



# Brazilian Agency for Industrial Development State University of Campinas – Institute of Economics – Center for Industrial and Technological Economics

Project: Bulletin of Industrial Conjuncture, Sectoral
Monitoring, Industry Overview and Industrial Policy
Analysis

# **BULLETIN OF INDUSTRIAL CONJUNCTURE**

The analysis of the Brazilian industrial conjuncture in the second semester of 2008 reveals greater complexity, in view of the global financial crisis that broke out at the end of September. This explains an analysis divided into two parts: the first tries to depict the Brazilian industry performance in the third quarter of the year, still marked by the same growth pace observed in the previous quarters, and the second seeks to delineate the first effects of the global crisis on the Brazilian industry, based on more recent data about production, employment, and foreign trade.

# The maintenance of the Brazilian industry growth in the third quarter of 2008

The Brazilian economy growth remained vigorous in the third quarter of 2008. The Gross Domestic Product (GDP) increased 6.3% in the total accumulated over the four quarters that ended in September of 2008, and 6.8% when comparing the third quarter of this year to the same period last year (System of National Accounts/Sistema de Contas Nacionais – SCN/IBGE). The growth pattern based on dynamic domestic demand remained the same, materialized in an increased consumption of families (6.7%) and government (5.1%), and in a substantial expansion of gross fixed capital formation (17.0%) (Table 1). Moreover, the investment rate continued to rise steadily in 2008, reaching 20.4% in the third quarter of this year, its highest level since 2000. The external sector, on its turn, continued to affect the domestic product growth negatively, considering the maintenance of an accelerated growth pace in goods and services imports (22.8%), which greatly exceeded that of exports (2.8%).

 $Table\ 1-Components\ of\ Demand \\ (rate\ accumulated\ over\ the\ last\ four\ quarters-1Q/2008\ to\ 3Q/2008)\ (In\ \%)$ 

Components of Demand	1Q/2008	2Q/2008	3Q/2008
GDP at market prices	5.9	6.0	6.3
Household final consumption expenditure	6.3	6.3	6.7
Government final consumption expenditure	5.2	4.7	5.1
Gross fixed capital formation	15.0	15.8	17.0
Exports of goods and services	4.7	2.7	2.8
Imports of goods and services (-)	20.5	22.3	22.8

Note: These data include the revision of numbers previously released by IBGE, which were recalculated based on the changes in weight coefficients made by that institution. For this reason, there are differences in relation to data found in the previous bulletins of industrial conjuncture.

Source: System of National Accounts (SCN)/IBGE.

The positive contribution of industry to the Brazilian economy growth has been repeatedly stressed in monitoring reports of industrial conjuncture. The Brazilian industry growth pace remained the same in the third quarter of 2008, which can be stated based on the physical production data from the Monthly Industrial Survey-Physical Production (PIM-PF/IBGE) (Table 2). Comparing the results of this year's third quarter to those of the same period last year, one observes growth rates of 6.7% for the general industry and of 6.6% for the manufacturing industry, where the highlight is the growth of physical production in the mining industry: 8.9%. The growth levels reached by the general industry and by its distinct manufacturing and mining segments were superior even to those seen in the first and second quarters of this year in relation to the same periods of the previous year. Considering the total accumulated over the four quarters that ended in September 2008, growth rates reached 6.8% in the general and manufacturing industries, and 7.0% in the mining industry, also higher than those observed in data accumulated over the 12-month periods that ended in March and June 2008.

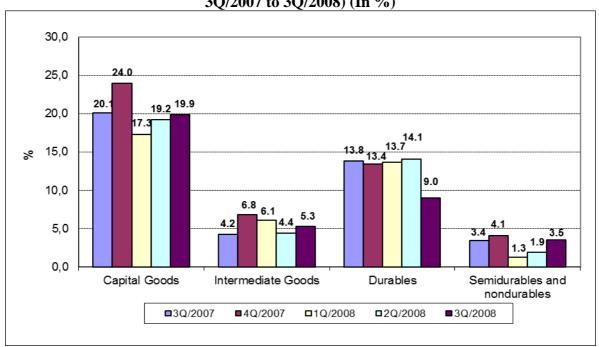
Table 2 – Industrial Production Growth Rate (1Q/2007 to 3Q/2008) (In %)

Activities	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Quarte	rly growth rate in	n relation to	the same qu	uarter of the	previous ye	ar	
General Industry	3.8	5.8	6.3	7.9	6.4	6.2	6.7
Mining Industry	5.6	5.8	6.0	6.1	6.8	6.3	8.9
Manufacturing Industry	3.7	5.8	6.4	8.0	6.4	6.2	6.6
	Growth rate	accumulated	d over the la	st four quart	ers		
General Industry	2.6	3.9	4.8	6.0	6.6	6.7	6.8
Mining Industry	5.7	6.1	6.1	5.9	6.2	6.3	7.0
Manufacturing Industry	2.5	3.8	4.7	6.0	6.7	6.7	6.8

Source: Monthly Industrial Survey-Physical Production (PIM-PF)/IBGE.

The analysis of industrial production data by use category allows us to state that capital goods maintained their leadership position in industrial growth, increasing 19.9% in the third quarter of 2008 in relation to the same period of the previous year (Chart 1). The growth rate of capital goods physical production reached an even higher level (20.1%), when one considers the total accumulated in the 12-month period that ended in September 2008. Consumer durables, on their turn, have been showing a rather positive behavior, increasing about 14%, since the third quarter of 2007, definitely fostered by a significant expansion in automotive production. However, a deceleration in the durables growth pace can be seen in the third quarter of 2008, when the growth rate reached 9%, a still high level, but falling in relation to the same period last year. This was the only use category that showed a very reduced growth in the third quarter of the year when compared to the immediately previous quarter (0.6%, considering seasonal adjustment). Motor vehicles and other transportation equipment remained leading the expansion of durables production in the third quarter of this year.

Chart 1 – Evolution in Industrial Production per Categories of Use (growth rate in relation to the same period of the previous year – 3O/2007 to 3O/2008) (In %)



Source: NEIT/IE/UNICAMP, based on data from PIM-PF/IBGE.

As to intermediate goods, they grew 5.3% in the third quarter of the year, exceeding the increase observed in the previous quarter. It means a localized reversion in the downward trend for the quarterly growth rate in intermediate goods production, observed particularly in the first semester of 2008. Semidurables and nondurables experienced the maintenance of its production growth over the year, which reached 3.5% in the third quarter of 2008 in relation to the same period last year. It shows a slight improvement in its poor performance at the beginning of the year.

Breaking down the production data analysis by industrial activity, we can observe that sectors related to capital goods or consumer durables maintained their leadership position. The sectors that showed the highest growth rates in the total accumulated over the year that ended in September 2008 were: other transportation equipment (24.7%); motor vehicles (18.7%); medical and therapeutic equipment, optical and precision instruments (16.7%); machinery and equipment (12.5%); and electrical machinery, equipment and supplies (10.1%). The increase in growth pace accumulated in medical and therapeutic equipment stood out. This sector also stood out considering growth in the third quarter of the year as compared to the same period last year (25.9%), following other transportation equipment (28.8%) and closely followed by pharmaceuticals (20.9%).

Regarding the composition of industrial growth in the total accumulated this year (January to September 2008), these sectors stand out: motor vehicles (24.1%); machinery and equipment (10.4%); other transportation equipment (7.9%); basic metallurgy (6.3%); and non-metallic minerals (5.1%). The sectors mentioned have been leading the composition of this year's growth. The sector of non-metallic minerals, fuelled by a dynamic civil construction, have been particularly worth mention more recently, surpassing the chemicals sector, which was among the leaders in the composition of growth according to previous bulletins of industrial conjuncture.

The maintenance of employment and wages growth in industry has been simultaneously cause and effect of a positive performance in industrial production. In the total accumulated over the last four quarters that ended in September 2008, data from the Monthly Survey of Industrial Employment and Wages (PIMES/IBGE) show that the number of salaried employees increased 2.9% in the general industry and in the manufacturing industry, almost doubling the variation observed in the total accumulated over the four quarters that ended in September of last year (1.5%), and outstripping the growth observed all over 2007 (2.2%).

The value of payroll in real terms in the general and manufacturing industry were up 6.7% and 6.6%, respectively, in the total accumulated over the four quarters that ended in September of this year (Chart 2). The positive performance of real income has remained the same since the beginning of last year; however, a downward trend could recently be observed in its growth pace.

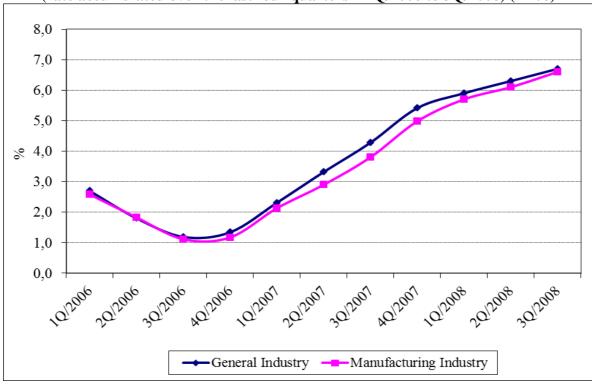


Chart 2 – Growth rate of Value of Payroll in Real Terms in Industry (rate accumulated over the last four quarters – 1Q/2006 to 3Q/2008) (In %)

Source: NEIT/IE/UNICAMP, based on data from PIMES/IBGE.

Data from the General Register of Employed and Unemployed Persons (CAGED/MTE)<sup>1</sup> show the maintenance of formal employment creation in the third quarter of 2008: 193,900 job vacancies were created in the general industry; 188,900, in the manufacturing industry; and 5,000 in the mining industry (Table 3). Vacancy creation in the general industry reached 514,700 from January to September 2008, an increase of 8.8% in relation to the same period last year (473,100). This increase was even more significant in the mining industry (18.5%), where almost 15,000 vacancies were created in the first three quarters of this year. Therefore, formal employment creation in the general industry and in both the manufacturing and mining segments is clearly higher in the total accumulated this year when compared to the same period last year.

**Table 3 – Evolution in Formal Employment Creation in Industry** (2007-2008)

		Variation					
	JanSept. 2007	1Q 2008	2Q 2008	3Q 2008	JanSept. 2008	Jan. to Sept08/ Jan. to Sept07 (%)	
General Industry	473.1	153.1	167.7	193.9	514.7	8.8	
Mining Industry	12.4	3.4	6.3	5.0	14.7	18.5	
Manufacturing Industry	460.7	149.7	161.4	188.9	500.0	8.5	

Source: NEIT/IE/UNICAMP, based on data from CAGED/MTE.

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<sup>&</sup>lt;sup>1</sup> CAGED/MTE shows results for all companies that hired/dismissed formally employed individuals in the period surveyed, thus providing census coverage. Data from 2007 and 2008 were organized based on the new CNAE 2.0, and can be different from data analyzed in the Bulletin of Industrial Conjuncture of March 2008, based on the old CNAE 1.0. PIMES/IBGE, on its turn, provides sample coverage, including companies with five or more employees. Therefore, divergent trends can be found in these two sources of data, mainly in sectors where small and medium companies prevail.

Some activities headed the creation of job vacancies in industry in the third quarter of 2008: food (36%); apparel and accessories (10.3%); metal products (7.7%); machinery and equipment (5.8%); and motor vehicles (5.1%). Sectors that traditionally stand out in employment indicators, such as food and apparel, responded jointly for almost 50% of the creation of vacancies in the third quarter of this year. Sectors that headed the composition of industrial growth in the period under analysis also showed a high share in formal employment creation, such as motor vehicles and machinery and equipment.

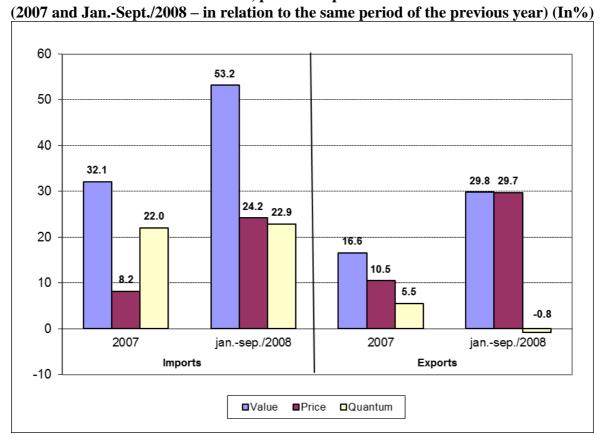
An analysis of Brazilian foreign trade contributes to the understanding of Brazilian industry recent performance. The September 2008 issue of the Bulletin of Industrial Conjuncture has examined the behavior of Brazilian foreign trade over the past years, detailing exports and imports data for the first half of this year. First, it highlighted a persistent increase in trade surplus accumulated in 12 months from 2002 to May 2007, strongly fostered by a long process of expansion in the global economy. Besides, it stressed the contribution given by this country's trade performance to reduce the external vulnerability of the Brazilian economy. However, it warned about the deterioration of the Brazilian trade balance as of the second semester of last year, to which the acceleration of imported values growth has contributed, in a scenario of domestic economic growth and national currency appreciation, bringing imported and exported values close together. It also emphasized the loss of dynamism in trade surplus in the first semester of 2008.

On analyzing data about foreign trade in the third quarter of this year, we see a positive balance of US\$ 8,3 billions, slightly lower than that of the immediately previous quarter (-2.5%), but one that dropped sharply as compared to the same period last year (-19.7%). The growth pace in both exports and imports slowed down in the third quarter as compared to the second quarter of the year. However, imports growth rate (19.5%) exceeded that of exports (15.9%) as compared to the previous quarter, which demonstrates the persistent pressure imports put on the Brazilian trade balance.

Investigating a slightly longer period, we observe that trade surplus from January to September 2008 (US\$ 19,6 billions) was 36.6% smaller than that of the same period of 2007 (US\$ 30,9 billions) (FUNCEX). This decrease in trade surplus in this period resulted mainly from a significant increase in Brazilian imports, which reached US\$ 131,2 billions from January to September 2008, rising 53.2% as compared to the same period of 2007 (Chart 3). This increase derived from price variance (24.2%) and quantum imported (22.9%) as compared to the same period last year. Price and imported value variance from January to September of this year were even much higher than those observed last year. The imports quantum index was the only that did not show substantial change.

Concerning Brazilian exports movement, we see that it reached US\$ 150,9 billions from January to September 2008, increasing 29.8% in relation to the same period last year (Chart 3). Price increase in exported products (29.7%) has caused an increase in exports value, considering a reduced exported quantum (-0.8%) in the period under analysis. In the September 2008 issue of the Bulletin of Industrial Conjuncture, we emphasized that the cycle of international price rising was already showing signs of reverting, due to the global economic contraction and the dismantling of speculative positions in stock exchanges worldwide. This is becoming more and more tangible after the materialization of world financial crisis impacts, creating an absolutely hostile environment for the expansion of Brazilian exports, regarding both price and quantum.

Chart 3 – Variation Rate in Exports and Imports: value, price and quantum



Source: NEIT/IE/UNICAMP, based on data from FUNCEX.

The analysis of data on the third quarter of 2008 shows that, in fact, the effects of the global crisis had not been felt until the end of September. We observe the maintenance of Brazilian economy's dynamism, fostered by domestic demand, especially in investments and family consumption. With regard to industry performance, this dynamism translated into production and employment growth in industrial sectors related to consumer durables and capital formation. It was only in foreign trade that deceleration in price, both in exports and imports, and in quantum, in the case of exports, showed some impact from deterioration in the external scenario.

The outbreak of the global crisis created expectations of a generalized decrease in growth rates as of the last quarter of 2008. Crisis effects, especially on sectors that were leading the industrial growth, such as the automotive sector, may yield rather negative results for the Brazilian industry, considering that motor vehicles production contributed substantially for the industrial growth over this year: 24% from January to September 2008. Therefore, it is appropriate to base the investigation about the possible effects of the global crisis on the Brazilian industry on the latest available data about production, employment, and foreign trade. However, it is worth stressing that even the following analysis is preliminary, since at the time this bulletin was being finished only data for October had been released.

### Global crisis impacts on recent Brazilian industry performance

The global financial crisis impacts are key issues in the debate about the recent behavior and the future performance of the Brazilian economy and, especially, of the Brazilian industry. It is necessary to analyze data related to October to investigate, albeit in embryonic form, some possible initial crisis effects on the industrial production and employment, as well as on the Brazilian foreign trade.

First, we need to emphasize the poor growth in physical production in the general and manufacturing industries when comparing October 2008 to October 2007: 2.7% and 2.6% (PIM-PF/IBGE), respectively. Rates observed in October decreased sharply in relation to previous months. The exception was the mining industry, which grew considerably in the same period (8.1%). Comparing the physical production results in October to those in September 2008, we see a generalized, but not vigorous, decrease: in the general industry (-1.7%), in the manufacturing industry (-2.0%), and in the mining industry (-0.3%). These data show that the global crisis produced rapid effects on the Brazilian economy, affecting industry both with sudden liquidity contraction and quick reversion of expectations, which resulted in adjustments to prevent unwanted overstocking.

Intermediate and consumer goods increased modestly in October of this year in relation to October last year, 1% and 3%, respectively. If we change the basis for comparison to September of this year, there is a decrease in production, headed by consumer durables (-4.7%); intermediate goods (-3%), and semidurables and nondurables (-2.2%).

Capital goods could still be considered an exception, since their production grew when comparing October 2008 to October 2007 (16%), with a slight reduction in relation to September 2008 (-0.5%). However, expectations for a downward investment pace on the part of companies concerned with the global crisis impacts and the resulting scarce and more expensive credit can translate into reduced orders for machinery and equipment, raising doubts about the performance of capital goods production in the last quarter of 2008. Data from the Brazilian Association of Machinery and Equipment (ABIMAQ), organized according to surveys carried out in the last week of November 2008, reveal that capital goods manufacturers have already lost one third of their order backlogs in relation to the period preceding the crisis. The sectors of civil construction, consumer goods, and agriculture have already shown signs that orders are being reduced. Civil construction was the one that reduced the most significantly its investments in capital goods, with 46% of orders cancelled. Consumer goods and agriculture have also reduced orders for machinery and equipment by 38%. Among capital goods manufacturers themselves, orders were reduced by 28% (Landim, 2008 – original source: ABIMAQ).

It is also worth emphasizing that production decrease was generalized among industrial sectors. Of the 26 sectors monitored by PIM-PF, 11 showed a decreased production in October of this year in relation to the same month last year. Among them, the sector of electronic supplies, communications devices and equipment suffered a fall of 19.4%, closely followed by pulp and paper, with a decrease of 17.0%. Comparing October to September 2008, 13 sectors saw production decrease, mainly non-metallic minerals (-11.6%). However, some sectors kept on growing vigorously in October 2008 in relation to October 2007, as it is the case for chemicals (29.2%); other transportation equipment (22.2%); metal products, except for machinery and equipment (10.4%); and oil and alcohol refining (10.2%). No sector stood out when October was compared to September 2008. Only pulp and paper deserves to be mentioned, for it managed to increase its production from

September to October 2008 (5%), in spite of the already mentioned loss in relation to October last year.

The reduced growth in the physical production of the general and manufacturing industries has translated into insignificant creation of formal employment in October 2008 (6,500 vacancies). Taking into account the almost 59,000 vacancies created in October 2007, deceleration in formal employment creation in October 2008 is evident – just little more than 10% of vacancies created in the same month last year. Comparison to September 2008, when almost 112,000 vacancies were created in industry, definitely intensifies concern about the recent deceleration of industrial production and employment.

Finally, this analysis of recent data on Brazilian exports and imports reveals peculiar elements. Comparing data for October 2008 to those for the same period last year, we observe that trends mentioned in previous bulletins have intensified: imports have increased fuelled by price and quantum, and exports increased based on rising prices, considering that the exported quantum decreased (Chart 4).

However, the most recent change, growth deceleration in exports and imports, which characterized the third semester of 2008, became more intense in October as compared to September 2008. As to imports, their value virtually stagnated, due to similar results concerning decrease in prices (-4.2%) and increase in imported quantum (4.5%). This decrease in imported product prices, which was not so evident in the previous months, changed imports behavior in October. The trend towards increased imported quantum remained the same, although more timidly, reflecting a domestic production slowdown. This certainly exposes some signs of the global crisis, such as lower international prices and a weakened demand for imported products in Brazil, taking also into account the onset of national currency depreciation against the dollar.

As to exports, the value exported in October decreased in relation to September 2008 (-7.5%), both as a result of fall in prices (-1.9%) and exported quantum (-5.7%). The peculiarity of exports behavior in October is in the reduced prices of exported products, reverting the continuous growth observed in previous months. Decrease in the exported quantum intensified in October, producing a decrease in the exported value. It undeniably shows an increasing strangling of Brazilian foreign trade. On the one hand, it results from global demand deceleration with bearish effect on international prices and on quantum demanded by different countries. On the other hand, it is caused by internal difficulties related especially to credit for exports.

45 40.3 40 35 30 **Imports Exports** 25 20.9 17.4 20 15.9 15 10.5 10 4.5 5 0.1 0 -1.9 -5 -5.7 -10 -7.5 -9.3 -15 oct.-2008./oct.-2007 oct.-2008/sep.-2008 oct.-2008./oct.-2007 oct.-2008/sep.-2008 Value Price Quantum

Chart 4 – Variation Rate in Exports and Imports: value, price and quantum (In%)

Source: NEIT/IE/UNICAMP, based on data from FUNCEX.

Therefore, the analysis of data for October reveals an abrupt reversion in the growth pace that prevailed until September 2008. As stressed in previous bulletins, the growth pace was rather favorable and the growth pattern, headed by investments, was very positive, a fact that confronts the Brazilian economy in general, and the economic policy-makers in particular, with a great challenge.

The role of the economic policy acquires importance in critical moments like this one, in view of the possibility to coordinate actions to counterbalance negative expectations on the part of the private sector, which could cause a vicious circle of production decrease and cuts in investment and employment. Although growth pace will hardly increase in 2009, it is essential to make efforts to maintain the recent growth pattern, preserving as much as possible the investment projects, both public and private, to pave the way for resuming growth under more favorable conditions in the future.

In this context, the Productive Development Policy (PDP) and the Growth Acceleration Program (PAC) become even more important to maintain satisfactory growth levels both in a scenario in which demand for consumer goods will probably suffer severe deceleration – thus exerting negative impacts on the GDP growth – and before an unfavorable external conjuncture in the next periods.

It is fundamental to keep investing, since from the point of view of demand investments can support the GDP increase, and to modernize infrastructure and industrial plants, which can undoubtedly result in a production structure more capable of generating income and employment when growth is resumed. Finally, investment expansion, together with efforts for modernizing and creating technology capacity and innovation, is also essential to provide the foundations for encouraging the external competitiveness of the industrial

system and for facing a scenario of expected fiercer competition in the global market from now on.

## **Autoparts Industry: performance and trends**

#### **Automotive sector conjuncture**

The Brazilian autoparts sector is now checking its optimistic attitude regarding the near future. A few days ago, it seemed to retain its optimism, even in a context of serious global financial crisis, backed up by two topics. First, carmakers expectation to keep their production increase between 8% and 10% in 2009, recently reinforced by R\$ 8 billions in loans from Banco do Brasil and Nossa Caixa to finance consumer credit (Valor Econômico, 12/11/2008). Second, the nature of supply contracts already signed for this year, which provide for carmakers' commitment to purchase components and, at least theoretically, cannot be terminated or abruptly suspended. Based on these two elements, the sector still expects to sell US\$ 46 billions in 2008, an increase of about 35% in relation to last year (Valor Econômico, 8/10/2008).

However, recent crisis developments have started to cause concern. With regard to latest data about the production of new cars, it is possible to observe that it fell repeatedly in October and November for the first time in the last years, a situation that is very different from the average growth of more than 20% observed in previous months (Charts 1 and 2). The sharp fall in car sales in October (11.6% in relation to September 2008 and 3.7% in relation to October 2007) accelerated in November (-26% in relation to October 2008 and -26.4% in relation to October 2007) and heightened suspicions about the perverse effect of reduced demand, both domestic – induced by credit shortage and lack of confidence in the future on the part of consumers – and foreign – caused by the recession central countries are facing (ANFAVEA, 2008).

Moreover, vacation shutdowns scheduled by some carmakers in Brazil and the complex financial situation of major American carmakers, especially General Motors (GM), whose stock prices tumbled to 1946 levels, can make difficult the situation of large companies in the national autoparts sector, which has a strongly connected production system. Some autoparts companies have already announced major layoffs, reverting the trend towards employment expansion observed until September of this year. In Argentina, Brazilian automotive sector's most important commercial partner, granting more credit to consumers and adopting a program to sell vehicles at the manufacturer's price were not enough to preventing carmakers and autoparts manufacturers from cutting overtime hours, reducing second and third shifts, and in some cases laying off workers. Among the companies affected, Fiat, GM, Volkswagen, and Mercedes-Benz stand out (Valor Econômico, 11/11/2008).

25.2% 19.0% 11.5% 10.3%

Chart 1 – Autovehicles Production in Brazil (2007-2008) (variation in relation to the same month of the previous year)

Source: NEIT/IE/UNICAMP, based on data from ANFAVEA.

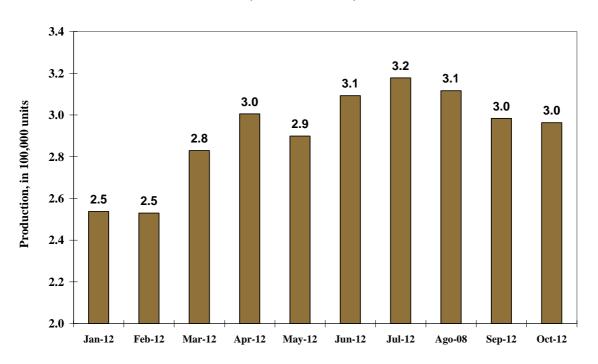


Chart 2 – Monthly Production of New Vehicles (Jan. to Oct./2008)

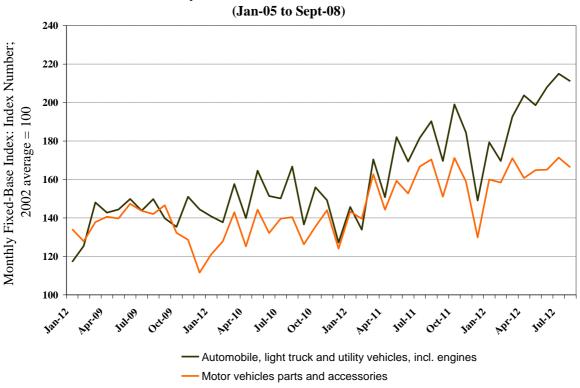
Jan 07-08 Feb 07-08 Mar 07-08 Apr 07-08 May 07-08 Jun 07-08 Jul 07-08 Ago 07-08 Sept 07-08 Oct 07-08

Source: NEIT/IE/UNICAMP, based on data from ANFAVEA.

Thus, even being early and inadequate to conjecture about the factors (and their relative importance) that have been causing recent production decrease and, mainly, to predict future trends, we can assume that the credit shortage caused by the financial crisis, the recent increase in loan interest rates to purchase new vehicles, and the lack of confidence of consumers and manufacturers, even considering the effort made by government banks and manufacturers, can exert negative impact on future demand for vehicles and, consequently, on the autoparts sector.

### Recent performance of Brazilian autoparts industry: production, employment and foreign trade

In view of the production of different automotive segments over the last years, we identify, besides considerable growth, a close correlation between motor vehicles and autoparts production (Chart 3). Only as of March 2008, these variables were disconnected, with a relative decrease in autoparts production. In other words, the latest growth rate in vehicle production has been less and less followed by that in autoparts, due to an increasing share of imported inputs and components in vehicle assembly. Besides the vigorous expansion in domestic demand and the rapid reduction in idle capacity, autoparts imports were benefited by a heavily appreciated exchange rate. The recent exchange rate depreciation, after the global crisis, may revert this trend.



**Chart 3: Monthly Industrial Production of Automotive Subsectors** 

Source: NEIT/IE/UNICAMP, based on data from PIM-PF/IBGE.

Taking into consideration the evolution in formal employment, we observe excellent performance in the Brazilian autoparts sector until the financial crisis broke out (Table 1). In the period between the first quarter of 2007 and the third quarter of 2008, the number of job vacancies created remained roughly the same, with an average of about 10,500 new vacancies, except in the first and last quarter of 2007, which showed considerably lower results (6,333 and 5,221 new vacancies, respectively). Taking into account the annual total of vacancies created, we see that the sector created 30,817 vacancies in the first three quarters of 2008, whereas in the total accumulated last year it created 33,123 new vacancies. Parts and accessories manufacturers responded for approximately 80% of the total of new vacancies.

Table 1 – Evolution in Formal Employment Creation in the Autoparts Sector (1Q/2007 to 3Q/2008) (in number of vacancies per quarter)

Hired							
	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Autoparts Sector	22,005	26,965	28,207	21,856	31,787	33,139	34,495
Interiors and Bodies	3,112	5,074	4,762	3,913	5,801	6,017	5,883
Parts and Accessories	18,310	21,265	22,833	17,372	25,209	26,446	27,774
Rebuilding of Engines	583	626	612	571	777	676	838
Dismissed							
	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Autoparts Sector	15,672	16,415	17,188	16,635	21,044	22,805	24,755
Interiors and Bodies	2,370	2,448	2,702	2,583	3,801	3,822	4,253
Parts and Accessories	12,802	13,460	13,986	13,540	16,577	18,284	19,817
Rebuilding of Engines	500	507	500	512	666	699	685
Job Vacancies Creation							
	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Autoparts Sector	6,333	10,550	11,019	5,221	10,743	10,334	9,740
Interiors and Bodies	742	2,626	2,060	1,330	2,000	2,195	1,630
Parts and Accessories	5,508	7,805	8,847	3,832	8,632	8,162	7,957
Rebuilding of Engines	83	119	112	59	111	-23	153

Source: NEIT/IE/UNICAMP, based on data from CAGED/MTE.

Therefore, we see continuous positive results for employment in the autoparts sector, mainly among parts and accessories manufacturers, which proves that, at least until September, the crisis effects had not been felt in this sector's labor market.

Regarding foreign trade, as opposed to what was observed in 2004-2006, when exports increased much above imports (19.9% per year against 11.1%), the most recent period, from the beginning of 2007 up to the end of the first semester of 2008, is marked by a considerable relative increase in imports. Indeed, imports increased significantly – 50.4% (Table 2), whereas exports in the first three quarters of 2008 increased 19.1% in relation to the same period of 2007. Thus, the disconnection between autoparts production and motor vehicles production, demonstrated in Chart 3, can be explained by the replacement of national components with imported ones, strongly supported by the appreciated Real until July 2008.

Table 2 – Evolution in Foreign Trade in the Autoparts Sector

(1Q/2007 to 3Q/2008) (US\$ millions)

Exports	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Autoparts Sector	2,280,5	2,629,4	2,776,3	2,950,3	2,703,6	3,138,4	3,314,9
Interiors and Bodies	1,806,5	2,075,1	2,143,7	2,183,7	2,087,7	2,449,0	2,606,7
Parts and Accessories	230,8	277,9	312,9	440,9	308,4	363,8	379,3
Rebuilding of Engines	243,2	276,4	319,7	325,7	307,5	325,6	328,9
Imports	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Autoparts Sector	2,126,1	2,427,1	2,785,0	2,840,2	3,189,1	3,576,2	4,272,1
Interiors and Bodies	2,029,0	2,301,5	2,629,5	2,702,9	3,032,0	3,372,4	4,050,3
Parts and Accessories	7,1	18,0	29,7	15,2	14,8	7,7	11,4
Rebuilding of Engines	90,0	107,6	125,8	122,0	142,4	196,0	210,4
Trade Balance	1Q 2007	2Q 2007	3Q 2007	4Q 2007	1Q 2008	2Q 2008	3Q 2008
Autoparts Sector	154,4	202,3	-8,8	110,1	-485,5	-437,7	-957,2
Interiors and Bodies	-222,5	-226,4	-485,9	-519,2	-944,3	-923,4	-1,443,7
Parts and Accessories	223,7	259,9	283,2	425,6	293,6	356,1	367,9
Rebuilding of Engines	153,2	168,7	193,9	203,6	165,1	129,6	118,6

Source: NEIT/IE/UNICAMP, based on data from SECEX.

As highlighted in the Sectoral Monitoring Report of May 2008 (Sarti, 2008:13), the marked increase in foreign trade in the Brazilian automotive sector was associated with the process of internationalization and integration of this sector in the global automobile chain. As to enduring changes in exchange rate, they influence directly decisions on investments and production inside and outside the country, thus affecting the pattern of trade insertion.

In this context, the effects of exchange depreciation observed in this sector in the past months are still unknown. The trend is towards a gradual increase in the domestic production share in relation to more expensive imported components, somewhat counterbalancing the domestic demand contraction. In the short term, segments with higher imported content will have to deal with higher cost pressures.

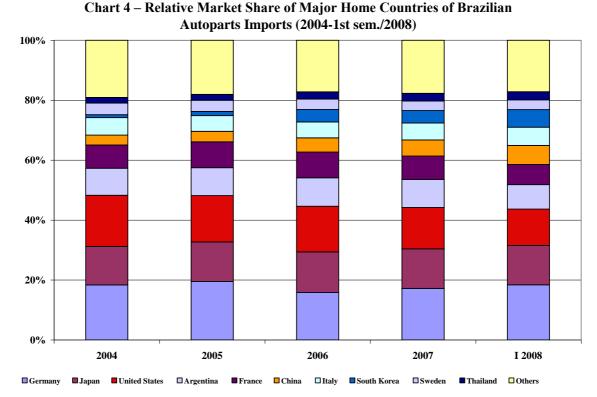
It is also worth emphasizing the evolution in the share of Brazil's major trade partners in the autoparts sector. From 2004 until the end of the first semester of 2008, the Argentine market was the one that grew the most for Brazilian autoparts exports. Sales jumped from US\$ 755,8 millions in 2004 to US\$ 2,02 billions in 2007. In the first semester of 2008, they had already amounted to US\$ 1,29 billion, more than doubling their share in the total of sectoral exports: from 13.4% in 2004 to 24.6% in 2007 and to 28.4% in the first semester of 2008. However, after the decrease in vehicles' sales and production in Argentina as of August, the trend is that sectoral exports are to be directly affected.

At the other end is the US market, which has been losing its relative importance. In 2004, it represented 32.4% (US\$ 1,9 billion) of the total exported by the Brazilian sector. In 2007, it eventually represented only 22.5% (US\$ 1,8 billion). At the end of June 2008, only 19.7%, corresponding to US\$ 895,1 millions in revenues. In view of the crisis and the decreased demand in the American market, the trend is towards an intense reduction in these numbers in the next months.

As to the main countries that supply Brazil with autoparts, Germany stands out as its major trade partner, keeping its share virtually steady over the last four years (the same 18.1% in total autoparts imports in 2004 and in the first semester of 2008). China and South Korea were the economies whose share in imports grew the most in the Brazilian autoparts sector,

jumping from 3.3% and 1.0% in 2004 to 6.4% and 5.9% in the first semester of 2008, respectively. This market share increase meant for each country, in the first six months of this year alone, an increase of US\$ 203,1 millions and US\$ 171,2 millions in their respective trade balances.

For the period mentioned, charts 4 and 5 show relative market shares for Brazil's ten major trade partners in the autoparts sector, in terms of supply and consumer market, respectively.



Source: NEIT/IE/UNICAMP, based on data from SECEX.

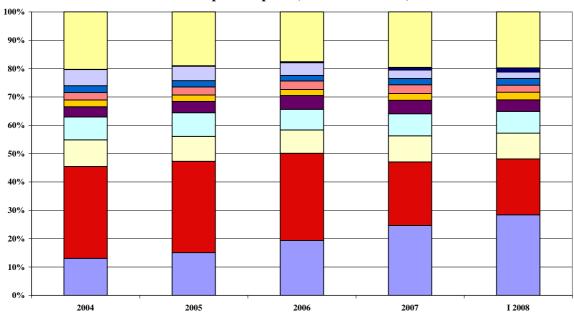


Chart 5 – Relative Market Share of Major Host Countries of Brazilian Autoparts Exports (2004-1st sem/2008)

□ 1. Argentina ■ 2. United States □ 3. Germany □ 4. Mexico ■ 5. Venezuela □ 6. Italy □ 7. South Africa ■ 8. France □ 9. United Kingdon ■ 10. Poland □ Others

Source: NEIT/IE/UNICAMP, based on data from SECEX.

#### **Final Remarks**

Data about production, employment, and foreign trade in the first three quarters of 2008 confirm a growth cycle in the Brazilian autoparts sector that started in 2003, taking advantage of successive production records achieved by manufacturers established in this country. However, the global financial crisis has already had a strong negative impact on vehicle sales and production, which will probably affect the whole supply chain as well.

As to Brazil, some recent evidence point to a strong activity deceleration or even stagnation. In 2008, the accumulated production will almost certainly grow about 10% in relation to 2007, as a result of an excellent performance in the first three quarters of the year. However, some factors still contribute to a less pessimistic view of the autoparts sector in the short run. First, supply agreements between carmakers and autoparts manufacturers are most likely to be respected at least until the beginning of next year, unless the crisis intensifies and unexpected bankruptcies lead to broken contracts.

Second, measures taken by the federal and state governments to alleviate credit shortage, which raised interest rates and shortened financing periods to purchase vehicles, could ease or delay the negative effects of deceleration. However, this higher credit supply for new vehicles has not yet reduced consumer interest rates nor have periods been extended as expected. Besides, these measures seem not to have spilled over the second-hand vehicles market yet, seizing up the sales chain.

Third, the recent reduction in the IPI (Manufactured Goods Tax), which will be in force until the end of March 2009, will probably cause a reduction in new vehicles prices, promoting sales. The IPI bracket for vehicles up to 1,000 cc decreased from 7% to zero. For

vehicles between 1,000 cc and 2,000 cc, tax dropped from 11% to 5.5%, for flex-fuel vehicles, and from 13% to 6.5%, for gas-powered vehicles.

And, finally, it is expected that the recent exchange depreciation, if followed by a less volatile exchange rate, will allow for a gradual replacement of imported parts and components with domestic products in the medium run. Exports are likely to decrease, but an even sharper decline in imports will probably favor trade surplus in the sector once again.

Despite these factors that can contribute to counter the trend towards deceleration or stagnation, a lower employment level seems inevitable along the whole automotive chain.

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