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## Working Paper

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# FDI in Brazil: recent trends and the role of Canadian investment

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## Introduction

One of the basic characteristics of the Brazilian economy is the elevated degree of internationalization of the productive structure, with a large number of companies with foreign capital leading in a number of economic sectors. This is by no means a new phenomenon. Foreign Direct Investment (FDI) and the dominant role of transnational corporations (TNCs) in the most dynamic sectors are factors that have played a part in constituting the Brazilian industrialization process. Particularly in the post-war period up to the end of the 1970s, TNC branches, organized by state planning with national companies with private and public capital, were fundamental to the development and consolidation of a diversified productive structure convergent with the more developed countries. This was the case at least in terms of the weight of the different sectors of industrial infrastructure.

However, in the 1980s the external debt crisis interrupted the long cycle of Brazilian economic growth, with the economy suffering an increasingly volatile growth rate of GDP and continual inflation. During this time, the FDI received by Brazil fell, and foreign branches did not take part in any major expansion projects, as they waited for an improvement in the market.

The resuming of foreign investment that occurred in the 1990s marked the return of development strategies for transnational corporations in the Brazilian economy. Motivated by macroeconomic changes – liberalization of trade and investment flows, privatizations and stabilizing – TNC's began again to carry out investments in Brazil.

After a slight decrease at the beginning of the 2000s, FDI began to increase again from 2004 onwards, this time with significant differences in relation to the previous period, as will be detailed in the following section. As well as this, FDI occurred at a juncture of the recovery of economic growth and of more sustained perspectives of Brazilian economic development, presenting the conditions, therefore, to carry out a more important role in this development.

This article looks to concisely analyze the principal characteristics of the recent flow of FDI into Brazil, and to highlight the role that Canadian investment has carried out within this process. The first section will outline the principle general tendencies of

the internationalization of the Brazilian economy through received FDI, while the second section will highlight the relative importance and the sectors in which the majority of Canadian investment has been taking place. The article will conclude by briefly outlining future perspectives of Brazilian economic growth, and possible direct investment contributions in general and Canadian investment in particular.

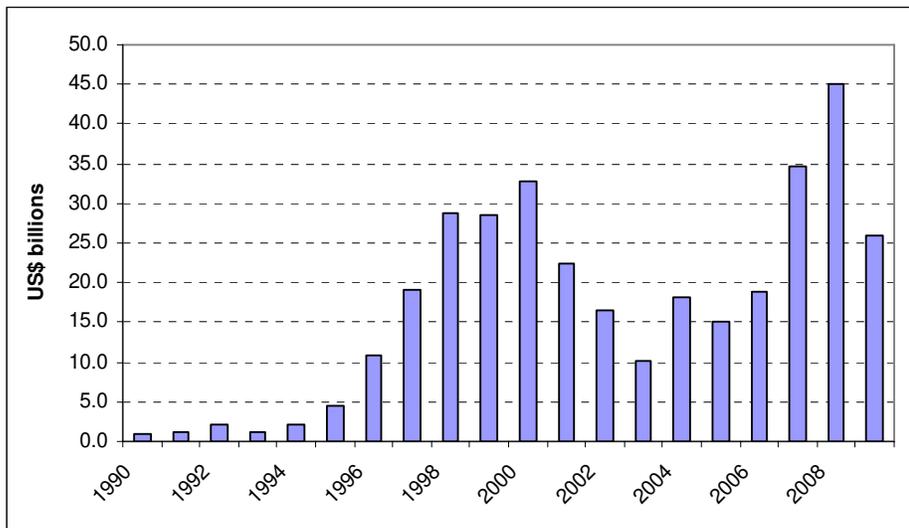
### **1. A General Characterization of the Brazilian FDI Inflows in recent years**

The flow of foreign direct investment (FDI) into the Brazilian economy increased in the 1990's, particularly in the second half, this following a fall that had taken place in the 1980's. At a rate of around US\$1.5 billion annually at the beginning of the decade, the flow intensified from 1995 onwards, and between 1995 and 2000, the average annual growth rate reached almost 50%. It is important to point out that the flow of investment remained high even after the financial crisis's in Asia and Russia, in 1997 and 1998 respectively, and the crisis that occurred in Brazil in 1999 which led to a devaluation of the real (See Graph 1).

From 2001 onwards, global economic conditions began to deteriorate, largely due to the economic crisis that took place in the US. This crisis, a consequence of the bursting of the "dot-com bubble" companies, led to a drastic reduction in investment flows around the world. The FDI in Brazil fell continually until 2003, at which point it had reached US\$10.1 billion. From 2004 onwards the volume of FDI increased again, reaching US\$ 34.5 billion in 2007 and a record high of US\$ 45 billion in 2008.

As a result of the global financial crisis - which was most evident in September 2008 - the volume of FDI into Brazil fell to US\$25.9 billion in 2009.

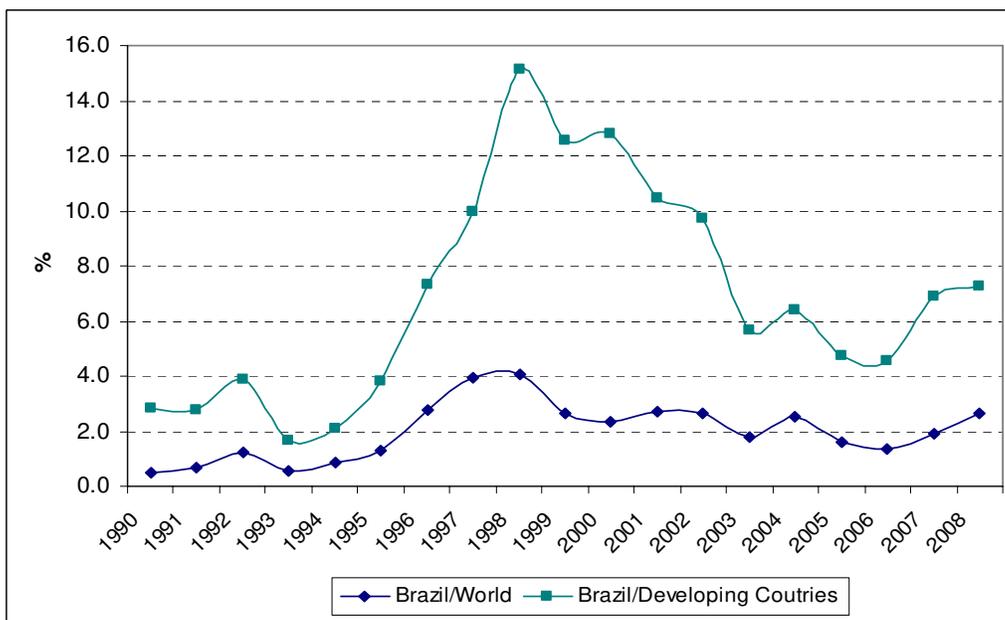
**Graph 1 – Brazil: net FDI inflows, 1990 to 2008 (US\$ billions)**



Source: Central Bank of Brazil.

In relative terms, the data given in graph 2 verify that the FDI inflows into Brazil, considering the total into developing countries and worldwide, followed the tendency of an increase in absolute levels up to 1999. At that point, the tendency changed to a decrease, which was only reversed after 2007. In 2008, the Brazilian share of the world total reached 2.6%, and of developing countries 7.3%.

**Graph 2 – Brazil's share of Developing Countries and World FDI inflows (%)**



Source: Unctad

It is also important to highlight a number of significant changes in the makeup of the recent Brazilian FDI inflows. Firstly, it is worth noting the change in the flow in terms of the sector to which it is destined. In 1995, almost 67% of the stock of FDI in Brazil went to the industrial sector. In the second half of the 1990's, and the start of the 2000's, FDI was concentrated on the service sector, primarily in the areas where the process of privatization was most important, such as Telecommunications, Electrical Energy and Financial Services. In 2000, the FDI stock in the service sector made up 63.2% of the total, exceeding the industrial sector which made up 33% of the total.

In relation to the flow accumulated between 2006 and 2008, the rise in the number of investments aimed at the agricultural and mining sectors was most prominent. While the stock in 2005 was just 3.6% of the total, between 2006 and 2008 the inflow aimed at these sectors reached almost 20% of the total. This fact is associated with the consolidation of Brazil as a large producer and world supplier of agricultural commodities and minerals.

The industrial sector demonstrated a swift rise in its share, with 35% of the total. It is also important to point out some of the changes in the composition inside the industry. The sectors most intensive in natural resources such as foods, metallurgy and paper and cellulose showed a relative increase in share, to the detriment of the chemical and automotive sectors, among others.

The service sector, in turn, showed a fall in relative share, with 45% of the total, reflecting the smallest contribution of resources in relation to the period of privatizations and in relation to the period right after this time, given that largely speaking, the cash generation started to finance new investments of recently established companies. This fact explains, for example, the low share of the telecommunications sector in the period 2006-2008, in relation to the rise in stock between 2000 and 2005. On the other hand, the rise in share relative to the construction sector stands out, with 3.8% of the total.

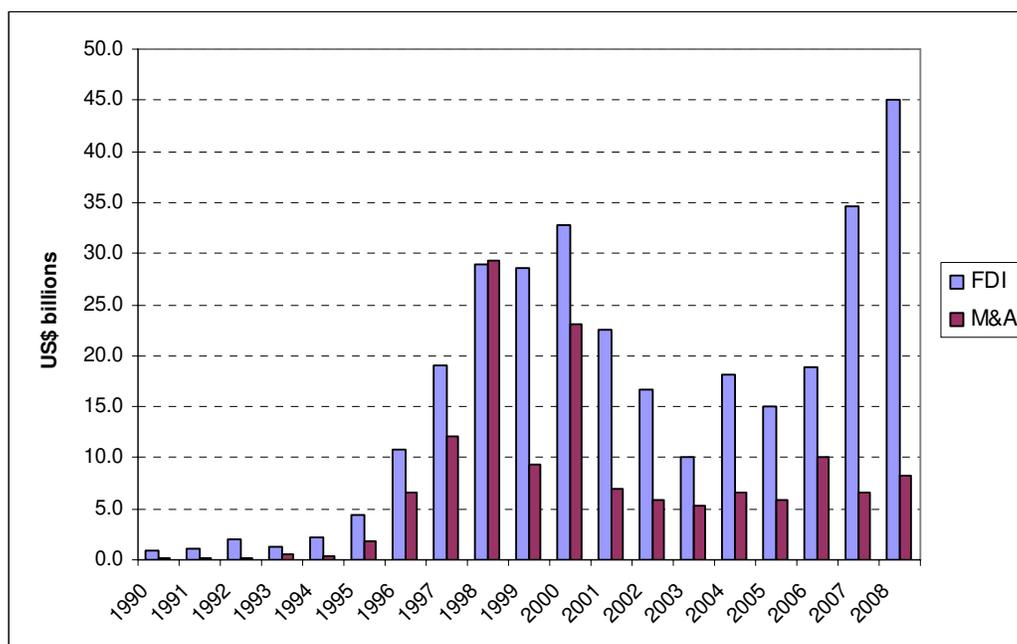
**Table 1 – Stock and flow of FDI into Brazil by sector activity: 1995, 2005 and 2006 to 2008 (US\$ millions and %)**

Economic Activity	Stock				Flow				
	1995	%	2005	%	2006	2007	2008	2006-2008 (Aggregate)	%
<b>Agriculture and Mining</b>	<b>925</b>	<b>2.2</b>	<b>5.891</b>	<b>3.6</b>	<b>1.363</b>	<b>4.982</b>	<b>12.996</b>	<b>19.341</b>	<b>19.4</b>
<b>Industry</b>	<b>27.907</b>	<b>66.9</b>	<b>53.763</b>	<b>33.0</b>	<b>8.744</b>	<b>12.166</b>	<b>14.013</b>	<b>34.923</b>	<b>35.0</b>
Food and drink	2.828	6.8	6.867	4.2	739	1.817	2.238	4.794	4.8
Chemical	5.331	12.8	12.128	7.4	1.134	752	1.079	2.965	3.0
Automotive	4.838	11.6	11.241	6.9	288	872	964	2.123	2.1
Metallurgy	3.005	7.2	1.612	1.0	1.713	4.700	4.984	11.397	11.4
Electronic and Telecom. Equipt.	785	1.9	4.517	2.8	325	159	145	629	0.6
Paper e Cellulose	1.634	3.9	2.275	1.4	1.797	263	205	2.265	2.3
Machines and Equipment	2.345	5.6	4.331	2.7	430	431	506	1.367	1.4
Electrical Material	1.101	2.6	2.157	1.3	206	371	335	913	0.9
Rubber and Plastic	1.539	3.7	2.355	1.4	223	465	671	1.359	1.4
Others	4.502	10.8	6.281	3.9	1.889	2.336	2.885	7.110	7.1
<b>Services</b>	<b>12.864</b>	<b>30.9</b>	<b>102.820</b>	<b>63.2</b>	<b>12.124</b>	<b>16.556</b>	<b>16.878</b>	<b>45.559</b>	<b>45.6</b>
Telecommunications	399	1.0	32.834	20.2	1.216	308	447	1.970	2.0
Electricity, Water and Gas	0	0.0	7.671	4.7	2.332	618	909	3.859	3.9
Financial Intermediation	1.638	3.9	16.005	9.8	2.647	5.828	3.803	12.278	12.3
Business Services	4.953	11.9	15.675	9.6	1.067	2.312	1.047	4.425	4.4
Retail Commerce	669	1.6	5.834	3.6	547	2.099	923	3.569	3.6
Wholesale Commerce	2.132	5.1	11.395	7.0	914	666	1.640	3.221	3.2
Construction	202	0.5	1.394	0.9	321	1.717	1.746	3.784	3.8
Others	12.864	30.9	12.011	7.4	3.081	3.008	6.363	12.451	12.5
<b>Total</b>	<b>41.696</b>	<b>100</b>	<b>162.807</b>	<b>100</b>	<b>22.231</b>	<b>33.704</b>	<b>43.886</b>	<b>99.822</b>	<b>100</b>

Source: Brazilian Central Bank

Another important characteristic regarding the recent inflow of FDI is related to the number of mergers and acquisitions. With regards to the FDI that took place in the second half of the 1990's, the share of investments in the form of mergers and acquisitions increased. Graph 3 shows an increase in the value of transboundary mergers and acquisitions - where Brazil is presented as the country of the company acquired - and the total value of received investments. It can be seen that the relationship between the two variables reaches particularly high levels, principally in the second half of the 1990's when the number of privatizations was at its peak.

**Graph 3 – Evolution of FDI and mergers and acquisitions considering the total FDI in Brazil from 1990 to 2008 (US\$ billions)**



Source: Unctad

With the end of the privatization process, the number of mergers and acquisitions decreased, representing an increasingly smaller share of the total invested in previous years. This indicates that the amount of FDI going towards new investment projects has been increasing. Table 4 shows that more than 1 million foreign investment projects were due to happen and/or were in progress during 2004-2009 (January-March). Brazil was home to one in every four or five new operations realized in Latin America.

**Table 4 - New Investment Projects carried out by Foreign Companies in Brazil between 2004 and 2009**

Greenfield FDI from abroad	2004	2005	2006	2007	2008	2009*
<b>Number of projects</b>	261	170	149	152	245	51
<b>Brazil / Developing countries</b>	5.4	3.8	2.8	3.1	3.3	3.1
<b>Brazil / Latin America and the Caribbean</b>	32.3	30.4	25.9	19.4	22.2	20.2
<b>Brazil / World</b>	2.6	1.6	1.2	1.3	1.6	1.5

\*Januray-March

Source: Unctad

As a result of the previous tendencies, the ratio of FDI to gross fixed capital formation increased between 1990 and 2003, reaching above average levels compared to developing countries and worldwide levels. This justifies the argument of the elevated level of internationalization of the Brazilian productive base. With the reestablishment of economic growth sustained above all by the domestic demand, the increase in consumption and principally domestic investments between 2004 and 2008, the FDI/GFCF rate fell, despite the increased flow of FDI observed at that time. The indicators showing the relationship between the flow of FDI in relation to the GDP and exports behave in the same way.

**Table 5 - Internationalization Indicators for FDI flow (%)**

	1990-2000	2001-03	2004-08	1990-2008
<b>Rate of FDI received / GFCF</b>	10.3	18.6	13.1	12.3
<b>Rate of FDI received/ GDP</b>	1.7	3.1	2.3	2.1
<b>Rate of FDI received / Exports</b>	24.0	26.6	17.9	22.8

Source: Unctad

Finally, another factor which indicates the increase in importance of foreign capital for the Brazilian economy in the given period, and one that results from the movement observed in FDI inflows and stock, is the increase in importance of foreign companies to Brazil's economic structure.

The data given in table 6 show the increase in gross revenue of companies with foreign ownership and companies with the majority of their ownership being foreign (above 50% capital). The table also shows the relationship between the gross revenue of foreign companies and the value of gross production of the country. This indicator must be analyzed with caution as it relates national account information with company revenue data; therefore the long-term analysis of the indicator can provide an indication of the trend in terms of importance of foreign existence in the economic structure of the country.

**Table 6 – Data selected from companies with foreign ownership and majority foreign ownership**

Type of Company	Year	Gross Revenue (US\$ billions)	Gross Revenue/Production Value
<b>Companies with Foreign Ownership</b>	1995	243.5	19.3
	2000	278.8	25.5
	2005	532.0	34.2
<b>Companies with Majority Foreign Ownership</b>	1995	175.2	13.9
	2000	216.2	19.7
	2005	392.0	25.2

Source: Brazilian Central Bank

The data clearly shows the increase in the importance of foreign companies to the Brazilian economy. Considering 2005 data - the year in which the last foreign capital census was published by the Brazilian Central Bank – foreign companies had gross revenues of US\$532billion, which was equivalent to 34.2% of the gross value of Brazilian production in the same year. In 1995, this value was 19.3%. For companies with majority foreign ownership, the indicator increased from 13.9% to 25.2% in 2005, reaching US\$392billion in that year.

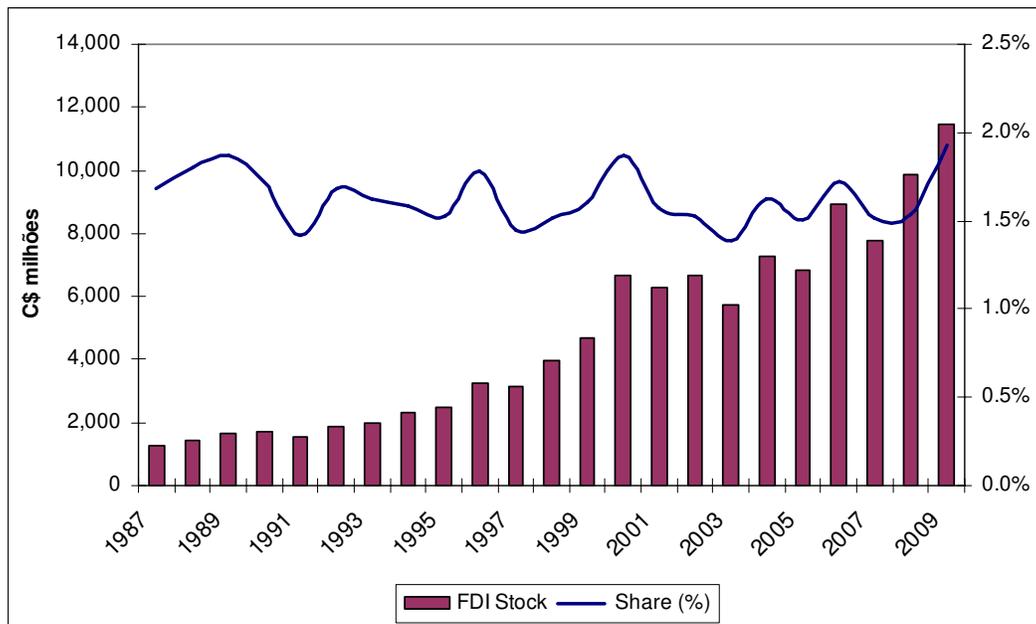
## 2. Canadian investments in Brazil

The previous section briefly analyzed the flows of FDI received by the Brazilian economy. This section looks to highlight the role that Canadian investment has played within this movement, as well as detailing which sectors these investments have been concentrated in.

The first relevant factor is related to the relative importance of Canadian investments in Brazil, both in terms of the total invested by Canada and the total received by Brazil.

Firstly, considering the data based on Canadian statistics, the consistent tendency of an increase in the stock of investments in Brazil can be noted. In 2009, the value of these investments was C\$11.4 billion. From a relative importance point of view however, Brazilian participation fluctuated between 1.5% and 2% (1.9% in 2009).

**Graph 4 – Stock of Canadian FDI in Brazil (C\$ millions and % of the total)**



Source: Statistics Canada

When considering Brazilian statistics, a slightly higher relative importance of Canadian investments can be noted. The data show that the flows of FDI from Canada

to Brazil are higher in terms of the total received by Brazil than for the total invested by Canada.

As can be seen from table 7, the data of the last census of foreign capital in Brazil (2005) indicate that Canada was the country with the 7<sup>th</sup> largest stock of investment in Brazil, with US\$6.7 billion and relative participation equaling 4.1% of the total.

**Table 7 – Stock of Foreign Investment in Brazil for 15 principle countries (US\$ millions and %)**

Country of Origin	1995	2000	2005	Relative Participation 2005	Growth 1995-2005 (%)	Growth 2000-2005 (%)
United States	10.852	24.500	27.097	16.6	9.6	2.0
Holland	1.546	11.055	27.012	16.6	3.1	19.6
Spain	251	12.253	17.589	10.8	53.0	7.5
Mexico	45	132	15.051	9.2	78.9	158.1
France	2.031	6.931	12.238	7.5	19.7	12.0
Germany	5.828	5.110	7.251	4.5	2.2	7.2
Canada	1.819	2.028	6.690	4.1	13.9	27.0
The Cayman Islands	892	6.225	6.149	3.8	21.3	-0.2
The Virgin Islands (GB)	901	3.197	4.811	3.0	18.2	8.5
Italy	1.259	2.507	4.181	2.6	12.8	10.8
UK	1.863	1.488	3.491	2.1	6.5	18.6
Japan	2.659	2.468	3.261	2.0	2.1	5.7
Switzerland	2.815	2.252	2.844	1.7	0.1	4.8
Luxemburg	408	1.034	2.399	1.5	19.4	18.3
Portugal	107	4.512	2.237	1.4	35.6	-13.1
<b>Total</b>	<b>41.696</b>	<b>103.015</b>	<b>162.807</b>	<b>100.0</b>	<b>14.6</b>	<b>9.6</b>

Source: Brazilian Central Bank

It is also interesting to note - observing long-term evolution – that the growth of Canadian investments was greater principally between 2000 and 2005. The period 1995-2000, marked by the Brazilian privatization process, saw the entry of new, non-traditional investors, particularly from European countries such as Spain and Portugal. These countries enjoyed increased positions in relation to traditional investors such as Germany, France and Japan. On the other hand, during 2000 and 2005 rapid growth of Mexican investments stands out, followed by Canadian investment (27% per year). In view of this, Canadian participation - that had fallen by 2% from the total in 2000 - increased to 4.1% in 2005.

The importance of Canadian investments is also noted when one observes the flow of foreign investment to Brazil by country between 2006 and 2009. The total accumulated inflow reached US\$131 billion, with Canada making up US\$4.8 billion (3.7% of the total).

**Table 8 – Inflows of accumulated foreign investment to Brazil from 10 principle countries, 2006-2009**

Country	US\$ millions	%
Holland	22.617	17.2
United States	21.844	16.6
Spain	10.870	8.3
Luxemburg	10.128	7.7
France	7.230	5.5
Japan	7.122	5.4
The Cayman Islands	6.147	4.7
Germany	6.109	4.7
Canada	4.801	3.7
Switzerland	3.639	2.8
<b>Total</b>	<b>131.297</b>	<b>100.0</b>

Source: Brazilian Central Bank

In terms of distribution by sector, it is important to point out firstly, that the number of sectors where Canadian investments were registered had grown comparing to 1995, 2000 and 2005 censuses. In 1995, 23 sectors registered investment stock, with the four largest making up 82% of the total. In 2005, as can be seen in table 9, Canadian investment took place in 35 sectors, and despite the large concentration that existed in the four main sectors (70%), this number was much lower than that verified in 1995.

Within the agriculture and mining sectors, extraction of metallic minerals stands out with 5.2% of the total invested by Canada. In industrial activity, the food and drink, automotive, electronics and telecommunications, chemical products and paper and cellulose all stand out. Finally, for services, retail commerce and business services make up almost all of the investment stock of this sector, each with 23.5% of the total.

**Table 9 – Stock of Canadian Investment in Brazil by sector activity (US\$ millions and %)**

Sector	US\$ m	Part of Total	Sector Participation
<b>Agriculture, Stockbreeding and Mining</b>	<b>482.175</b>	<b>7.2</b>	<b>100.0</b>
Metal mineral extraction	345.472	5.2	71.6
Oil extraction	79.196	1.2	16.4
Non-metal mineral extraction	51.517	0.8	10.7
Agriculture and Stockbreeding	5.989	0.1	1.2
<b>Industry</b>	<b>2.855.897</b>	<b>42.7</b>	<b>100.0</b>
Food and Drink	778.140	11.6	27.2
Automotive	768.656	11.5	26.9
Electronics and Telecom. Equipment	619.120	9,3	21,7
Chemical Products	299.178	4,5	10,5
Paper and Cellulose	228.018	3,4	8,0
Basic Metallurgy	57.068	0,9	2,0
Rubber and Plastic	36.274	0,5	1,3
Editing and Printing	19.644	0,3	0,7
Manufacturing of Non-metallic mineral products	17.611	0,3	0,6
Metal Products	14.801	0,2	0,5
Textiles	8.537	0,1	0,3
Medical and Automation Equipment	5.770	0,1	0,2
Clothing	1.369	0,0	0,0
Machines and Equipment	1.156	0,0	0,0
Electrical Equipment	343	0,0	0,0
Recycling	208	0,0	0,0
Furnishings and Other Industries	4	0,0	0,0
<b>Services</b>	<b>3.351.958</b>	<b>50,1</b>	<b>100,0</b>
Retail Commerce	1.572.627	23,5	46,9
Business Services	1.572.591	23,5	46,9
Mail and Telecommunications	58.904	0,9	1,8
Wholesale Commerce	33.986	0,5	1,0
Auxiliary activities of Financial Intermediaries.	30.526	0,5	0,9
Education	25.665	0,4	0,8
Insurance and Private Pensions	24.678	0,4	0,7
Vehicle and Fuel Commerce	20.319	0,3	0,6
Information Technology	9.572	0,1	0,3
Health and Social Services	1.388	0,0	0,0
Estate agent Activities	760	0,0	0,0
Financial Intermediation	317	0,0	0,0
Accommodation and Food	308	0,0	0,0
Construction	146	0,0	0,0
<b>TOTAL</b>	<b>6.690.029</b>	<b>100,0</b>	

Source: Brazilian Central Bank

From the point of view of identifying relevant sectors, however, it is interesting to verify not only the relative participation of the total invested by Canada, but also the participation of Canadian investment in each sector activity. The data in table 10 show that Canadian investments present a higher relative importance in the agricultural and

extractive sectors, with 8.2% of the total. In the industrial sector, the participation reaches 5.3%, while for the service sector it is just 3.3%.

Viewing the sectors individually, FDI from Canada represents a large proportion of the investments made in retail commerce, education and extraction of metallic minerals. At a slightly lower level, the non-metallic minerals, electronic industry, food and paper and cellulose, as well as business services also stand out.

**Table 10 – Participation of Canadian Investment Stock in the total Brazilian stock by sector activity**

<b>Sector</b>	<b>%</b>
<b>Agriculture and Mining</b>	<b>8.2</b>
Extraction of metallic minerals	23.0
Extraction of non-metallic minerals	14.2
Oil Extraction	2.5
<b>Industry</b>	<b>5.3</b>
Electronics and Telecom. Equipment	13.7
Food and Drink	11.3
Paper and Cellulose	10.0
Automotive	6.8
Basic Metallurgy	3.5
Editing and Printing	3.5
Chemical Products	2.5
Metal Products	2.1
Manufacturing of Non-metallic mineral products	1.7
Rubber and Plastics	1.5
Medical and Automation Equipment	1.5
Clothing	1.1
Textile	1.1
<b>Services</b>	<b>3.3</b>
Retail Commerce	27.0
Education	24.1
Business Services	10.0
Vehicle and Fuel Commerce	5.6
Insurance and private pensions	1.8
Auxiliary activities of Financial Intermediaries	1.8
Health and Social Services	1.1
<b>TOTAL</b>	<b>4.1</b>

Source: Brazilian Central Bank

Finally, the data in table 11 presents some operational statistics of Canadian companies doing business in Brazil. Considering companies with the majority of control being Canadian, the assets in 2005 totaled US\$7.4 billion, while the net revenue

was US\$9.3 billion (1.7% and 2.8% of the total of foreign companies in Brazil, respectively). Canadian participation is slightly higher taking into consideration the income tax paid and exports (3.5% and 4.5%, respectively).

**Table 11 – Operational statistics of foreign companies with Canadian ownership and majority Canadian ownership in 2005 (US\$ millions and %)**

Variable	Foreign Ownership	% of the Total	Majority Foreign Ownership	% of the Total
Assets	8.081	1.3	7.441	1.7
Net revenue	10.202	2.3	9.309	2.8
Income tax	-281	2.7	-257	3.5
Net profit	549	0.5	495	0.6
Imports	1.105	2.4	1.015	2.7
Exports	2.307	3.6	2.274	4.5

Source: Brazilian Central Bank

## Final Remarks

The information analyzed in this article shows that the Brazilian economy has received relatively high flows of direct investment, particularly from the mid-1990's onwards. It was also observed that the degree of Canadian investments, in terms of the total received by Brazil, is substantial. The most recent available data shows Canada as the 7th largest foreign investor in the Brazilian economy, with participation of around 4% of the total. In addition, it was observed that the recent inflow of investment from Canada has undergone a process of important sector diversification, despite remaining concentrated in certain sectors.

These conclusions look to evaluate the growth possibilities of this investment in light of the recent performance and future perspectives of the Brazilian economy.

The first aspect to be highlighted is the fact that the Brazilian economy has enjoyed increasing growth rates since 2004, overcoming a sustained *stop-go* scenario, which started in the 1980's, continuing up to the beginning of the 2000's. In this time, the annual average growth rate of Brazilian GDP was around 2.5%. These data contrast with the more recent data, which show an average growth rate of 4.8% between 2004 and 2008. Despite the abrupt interruption in the growth rate, resulting from the effects of the international financial crisis (a fall in GDP of 0.2%), the Brazilian economy has continued to recover rapidly and is expected to achieve growth rates of around 4%, as indicated by IMF projections (table 12).

**Table 12 – GDP growth rate observed and projected in Brazil and other selected countries and regions**

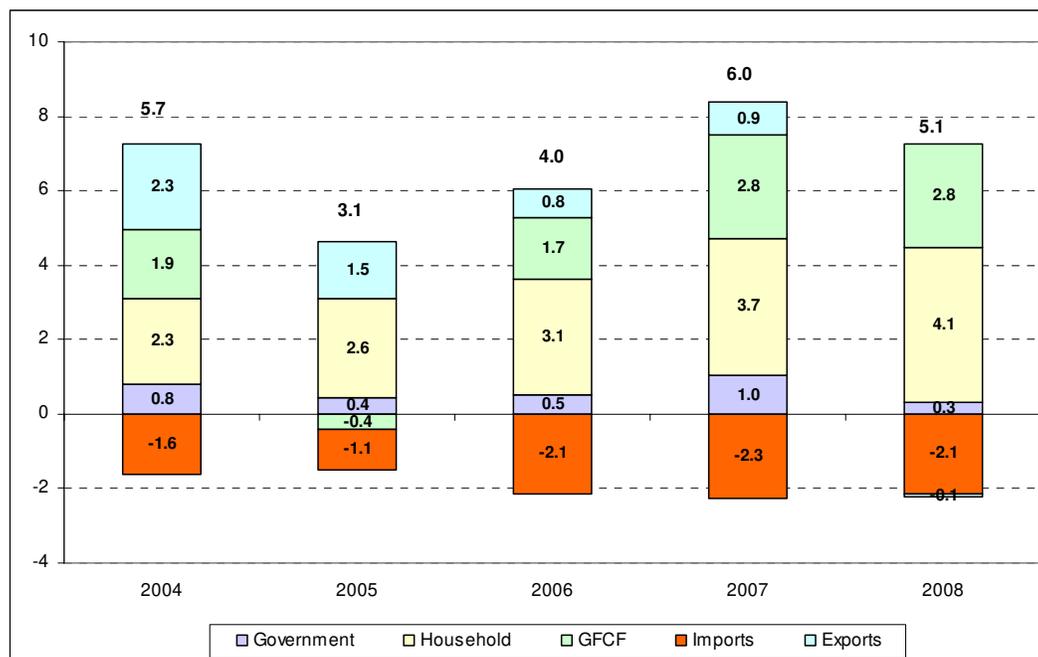
	2008	2009	2010*	2011*	2015*
World	3.0	-0.6	4.2	4.3	4.6
Developed Economies	0.5	-3.2	2.3	2.4	2.3
Developing Economies	6.1	2.4	6.3	6.5	6.7
Brazil	5.1	-0.2	5.5	4.1	4.1
Russia	5.6	-7.9	4.0	3.3	5.0
India	7.3	5.7	8.8	8.4	8.1
China	9.6	8.7	10.0	9.9	9.5

\* IMF projections

Equally as important as the growth rate is the growth standard that must again be attained. The recent cycle of the Brazilian economy was lead primarily by a growth in

internal demand. The rise in consumption played an important role in securing an increase in income, employment and the volume of credit. The increase in consumption in turn greatly affected the investment rate from 2006 onwards, as can be seen in graph 5.

**Graph 5 – Brazil – The contribution of demand on growth (%)**



Source: IBGE

The post-crisis recovery has shown the same pattern, with a rapid return to household consumption and investments. The growth in investments is a key factor to sustained economic growth in Brazil in the long-term, particularly as the economy depends so heavily on the modernization of the infrastructure of the country's industrial production, and the resolution of infrastructure problems which have worsened throughout the period of low growth. In addition, the growth in investments is fundamental to be able to take advantage of new opportunities, in the exploration of oil in the pre-salt region for example.

The data in table 13 show the investments in the Brazilian economy as predicted by BNDES for the period 2010-2013 and the investments realized between 2005 and 2008. As can be seen, the growth prospects are promising, at 27% in infrastructure and 60% in industry, between the two periods.

It is important to point out the Oil and Gas sector, as alone it is predicted that this sector will be responsible for almost 40% of the estimated volume (US\$165 billion) for the period 2010-2013. There are however significant levels of investment in other areas of industry and infrastructure.

**Table 13 – Brazil: Investments as detailed by BNDES**

	<b>2005-2008</b>	<b>2010-2013</b>	<b>2010-2013</b>
	<b>R\$ billions</b>	<b>R\$ billions</b>	<b>US\$ billions*</b>
<b>Infrastructure</b>	<b>200</b>	<b>274</b>	<b>153</b>
Electrical Energy	68	92	51
Telecommunications	66	67	37
Sanitation	22	39	22
Road Transport	23	33	18
Railways	16	29	16
Ports	5	14	8
<b>Industry</b>	<b>311</b>	<b>499</b>	<b>279</b>
Oil and Gas	156	295	165
Mining	53	52	29
Ironworks	28	44	25
Petrochemistry	19	36	20
Automotive	23	32	18
Electronics	15	21	12
Paper and Cellulose	17	19	11
<b>Total</b>	<b>511</b>	<b>773</b>	<b>432</b>

\*Converted using average exchange rate in 2010 - 01/2010 to 04/2010

These investments open up important areas of expansion where investment can certainly play a relevant role, particularly as it is likely to complement the efforts of the mobilization of sources of domestic financing undertaken in the last years.

In terms of Canadian investments, the areas of Oil and Gas and Mining are those that traditionally make up the largest part of the FDI stock abroad (around 15%). These are, however, areas where it is expected that Canadian investments will increase in Brazil, not only directly in the areas of Oil and Gas and Mining, but also in support activities, such as specialized services and the supply of equipment.

Following on from this, the information and communication technology sector is also important in terms of Canadian FDI carried out. The growth of these services in Brazil, whether it be in information services or telecommunications - particularly the expansion of broadband internet access – is expected to take place at an accelerated rate

in the following years, thus showing promising perspectives for Canadian FDI.

Finally, a substantial increase in consumer spending is expected. A considerable proportion of the Brazilian population entered the consumer market as a result of better work conditions and income distribution policies adopted by the government. This tendency is expected to continue and have an important impact on the potential consumption of both products and services.

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