Brazil is one of the largest and most dynamic economies in South America: economic policy making has become increasingly predictable against a background of moderate but sustained growth, falling inflation, and improving public finances. The automotive sector has benefited from the overall improvement in stability and growth: auto output grew (in unit terms) around 3 percent in 2006 to over 2.5 million vehicles, while installed capacity remains considerably higher. Both vehicle and component companies continue to focus on consolidation and productivity improvement.

The late-2006 re-election of Luiz Inacio Lula da Silva for a second term as president has helped foster the atmosphere of stability and continuity in policy. This stability helped drive a sharp increase in direct investment in manufacturing since 2002, and helped many of the large automotive Original Equipment Manufacturers (OEMs), improve productivity through automation investments. For example, Volkswagen, Brazil’s second-largest vehicle manufacturer, reported in 2007 that it had achieved 15 percent productivity improvement during 2006.

### Market size - Automotive

<table>
<thead>
<tr>
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<th>US$ Million</th>
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</thead>
<tbody>
<tr>
<td>Total sales 2006</td>
<td>37.361</td>
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<tr>
<td>Total sales 2005</td>
<td>34.891</td>
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<tr>
<td>Exports 2006</td>
<td>7.073,4</td>
</tr>
<tr>
<td>Exports 2005</td>
<td>6.858,9</td>
</tr>
<tr>
<td>Imports 2005</td>
<td>2.845,6</td>
</tr>
<tr>
<td>Imports 2005</td>
<td>1.470,3</td>
</tr>
</tbody>
</table>

*Estimates

Source: Anfavea 2007

1 Source: Anfavea, 2007
2 Source: Associated Press, February 2007
Continued strong growth in Gross Domestic Product (GDP) and disposable income, together with only average levels of vehicle ownership, will support the automotive industry in 2007. Two key trends are likely to affect the industry:

- Many Brazilian trade tariffs have been falling over the last ten years, but the domestic automotive sector remains relatively protected from foreign competition, reflected by the fact that approximately 91 percent of the total Brazilian auto fleet was manufactured in Brazil. However, the trend of trade liberalization is likely to continue, putting new pressure on the competitiveness of domestic auto manufacturing.

- The Brazilian real continues to appreciate against the US Dollar (in 2005 the real appreciated by over 16 percent against the US dollar and continued to rise in 2006, albeit at a slower 7.7 percent), reducing Brazil’s advantage as a low-cost exporter.

The overall opportunity for Brazilian automotive companies arises from access to South America’s largest economy, where disposable incomes are growing in a stable macroeconomic environment. Brazilian automotive companies may also benefit from government-supported auto initiatives.

- The alternative-fuel sector is expected to grow quickly, creating opportunities for technology providers, infrastructure companies, vehicle manufacturers, and biofuel producers.

One of the key challenges of operating in Brazil remain those of high costs of production, particularly the complexity and rates of commercial taxation, and deteriorating terms of trade.

Politics and Economy

The Brazilian economy has grown steadily at around 3.5 percent annually since the election of president Luiz Inacio Lula da Silva in 2002. Growth is expected to be somewhat higher in 2007, at close to 4 percent. Inflation was greatly reduced at 3 percent during 2006, and overall export performance has improved since 2000 (the last year in which Brazil recorded a trade deficit). High inflation and very high real interest rates have long exerted a powerful negative influence on private consumption and overall growth, but these problems are gradually ameliorating. Vehicle ownership and vehicle use are therefore expected to increase.

Foreign manufacturing direct investment is increasingly easy to source in Brazil: investment has been significantly deregulated since 1991, resulting in few controls on investment capital flows. Funds can be freely remitted between Brazilian and foreign currencies at the market-determined exchange rate, and the procedures for currency exchange transactions were greatly simplified in 2000.

The Tax Challenge

Brazil has one of the heaviest and most complicated corporate tax burdens of the large emerging economies. The Brazilian Institute of Tax Planning (IBPT), calculates that the total tax burden reached approximately 35.21 percent of GDP in 2006, up from 34.12 percent in 2005. According to the Brazilian Association of Automotive Manufacturers (Anfavea), the automotive sector paid taxes of approximately R$21 billion in 2005, representing approximately 4 percent of total taxes and contributions, around 1.3 percent of GDP.

On average, direct taxes account for 28 percent of the final cost of a vehicle, although this can rise to 36 percent in the case of larger (two-liter and larger engines) vehicles.
Operating Environment

Access to raw materials, power, and communications is good by South American standards; however, the Brazilian physical communications infrastructure is uneven (transport costs are equivalent to nearly 13 percent of GDP, compared to 8 percent in the United States), restricting vehicle ownership and use, and imposing high logistics costs on manufacturing companies. Automakers in Brazil therefore continue to place a high premium on developing local supplier networks, concentrated mainly in the auto manufacturing center of São Paulo.

In January 2007, the federal government announced the Growth Acceleration Program (PAC—Programa de Aceleração do Crescimento). The PAC includes a US$252 billion infrastructure investment plan from 2007 to 2010, comprising US$29 billion in logistics infrastructure, US$138 billion in energy infrastructure, and US$85 billion in urban infrastructure (water and sewage, housing, and urban railways, whether above or below ground). Planned investments in roads (US$16.7 billion), rail (US$3.9 billion) and ports (US$1.4 billion) are expected to reduce manufacturers’ logistics costs.

Human Resources

Companies find that labor availability, direct cost, and productivity in Brazil are all incentives for investment. Registered unemployment is high at over 10 percent, although this figure is likely to be an overestimate as informal untaxed employment is estimated to account for more than half of all actual employment in Brazil. Under the Labor Code all workers in formal employment are guaranteed relatively generous terms including 30 days’ annual vacation and an annual bonus of one month’s salary.

Real wages have been rising over the last three years; the minimum monthly wage was raised in 2007 to US$ 194, and the average urban wage was US$ 534 in 2006. Regional average wage rates are considerably higher in the industrialized southeast than in the less developed northeast.
Brazilian workers are on average slightly less educated than workers in Argentina and Chile.\textsuperscript{16} The difficulty of hiring is considerably greater than in China (a World Bank difficulty of hiring index score of 67 compared to 11 in China), yet the difficulty of firing is much less (a World Bank index of 20 compared to 40 in China). The difficulty of hiring is only marginally less than in India, while the difficulty of firing is much less.

The Automotive Sector

The Market

In unit terms output is growing at around the rate of GDP growth, and transportation equipment remains Brazil’s largest export sector. According to Anfavea 2006 saw record production of over 2.5 million vehicles, of which around 1.9 million were sold in the domestic market; from January to April 2007 sales increased 22.6 percent year-on-year.

The volume of exports is decreasing, due largely to the appreciation of the real against the US dollar. Auto exports decreased 6.05 percent in unit terms in 2006, and are forecast to decrease by 8.5 percent in 2007.\textsuperscript{17} In value terms exports remain relatively stable: Anfavea forecasts a total value of auto exports of US$12.1 billion in 2007.

New investments have tended to concentrate on productivity improvement and new markets. Cumulative investment in the period 1994–2006 amounts to US$35 billion. According to their own estimates auto manufacturers are expected to invest R$12 billion between 2007 and 2011: large investment plans include those of Fiat (R$3 billion in manufacturing to 2008); Volkswagen (R$2.5 billion from 2007 to 2011 in its five Brazilian manufacturing units); Ford (R$2.2 billion to 2011 including its purchase of Troller, a manufacturer of

\begin{figure}
\centering
\includegraphics[width=0.8\textwidth]{Unit_Sales_and_Market_Share.png}
\caption{Unit Sales and Market Share}
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Source: Anfavea 2007

\textsuperscript{16} Source: KPMG International. Manufacturing in Argentina, Brazil & Chile, May 2006, page 50
\textsuperscript{17} Source: Anfavea - 2007/Brazil Automotive Industry Yearbook 2007 and ValorOnline as accessed at May 7, 2007
off-road vehicles); and General Motors (US$1 billion from 2008 to 2010). Hyundai of South Korea has also announced investments of R$1.2 billion to 2010. Smaller investments include Renault (US$300 million in manufacturing and the development of a new design and engineering facility) and Nissan (US$150 million to 2009).

By far the most important developing market is that for alternative fuels, related infrastructure, and “flex-fuel” autos that can use either ethanol or gasoline, or a mixture of both. Flex-fuel vehicles appeared on the market in 2003 and by 2006 had established a commanding market share. Fiat, Ford, General Motors, Peugeot, Renault, and Volkswagen all have flex-fuel development and manufacturing centers in Brazil. KPMG in Brazil forecasts that flex-fuel vehicles will account for three-quarters of the Brazilian market by 2010. Auto manufacturing based on alternative fuels is likely to include a new biodiesel sector: in 2006 the government announced the Brazilian Biodiesel Production and Use Program (PNPB), an initiative designed to encourage manufacturing investment, innovation, and infrastructure development to support a new biodiesel sector based on fuel derived primarily from Brazilian soy.

**Auto Export Destinations**

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</thead>
<tbody>
<tr>
<td>2,316.8</td>
<td>2,060.4</td>
<td>1,231.2</td>
<td>1,456.8</td>
<td>767.4</td>
<td>844.2</td>
<td>704.4</td>
<td>228.1</td>
<td>266.8</td>
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</tbody>
</table>

Source: Anfavea 2007

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Suppliers
Brazil has almost 500 auto component manufacturers, a growing proportion of which are now highly integrated into major automakers’ operations, partly to reduce their high logistics costs in Brazil and partly as a result of the global component sourcing policies introduced by manufacturers during the last two decades. Global sourcing also accounts for the continuing high value of auto component imports and exports (in excess of US$6 billion in each case). Germany remains the leading foreign supplier of components, followed by the United States, while the leading export markets for Brazilian automakers are Argentina, Mexico, the European Union, and the United States, in order of value.
Labor
Many companies polled by KPMG in Brazil believe that relations with labor unions have improved markedly in the 15 years. Labor unions in industrialized regions of Brazil are well organized, especially in traditional manufacturing businesses, and are represented in many governmental and business federations. Around 12 percent of the workforce is formally unionized,19 but the results of collective bargaining over pay affects more than twice this number of workers (in part because unions are largely funded by mandatory employer contributions and represent all workers in a profession or region irrespective of whether workers are formal union members). Although Brazil has a very large number of unions, they are grouped in four large federations or “centrals”: the Workers’ Unitary Central (CUT), the Union Force (FS), the Workers’ General Confederation (CGT), and the Social Democratic Union (SDS).

Disputes are addressed by specialized labor courts that are exceptionally slow to deliver judgments: five years is not unusual for a routine dispute. Labor courts deal with routine pay and bargaining issues that in most other countries would be settled between companies and unions—although the rate at which disputes go to court has been declining. Although strikes are still common in the public sector, private-sector strikes are declining.

19 Source: KPMG International. Manufacturing in Argentina, Brazil & Chile, May 2006, page 51
About KPMG's Global Automotive Practice

KPMG is a global network of professional firms providing Audit, Tax, and Advisory services. We operate in 148 countries and have more than 113,000 professionals working in member firms around the world.

Through its member firms, KPMG has invested extensively in developing a highly experienced automotive team. KPMG’s understanding of the industry is both current and forward looking, thanks to KPMG’s member firms’ global experience, knowledge sharing, industry training and the use of professionals with direct experience in the automotive industry.

KPMG member firms serve many of the market leaders within the automotive sector. KPMG’s strength lies in its member firm network, its professionals and their knowledge and experience gathered from working with a large and diverse client base. KPMG’s industry experience helps the team understand both your business priorities and the strategic issues facing your company.

KPMG’s Global automotive practice’s presence in many major international markets, combined with industry knowledge, helps KPMG assist you in recognizing and making the most of opportunities, as well as advising on the implementation of changes dictated by industry developments.

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