

INVESTMENTS IN THE AUTOMOTIVE INDUSTRY: BNDES ACTIONS

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Abstract

The automotive industry in Brazil has been making heavy investments, especially in the installation of auto manufacturing plants, with a significant impact on many other related segments. Many projects are being conducted to meet the growing and varied demands in the sector for items such as steel products, glass, and cast, rubber, and plastics parts, etc. As for the organizational innovations, new methods of organizing and managing production, which are already in use in other sectors of the economy, are being introduced.

Introduction

Recent investments in the construction of auto plants and auto parts plants are expected to lead to a new configuration for automotive production, especially in regional terms. The location of automobile assembling in Brazil, which began in the 1950s in the ABC region of São Paulo state, changed over time, and during the 1970s moved to the Vale do Paraíba region. Automotive production plants were also installed in Paraná state, and later in Minas Gerais state, however those facilities still remained close to auto parts suppliers located in São Paulo state.

At the same time, a sizable metallurgical and mechanical industry developed in various cities in São Paulo, especially in the ABC region. This scenario was altered by growth in automotive production in Minas Gerais, which attracted suppliers to the area. However, São Paulo state, in particular the ABC region, remains the leading producer of motor vehicles and auto parts.

The following charts show the breakdown of recent investments, focusing on investment for new plants (Chart 1) and the destination of overall investment in the sector (Chart 2).

Chart 1

Investments in New Plants, by State

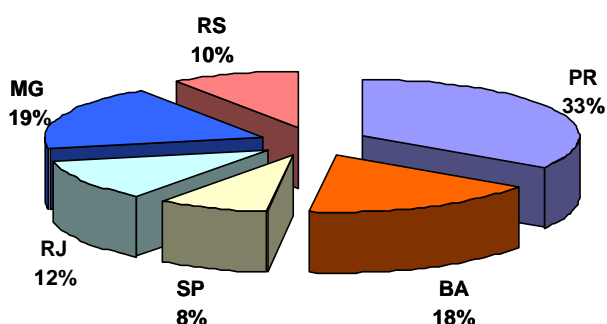
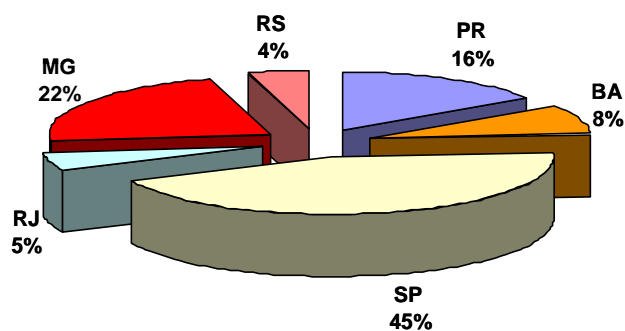


Chart 2

Overall Investments in Automotive Sector, by State



Auto parts

The auto parts sector is undergoing a significant restructuring process, brought about by the need to accompany the strategies and investments made by auto assemblers,

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with subsequent effects on the regional characteristics of the industry and impacts from the reorganization of production functions.

The number of auto parts companies locating in new regions has been growing, since many manufacturers have built plants near new auto assembly plants. This move to other states and cities improves employment (see charts 3 and 4). Besides the need to being close to clients, the incentives offered by states constitute another important factor of growth, especially for states located near industrial parks.

However, due to the large amount of investments already made in the state, a large part of production will probably continue to come from São Paulo, at least in the short term. Moreover, as shown by the experience in Minas Gerais, a certain amount of time and a minimum scale of production are necessary to develop a significant industrial base.

Although some investment is for relocation of plants, the vast majority of investment is for new plants to expand production capacity or solely for new assembly plants.

Chart 3

Geographical Distribution of Auto Parts Companies

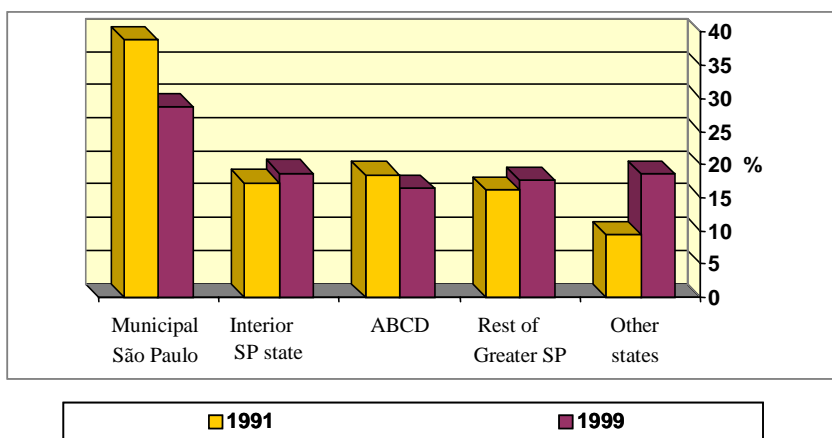
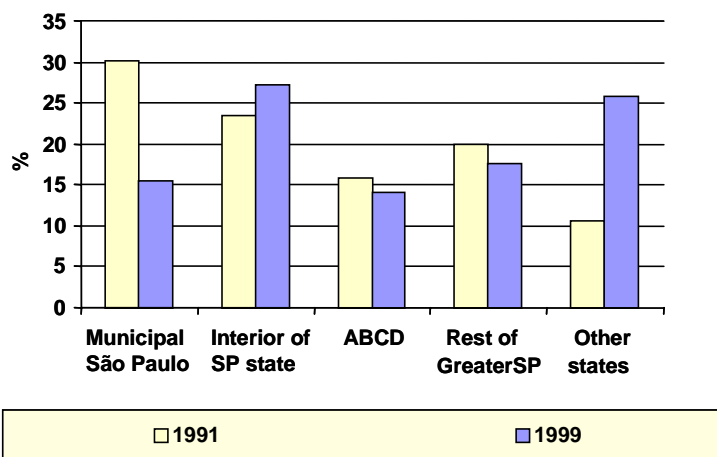


Chart 4

Geographical Distribution of Auto Parts Jobs



Source: *Sindipeças*.

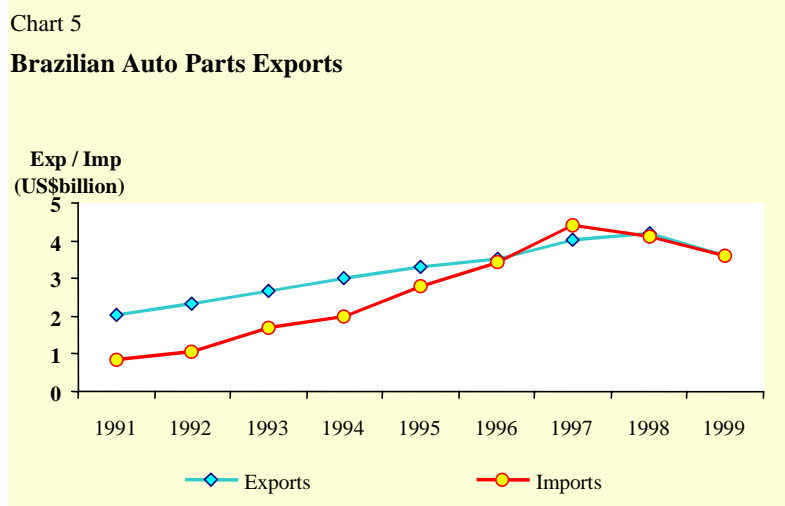
Source: *Sindipeças*.

Other important developments are the reorganization of production within plants, a reduction in the number of operations carried out directly by auto assemblers, the transfer of specific operations to suppliers, and the much-needed integration among companies. These changes occur to a higher degree in recently constructed

plants, advancing significant investments in many different segments such as die-stamped parts, service centers and interiors.

Another important factor is the entry of new companies and the deverticalization process, which has attracted new manufacturers and resulted in the expansion of the operations of large companies installed in the country. This expansion of foreign companies has taken place through the construction or expansion of production units, and the acquisition of local companies, which in many instances manufacture the same product or complementary products. Many operate as integrated suppliers for the plants, supplying subassemblies, and act as global partners in project development and in production.

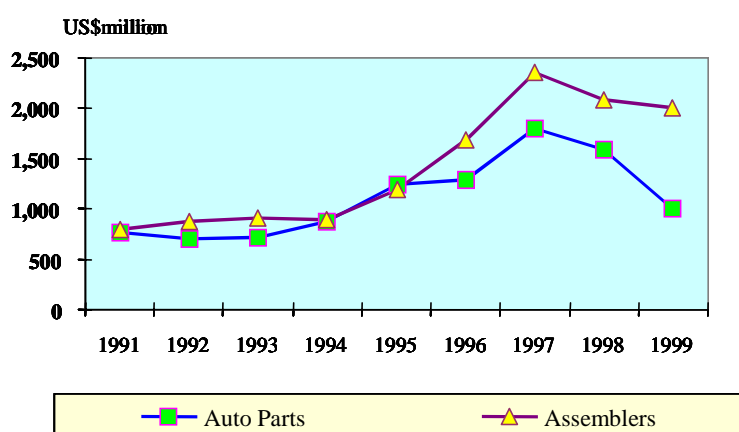
As such, the auto parts industry has not only made a huge effort to accompany the investments made by the automotive industry, but has also become more competitive, as shown by the increase in exports in an increasingly competitive market. Brazil's auto parts exports grew from US\$ 2 billion in 1991 to US\$ 4.2 billion in 1998, but later fell to US\$ 3.6 billion in 1999, due to the economic situation of countries in South America (Chart 5).



Source: *Sindipeças*.

Investments totaled some US\$ 10 billion in the 1991-99 period – US\$ 4.3 billion in the 1997-99 period alone – and were used mainly for expansion of production, modernization of plant, new equipment, quality assurance programs, reorganization of production, and installation of new plants. Of the total invested in 1999, foreign companies made 72% (see Chart 6).

Chart 6
Investment in the Brazilian Automotive Industry



Source: *Sindipeças*.

The ratio of investment to revenue in the sector increased from 7% in 1991 to 11% in 1998, while the ratio of auto parts investments to assembler investments has averaged 80%. The figures are significant and show the effort that companies are making, especially taking into account the difference between companies in the two segments in size, revenue and the level of cost cutting.

BNDES Actions

The BNDES has provided financing to the auto assembly industry and its suppliers with the objective of stimulating the manufacturing of parts and the acquisition of machinery and equipment in Brazil. The Bank can also provide support jointly for the assembler and its respective suppliers. In only one case was financial support given jointly to suppliers.

BNDES supported-investment in the auto industry totaled R\$ 8.9 billion in the 1997-99 period, taking into account the increase in investment to related industries and to auto assemblers. Of this total, R\$ 7.8 billion was for investment in automobile and auto parts manufacturers. BNDES support for these projects totaled R\$ 3.4 billion in the same period, rising to R\$ 4.1 billion if support for exports is taken into account.

The greater part (around 78%) of the support given to the automotive industry was for installation projects. These projects generate direct jobs in an industry that has been reducing the level of employment.

Table 1
BNDES Support for the Automotive Industry
(R\$ million)

	ASSEMBLERS	AUTO PARTS	OTHER	TOTAL
Total Investment	6,422	1,464	1,034	8,919
Construction and Installations	1,110	226	165	1,436
Equipment	2,924	713	517	3,653
Financing	2,632	594	252	3,478

Source: *BNDES*.

Auto assemblers received financial support of R\$ 2.6 billion in the period, or some 40% of total investment (see Table 2). Equipment acquisition was the most important item, representing 45% of total investment. Of the total investment in equipment, 60% was for acquisition in the domestic market, an extremely high figure. Construction and installation was the second highest item, representing 17% of supported investments, also a high figure, given the large production chain of the construction sector.

Table 2
Breakdown of Investments in Projects Supported by the BNDES

Investment	Amount (R\$ million)	%
Domestic Equipment	1,765	27
Imported Equipment	1,159	18
Construction and Installations	1,110	17
Total	6,422	

Source: *BNDES*.

Of the 10 projects with BNDES support, nine were for the installation of new plants for automobile and engine manufacturing. Engines designs resulted in an increase in local production of a central component, comprising various other sub-components that must be acquired from outside suppliers. The expected local

content index will be at least 80%, which has generated new orders for local suppliers. Automobile designs also have local content indices of at least 70% (depending on model), a figure that can rise as high as 90% for certain models.

Five of the projects with BNDES support already approved incorporate the concept of supplier parks. New plants, especially those of recent entries to the Brazilian market, have attracted suppliers that also are new entrants in the local market, and have helped to expand the production lines of existing suppliers. Accordingly, the new plants installed in Paraná state have led to the entry of 40 new manufacturers in the area. No data on the expansion of service companies are available.

All of the projects include plans for exporting a portion (estimated at a minimum of 15%) of production, mainly to other Mercosur countries. At present, due to the economic situation of countries in the region, companies are seeking out other markets, taking advantage of the creation of bilateral trade agreements.

In view of the importance of the auto parts sector and the need for a local supplier base to make the desired level of growth possible, the BNDES has sought to strengthen its efforts in the sector. In 1996, it created a program to support the auto parts supplier network, the objective of which was to:

- increase supply of parts and components in Brazil, supporting companies that show the conditions needed to overcome the transition phase in the sector and demonstrate the potential to compete effectively; and

- foster wide participation of local companies in the market by expanding their capabilities.

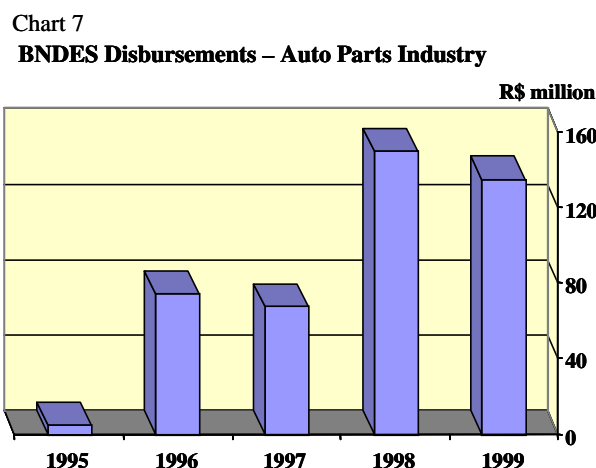
In addition to providing support for traditional spending on the expansion and installation of plants, financing is also available for the modernization of administration and production, development of products and tools, development of suppliers and logistics, technological advancement, cooperative networks, etc.

Some of the items eligible for support are:

- construction and installations;
- equipment;
- modernization of installation, including rearranging of plant layout;
- programs to improve quality and productivity;
- training;
- joint research with universities and research centers;
- automation; and
- conservation of the environment.

A specific criterion established for the eligibility of companies was the presentation of a set of actions and investments focused on meeting the performance standards required by the sector. Furthermore, measures and differentiated financing conditions, such as increasing the percentage of the total investment amount that is eligible for BNDES support, were implemented to facilitate access to credit.

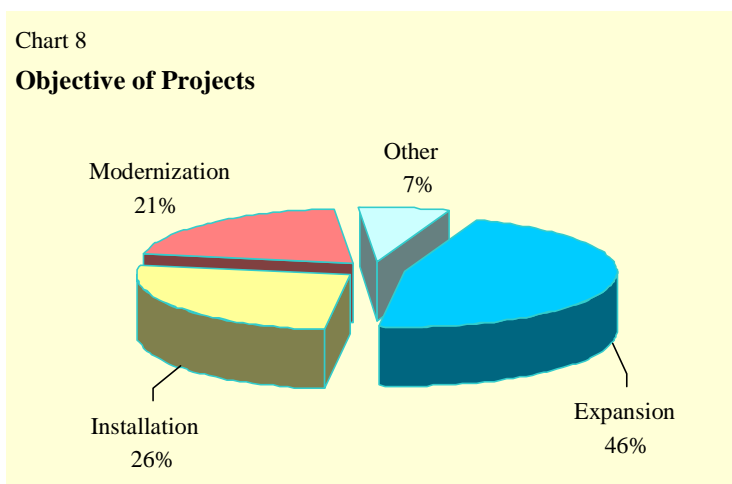
The program, in addition to the sector growth requirements, led to a significant increase in BNDES disbursements to the sector. The total amount of transactions at the end of 1999, including signed contracts, approved contracts, projects under analysis, and proposals approved, was in excess of R\$ 700 million and comprised 34 companies (see Chart 7).



Source: *BNDES*.

The amount of financing approved in the 1997-99 period totaled R\$ 594 million, which represented 41% of total investment, and was destined for expansion of production capacity through plant expansion and installation in order to increase physical space. In general, the plans were for the introduction of new product lines or meeting new clients demand. However, other purposes were for modernization of plant, new equipment, change in plant layout, introduction of manufacturing cells and employee training programs. The relocation of production to another plant was the purpose of the investment in one transaction, and even so only in part.

Only one project was for a company's technological advancement. In general, spending on technological advancement was not included in the projects presented to the BNDES (see Chart 8).



Source: *BNDES*.

Acquisition of equipment was the most prevalent investment item, representing 47% of the total, and was basically focused on introducing more automated production lines. However, the percentage of equipment purchased in Brazil was low: around 25% (see Table 3).

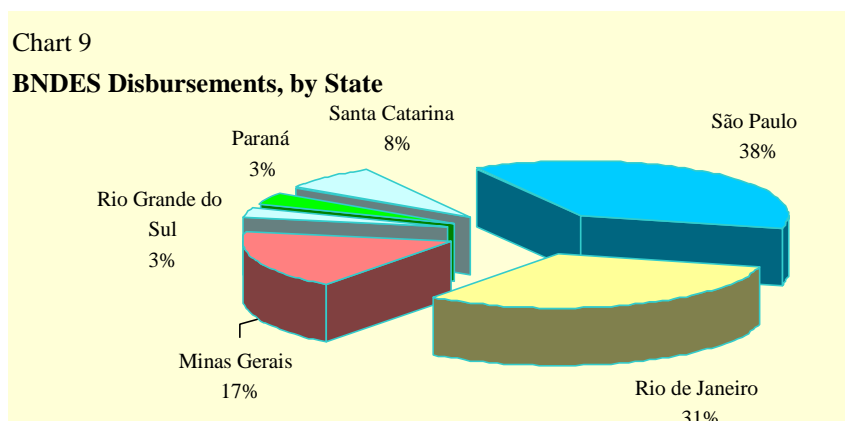
Table 3
Breakdown of Investments in Projects Supported by the BNDES

Investment	Amount	%
	(R\$ million)	
Domestic Equipment	186	13
Imported Equipment	527	36
Construction	226	15
Total	1,464	

Source: *BNDES*.

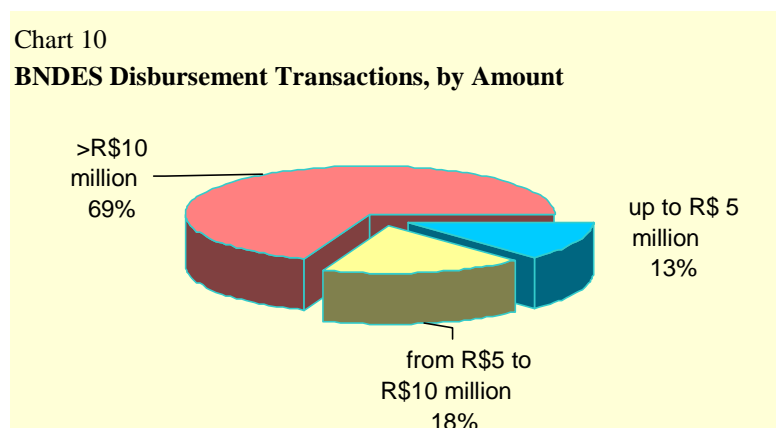
Due to the sector's concentration in the Southeast, especially in São Paulo state, 55% of

disbursements went to projects located in the states of Minas Gerais and São Paulo. However, growth in disbursements did occur in other regions as a result of installation of new assembly plants (see Chart 9).



Source: *BNDES*.

The majority of transactions carried out were for amounts in excess of R\$ 10 million, although a substantial portion (some 31%) was for smaller amounts (see Chart 10).



Source: *BNDES*.

The principal factors of the 34 companies that received financial support from the BNDES follow:

- At time of approval for each operation, among the projects contracted were two joint ventures and 15 Brazilian-held companies, representing 44% of the number of companies receiving support. Since then, these figures have fallen to 10 Brazilian-held companies, or 30% of the total number of companies receiving support. The profile of the auto parts industry is being altered by an acquisition process, which, based on data for capital and revenue gathered by Sindipeças, has reduced the percentage of Brazilian companies from 52% in 1994 to 31% in 1999.
- In 1996, there were 15 publicly traded companies in the auto parts sector. As a result of the consolidation mentioned above, this number has now fallen to only four companies. At the time that each financing transaction was contracted, there were a total of five publicly traded companies receiving support, a figure that has since fallen to only two companies.
- Eight companies were new entrants to the Brazilian market and 20 received BNDES financing for the first time.
- Among the projects that received support, the principal products involved were die-stamped parts, interiors, engine components, and steering components.
- The greater part of the companies that received support was direct suppliers of assemblers, however only a small percentage of the support was for installation of plants in industrial parks.

Outlook

The Brazilian auto parts industry has changed dramatically since the early 1990s, with significant expansion of companies that already controlled the world market for certain parts. These companies, as illustrated by assemblers, not only bring with them some of their established suppliers, but also seek out new suppliers in the local market. The sector still has a large number of small and medium-sized companies and integrated suppliers that, in order to accompany the rest of the industry, must make new investments. This factor shows that the modernization and industrial restructuring processes are still in progress, although the focus has now moved to the development of subsuppliers.

Some companies must modernize and adapt to the innovations introduced by integrated suppliers by investing in modern plants and equipment and in production, meeting higher standards of quality and also obtaining quality certification. As a result of this new profile laid down by the more technologically advanced suppliers, the need arises for greater dissemination of management principles throughout the incongruous participants of the sector.

The restructuring, with the installation of new assembly plants and integrated suppliers and deverticalization, calls for, among other things, the need to assist and foster the development of companies through the identification of both existing and required competencies.

Incentives for suppliers to locate production in Brazil, thus meeting growing demand with local production, make the development of these suppliers critical for the automotive industry. Moreover, actions such as these create opportunities for increased participation of the country in supplying and developing auto parts. Among the principal benefits that must be achieved are:

- expansion of the supplier base to meet the needs of both the outsourcing process of assemblers and integrated suppliers, and new entrants in the market that still do not have suppliers;
- reduction of inventories and import and logistical costs, and greater flexibility for integrated suppliers to meet assemblers demand;
- reduction of imports of certain products; and
- efficiency gains in the production chain with a reduction in operations carried out by integrated suppliers and high qualifications of sub-suppliers.