

# BULLETIN of INDUSTRIAL CONJUNCTURE

DECEMBER 2011





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### INTRODUCTION

The Brazilian of Industrial Agency Brasileira Development (Agência de Desenvolvimento Industrial, ABDI), which is linked to the Ministry of Development, Industry and International Trade (Ministério do Desenvolvimento. Indústria e Comércio Exterior. MDIC), was created in December 2004 with the aim of promoting the execution of Industrial Policies in Brazil, in agreement with the International Trade and Science and Technology policies (Law 11.080/2004). Its principle focus regards the programs and projects established by Brazilian industrial policy. The agency is also a part of the Brasil Maior Plan, being responsible not only for the alignment and consolidation of its programs and actions, but also its monitoring.

With the purpose of following the progress of Brazilian industry, the ABDI works on developing studies and research projects on industrial intelligence to guide its work and help the Brazilian Government define and develop actions in the scope of industrial policy. Among them is The Industrial Conjuncture Bulletin which provides information and analyzes the evolution of Brazilian industry, highlighting the principle challenges faced and the opportunities available to speed up development.

The Industrial Conjuncture Bulletin, published every three months, has been developed in partnership with the Center of Industrial and Technological Economics (*Núcleo de Economia Industrial e de Tecnologia, NEIT*) of the State University of Campinas Economics Department. In the first part of this edition the stagnation of the Brazilian economy and the contraction of industrial activity in the third quarter relative to the second of 2011, is highlited, taking into consideration seasonal adjustment. Gross domestic product (GDP) stagnated due to

retraction in all components of domestic demand, which cancelled out the modest growth in exports, a result of weak foreign demand, among other factors. In comparison with quarterly data from 2010, the research shows, in turn, the deceleration of economic expansion and of all components of aggregate demand, as well as in the industrial and service sectors. Gross fixed capital formation, which had maintained a quarterly growth superior to that of household consumption in the post-crisis period of recovery, was overcome by household consumption in the third quarter of the current year, compared with the same period of the previous year. There was, however, a rise in the rate of investment in the third quarter, upon whose continuation, the future of the economy and Brazilian industry depends. Alongside these tendencies, a loss of momentum in the creation of jobs in the industrial sector occurred. Part two of the Bulletin attempts to outline the performance of foreign direct investment (FDI), emphasizing the rise in greenfield projects in Brazil despite the international crisis. It also highlights the decline in the share of mergers and acquisitions in FDI compared to last year, indicating a rise in the contribution of foreign investment to gross fixed capital formation. In spite of the international crisis, it is hoped that Brazil will continue to receive important volumes of investment as foreign businesses seek to expand into markets outside of the markets of major global economies. Thus a window of opportunity is opened for industrial policy to induce greater positive effects in this new cycle of foreign investment

#### The Brazilian Agency of Industrial Development

# PERFORMANCE OF THE BRAZILIAN ECONOMY AND INDUSTRY IN THE THIRD QUARTER OF 2011

The Brazilian economy stagnated and industrial activity contracted in the third quarter of 2011. Data from the System of National Accounts (*Sistema de Contas Nacionais*, *SCN/IBGE*) show stagnation of the gross national product (GDP) at market prices, comparing the third quarter with the second of 2011 taking into consideration seasonal adjustment (Table 1). Both the Brazilian industrial and service sectors contracted (respectively -0.9% and -0.3%), canceling out growth in agriculture (3.2%) in the same period.

Table 1 - GDP Variation Rate by Activities and Componentsof Demand (1Q/2011 to 3Q/2011) (%)

	Quarterly rate vers us previous quarter(*)		Quarterly rate versus the same quarter of previous year		Accumulated rate in the last four quarters				
	I II III 2011 2011 2011		I II III 2011 2011 2011		I II		Ш		
					2011	2011 2011		2011	
Agriculture and Stock Raising	3.6	(0.6)	3.2	3.3	(0.6)	6.9	5.4	2.4	2.7
Industry	1.8	0.2	(0.9)	3.8	2.1	1.0	7.8	4.9	2.9
Mining	-	-	-	3.3	3.0	2.7	10.8	8.0	5.4
Manufacturing	-	-	-	2.9	1.7	(0.6)	6.8	3.9	1.7
Civil Construction	-	-	-	5.5	2.3	3.8	9.3	5.8	4.4
Electricity, gas and water supply	-	-	-	5.0	3.4	4.0	7.1	5.4	4.4
Services	0.5	0.8	(0.3)	4.0	3.7	2.0	4.9	4.4	3.6
GDP at basic price	0.8	0.7	(0.1)	3.9	2.9	2.0	5.7	4.4	3.3
GDP at market prices	0.8	0.7	0.0	4.2	3.3	2.1	6.3	4.9	3.7
Household consumption expenditure	0.5	0.5	(0.1)	6.0	5.6	2.8	6.4	6.2	5.4
Government consumption expenditure	0.3	1.9	(0.7)	1.8	3.5	1.2	3.9	3.3	2.3
Gross fixed capital formation	1.3	1.3	(0.2)	8.8	6.2	2.5	16.3	11.5	7.0
Goods and services exports	(2.8)	2.3	1.8	4.0	6.2	4.1	9.0	8.7	6.8
Goods and services imports	(1.1)	5.3	(0.4)	13.4	14.8	5.8	28.8	23.0	14.5

(\*) Taking seasonal adjustment into consideration Note: Data includes the revision of the historical series executed and distributed by the IBGE. There may be, therefore, differences in relation to the data analyzed in previous editions of The Industrial Conjuncture Bulletin. Data from the 3<sup>rd</sup> quarter of 2011 are preliminary. Source: System of National Accounts (SCN)/IBGE

Using the year 2010 as a basis of comparison, the slowdown in the growth of the Brazilian economy and industrial sector in the period between July and September of 2011 is corroborated. The domestic product at market prices increased 2.1% in the third quarter of the current year in relation to the same period of the past year, which contrasted with the rise of 4.2% in the first quarter and of 3.3% in the second quarter of 2011 (Table 1). It was also possible to perceive a slowdown in the Brazilian economy by observing the variation of GDP over a period of 12 months ending in September of 2011 (3.7%).

Brazilian industry showed a decline in robustness in recent quarters, reaching a weak growth of 1.0% in the third quarter of 2011 compared with the same period in 2010 (Table performance of 1). Negative Brazilian manufacturing industry, which contracted in the same period (-0.6%), contributed to this result, concelling out part of the growth showed by other industrial sectors as the mining industry (2.7%). The service sector also showed slowdown in its growth in recent guarters, reaching a variation rate of 2.0% in the third quarter of 2011 in relation to the same quarter of 2010. The only sector with staggering growth was agriculture and stock raising, which had shown contraction in the second quarter. It, however, managed to recuperate, reaching significant growth of 6.9% in comparison with the same guarter of 2010.

This deceleration can be seen in all industrial sectors as well as in services in the accumulated rate over twelve months leading up to September of 2011. Again, with the exception of agriculture and stock raising that showed a positive but modest performance in the same period, reversing the slowdown observed in the fourquarter period ending in March and in June of 2011.

Recent performance of services is very concerning, considering that this activity directly reflects the behavior of domestic demand, finding itself less exposed to international competition. However, Brazilian industry shows the most important warning signs, considering that industrial activity certainly presents a higher potential of stimulus to other economic activities, resulting in a chain reaction for the rest of the Brazilian economy.

Domestic demand, the main pillar of recent economic growth in the Brazilian economy, retracted in all components (including imports) in the third compared with the second quarter of 2011, with seasonal adjustment (Table 1). Such performance of all components of aggregate domestic demand cancels out modest growth in exports (1.8%) in the same period, resulting in stagnation for the Brazilian domestic product.

Analyzing the quarterly rate in relation to the same quarter of the previous year, the growth in household consumption, gross fixed capital formation and public spending slowed to 2.8%, 2.5% and 1.2%, respectively. Gross fixed capital formation, which had maintained a greater quarterly growth than household consumption, especially in the period of post-crisis recovery, showed a reduction in the difference between the two rates from the first to the second guarter of 2011, and, in the following period, was surpassed by household consumption in the third quarter of the current year. In turn, public spending had intensified in the second quarter (to 3.5%), but it weakened again in the third quarter of 2011. The same performance can be observed in imports, which had grown 14.8% in the second quarter, however they showed slowing to 5.8% in the third quarter of 2011.

Foreign demand, represented by exports, has seen a hard recovery, mainly due to uncertainty and sluggishness in the recovery of key consumer markets of the developed world. Such factors certainly contributed to the slowing down of growth in Brazilian exports to 4.1% in the third quarter of 2011, not keeping up with that of imports since the first quarter of 2010. As discussed in The Industrial Conjuncture Bulletin of September 2011, the rise in imports has been more pronounced than that of exports both in comparison with 2010 and in the period of the last twelve months. It is important to note, however, that exports showed 1.8% growth. While this growth in the third quarter compared with the second of 2011, with seasonal adjustment, is modest, imports fell (by -0.4%) in the same period, showing the same pattern of contraction as other sectors of domestic demand.

The combination of gross fixed capital formation performance with the performance of GDP at market prices is reflected in the increase in the rate of investment to 20% in the third quarter of 2011, reaching, in the current year, the same annual average observed last year (19.5%) (Graph 1). Confirming growth in the rate of investment, it becomes critical to guarantee better performance of the Brazilian economy and industry. Investments tend to be positively affected by new factors in the following periods, such as the continuation of the policy of reducing interest rates, aside from the measures announced and included in the *Brasil Maior* Plan (MDIC, Plano 2011-2014), which should contribute to the recovery of the Brazilian economy and industry.



1Q/04 3Q/04 1Q/04 3Q/05 1Q/06 3Q/06 1Q/07 3Q/07 1Q/08 3Q/08 IQ/09 3Q/09 1Q/10 3Q/10 1Q/11 3Q/11

Note: Data includes the revision of the historical series executed and distributed by the IBGE. There may be, therefore, differences in relation to the data analyzed in previous editions of The Industrial Conjuncture Bulletin. Data from the 3rd quarter of 2011 are preliminary.

Source: National Accounts System (SCN)/IBGE.

Brazilian industry also showed a concerning loss of momentum in the third quarter of 2011, according to data from the Monthly Industrial Research - Physical Production (Pesquisa Industrial Mensal – Produção Física, PIM-PF/ IBGE). There was an increased slowdown in growth of Brazilian industrial production in the twelve months leading up to September of 2011 – to 5.1% in mining, 2.3% in manufacturing, and 2.5% in industry as a whole (Table 2). Correlating data from the third quarter of 2011 with those of the same period of 2010, stagnation of the physical production of the Brazilian industry is observed, resulting from the combination of contraction in manufacturing (-0.1%) and modest growth in mining (0.2%).

Comparing the third quarter of 2011 with that immediately preceding it, a contraction in the physical production of the manufacturing industry (-1.0%) is observed, and consequently of general industry (-0.8%). The final data available from the month of October of 2011 show that general industrial production in Brazil fell even more (-2.2%) than in the month of September (-1.6%) in comparison with the same months of 2010. Industrial production also contracted (-0.6%) in the month of October compared with September of 2011 taking seasonal adjustment into consideration. Thus, the latest monthly variation rates of physical production in the Brazilian industry available show a continued contraction in industrial production.

	Υ.	, ( )		
A - 41- 141	4Q	1Q	2Q	3Q
Activities	2010	2011	2011	2011
	Accumulated variatior	n rate in the last fou	ır quarters	
General Industry	10.5	6.9	3.7	2.5
Mining	13.4	9.6	6.8	5.1
Manufacturing	10.3	6.8	3.5	2.3
Quarterly va	ariation rate in relation	to the same quarte	er of the previous y	ear
General Industry	3.3	2.8	0.6	0.0
Mining	10.2	3.3	2.8	0.2
Manufacturing	2.9	2.7	0.5	(0.1)
Quarterly varia	ation rate in relation to	the previous quart	ter (seasonally adju	usted)
General Industry	0.3	1.3	(0.6)	(0.8)
Mining	0.5	(1.5)	1.2	0.2
Manufacturing	0.1	1.9	(0.9)	(1.0)

## Table 2 - Variation Rate of Brazilian Industrial Production(4Q/2010 to 3Q/2011) (%)

Note: Data reflect the eventual revision of editions previously published by the IBGE. There may be, therefore, differences in relation to the data analyzed in previous editions of The Industrial Conjuncture Bulletin.

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

Observing the evolution of industrial production by categories of use, the performance of the capital goods sector stands out, in spite of the slowdown, showing higher performance than other categories. The slowdown in the growth of the production of capital goods became evident in the variation over the twelve months ending in September of 2011 (Table 3). Even considering sluggishness in production over a period of twelve months, capital goods stood out from the other categories of use, even when compared with the production data from last year, being the only category to show growth in the third quarter of 2011 compared with the third quarter of 2010 (4.1%). Additionally, production of capital goods also managed to show growth, though modest in the third compared with the second quarter of 2011, taking seasonal adjustment into consideration (0.6%). The latest data available for the month of October showed, however, contraction of production of capital goods when compared with the month of September of 2011 (-1.8%), despite mitigating negative performance observed in September when compared with August of 2011 (-6.4%) also with seasonal adjustment (PIM-PF/IBGE). The concern with the sluggishness in physical production of capital goods certainly reflects the difficulties confronted by investments and the enhancement of competition from imported goods, which have

presented a rising challenge to Brazilian production in the domestic market.

Performance of durable consumer goods has reacted more intensely to contraction and recovery of economic activity revealing its great dependence on the expectations of business, performance of credit, and domestic demand. There was a clear slowing of growth in the physical production of durable goods, observing change over twelve months (Table 3). Additionally, a fall can be observed comparing the third quarter of 2011 with the same period of 2010 (-2.2%) and with the second quarter of 2011 (-2.2%) (Table 3). In the month of October of 2011, a rise in the physical production of durable goods occurred compared with September of the same year (2.4%), adjusted for seasonal variation (PIM-PF/IBGE), which meant a marginal recovery of the negative performance observed in the months of July (-4.3%) and August (-8.8%) of 2011. Recent measures to reduce taxes charged on whitegoods household appliances and on loans to individuals - easing credit operations for the purchase of automobiles, for example - have been adopted by the Brazilian government, and could contribute to the recovery of production of durable goods in the near future.

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Table 3 - Variation Rate of Brazilian Industrial Production by Categories of Use (4Q/2010 to 3Q/2011) (%)

Cotomorian of uno	4Q	1Q	2Q	3Q
Categories of use	2010	2011	2011	2011
Accumulated variation	on rate in the	last four quarte	ers	
Capital goods	20.9	16.6	9.5	5.5
Intermediary goods	11.4	7.3	3.7	1.4
Durable consumer goods	10.3	5.5	1.9	0.8
Semi-durable and non-durable consumer goods	5.3	3.4	1.9	0.6
Quarterly variation rate in relatio	n to the sam	e quarter of the	previous year	
Capital goods	7.1	8.6	2.6	4.1
Intermediary goods	3.9	1.8	0.5	(0.4)
Durable consumer goods	1.5	5.1	(1.0)	(2.2)
Semi-durable and non-durable consumer goods	1.7	1.1	(0.1)	(0.1)
Quarterly variation rate in relation t	to the previou	us quarter (sea	sonally adjuste	d)
Capital goods	0.8	4.5	(1.3)	0.6
Intermediary goods	(0.1)	0.7	0.2	(1.1)
Durable consumer goods	2.5	4.5	(6.6)	(2.2)
Semi-durable and non-durable consumer goods	(0.1)	1.3	(1.3)	0.1

Note: Data reflect the eventual revision of editions previously published by the IBGE. There may be, therefore, differences in relation to the data analyzed in previous editions of The Industrial Conjuncture Bulletin.

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

Semi-durable and non-durable consumer goods have shown less dramatic variation over time. Although they have not been affected as intensely by restriction of credit, some sectors within the segment are suffering the effects of international competition more directly. The physical production of semi-durable and nondurable goods practically stagnated in the third quarter of 2011, and there was a slight reduction compared with the same period of 2010 (-0.1%), and a weak increase compared with the second quarter of 2011 (0.1%), with seasonal adjustment (Table 3). The evolution of variations in physical production of semi-durable and non-durable goods over twelve months also shows slowing down, as it does in the case of durable goods. The latest monthly data available (October) shows contraction in physical production of semidurable and non-durable goods relative to the month of September of 2011 (-1.3%), with seasonal adjustment (PIM-PF/IBGE).

Negative performance in the production of consumer goods in the context of growth in household spending is notable, even if at a more modest rate. There is an imbalance between domestic consumption and industrial production of consumer goods, mainly associated with the degree of competition with imported products (The Industrial Conjuncture Bulletin, September, 2011). Such an imbalance has caused substantial concern for both the Brazilian government and industry regarding the transfer of stimulus in domestic demand to foreign production, catalyzing the adoption of incentivizing measures for credit and for sales of consumer goods produced in Brazil.

Intermediary goods have suffered a reduction in domestic activity, as well as the contraction in foreign demand of basic inputs and raw materials, associated with an international scenario of considerable uncertainty. In this sense, production of intermediary goods has down observing the accumulated slowed variations in four quarters (Table 3). Additionally, a reversal of positive growth of physical production of intermediary goods has been observed, considering the contraction of their production in the third quarter of 2011 compared with the same period of 2010 (-0.4%) and with the second quarter of 2010 (-1.1%) in a series considering seasonal adjustment. Monthly data confirm negative performance in physical production of intermediary goods in the month of October in relation to September (-0.5%), as had been observed in the majority of the preceding months of 2011 (PIM-PF/IBGE).

The analysis of variation in physical production by industrial sector allows us to

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highlight that amongst the 27 sectors analyzed by the PIM-PF/IBGE, the majority (15) showed shrinkage or stagnation in physical production in the third quarter of 2011 in relation to the same period of 2010. Many of the industrial sectors included in this group intensified the contraction observed in the previous period or even reverted the previously positive performance. Only one of the sectors of the group was able to reduce shrinkage in production, even while maintaining negative variation in the quarter analyzed. Amongst the activities that experienced stagnation were mining (0.2%), foods (0.6%) and cellulose and paper products (0.1%).

The other industrial sectors included in the IBGE study (12) showed an increase in physical production in the same period. Amongst them, the majority (7) showed reduced rates of growth (1% to 4%), such as motor vehicles, machinery and equipment, and office and computing machinery (1% to 2%). Only two industrial sectors achieved expressive expansion of production in the period analyzed: tobacco (35.9%)and publishing, printing and reproduction of recorded media (12.2%). They were followed by other transport equipments (7.1%), electronic and communication equipment (6.9%) and furnishing (6.0%).

Thus, few Brazilian sectors showed significant growth in physical production in the third quarter of 2011 compared with the same period of 2010. Additionally, the most relevant sectors of Brazilian industry showed very mediocre performance in terms of physical production in the same period, such as mining and automotive sectors, as well as machinery and equipment sector. The significant fall in production of vehicles, as a reaction to stoppages by manufacturers in order to compensate for elevated stocks, explains the majority of the disappointing results in Brazilian industrial production in the last quarter analyzed.

Comparing the performance of physical production in industrial sectors in the third relative to the second quarter of 2011, eliminating seasonal influences, the IBGE study found only five sectors to show significant growth. Amongst these sectors, the only ones to show substantial growth were tobacco (21.2%), repeating its positive performance in the second relative to the first quarter of the year, and publishing, printing, and reproduction of recorded media (10.7%), whose marginal growth was also uncommon in the historical series of the sector. The remaining industrial sectors in the study (22) showed contraction or modest growth in physical production in the cited period. Again, very weak marginal performance was observed (0.5% to 1.5%) in relevant sectors of Brazilian industry, such as motor vehicles and machinery and equipment.

In summary, a slowdown in growth or even a contraction in physical production, can be observed in the majority of Brazilian industrial sectors included in the IBGE study of the third quarter of 2011. Some sectors related to capital goods and durable consumer goods, which had led industrial expansion during the period of recovery from the global crisis, concretized the recent loss of momentum of Brazilian industry. Credit restricting measures (currently being revised and modified) and the valuation of the national currency in the context of intensification of international competition contributed to slowing of growth in Brazilian industry.

The performance of industrial employment confirmed the slowdown observed in physical production. Data from the General Database of Employed and Unemployed (Cadastro Geral de *Empregados e Desempregados, CAGED/MTE*)<sup>1</sup> show a net creation of almost 129 thousand jobs in the third quarter of 2011 (Table 4). This number, however, is significantly lower than that of the third quarters of 2008, 2009 (when the first signs of recovery from the crisis were shown) and 2010. In relative terms, 37% fewer formal jobs were generated in the period between July and September of 2011, compared to the same period of 2010. Job growth continued at the same rate in the first nine months of the year: 374 thousand jobs were generated between January and September of 2011 compared to 589 thousand in the same period of 2010.

<sup>1</sup> CAGED/MTE presents the results of all companies that hired/fired formally employed workers in the period studied, thus achieving census coverage, while PIMES/IBGE analyzes samples, including companies with five or more employees. Thus, divergent trends can be found in the two sources used, mainly in sectors dominated by small and medium-sized companies.

	Table 4 - Job C reation and Net Hiring         Wages in Brazilian Industry         (1Q/2008 to 3Q/2011)							
Year		Jobs (	Created		(	Wages (N R\$ thousand	let Hiring) I – dec./2010	*)
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
	quarter	quarter	quarter	quarter	quarter	quarter	quarter	quarter
2008	153,090	167,668	193,793	(348,295)	69,627	63,471	67,494	(372,616)
2009	(146,761)	2,578	203,323	(52,009)	(308,501)	(153,828)	37,893	(105,773)
2010	199,187	186,139	203,873	(111,408)	104,290	76,794	92,038	(147,372)
2011	127,798	117,211	128,704	-	46,400	41,794	26,054	-

(\*) Data deflated by IPCA (IBGE).

Source: The General Database of Employed and Unemployed (CAGED)/MTE.

Of the more than 128 thousand jobs created in the third quarter 2011, almost half were in the products and beverages sector (61 food thousand), which showed higher performance to that of the three previous months, when it had created less than 30 thousand jobs. This sector has performed similarly, however, in recent years, showing that this growth in the third quarter is seasonally variable. More intense slowing was observed in the manufacture of coke, petroleum products and biofuels, with the creation of eight thousand jobs between July and September compared to 21 thousand in the three previous months. This drive is similar to that observed in 2010, showing seasonality, once again. In the remaining sectors, there is no deviation from the industrial average (slowing) or from typically seasonal performance.

With respect to net hiring wages in Brazilian industry, the slowdown is even more evident. The third quarter of 2011 showed a net increase of 26 million BRL in overall wages paid in Brazilian industry, which is significantly lower than that shown in the two previous quarters and in the third quarter of the last three years (2008-2010). The increase in the third quarter of 2011 was 71% lower than that reported for the same quarter last year. In the first nine months of 2011, wages were 58% lower than in the same period of 2010. The slowdown in wages in Brazilian industry is therefore notable, indicating that the new jobs have been more poorly remunerated.

Data from the Industrial Monthly Research on Employment and Wages (*Pesquisa Industrial* 

Mensal de Emprego e Salário, PIMES/IBGE) corroborate some of the conclusions highlighted regarding employment and industrial salaries. To the extent that the third quarter of 2010 saw an increase of 5.1% in personnel employed in Brazilian industry in relation to the same period of 2009, in the third quarter of 2011, the increase was only 0.5%. In comparison with the periods between January and September of each year a slowdown of 3.4% in 2010 to 1.5% in 2011 can be observed. The data clearly indicate that, in spite of the slowdown being evident throughout 2011, it was the most accentuated in the third quarter. The index of personnel employed in Brazilian industry, following a rise up to the middle of 2010, practically stagnated in 2011, corroborating previous observations regarding industrial employment (Graph 2).

In relation to salaries, an important gain at the beginning of 2011 can be observed, followed by stagnation until July of the same year. In August, there was another increase followed immediately, however, by a fall in September. Considering the limits of a longer period of time (January of 2009 to September of 2011), the recuperation of salaries was more robust than that of industrial employment; in this specific case this is a divergent tendency to that found in the CAGED database. This divergence can be explained by the performance observed in small firms (those with less than five employees) included in the CAGED database, which probably shows a more intense contraction in the average wage.



Note: January/2001 = 100.

Source: Industrial Monthly Research on Employment and Wages (PIMES)/IBGE.

Both the data from CAGED and PIMES show, therefore, a slowdown in the creation of jobs in Brazilian industry in the third quarter of 2011, confirming patterns observed in previous quarters.

The data and information analyzed show recent signs of stagnation in the Brazilian economy, associated with negative performance of distinct components of domestic demand. In comparison with data from last year, the slowing tendency, which has not managed to obscure the importance of investments for the Brazilian economy and industry, was confirmed. The rise in the rate of investment can be indicated as a positive and a certainly fundamental element of incentive for industrial production and employment. Brazilian industry, on the other hand, has continued to confront a loss of momentum in growth of its physiscal production in comparison with the past year, even showing contraction in the third compared with the second quarter of 2011. The slowdown in creation of formal employment followed the industrial production performance in the period analyzed.

The slowdown is accompanied by a concerning rise in imports and confirms difficulties confronted by Brazilian foreign trade, which has shown, however, a positive recovery of its positive balance.

The trade surplus was US\$ 10 billion in the third quarter of 2011, more than doubling the trade surplus reached in the same quarter of 2010 (FUNCEX). This dramatic growth in the third quarter of this year, compared to the same period of last year, was a result of the superior rising performance of exports (28.6%) relative to growth in imports (21.1%) in the same period (Graph 3). The increase in export values in the period analyzed was led by the expansion of prices (23.8%) with a lower share of the exported volume (3.8%). Observing exports by categories of use allows us to conclude that the increase of export values was driven by fuels (64.4%) and intermediate goods (30.9%), both benefitting from the dramatic rise in their export prices in the same period (respectively 46.1% and 22.0%) (FUNCEX).

## Graph 3 - Variation Rates of Exports and Imports value, volume and price (%)



Source: FUNCEX using data from SECEX.

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The expansion of the total value of imports has also been fueled by a rise in prices on (16.7%), imported goods with reduced contribution of quantities imported (3.9%) in the third quarter of 2011, compared with the same quarter of 2010 (Graph 3). All categories of use showed an increase of imports during the period mentioned. This was true especially of fuels (39.0%), exclusively due to increases in import prices (48.5%), considering the shortage of the quantity imported. The same trend was observed in non-durable (29.5%) and durable (28.1%) consumer goods, which, unlike fuels, showed significant increases in quantities imported (20.2% and 22.5% respectively) with low share of import prices (FUNCEX). This performance of imports of consumer goods confirms the overflow of domestic demand (though showing a slowing trend) to overseas production, reinforcing the difficulties faced domestic by production compared to the intensification of foreign competition and currency appreciation.

In turn, imports of capital goods should be analyzed more carefully, considering that this category of use showed minor contribution (1.9%) to imported values in the period analyzed, being exclusively led by an increase in the price of imported goods (6.3%) given the reduction in the quantity of imports (-4.7%) (FUNCEX). In such a case, a slowdown of the distinct components of domestic demand, mainly in gross fixed capital formation, can be seen in its clearest form in the performance of imports of capital goods, closely associated with the performance of investments.

Imports tend to maintain relatively elevated levels, even when considering that the slowdown in growth of domestic demand and of the industrial production should discourage the entry of imported goods into the Brazilian market. This is due to both aggressive international marketing of diverse products, especially by Asian producers in the face of uncertainty concerning the economic recovery in the world's developed economies, as well as the recently appreciated national currency. Concern persists in the substitution of domestic production by imports that without a doubt negatively affect investment decisions in the expansion of productive capacity.

In summary, the data analyzed in this section of the Bulletin highlight a slowdown in Brazilian industrial production, a result of the slowdown in growth of the main components of internal demand, such as household consumption and gross fixed capital formation, coupled with a slow Industrial Conjuncture Bulletin

recovery of foreign demand in the major consumer markets of the developed world. Although domestic demand continues to show positive performance (however modest), Brazilian industrial production, has been very negatively affected by imports of the most varied types of foreign goods, driven in turn, by the intensification of foreign competition and by the appreciated currency.

In terms of perspective, the factors that affect the international and national scenarios need to be outlined by their importance for the Brazilian economy and industry. Some of them can come to contribute to the recovery of growth in Brazilian industry. Stagnation, or even recession, in major global economies cannot be discounted, reflected in pessimistic predictions of growth in the global economy, and especially in the Brazilian government has presented a stimulus package for investment, innovation, foreign trade and protection for the Brazilian domestic market through the *Brasil Maior* Plan (August, 2011), which could have positive impacts on Brazilian

mitigate industry, helping to а sluggish environment for the expansion of industrial activity. The tendency of contraction of interest rates that could result in a relationship between exchange and interest rates relatively more favorable for industrial activity and productive investment should not be forgotten. Finally, the Brazilian government has adopted a series of measures aimed at removing restrictions, and even stimulating consumer credit, as well as reducing sales tax on some domestically produced consumer goods. It is possible, then, to revitalize consumption and contribute to reversing the most intense of slow-downs, or even to stimulate a recovery of the Brazilian economy and industry.

Though in the coming months, industrial activity should continue at a reduced pace, it is possible that the demand stimulus measures could generate economic growth by the end of 2012. The great challenge will be to re-couple domestic demand to domestic industrial supply, which has shown signs of decoupling throughout 2011 due to an adverse international scenario.

## FOREIGN INVESTMENTS IN BRAZIL: AN EVALUATION OF GREENFIELD PROJECTS IN THE RECENT PERIOD

Global flows of FDI have shown a strong contraction in recent years due to the effects of the international crisis. After the intense reversal of flows of foreign direct investment (FDI), beginning in 2008 and more strongly felt in 2009, due to the international financial crisis, the data from 2010 began to show signs of recovery. The global flow of FDI, however, ended the year of 2010 37% below the level of 2007, with a total value of US\$ 1.244 billion. Though the flows have increased by 5% relative to last year and the global stock of FDI has reached US\$ 19 trillion, estimates of the World Investment Report of 2011 (WIR 2011) of UNCTAD are cautious for the coming years. According to the organization, flows of FDI will not overcome the pre-crisis level for two or three years.

In spite of the adverse international scenario for global FDI, the Brazilian economy has maintained a significantly elevated level of FDI, even registering successive records in the recent period.

Based on an analysis of the data since the 1990s, Brazil has seen a rise in FDI since the second half of that decade, as a result, in great measure, of entries of foreign firms in the process of privatization (Graph 1). In terms of the percentage, the volume of inflows of FDI to Brazil amounted to more than 4% of the global total in 1998. Beginning at the turn of the 21st century, both the flows and the relative share in global flows again began to decline. In 2004 a new cycle of growth in foreign investment could again be observed, which sped up beginning in 2007 when Brazil's relative share in global flows also began to grow. In spite of the impacts of the crisis on the results obtained in 2009 (a fall of 42% in relation to 2008), in 2010, contrary to what was observed in global flows, the value received by Brazil was already greater than that of 2008, reaching the level of 3.9% of the global total. In 2011, the preliminary data accumulated up to October surpassed the value registered in 2010 at 15%, with the potential to reach US\$ 60 billion for the year.

Due to the amount of resources involved, the recent increase in inflows of FDI into the Brazilian economy in a slightly more detailed method will be analyzed. The measure at which these flows can be associated with new investments, contributing to a rise in gross fixed capital formation, will also be evaluated.

A first aspect that must be highlighted is that amongst the stock of FDI, an increase in the relative importance of intrafirm loans has been observed in relation to the total in the recent period. This was especially true in 2008, when these loans made up 33% of the total. In the following years, however, the share of equity capital continued to account for close to 80% of the total. In other words, even leaving aside the values related to intrafirm loans, the share of FDI are still quite significant (Graph 2).

**Graph 1** - Foreign Direct Investment in Brazil (1990 to 2011\*) (US\$ billions and % of global total)



<sup>(\*)</sup> Data accumulated in the year up to October. Source: UNCTAD.



(\*) Data accumulated in the year up to October. Source: Central Bank of Brazil.

It is important to highlight that while on one hand, the amounts recorded as intrafirm loans could also be used to finance productive investments, on the other, even the amounts registered as equity capital will not necessarily finance new investments, in particular because FDI can be associated with mergers and acquisitions; in other words the amount registered as FDI would only finance the transfer of property of already existing assets.

Again, it is important to highlight what

occurred in the investment cycle in the second half of the 1990s. In spite of the increase of FDI, the high share of mergers and acquisition<sup>2</sup> in the period indicated a reduced effect on the formation of capital. During several years in this period it surpassed 50%. By the 2000s, the share of mergers had declined, even in the period of fastest growth of FDI, beginning in 2007. In the 2000s, the average of the rate between the value of mergers and acquisitions and FDI was 15% (Graph 3).



Other information that can be used to measure the impact of FDI on domestic investment is the indicator released by UNCTAD which relates directly the FDI to the Gross Fixed Capital Formation. Given, however, the importance of values related to mergers and acquisitions, the UNCTAD indicator will be adapted, showing the relation between flows of FDI minus the value of mergers and acquisitions in relation to the gross capital formation. It is worth noting that, even then, the indicator should be analyzed carefully, since the gross capital formation is measured in BRL and converted to USD, the evolution of the exchange rate has a significant influence on the indicator.

The period between 1999 and 2003 presents a trend of overestimating the contribution of FDI to the capital formation exactly because of the influence of the exchange rate (Graph 4). In the

<sup>2</sup> The value of mergers and acquisitions is published by UNCTAD and involves net value, which is to say the value of mergers and acquisitions performed by foreign companies, not counting the value of the acquisition of foreign affiliates by residents of Brazil.

most recent cycle, since 2006, when the exchange rate showed, in turn, a trend of greater appreciation, the rate was between 8% and 12%. It is interesting to note that this percentage is greater than that observed in the second half of the 1990s (also with an appreciated exchange rate), when it was around 6%.



Source: UNCTAD and the Central Bank of Brazil.

Finally, the anouncements of greenfield projects in Brazil using the FDI Markets Database will be analyzed. The data were compiled by The Financial Times using corporate information and reporting from the specialized press. They are complimentary to those previously analyzed, since they include only greenfield investment projects for the instalation or expansion of capacity. The data also present limitations, since for the most part they are projects announced by companies. In this way, they may be cancelled or carried out in amounts and/or timing different from that announced or declared in the database<sup>3</sup>. This study finds, therefore, that if carefully interpreted and as a general trend (not as investments actually the data provide important made), can information to the process in analysis.

It is possible to observe that, unlike the FDI data, a stronger trend of growth in both registered values of investments projects as well as in the number of projects has begun to occur since 2008 (Graph 5). It can also be verified that the crisis of 2009 had practically no affect on the indicators which continued to grow in 2010 and 2011. Even considering only the period of January to October of last year, the value of the 435 new projects announced reached US\$ 58 billion.

The verified increase in greenfield projects announced in Brazil in recent years in a context of a global crisis considering a reduction in greenfield investment projects in the world (the value registered in 2010 was 45% less than that registered in 2008) meant a considerable increase of Brazil's relative importance in the global context (Graph 6).

<sup>3</sup> Information is constantly updated to minimize this type of problem; therefore it is not possible to completely avoid this type of distortion.



<sup>(\*)</sup> Data accumulated in the year up to October. Source: FDI Markets.



<sup>(\*)</sup> Data accumulated in the year up to October. Source: FDI Markets.

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From the point of view of the country of origin of the investments, the data reveal that there is still a high concentration in the major world economies, being that more than half of the accumulated values between 2008 and 2011 originated in the countries of the European Union (Table 1). The United States and Canada represented 21.2%, while the developed countries of Asia were responsible for 10.4%. Amongst the developing nations, Asia had the highest number of investment projects, with 8.7%, followed by the Latin America countries.

Table 1 - Values of Greenfield Projects by Region of Origin         (values accumulated between 2008 and Oct. of 2011)         (US\$ millions and % of total)				
US\$ millions	% of total			
156,225	86.1			
98,822	54.5			
38,492	21.2			
18,910	10.4			
25,140	13.9			
15,712	8.7			
7,153	3.9			
1,140	0.6			
1,133	0.6			
181,365	100.0			
	cumulated between 2008 and Oct. c (US\$ millions and % of total) US\$ millions 156,225 98,822 38,492 18,910 25,140 15,712 7,153 1,140 1,133			

Source: FDI Markets.

Observing the countries individually, the United States was the primary investor, followed by Germany, the United Kingdom and Japan (Table 2). Amongst the developing countries, it is worth noting that China registered a total value of US\$ 10.1 billion in investment projects in the period.

	e 2 - Values of Greenfield Projects by Cou alues accumulated between 2008 and Oc (US\$ millions and % of total)	
Country of Origin	US\$ millions	% of total
United States	36,418	20.1
Germany	20,030	11.0
United Kingdom	19,291	10.6
Japan	15,800	8.7
France	14,242	7.9
Spain	11,452	6.3
Italy	11,065	6.1
China	10,132	5.6
Luxemburg	10,101	5.6
Mexico	3,173	1.7
South Korea	2,962	1.6
Australia	2,957	1.6
Switzerland	2,480	1.4
Portugal	2,360	1.3
The Netherlands	2,354	1.3
Others	16,547	9.1
Total	181,366	100.0

Source: FDI Markets.

From a sectoral point of view, it is interesting to note the concentration observed in mining and metallurgy that made up almost 40% of the total volume (Table 3). Also, it is important to note that several other sectors took up significant shares of the announcements of investment, involving

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both industrial sectors such as the automotive sector, as well as services such as telecommunications, even including segments in which Brazil has distinguished itself as a great frontier of international expansion such as renewable energy, petroleum and gas.

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	<ul> <li>Values of Greenfield Projects by Se ccumulated between 2008 and Oct. c (US\$ millions and % of total)</li> </ul>	
Sector	US\$ millions	% of total
Mining and Metallurgy	69,951.5	38.6
Telecommunications	27,024.1	14.9
Automotive	20,365.8	11.2
Food and Tobacco	11,665.6	6.4
Renewable Energy	11,072.6	6.1
Petroleum and Gas	4,623.1	2.5
Machines and Equipment	3,616.9	2.0
Chemicals	3,335.0	1.8
Rubber	3,259.0	1.8
Financial Services	2,739.7	1.5
Transportation	2,299.4	1.3
Materials and Construction	1,984.7	1.1
Beverages	1,433.0	0.8
Electronic Components	1,375.2	0.8
Real Estate	1,331.1	0.7
Others	15,289.3	8.4
Total	181,365.9	100.0

Source: FDI Markets

The data analyzed allow us to conclude that although they play a supporting role, foreign investments have played a more important role in the recent cycle of investments in Brazil. Even since the beginning of the international crisis, in spite of international contraction, the announcements of investiment projects in Brazil have not cooled off, showing trends of growth through 2011.

If on one hand the international crisis can affect domestic and foreign financing sources of investments abroad, on the other, the search for large markets with potential for expansion end up pushing firms in the direction of emerging markets as a way of staying competitive in the global game. This is why a large part of the greenfield projects in Brazil originate in developed countries, but recently developing countries like China have gained more importance. In spite of the concentration in the

mining and metallurgical sectors clearly associated with the increase in the relative profitability of activities connected to sectors associated with the commodities. domestic market where Brazil stands out as one of the main frontiers of global expansion, such as renewable energy, petroleum and gas, have also received relevant volumes of investment.

In spite of continuing global stagnation, it is expected that the interest in investing in Brazil will continue at this high level in the coming years. Industrial policy should maximize the effects associated with these positive investments, either in terms of taking greater advantage of the possible productive chains with industrial and service national sectors, such as the industry of capital goods, or in terms of technological transfer and making it possible for activities intensive in knowledge of the affiliates established in Brazil.

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