunities for U.S. insurers operating in or seeking to enter Brazil. In 2002 Brazil had 1 car for every 8.8 inhabitants, and some insurers state that in 2009 the ratio is about 1 car for every 4 Brazilians. Brazilians still do not purchase much homeowner's insurance, but once interest rates drop to single digits and homes can be purchased on credit, which requires homeowner's insurance, more opportunities should arise.

### Pension Insurance

Brazil's pension system is composed of public social security, administered by the National Social Security Institute (INSS) and private plans. Though the government recently reformed the public system it still runs a deficit.

The private system consists of open and closed funds. Closed funds are for employees of specific companies-the largest for employees of state owned enterprises. Open funds are available to the public and operate as an insurance product, i.e., clients contribute to the plan through premiums and are paid an annuity when they retire. Insurance firms and banks' insurance subsidiaries are the main open fund providers.

Two funds similar to 401(K) plans are also being offered. The Individual Programmed Retirement Fund (Fundo de Aposentadoria Programada Individual) is a long-term individual savings and retirement fund, operated by financial institutions, that allows small and medium companies to supplement employee social security plans. The Tax-Free Benefits Generation Plan (Plano Gerador de Benefícios Livres) is offered by insurance companies and is popular because of its tax incentives.

### **Life Insurance**

Though Brazil ranks 35<sup>th</sup> in the life insurance sector worldwide, life insurance products are becoming more sophisticated and have been the fastest growing area for insurers. Group term insurance has traditionally dominated the Brazilian life market, but 1998 saw the first permanent life insurance products (endowments and whole life).

According to the Brazilian Superintendence of Private Insurance (SUSEP), Brazil's life insurance sector net written premiums estimated to have totaled US\$ 12.8 billion in 2008, or 30% of the market.

### **Health Insurance**

Although a country with 196 million inhabitants, Brazil has a rather small medical insurance market. 74% of the population receives health care through the public health system. Only 3% of the population is enrolled in insured plans, versus self-insured, medical groups, cooperatives or Health Maintenance Organizations (HMOs).

### **Reinsurance**

Reinsurance in Brazil is currently a market of around US\$ 1.3 billion, or about 1% of the world's reinsurance market.

The Brazilian Reinsurance Institute (IRB) was founded in 1939, and acted as a monopoly for over 60 years. In 1996, the Congress passed a law to open this market to competition. Since 1997, the IRB – now IRB Re Brasil, has been owned 51% by the Brazilian government. The 49% remaining shares are owned by insurers, which include Bradesco Seguros (21.3%) and Unibanco Seguros (around 19% - note that Unibanco had, until the end of 2008, a joint-venture with the U.S. insurer AIG).

### **Market Trends –Reinsurance**

In comparison to 2000, reinsurance premium income in Brazil grew 415% when compared to 2008. According to the Brazilian Federation of Insurers (FENASEG) and Standard & Poor's, Brazil ranks as 59th in reinsurance premiums, with an income of US\$ 2.0 billion in 2008. Data

for 2009 is not yet confirmed as of January 2010, but market sources believe that with the opening of the market, it can double within 2-3 years.

Year	2000	2008
Net written premiums – Reinsurance	US\$ 485 million	US\$ 2.0 billion

\*Assumes exchange rate of R\$ 2.0 = US\$ 1.0

## Opportunities

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SUSEP has pointed to potential business opportunities in niches in the Brazilian insurance market. For instance, in the energy sector some power utilities in Brazil are planning to adopt a new type of insurance to cover items such as excessive power loads, with policies that guarantee compensation in the event of power blackouts or other problems. This kind of policy has been unavailable in Brazil.

The pension reform is also an opportunity: according to trade industry analysts, projections for 2010 are for an over 51% sales increase, based on “VGBL” plans (similar to the U.S. 401(k) plan), functioning as an alternative to social security.

Retail banks will reach more clients interested in insurance.

Other niches are in civil liabilities; personal property; reinsurance; extended warranty insurance; micro-insurance and rural activities (“Crop insurance”, covering climate variations).

### In Reinsurance

Opportunities include:

- Partnerships with the IRB
- Partnerships with a Brazilian reinsurance broker
- Opening a representative office in Brazil

There are also good opportunities for:

- Law firms
- Service providers
- Actuarial expertise
- Software companies
- Warranty
- Large risk segment
- Marine – platforms, cargo ships, etc.
- Aerospace

### How to enter into the Brazilian insurance market

U.S. companies wishing to enter Brazil’s insurance market are advised to open a subsidiary, enter into a joint venture, or acquire/partner with a local company. Under current legislation insurance companies must be organized as corporations, submit an application to SUSEP

requesting permission to operate as an insurance company, and if approved, not engage in activities other than insurance.

To set up a new insurer, investors must first invest in an insurance company - an estimated minimum investment of US\$ 5 million. Although legislation is vague, it appears that foreign firms cannot set up managing general agents without first capitalizing the company. Foreign insurers may set up a representative office in Brazil, though the representative office cannot issue policies. Legislation does now allow foreign insurance companies to hold all the equity/voting stock of a Brazilian insurance company. Currently, Aetna, AIG, Chubb, Cigna, Hartford, Liberty Mutual, MetLife, Mony, Prudential, The Warranty Group (through its branch Virginia Surety) and the insurance brokers AON and Marsh/McLennan (also active in reinsurance) are in Brazil.

In reinsurance, of the nine foreign reinsurers present in Brazil, three are U.S. companies:

- American International Underwriters (AIG Group)
- Transamerica Reinsurance
- Transatlantic Re.

There are also U.S. reinsurance brokers active in Brazil. They include:

- Acordia (Wells Fargo) – in partnership with the Brazilian broker Assuré
- Arthur Gallagher
- Guy Carpenter
- McGriff, Seibels & Williams
- MexBrit (Mexico/USA)
- Nausch, Hogan & Murray Inc. (NHM)
- Swiss Re (though a Switzerland-based group, this branch is based in Armonk, NY)

## Web Resources

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- For more market research: [www.export.gov/marketresearch.html](http://www.export.gov/marketresearch.html)
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## Electrical Power

### Overview

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Brazil ranks 10<sup>th</sup> among the largest world power operators. Brazil's electricity generation is largely in federal and state hands. The state-owned power company Eletrobras controls over 40% of installed generation capacity; other state-owned energy companies control approximately 35%, while the remaining 25% have been privatized. Brazil has 2,181 operational power projects with 106,832 megawatts (MW) or 106,832,736 kW of installed capacity (excluding imports). Hydroelectricity, including imports, accounts for 76.31% of the total, as shown in the table below:

Operating Units							
Type	Installed Capacity			%	Total		
	Qty of Plants	(kW)			Qty of Plants	(kW)	%
<a href="#">Hydro</a>		829	78,734,549	68.46	829	78,734,549	68.46

<b>Gas</b>	Natural	93	10,808,812	9.40	125	12,055,295	10.48
	Processed	32	1,246,483	1.08			
<b>Oil</b>	Fuel oil	801	3,868,311	3.36	825	5,732,844	4.99
	Residual oil	24	1,864,533	1.62			
<b>Biomass</b>	Sugar cane bagasse	289	4,634,315	4.03	355	6,170,460	5.37
	Black liquor	14	1,145,798	1			
	Wood	36	314,267	0.27			
	Biogas	9	44,672	0.04			
	Rice Rind	7	31,408	0.03			
<b>Nuclear</b>		2	2,007,000	1.74	2	2,007,000	1.74
<b>Mineral Coal</b>	Mineral Coal	9	1,530,304	1.33	9	1,530,304	1.33
<b>Wind</b>		36	602,284	0.52	36	602,284	0.52
<b>Imports</b>	Paraguay		5,650,000	5.46		8,170,000	7.10
	Argentina		2,250,000	2.17			
	Venezuela		200,000	0.19			
	Uruguay		70,000	0.07			
<b>Total</b>		<b>2,181</b>	<b>115,002,736</b>	<b>100</b>	<b>2,181</b>	<b>115,002,736</b>	<b>100</b>

Source: ANEEL (Brazil's power regulator) December 2009

Considering a yearly GDP growth of 6%, by 2017 Brazil's electricity consumption should increase from 434.2 (terawatt-hour) TWh (2008) to 699.6 TWh, while installed capacity is expected to reach 154,645 MW.

Brazil's Power Research Company (EPE) figures indicate that in comparison with 2008, the portion of hydroelectricity in Brazil's energy matrix is expected to decline to 71% by 2017. If all eight planned nuclear plants or more go online, natural gas power plants may also be reduced to 7.8%, while fuel oil may reach 5.7%, coal, 2.1%, and nuclear generation may approach 2.2%. The Brazilian government envisions wind power playing a greater - though still modest role - (about 1%), in Brazil's future energy matrix. For natural gas plants, EPE might review its estimates upward, if significant oil and gas sub-salt fields come on line over the next ten years.

Solar energy through photovoltaic technology (PV) is a competitive alternative to grid extension, but is limited to remote areas of the country and in social interest applications. On the other hand, the use of solar water heaters in Brazil has increased rapidly in the last few years, with nearly 150 Brazilian manufacturers producing these products for residences, hotels, hospitals, and swimming pools. Estimates indicate that 5% to 10% of the non-electrified domiciles could be supplied with PV systems, but technology is considered costly and maintenance services complex.

The 2010 estimate for Brazil's power generation, transmission, and distribution (GTD) equipment market is US\$ 5.5 billion of which US\$ 460 million is imported globally with about US\$ 70 million coming from the United States.

(in US\$ millions)	2008	2009	2010 (estimated)
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Total Market Size	5,593	4,915	5,535
Total Local Production	5,960	5,244	5,875
Total Exports	865	781	800
Total Imports	498	452	460
Imports from the U.S.	75	68	70

Exchange rate: R\$ 2.0 to US\$ 1.0

These figures are partially based on the Brazilian Electrical and Electronics Industry Association (ABINEE)'s statistics. Note that other power related trade associations do not release their local industry production figures. Likewise, the power associations do not publish their members' consolidated equipment imports. Moreover, these market estimates do not include operational and maintenance expenses, which would add at least 50 percent to the market. Based on the above, the market sizes in this table are likely to be underestimated due to lack of sufficient data.

According to ABINEE, Brazil's GTD market fell in 2009 in comparison with 2008 due to electrical power consumption retraction and investment reductions in co-generation and electrical power distribution. Additionally, as the equipment for two large hydropower plants (e.g. Jirau and Santo Antônio) is still being manufactured, invoicing figures were not reflected in the 2009 market size.

The 2010 scenario, however, is optimistic, and ABINEE's studies forecast a 12% growth in the GTD segment as a whole, as a result of the Brazilian rural electrification program and orders in connection with recent power generation and transmission auctions.

In fact, EPE's 2009-2017 Power Expansion Plan calls for approximately US\$ 71 billion to bring an additional 51,000 MW to Brazil's power generation capacity. Government-owned Eletrobras and its subsidiaries estimate having invested US\$ 4.8 billion in 2009. This figure includes investment by Eletrobras' private consortia partners. Power generation accounted for the bulk of these investments (US\$ 2.5 billion).

From 2009 to 2012, Eletrobras and its subsidiaries plan to invest approximately US\$ 16.7 billion. This amount includes investment by its private sector partners as well.

A total of 13,477 MW of power have been contracted for delivery from 2008 to 2012 through power auctions. The December 2007 Santo Antonio power plant auction alone will call for investments of about US\$ 4.5 billion. This 3,150 MW project was the first phase of the Madeira River Complex auction. Its second phase, for the 3,300 MW Jirau hydro plant, was held in May 2008. Cost to build this plant will be close to US\$ 5 billion. Additional power auctions were held in 2008 and in 2009, including one specifically for biomass plants which resulted in 2,379.4 MW contracted for delivery in 2009 and 2010, and two others that will call for 6,642 MW in 34 power plants by 2013.

The first wind power plant auction was also held on December 14, 2009, where 1,805.7 MW were contracted. This auction will enable the construction of 71 wind generation plants in five northeastern and southern states of Brazil. Brazil currently has 37 operating wind power plants, nine under construction, and another 44 pending construction.

The giant 11,100 MW Belo Monte hydro plant auction was initially scheduled for December 21, 2009 and postponed for 2010.

In 2010, ANEEL expects to auction ten new substations and seven new power transmission lines with a total of 880 km. EPE estimates that Brazil's transmission industry will need to invest approximately US\$ 1.3 billion in 2009-13 to build 2,500 km of transmission lines and 22 substations. Public-private partnerships are expected to be the best means of market access for new-to-market U.S. power companies.

Recent studies released by the Acende Brasil Institute suggest that the power distribution segment will call for US\$ 1.9 billion in annual investments over the next five years. The "Light for All" rural electrification program is one of this sub-sector's most important programs launched in 2004. Total estimated investment through 2010 is US\$ 10 billion. Since 2007, approximately US\$ 6.6 billion have been invested in new electrical connections. By the end of 2009, more than 2 million electrical connections were made, reaching 10 million citizens living in rural areas throughout Brazil. For 2010, the program is expected to result in 578,429 new electrical connections.

In addition to this program, power distributors will continue to invest in power distribution system upgrades to make their companies more competitive, and meet Brazil's regulations concerning client satisfaction. Additionally, Brazilian legislation mandates that power distributors invest 0.5% of their annual net revenues in energy efficiency and R&D programs.

## **Best Prospects/Services**

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In the power generation subsector, best prospect opportunities include the supply of large power transformers, rectifiers, converters, inverters, electrical controls, heat recovery steam generators and condensers, power generation sets, heat exchangers, gas and steam turbines and parts, and wind power turbines above 1.5 MW. To a lesser extent, solar energy related equipment can also offer longer-term opportunities in Brazil, including liquid pumps for photovoltaic (PV) generation, air cooling systems, photovoltaic panels, solar inverters and batteries, as well as their parts.

Best equipment sales prospects for the power transmission subsector include: insulators for 600 kV bipolar DC transmission lines, electrical switches to open circuits, circuit breakers, capacitor banks, relays, and electrical protection panels.

Additionally, U.S. power generation and transmission operators may participate in future power auctions.

Based on future power utility investment plants, the power distribution sub-sector offers equipment sales potential for lightning arresters, ground and surge protection systems, relays, insulated electric conductors, surge suppressors, and innovative technologies to reduce technical and commercial losses.

On a longer-term scenario, industry sources predict that Brazil will need to invest about US\$ 15 billion to implement a smart grid network to increase Brazil's interconnected power grid's efficiency and reliability (e.g. to reduce power shortages and black-outs). The first step will be the installation of specific electronic meters, currently under approval process by Brazil's Power Regulator ANEEL.

## **Resources & Contacts**

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## Oil and Gas

### Overview

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Although Brazil ranks 15<sup>th</sup> in world proven oil reserves and 14<sup>th</sup> in oil production, it is not part of the Organization of Petroleum Exporting Countries (OPEC); however, the new large oil and gas discoveries that Petrobras made in late 2007 under the pre-salt layer could turn Brazil into a net oil and gas exporter.

According to Brazil's National Oil and Gas Regulator ANP, Brazil's 2008 proven oil reserves reached 12.8 billion barrels and gas reserves amounted to 365 billion m<sup>3</sup>. ANP's January to November 2009 data shows that Brazil produced 1.9 million barrels of oil per day (bpd) and 57.5 million cubic meters of gas per day. About 90% of Brazil's oil production in 2009 originated from offshore fields, mostly at extreme depths. Gas production also came primarily out of offshore fields (71%). Petrobras's oil and gas production accounts for nearly 98 percent of Brazil's production. The Petrobras website shows Petrobras' proven oil reserves at 14.9 billion barrels in 2009.

From January to November 2009, Brazil exported 178,452,075 barrels (or about 533,000 bpd). During the same period, Brazil refined about 1.8 million bpd, 392,000 of which was light oil imported to mix with Brazil's predominantly heavy oil.

Since state-owned Petrobras' monopoly ended in 1998, 72 firms - half of which are foreign companies - started doing business in Brazil with 819 oil blocks awarded through ten annual oil-

concession licensing rounds. The last auction occurred in December 2008. Petrobras won the majority of these concessions, so most opportunities for U.S. firms lie in servicing or supplying Petrobras. (Interested suppliers must register at [www.petrobras.com.br](http://www.petrobras.com.br) - "Suppliers Channel Guide.")

On August 31, 2009, the Brazilian government unveiled the newly proposed pre-salt regulatory regime. The goal is to change from the existing oil concession model to a production sharing agreement, and to make Petrobras the operator in all future pre-salt fields. The bill was sent to the Brazilian Congress, but quick approval is not expected given various political sensitivities.

The 2010 estimate for Brazil's oil and gas equipment and services market is US\$ 65.7 billion. Of that amount, US\$ 17.4 billion is imported with about US\$ 8.7 billion coming from the United States. These figures do not include operational expenses, which would add approximately 40 percent to the market.

(in US\$ millions)	2008	2009	2010 (estimated)
Total Market Size	50,860	57,430	65,700
Total Local Production	38,800	44,620	51,310
Total Exports	3,000	3,000	3,000
Total Imports	15,060	15,810	17,390
Imports from the U.S.	7,530	7,905	8,695

Exchange rate: R\$ 2.0 to US\$ 1.0

These statistics are based on Petrobras' 2008 direct acquisitions, other oil companies' investments according to the Brazilian Petroleum Institute's estimates, and general statistics from the Brazilian Machinery Association (ABIMAQ).

## Petrobras

Petrobras, Brazil's largest company with sales of US\$ 118.2 billion in 2008, is a publicly traded, state-owned energy company ranked among the top 15 oil companies in the world.

Petrobras plans to invest US\$ 174.4 billion (90% or US\$ 157.3 billion in Brazil) through 2013 to increase production capacity to 3.6 million barrels of oil per day (bpd). The investment breakdown includes:

- E&P (US\$ 104.6bn, US\$ 92bn of which is dedicated to Brazil E&P)
- Downstream (US\$ 43.4bn)
- Gas and energy (US\$ 11.8bn)
- Petrochemicals (US\$ 5.6bn)
- Corporate (US\$ 3.2bn)
- Distribution (US\$ 3 bn)
- Biofuels (US\$ 2.8bn)

In 2009, China extended a US\$ 10 billion credit line to Petrobras to develop off-shore oil resources which will be repaid with exports of oil, effectively making China Brazil's first client for pre-salt oil. In 2009, the U.S. Ex-Im Bank issued a US\$ 2 billion preliminary commitment to Petrobras that would facilitate exporting U.S. oil and gas field equipment and services to Brazil.

Petrobras is considering at least a US\$ 300 million medium-term financing facility from Ex-Im and is exploring possible contracts that could be applied to its long-term program with Ex-Im. U.S. companies should be alert to opportunities with the support of Ex-Im Bank - <http://www.exim.gov/>.

### **Other oil companies**

The IBP estimates that other oil companies (e.g. BG, Repsol, Anadarko, Exxon, etc) will be investing US\$ 34.5 billion in Brazil through 2013 - US\$ 12 billion of which to develop pre-salt fields. Beyond 2013, investment figures for the other oil companies are not yet available.

### **Best Products/Services**

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Recent Brazilian Petroleum Institute's estimates show that Brazil has likely reserves of 20 to 30 billion barrels with high end estimates of 60 – 80 billion barrels. Such figures take into account the recent discoveries in Brazil's sub-salt layer (Tupi, Jupiter, and others).

Longer-term equipment and service procurement and operational expense needs from all oil companies (Petrobras and others) could exceed one trillion dollars through 2020 as the "Tupi" and other pre-salt fields are developed.

For its expanded exploration and production activities, Petrobras plans to contract about 300 new vessels (e.g. oil drilling and production platforms, ships, platform support boats, and very large crude oil carriers.)

Other equipment and component purchase forecasts for 2010-2014 include:

- Pumps (centrifuge, alternative, dosing, etc): 18,300 units
- Compressors (rotating, centrifuge, turbo-compressor, alternative, etc): 3,200 units
- Valves (sphere, retention, globe, and others): 834,000 units
- Heat exchangers (including surface condensers): 3,900 units
- Bolts: 8 million
- Gaskets: 660,000 units
- Forged components: 15,000 tons
- Casted/smelted materials: 70,000 tons
- (Source: 6<sup>th</sup> Annual ONIP Meeting)

Petrobras considers the following critical equipment and services as best prospects for foreign suppliers:

### **Opportunities for foreign suppliers**

#### **E&P critical equipment**

- Production pipelines alloy coatings
- Turbo compressors (6-10 Mw)
- Polyester mooring cables
- Mooring systems
- Drilling pipelines

- Electrical cables
- Control systems for well control
- Oil and gas metering systems
- Offshore drilling rigs
- Gravel packing
- Drill bits
- Steam generators (25-50 x 10<sup>6</sup> BTU/d);
- Special sphere subsea valves
- Subsea sensors for analysis of oil and grease traces in water
- Gas turbines
- Special steels (alloys, chrome, etc) to support sub-salt corrosion, and H2S

#### Critical services for E&P activities

- Drilling
- Workover services
- Flexible lines and umbilical laying services
- Support to ROV vehicles
- Support to mooring activities
- Special vessels
- Subsea interconnection services
- Monitoring and inspection techniques for structural integrity of flexible risers

#### Downstream segment (refineries, etc) critical equipment and services

- HCC Reactors
- Boiler works with special alloys (reactors, towers, pressure vessels)
- Boilers
- Heat exchangers working with H2S traces (ASTM A 387 degree 11)
- API pumps
- Basic design services
- Thermal power project design

The latest available information on Petrobras' procurement shows that in 2008, the company's direct acquisitions amounted to US\$ 45.2 billion - US\$ 7 billion in goods and US\$ 38.2 billion in services - and 78 percent of these were made by Brazilian suppliers, an increase of eight percentage points in comparison with 2007. Just 19.4 percent of the goods and 22.5 percent of the services were purchased from foreign suppliers. (Source: Petrobras 2008 Annual Report). From 2009 to 2013, Petrobras estimates sourcing USD\$ 100 billion from domestic suppliers.

#### Resources & Contacts

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- The Brazilian Petroleum Institute – <http://www.ibp.org.br/main.asp>
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## Safety and Security

### Overview

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Brazil has an extensive and well-developed security market that has consistently registered an average annual growth of 15-20% with annual sales around US\$ 24 billion. Brazil's preoccupation with personal security has increased the demand for security equipment and services. Brazil's public safety and security market is expected to continue growing in 2010.

The market for electronic security equipment is estimated at US\$ 1.5 billion. According to a study compiled by the Brazilian Association of Electronic Security Companies (ABESE) the electronic security market has registered average annual growth rates of 21% for several years and is expected to continue at this pace for some time.

Foreign products account for approximately 50% of the total market share, with U.S. products representing approximately 50% of these imports. This equates to a market worth roughly US\$ 250 million. Major foreign competitors include Israel, Korea and Japan, each responsible for about 10-15% of the import market share.

(in US\$ millions)	2008	2009	2010 est*
Market Size	17,000	20,000	24,000
Local Production	15,000	17,000	20,400
Exports	-	-	-
Imports (Global)	2,000	3,000	3,600
Imports from United States	1,000	1,500	3,800

The above statistics are unofficial estimates. (\*) Source ABESE - 2009. Estimated Exchange rates - US\$ 1.0 = R\$ 2.0

## **Best Products/Services**

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Best prospects for U.S. companies include access control, closed circuit televisions (CCTVs), alarm systems, surveillance technology, drug and explosive detectors, metal detectors, fire prevention and detection systems, cellular telephone blockers, biometrics, and home security equipment.

Financial institutions are the market's main end-users, spending approximately US\$ 1 billion per year in security equipment and services. This sector has the most sophisticated consumer niche, demanding quality, warranty, and after-sales service.

Port and airport security is another high-quality segment, which, although they have continuously implemented improved security measures, should continue to offer excellent opportunities for U.S. suppliers.

Vehicle surveillance is another market segment that has seen rapid growth over the last few years. According to the press, more than 330,000 cars are stolen in Brazil every year, and in large cities like São Paulo and Rio de Janeiro, car hijackings occur every few hours. Additionally, cargo robberies are a problem.

Despite decreasing but still alarmingly-high crime rates, Brazilian government officials are confident that police and expanded use of hi-tech equipment will provide sufficient security for the 2014 World Cup and subsequently for the Olympics Games 2016. Based on the security investment for previous Olympics games, Brazil expects to invest \$1.4 billion for security of the World Cup and Olympic venues.

## **Opportunities**

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Other promising niches are small businesses and private homes as high crime rates force individual citizens and business owners to increase their security expenditures. These end-users, however, usually buy less expensive and less sophisticated equipment. Specialists estimate that Brazil has around five million homes that should have some type of security device, but only seven percent are equipped with electronic security systems.

U.S. manufacturers of security equipment have been operating successfully in Brazil for many years and have approximately 50% of the total market share. The best prospects in the public security sector in 2010 include: helicopters, radios, communication systems, surveillance cameras, protection equipment, bulletproof vests, night vision goggles, helmets, munitions, non-lethal weapons, and handcuffs among others. U.S. companies interested in the public security market in Brazil need to work closely with the Federal Government and with each state public security secretariat.

To be successful in Brazil, U.S. manufacturers must either establish themselves within the country or have a well-informed local representative. It is also important to have a distributor or systems integrator who can offer after sales and maintenance services, replacement parts, and repairs.

Due to Brazil's size, most distributors and system integrators cover only specific regions. They are usually small to medium-sized companies that lack financial capability to invest heavily in product promotion, technical training, and translation of technical manuals. Therefore, it is often important that the U.S. company provide financial support for some of those activities. U.S.

companies that have enjoyed the greatest success in Brazil have worked closely with their agents and distributors, investing heavily in market development, product promotion, and personnel training.

## Resources

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- For more information please contact Industry Specialists: Genard Burity ([genard.burity@trade.gov](mailto:genard.burity@trade.gov)); Marina Konno ([marina.konno@trade.gov](mailto:marina.konno@trade.gov)), Daniele Andrews ([daniele.andrews@trade.gov](mailto:daniele.andrews@trade.gov))
- For more market research: <http://www.export.gov/marketresearch.gov>
- Brazilian Association of Electronic Security Companies (<http://www.abese.org.br/>)
- With offices in Brasilia, São Paulo, Rio de Janeiro, Belo Horizonte and Recife the U.S. Commercial Service Brazil (<http://www.buyusa.gov/brazil>) helps U.S. exporters enter Brazil's market through research, matchmaking and advocacy. To the best of our knowledge the information in this report is accurate - however readers should conduct their own due diligence before entering into business ventures.

## Environmental Technologies

### Overview

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(in US\$ billions)	2008	2009	2010 (estimated)
Total Market Size	8.18	9.10	10.00
Total Local Production	6.50	7.28	8.00
Total Exports	0.00	0.00	0.00
Total Imports	1.64	1.82	2.00
Imports from the U.S.	0.50	0.55	0.60

Source: All figures were estimated by market analysts

Environmental experts estimate that Brazil's environmental technologies market (including equipment, engineering / consulting services, instrumentation, construction and clean up services) is roughly estimated at US\$ 9 billion, of which US\$ 5.2 billion is related to the water and wastewater subsector; solid waste management at US\$ 3.4 billion and air pollution control at US\$ 0.6 billion.

### Best Products/Services

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Brazil has an increasing demand for effluent treatment and energy/water saving technologies, as well as for specialized consulting services. Such technologies include advanced water treatment (filtration), water loss prevention solutions, "intelligent valves," efficient water distribution and reuse projects, water saving devices, and rain water systems, among others. Membrane filtration is a technology that has become more common in Brazil as a consequence of cost reduction. Membranes used in ultra, micro, nano filtration and reverse osmosis are imported into Brazil.

Suppliers of water treatment stations incorporate specific imported equipment; laboratory and analytical equipment are also usually imported, and in an increasing demand.

Other opportunities include solutions related to water distribution systems, including services and equipment, since the water loss rate in Brazil corresponds to about 40 percent of the potable water produced in the urban areas. Additionally, water reuse is becoming increasingly important in Brazil, especially in the large centers where water scarcity represents high

operational costs for water impounding and adduction. Existing legislation imposing charges for collecting and disposing effluents in water bodies increases the demand for specialized consulting services and effluent treatment technologies.

Investments in solid waste treatment technologies and waste to energy projects in sanitary and hazardous landfills are expanding significantly. Local environmental agencies are encouraging incinerator technologies for solid waste treatment, as the traditional sanitary landfills reach their limits in large Brazilian cities.

The demand for air pollution control products is also rising in Brazil. In addition to the industrial demand, the increased number of CDM projects in sanitary landfills and the vehicle emission inspection program, mandatory in some of Brazil's largest municipalities generate a demand for gas emission monitoring technologies and gas analyzers, as well as the demand for industrial filters.

## Opportunities

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Recent events had a positive impact in the sanitation sector and increased investments in the business. Law 11455 of January 2007 established the regulations, defined the national policy for the sector, enabled states and municipalities to make their sanitation plans, to create consortiums and establish private-public partnerships. A Federal Government social program, known as the *Economic Acceleration Program (PAC)*, allotted US\$ 20 billion to the sanitation sector from 2007 to 2010, using funds from the federal government, state, municipal and private investors.

The Brazilian government's goal is to provide sanitation coverage to all of its population. The amount of investments required to reach this objective is US\$ 89 billion until 2020. The table below shows the investments needed by geographic region:

Regions	Investments (in US\$ billions)
North	8.1
Northeast	18.6
Southeast	37.1
South	16.5
Center-West	8.7
Total Brazil	89.0

About 30% of the US\$ 89 billion is budgeted for equipment replacement, pumps, asbestos, and cement pipes.

The sector's major challenge is the expansion of sewage collection and treatment which is expected to attract most of the investments.

## Private Sector Investments

As a result of Law 11455, the private sector is increasing its direct participation in the sanitation business by operating water and wastewater utilities, which in turn is increasing the demand for higher technology equipment used in the water and wastewater utilities. According to industry specialists, Law 866 of June 1993, which regulates public sector procurement in Brazil, determines that the principal purchase criterion be the lower bid. This legislation discourages

local water / wastewater product manufacturers and exporters from offering sophisticated technologies.

In 2008, Sabesp, the Sao Paulo state water utility, established its first Public-Private-Partnership with the private Brazilian CAB-Galvao Consortium and five additional PPPs are being analyzed. In 2007, the municipality of Rio Claro, state of Sao Paulo, established a PPP with the Brazilian Odebrecht Group, to operate and expand sewage treatment. This was the first municipal PPP in Brazil.

Estimates of the Brazilian Association of Water and Sewage Public Services Concessionaires (ABCON) are that, the private sector will invest about US\$ 8.3 billion in basic sanitation works until 2017 and will manage concessions that will cover 30% of the Brazilian population, compared to the current 9.6% level.

The Odebrecht group has recently created its sanitation company – Odebrecht Engenharia Ambiental (OEA), which already has seven concession contracts in the sector. According to the company, OEA has about US\$ 690 million to invest in new concessions in the next three years.

The Spanish owned OHL Meio Ambiente Brasil, which has currently two sewage treatment contracts with municipalities in the state of Sao Paulo (Ribeirao Preto and Mogi Mirim), foresees investments of US\$ 16 million until 2010, for treating half of the sewage of Mogi Mirim (84,000 inhabitants). OHL has investment plans of US\$ 276 million and plans to bid in five new concessions in the mid-term.

The municipal water utility in Campinas, Sanasa, will build two sewage treatment plants using Membrane Bioreactor technology – MBR.

## Resources

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- For more information contact Industry Specialist Teresa Wagner at [teresa.wagner@trade.gov](mailto:teresa.wagner@trade.gov)
- U.S. Commercial Service Market Research Worldwide: <http://export.gov/mrktresearch/index.asp>
- Ibama – Brazilian Environmental Institute – [www.ibama.gov.br](http://www.ibama.gov.br)
- Cetesb – Environmental Authority of the State of Sao Paulo - [www.cetesb.sp.gov.br/](http://www.cetesb.sp.gov.br/)
- Abrelpe – Brazilian Association of City Cleaning and Waste Treatment Companies – [www.abrelpe.org.br](http://www.abrelpe.org.br)

## Trade Shows

- Ambiental Expo 2010 - International Environmental and Sanitation Trade Show Dates: April 27 to 29, 2010. Site: Anhembi Exposition Center, Sao Paulo, SP, Brazil. Organizer: Reed Exhibition / Alcantara Machado – [www.ambientalexpo.com.br](http://www.ambientalexpo.com.br). Comments: Second edition of the show. The sectors covered include: basic sanitation, solid waste, air pollution control, soil remediation, renewable energy and noise control.
- FIMAI – International Industrial Environmental Trade Show. Dates: November 2010 Site: Expocenter Norte – Sao Paulo, Sao Paulo, Brazil. Organizer: Editora Tocalino [www.fimai.com.br](http://www.fimai.com.br). Comments: Traditional annual trade show with focus in environmental technologies for the industrial market.

- FITABES – International Environmental Technology Trade Show. Dates: September 2011. Organizer: Fagga Eventos <http://www.fagga.com.br>. Promoted by ABES – Brazilian Association of Environmental and Sanitary Engineers – Brazilian chapter of AIDIS. Comments: bi-annual trade show. The products displayed include products, services and equipment for environmental sanitation, production and distribution of potable water and wastewater treatment.

## Mining

### Overview

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(in US\$ millions)	2008	2009	2010 (estimated)
Total Market Size	4,414	4,170	4,260
Total Local Production	4,657	4,400	4,500
Total Exports	582	540	560
Total Imports	339	310	320
Imports from the U.S.	116	110	112

\* Statistical data are unofficial estimates from trade sources and press reports

Exchange rate US\$ 1.00 = R\$ 2.00

Brazil is the world's fifth largest mineral producer and has one of the world's largest mining equipment markets. The mining sector in Brazil was expanding at very high rates during the period 2000 to early 2008, and breaking nearly all records every year. However, in mid-2008 the international mining market went into a sharp downturn that had a huge impact in Brazil, as this sector is very much export-oriented. During the second half of 2008 and most of 2009 the Brazilian mineral output fell by more than 10% (in volume) annually, especially iron ore which is the most important mineral in Brazil.

Since the second half of 2009 a slow recovery has taken place in this sector. As of January 2010 it is still not clear how the market will evolve during the next years, but most analysts predict a slow but steady recovery that will lead back to the record prices and production levels of 2008 within approximately two years. A recovery depends basically on the international demand for raw materials.

The Brazilian mineral potential still has not been fully surveyed, and significant discoveries of mineral deposits are still expected in the future. Most of Brazil's mines are open pit so the underground mining equipment market is relatively small, though more underground mines are expected to open in the next 3 - 7 years.

Brazil's largest installed mining operations are for iron ore, with 2008 output at 370 million metric tons/year (Mt/y), representing nearly 17% of the world's total. The official figure for 2009 is not known yet, but it is expected to be around 353,000 Mt/y.

Brazil also produces:

- Bauxite (26.6 Mt/y in 2008, or 13% of the world's total),
- Gold (54 t/y in 2008 or 2.3% of the world's total),
- Kaolin (2.8 Mt/y or 6.2% of the world's total),
- Manganese (2.4 Mt/y or 18% of the world's total),
- Niobium (86,000 t/y, with 94% of the world reserves and 96% of the output),
- Potassium chloride (KCl) (650,000 t/y),
- Phosphate concentrate (6.3 Mt/y of concentrate),
- Zinc (199,000 t/y of metal content or 1.8% of the world's total)
- Lead (25,000 t of primary lead and 142,000 t of recycled lead),
- Copper (214,000 t of ore),
- Tin (15,000 t of Sn content),
- Nickel (85,000 t Ni content),
- Uranium (380 t of U<sub>3</sub>O<sub>8</sub> concentrate),
- Raw materials for cement (50 Mt/y of cement in 2008).

Brazil's coal production is relatively small and has been stagnant for the last 20 years. The output in 2008 was only 6.5 Mt/y of steam coal (compared to 5 Mt/y in 1991), but it is expected to reach 12 Mt by 2014, in order to supply several new local coal power plants. Total Brazilian deposits of coal are estimated to be 32 billion metric tons. There are 8 coal power plants currently in operation in Brazil, with a combined capacity of 1.4 MW, equivalent to only 1.3% of the total electricity consumption of this country. There are projects by local companies to start up several new coal power plants in Brazil in the next 5 years, for a combined capacity of 4,000 MW.

Brazil is one of the largest importers of metallurgical coal, used basically by its steel manufacturers. It has imported approximately 16 million metric tons/year (US\$ 2 billion) of metallurgical coal. The main supplying countries have been Australia (35% of the total imported in 2006), U.S.A. (26%), Canada (9%), China (7%) and South Africa (4%). The largest Brazilian mining company Vale has made large investments in coal mining in Australia and in Mozambique in the last four years. It had an output of 4.1 Mt of coal in Australia during 2008 being 68% metallurgical coal and 32% steam coal. In Mozambique, Vale is currently building a mining and railroad complex to start exporting coal in 2011. The total deposits are 2.5 billion metric tons and the total output is planned to reach 40 Mt/year. Vale also bought in 2008 a coal project in Colombia, to start producing 4.8 Mt by 2011.

## **Best Prospects/Services**

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Brazil has a very limited market for turnkey machinery, as a number of leading multinationals have manufacturing facilities in this country, with some even exporting their products from Brazil. Among those already in Brazil are Caterpillar, Volvo, Case New Holland, Cummins, Ingersoll Rand, Metso, Atlas Copco, Sandvik, Siemens, Alston, Scania, ABB, 3M, Liebherr and GE. Caterpillar, for example, has been one of the top 15 Brazilian exporters.

These equipment manufacturers provide excellent opportunities for U.S. parts and components for earth-moving equipment, belt conveyors, crushers and grinding equipment, laboratory instruments, and drill bits and equipment. Import tariffs and fees are normally very high in Brazil. For this reason, the best prospects for exporting products into Brazil are normally for products that are not available locally.

The most important trade show of this sector in Brazil is Exposibram, which is held every second year in Belo Horizonte. It is sponsored and organized by the Brazilian Mining Institute IBRAM. The next edition of this show will be in September 2011 in Belo Horizonte. Participation in it is highly recommended for U.S. manufacturers of mining equipment.

## **Opportunities**

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**VALE (Companhia Vale do Rio Doce):** Brazil's largest, and the world's second largest, mining company is Companhia Vale do Rio Doce, known as VALE. Privatized in 1997, VALE is responsible for more than 50% of Brazil's mineral output based on value, and represents an excellent opportunity for U.S. equipment suppliers. VALE produces nearly 90% of Brazil's iron ore; 100% of Brazil's potash, 85% of manganese, 43% of kaolin, 80% of bauxite, and it is also the top player in aluminum, copper, and nickel production. The output of its main minerals in 2008 was 302 million metric tons (Mt) of iron ore, 275 kt nickel, 11.6 Mt of bauxite, 5.0 Mt of alumina, 543 kt of aluminum, 311 kt of copper, 607 kt of potassium chloride, 1.1 Mt of kaolin. VALE is also the top logistics player in Brazil, especially for ports and railroads, not only for its own use, but also as a supplier of logistics services to other companies. It is the largest Brazilian consumer of electricity. In the last six years, VALE has become very internationally diversified, having bought the Canadian company INCO (the world's largest nickel producer); plus the above mentioned coal projects, and many other projects in Latin America, Africa and Asia. VALE had been breaking its own records every year, and had shown very high rates of growth in practically all its activities in the last ten years, until August 2008. In the last quarter of 2008 however, due to the crisis in the international market, situation changed dramatically in the mining sector and Vale has also been hard hit like most other mining companies. Since the last quarter of 2009 the situation has been slowly improving again, Vale's commodities prices have been increasing steadily in the international market, and its output has been increasing. Most of its investment projects have been delayed by one or two years, due to the crisis of 2008.

## **Anglo American**

The company has two large iron ore projects in Brazil. The first one is located in Amapá (north of Brazil) and it plans to expand output from its current one to four million tons in the next 4 years. The second one is in Minas Gerais, planned to start up in 2012 with an output of 26.5 million tons. Anglo is also building its big nickel project "Barro Alto," expected to start up in 2010 with an output of 36,000 kt/year in ferro-nickel alloys.

## **ArcelorMittal**

This company runs a large iron ore project in Brazil, with an output of 3.8 Mt in 2008, which is being expanded to 10 Mt in 2012.

## **MMX**

A new company that had started three large iron ore projects in Brazil in 2007 has sold most of them to Anglo American. It currently has an output of nearly 9 million ton/year of iron ore, and has a new "Bom Sucesso" project for 8.7 million ton/year starting in 2014.

## **Gold**

The total Brazilian output of gold is expected to expand from 54 ton/year in 2008 to 100 ton/year of gold metal in 2013, according to the Brazilian Ministry of Energy and Mines. The Canadian

Kinross Group became Brazil's largest gold producer in 2008, when it started up a new project of US\$ 550 million and increased its output of gold metal from 5.4 to 17.2 metric tons / year. Other large gold producers in Brazil are AngloGold Ashanti (5 tons in 2008), Yamana Gold and Jaguar. Individual prospectors account for an estimated 11% of Brazil's total output.

## Votorantim

This Brazilian group is the only local producer of zinc, has a share of approximately 40% of the local production of cement, and is also a big producer of bauxite and aluminum.

## Resources

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- For more information contact Industry Specialist Mauricio Vasconcelos at [mauricio.vasconcelos@trade.gov](mailto:mauricio.vasconcelos@trade.gov)
- U.S. Commercial Service Market Research Worldwide: <http://export.gov/mrktresearch/index.asp>
- Ministry of Mines and Energy (MME) <http://www.mme.gov.br>
- Brazilian Geological Service <http://www.cprm.gov.br>
- VALE <http://www.vale.com>
- Brazilian Mining Institute (IBRAM) <http://www.ibram.org.br>
- Magazine Brazil Mineral [www.signuseditora.com.br](http://www.signuseditora.com.br)
- Magazine Minerios [www.minerios.com](http://www.minerios.com)
- Magazine In the Mine [www.inthemine.com.br](http://www.inthemine.com.br)
- Professional Geologists Association [www.geologo.com.br](http://www.geologo.com.br)
- ABIMAQ - Brazilian Association of Machinery Manufacturers, database of manufacturers <http://www.abimaq.org.br>
- With offices in Brasilia, São Paulo, Rio de Janeiro, Recife and Belo Horizonte, the U.S. Commercial Service Brazil (<http://www.buyusa.gov/brazil>) helps U.S. exporters enter Brazil's market through research, matchmaking and advocacy. To the best of our knowledge the information in this report is accurate - however readers should conduct their own due diligence before entering into business ventures.
- Trade show: The U.S. Commercial Service has organized U.S. pavilions in the last five editions of the Exposibram show, mentioned above. U.S. companies interested in participating should contact [Mauricio.vasconcelos@trade.gov](mailto:Mauricio.vasconcelos@trade.gov).

## Drugs and Pharmaceutical

### Overview

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(in US\$ billions)	2008	2009	2010 (estimated)
Total Market Size	17.10	17.20	19.20
Total Local Production	12.60	13.80	15.40
Total Exports	0.96	1.08	1.20
Total Imports	4.20	4.47	5.00
Imports from the U.S.	0.84	0.93	1.03

\*Assumes exchange rate of R\$ 2.0 = US\$ 1.0

Source: Sindusfarma

The Brazilian pharmaceutical industry is comprised of 500 companies and is the largest market in Latin America. They represent a total market value of US\$ 17 billion in 2009, with an estimated 12% growth for 2010. Brazil is also among the five largest pharmaceutical markets in the world in terms of unit sales and the 11<sup>th</sup> in market size. According to Brazil's Pharmaceutical Industry Syndicate (SINDUSFARMA), Brazilian pharmaceutical product imports in 2009 reached US\$ 4.47 billion. This reflects a 4.6% increase over the previous year's level. U.S. exports account for approximately 20% of Brazilian pharmaceutical imports.

About 80% of pharmaceutical companies operating in Brazil are national, but they are only responsible for a minority of domestic sales. Foreign firms mostly from the United States and Europe, along with their Brazilian subsidiaries, supply 70% of the market, not including direct sales to the government.

Multinationals operating in Brazil have expressed concerns about the slow approval of pharmaceutical patents in the country, with roughly 18,000 pharmaceutical patents currently pending approval. Also, taxes applied to medicines in Brazil are among the highest in the world. The government collects over US\$ 1 billion in taxes from the pharmaceutical sector. The cascading tax method applied on manufactured goods in Brazil affects several industries, and is one of the most important topics that private industry has raised with the government. The process aimed at reducing taxes on pharmaceutical production is slow and bureaucratic. According to government statements, however, taxes applied on pharmaceutical products are expected to be decreased in order to make drugs more affordable for the population. Reduced taxes have occurred more at the state rather than federal level.

### Generic Pharmaceutical Products

U.S. firms seeking to enter the Brazilian market should be aware that the local generic drug market is growing rapidly. Generic drugs first entered the Brazilian market in 1999. Since then, the sector has grown rapidly and is estimated to have accounted for 13% of sales in 2009.

Nearly all generic production is purchased by state public health care systems as part of the government's program to distribute medicines to the poorest. It is estimated that in 2011, the generic market will reach US\$ 1 billion in sales, representing 20% of total sales.

### **Best Prospects/Services**

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The pharmaceutical products that are most imported, in sales, are in the Harmonized System Code 30.04 as "Medicines with Cyclosporine A", "Other Medicines with Heterocyclic Compounds in doses" and "Other Medicines for Therapeutic Use".

Best prospects are for products in areas such as pregnancy contraception, erectile dysfunction, cholesterol, weight control, diabetes and other medicines for chronic diseases treatment. Phytotherapeutic drugs are also in a high demand for Brazilian consumers.

### **Opportunities**

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Brazil's pharmaceutical market represents an excellent opportunity for U.S. firms for a variety of reasons. The size of the pharmaceutical market is significant, and this market will likely grow as the government lowers taxes on these products. Tax decreases will not only increase per client sales for current patients, but will bring into the fold those currently forgoing medication because of financial constraints.

Opportunities for U.S. firms to export raw materials to Brazil are abundant. Approximately 85% of the raw materials used in the production of generic drugs in Brazil are imported. In addition, we see major demand for equipment and services associated with the construction of pharmaceutical manufacturing plants, representing another opportunity for U.S. exporters.

Due to patent expiration of several drugs in 2010, the market for generic drugs will present new opportunities for laboratories. Multinational companies are investing in the acquisition of local laboratories in order to establish a stronger presence in this segment.

### **Resources**

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Major Trade Shows:

- FCE Pharma – [www.fcepharma.com.br](http://www.fcepharma.com.br) - The largest technology event in the pharmaceutical industry.
- Hospitalar – [www.hospitalar.com](http://www.hospitalar.com) - The largest medical event in Latin America.

Key contacts:

- Brazilian Agency for Sanitary Health: [www.anvisa.gov.br](http://www.anvisa.gov.br)
- Sindusfarma: [www.sindusfarma.org.br](http://www.sindusfarma.org.br)
- U.S. Commercial Service Market Research Worldwide: <http://www.export.gov/marketresearch.html>
- For more information about export opportunities in this sector contact U.S. Commercial Service Industry Specialist Jefferson Oliveira at: [jefferson.oliveira@trade.gov](mailto:jefferson.oliveira@trade.gov).

## Medical Equipment

### Overview

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(in US\$ billions)	2008	2009 (estimated)	2010 (estimated)
Total Market Size	3.96	4.00	4.38
Total Local Production	1.80	2.01	2.20
Total Exports	0.58	0.64	0.70
Total Imports	2.73	2.62	2.88
Imports from the U.S.	0.80	0.78	0.86

\*Assumes exchange rate of R\$ 2.0 = US\$ 1.0 Source: Secex, Abimed, ABIMO

Brazil has the largest medical equipment market in South America. The market should continue to expand approximately 10% through 2010. Brazil is both a major medical equipment producer and importer. This industry is comprised of a number of related products and services, including:

- Medical equipment and devices
- Dental equipment and products
- Radiological and diagnostic imaging equipment
- Laboratory equipment

Brazilian medical equipment revenues in 2009 reached an estimated US\$ 4 billion, which represents a minor increase from the previous year. The United States accounts for approximately 30% of the import market, with U.S. sales mainly going through local agents, distributors and importers who sell to hospitals and clinics. The market for electro-medical equipment is around US\$ 200 million, which represents approximately 50% of total sales in Latin America.

There are few high-quality Brazilian manufacturers of advanced medical products so Brazil's reliance on imports should continue for some time. Local buyers view U.S. and other foreign products (mainly Canadian and European) as having comparable quality and reliability. Thus, financing terms often become the differentiating criteria in making a sale.

### Best Prospects/Services

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Brazil's recently strengthened currency has meant that private and public hospitals have greater purchasing power, and with continued expansion of Brazil's private health care sector, the market should grow. New opportunities for U.S. exporters abound, particularly for:

- Advanced medical equipment.
- Disposables.
- Diagnostic devices.
- Implants and components.

## Opportunities

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An interesting trend in Brazil is the growing market for home health care products, which has increased dramatically in recent years. Brazil has approximately 150 home health care companies compared to approximately 1,440 in the U.S. In Brazil, these companies are increasingly viewed as good ways to cut hospitalization costs while offering better services for patients. Brazilian health insurance companies are responsible for paying 99% of the costs related to home care treatment; the U.S. Commercial Service sees the market for home health care products growing dramatically during the coming years. Brazil's Regional Nursing Council is currently developing procedures on how to regulate this market, including standards for health professionals.

In addition to the attractive size of the Brazilian medical market, U.S. exporters should consider the opportunities offered by Mercosur, and use Brazil as a "spring board" for export into Argentina, Uruguay and Paraguay. Since compulsory product registration before sale is required for all of Mercosur countries, U.S. exporters should consult a local lawyer/consultant before signing a contract with any agent/distributor.

## Web Resources

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Major Trade Show:

- Hospitalar – [www.hospitalar.com](http://www.hospitalar.com) - The largest medical event in Latin America

Key Contacts:

- Brazilian Ministry of Health: [www.saude.gov.br](http://www.saude.gov.br)
- ABIMO - Brazilian Association of Dental, Medical and Hospital Equipment: [www.abimo.org.br](http://www.abimo.org.br)
- SINAEMO - Syndicate of Medical, Dental, Hospital and Laboratory Industries: [www.abimo.org.br](http://www.abimo.org.br)
- ABIMED – Brazilian Association of Equipment, Products and Medical Supplies Importers: [www.abimed.org.br](http://www.abimed.org.br)
- For more market research: [www.export.gov/marketresearch.html](http://www.export.gov/marketresearch.html)
- For more information please contact Industry Specialist Jefferson Oliveira at: [jefferson.oliveira@trade.gov](mailto:jefferson.oliveira@trade.gov)