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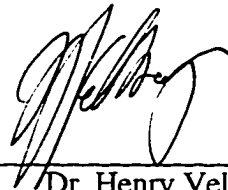
CANADIANS IN BRAZIL
BRASCAN AND BRAZILIAN DEVELOPMENT

By
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1996©

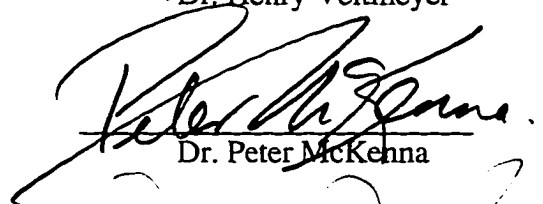
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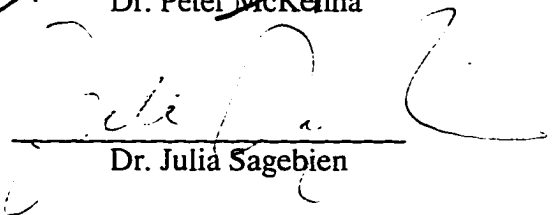
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CANADIANS IN BRAZIL

BRASCAN AND BRAZILIAN DEVELOPMENT

Deus é Brasileiro - e também da Light
(God is a Brazilian - and also works for the Light)

This thesis looks at the role played by the Brazilian Traction, Light and Power Company Limited (Brascan) in the development process in Brazil since 1899. Brascan, as one of Canada's largest multinationals had its start in Brazil and continues to be one of the more concrete links that tie the two countries together. The contextual frameworks are considered through a discussion of the literature on multinational corporations in the developing world as well as an account of Canadian relations with Brazil. The case study follows Brazilian Traction, Light and Power's growth in Brazil and the important role that this company played in establishing the infrastructure framework that assisted the economic growth of Brazil. It is argued that the company played an integral role in Brazilian development through the expansion of its operations in the utility sector. It is asserted that Brascan's operations in Brazil were also benefited by some special characteristics of both the sector and the specific qualities of the company and that these factors allowed the company to remain in that country for close to a century.

I would like to thank Dr. Henry Veltmeyer, Dr. Peter McKenna, and Dr. Julia Sagebien for being on my committee and providing valuable input.

Special thanks to Annette Wright, IDS secretary, for all her assistance and good humour. A very special thanks to Lloyd Burchill for his invaluable technical expertise, help and patience.

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CHAPTER ONE

INTRODUCTION

Brazil has emerged as a strong economic power in the last decades. This largest country in Latin America has developed from an ignored and peripheral Portuguese colonial outpost to a nation that has recently begun to emerge as a major economic power. Today, Brazil's economy ranks as eighth largest in the world with a GDP of over US\$ 369 000 million in 1992; not much less than Canada's US\$ 537 000 million.¹ Brazil's sheer size, second largest in area in the Western hemisphere, and the sixth most populous nation on the globe with a population of around 160 million, makes this country a fascinating study.² These three factors alone; economic strength, geographic scope, and population size have resulted in Brazil being touted as a potential superpower. The so-called "Brazilian Miracle" in the 1970s, during which Brazil grew from having the forty-eighth largest economy to its current position of eighth add to this view. This economic growth has been analyzed by scholars from many angles and a wealth of studies on the impact of multinational or transnational corporations on developing nations, using Brazil as a case study, have contributed to the debate over the role of the multinational in bringing about development in the developing world.

¹ Charity A. Dorgun, ed. , Gale Country and World Rankings Reporter, (New York: Gale Research Inc. , 1995), p. 624.

² Ibid. , p. 35.

Canada has had a significant relationship with Brazil over the past century and since the late 1800s, the two countries have had extensive interactions in the financing of infrastructure projects, particularly utilities. Brazil is the largest recipient of Canadian investment in South America and until 1974 was the venue for the largest single Canadian foreign investment. In 1991, Canadian investment in Brazil totalled around CAN\$ 2 billion. This made Brazil the third largest destination of Canadian investment dollars after the United States and Great Britain. Trade between the two countries was estimated in 1991 to be valued at CAN\$ 1.3 billion, making Brazil Canada's most important trading partner in Latin America.³ Canadian companies such as agricultural equipment manufacturer, Varsity Corporation (formerly Massey Ferguson), aluminum developer and producer Alcan and Brascan Brazil have had significant impacts on the Brazilian economy.

In an attempt to provide focus, this thesis will look at one of the more important players in the Brazilian development process, a Canadian multinational company that has contributed one of the earliest, longest, and largest investments in Brazil - Brascan Brazil.⁴ Brascan Limited, a multifaceted, Toronto-based holding company, has a long history of industrial, real estate and other types of financial investment in Brazil. For the last century, Brascan Brazil, which had previously existed as the Brazilian Traction, Light and Power Company Limited, has played an integral role in Brazil's emergence as an economic power particularly through its extensive utility interests in the economic heartland of Brazil, the São Paulo - Rio de Janeiro axis.

This thesis primarily stems from a personal interest in things Brazilian, an interest in the projection of Canadian interests abroad and an interest in international business issues. The aim of this thesis is threefold: 1) The thesis will argue that Brascan Brazil has

³ W. E. Hewitt, "Brazilian Studies in Canada" in Latin American Research Review, Volume 30, Number 1, 1995, p.132.

⁴ Brascan Brazil refers to the Brazilian arm of the Toronto based Brascan Limited. Over the years the name of the company has changed from the Brazilian Traction, Light, and Power Company Limited to its current name, Brascan Brazil. The electrical interests were, and continue to be, known euphemistically by Brazilians as the Light.

played an important historical role in the development of the economic base and industrial infrastructure which exists in Brazil today through an analysis of the company's electric utility interests as well as its other operations. 2) The selection of this case study will demonstrate that certain multinational corporations and their investments can make important contributions to the economic and industrial progress of developing countries. 3) It will also be shown that Canadian relations and foreign policy regarding Brazil have been directly related to Canadian business interests in the Brazilian economy. These links will be emphasized through the assessment of the case study of Brascan Brazil. The reasons for selecting this topic is twofold. First it allows for research into three interesting areas; Brazil, Canadian international interests, and international business. Secondly, while it does not presume to rectify the situation in one bold stroke, the thesis will look at an area of study that has not been given the importance in Canadian academe that a country like Brazil should engender.

One of the more interesting aspects of Canadian - Brazilian relations is the quiet nature of the relationship, and a lack of interest in this relationship on the part of scholars in particular and Canadians in general.⁵ Ronald Maclean, Canada's ambassador to Brazil from 1979 to 1983, described Canadian - Brazilian relations, with particular reference to their respective publics. He stated: "Canadians have seldom been concerned about South America. 'Our public is grossly underinformed.' To a Canadian, Brazil has meant coffee and Carnival, while to a Brazilian 'Canada is sometimes seen as a remote northern country, a pale reflection of the United States.'"⁶ This comment demonstrates how little the two countries know about each other. Only a small amount of work has been done on the subject of Brazil considering the size; economically and politically, of the country and any work that has been done tends to focus on various areas of Brazilian society rather than the

⁵ For an excellent account of Brazilian studies in Canada, see W. E. Hewitt's "Brazilian Studies in Canada" in Latin American Research Review, Volume 30, Number 1, 1995.

⁶ Brazil - Canada Chamber of Commerce, Canada : Brazil, Blueprint for the Year 2000, (Toronto: Brazil - Canada Chamber of Commerce, 1985), p. 29.

linkages between Canada and Brazil. Some areas such as social issues, physical attributes, regional development, environmental and native issues, and colonial history have been studied extensively but less work has been done in areas of national development. W. E. Hewitt points to a lack of experts in the areas of economics, particularly business and trade, as a major factor for the lack of research into this facet of Brazilian studies. There is also a tendency on the part of Canadian academics to perceive the entire Latin American region as a single unit, rather than assessing Brazil on its own merits within its unique context.

This lack of emphasis on Brazil stems from a number of factors. Perhaps primary among these factors is the lack of traditional ties between the two countries. There is no large Brazilian community in Canada (as compared to other Latin American countries; especially those from Central America). Ties to this area tend to focus on Central America and the Caribbean. Canada's formal ties to the area are focused in the Commonwealth and La Francophonie. These organizations are concentrated in the Caribbean. Canada has been active in United Nations peacekeeping operations in Central America, and the signing of the North American Free Trade Agreement (NAFTA) has focused Canadian relationships in Latin America in the Caribbean basin and Central America.

Latin America has not figured particularly prominently in Canadian security interests. Canada's security and military focus has traditionally focused on Western Europe and North America. Another factor in Canadian relations with the countries of Latin America is the fact that due to the 1823 US Monroe Doctrine, the latitude for Canadian involvement in the area has been restricted as it is perceived to be solely in the US sphere of influence. Other issues which have prevented Canada and Brazil from becoming closer include the existence of a military dictatorship for almost thirty years, a questionable human rights record, and an unequal economic structure that has resulted in extreme wealth and even more extreme poverty.

Trade patterns also obviate against a closer relationship between Canada and Brazil. Both countries have economies that are strongly based on natural resources. This results in a rather antagonistic relationship as both countries seek markets in industrialized countries for their products. In a similar vein, Canadian industrial products find their markets in other industrialized countries. By and large, Canadian - Brazilian relations are focused on Canadian investment in the Latin American country.

This thesis is divided into five chapters including this section. The first chapter is intended to introduce the topic and argument for the thesis, and provide a general explanation of the reason for choosing such a topic and why it is relevant to the study of development and Canadian - Brazilian relations. Chapters Two and Three will provide the academic, political, and economic context for the case study of Brascan. These two chapters will provide the basis for a better understanding of the impact of Brascan Brazil, on the Brazilian economy.

The initial section of Chapter Two outlines the methodologies that will be used in writing this thesis and looks at some of the difficulties that were experienced. Following this section is a literature review of the various approaches to the study of the impact of multinationals on developing countries using the categories utilized by Rhys Jenkins in his book Transnational Corporations and Uneven Development. Jenkins categorizes the assessment of the role of the multinational in developing countries into four categories: pro multinational in the categories of Marxist and orthodox paradigms, and con multinational in the same paradigms. After looking at selections from the immense literature on the multinational in developing countries, the theoretical framework will be established. The selection of the pro multinational, orthodox paradigm stems from the belief that it best explains the impact of the case study. Derived from this paradigm are the definitions and concepts that are important for the understanding of the case study. These include

definitions of development and the concepts of modernization, "Bargain Theory", and the obsolescing bargain.

The third chapter looks at Canadian - Brazilian relations and follows the development of this relationship from the late 19th century to the present. The underlying argument of this chapter is that Canadian foreign policy towards Brazil has been dominated by business interests. This will be demonstrated by looking the various factors that have influenced Canadian - Brazilian relations over the past century. The concluding section of the chapter will give an overview of Canadian investment in Brazil over the years.

Chapter Four is the case study of the Brazilian Traction, Light, and Power Company Limited. This company has had a long and important impact on the Brazilian economy. Initially this chapter will provide a historical context of the company's operations in Brazil from its initial investment in 1899 until the present. The following two sections will deal with Brascan's utility operations which have arguably had a substantial impact on the Brazilian economy; primarily the electrical generation and distribution interests and secondarily its other utility interests, urban transit, telephones, and gas. Without the Brascan utilities, the development of an industrial infrastructure in Southeast Brazil might have very well taken a considerably different course.

The final section of Chapter Four will look briefly at the interests of Brascan Brazil today. Following a dramatic restructuring in the late 1970's, Brascan's interests have taken a significant turn into areas other than utilities. This section, while not as important to the argument in that Brascan's current interests are less vital to the industrial development of Brazil than its former interests in power generation and urban transit, is none the less important as it demonstrates the continuing role of Brascan Brazil in Brazil.

Chapter Five will bring the previous chapters together and underscore the impact of the various incarnations of Brascan Brazil on the industrial development of what is

potentially one of the emerging powers of the next century. At the same time, it will become evident that the multinational has made positive contributions to the economic and industrial development of Brazil. The opportunity for further Canadian investment in Brazil is great following the dramatic restructuring of the Brazilian economy in the 1990's. Brascan's long experience with the Brazilians, and its relatively good rapport with Brazilian officials and the general populace, can provide an excellent basis for further Canadian involvement in the development of the Brazilian economy.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter establishes the academic and theoretical context for the thesis. It will lay out the methodologies used and then consider some of the more important scholarly works that have been generated over the years regarding the role of the multinational corporation in developing countries. The immense literature in this area prevents an exhaustive review, and therefore some of what are considered the more important authors and classic writings will be reviewed utilizing the categorizations of Rhys Jenkins. The selection of the pro multinational school in the orthodox paradigm for the theoretical framework for this thesis will be explained and definitions and concepts that emerge will be discussed.

Multinational corporations¹ have existed since before the turn of the century and have played important roles in the economies of various countries around the world. The spread of these business enterprises has seen a marked increase since the end of the Second World War, and paralleling this higher profile role in economic life throughout the world has been a deluge of academic works that address the issue of MNCs in both the developed and the developing worlds. With the internationalization of the global economy, these enterprises are playing an increasingly more important and integral role in the economies of the developing areas.

¹ For the purposes of this paper, multinational corporations (MNCs) and transnational corporations (TNCs), are those that operate in three or more countries and the terms will be used interchangeably.

MNC's are one of the more concrete entities that link all sectors of societies in all regions and countries throughout the world. The interaction between MNC's and the State is multifaceted and takes place along many dimensions: political, economic, social, and psychological.² The two actors are unable to escape one another; the MNC cannot avoid the global system of nation-states and the international political system and the State cannot escape the transnational and economic impacts of the MNC.

2.2 Methodology

This thesis relies primarily on secondary data from a number of sources. It should be noted at the outset that sources are primarily English (or French) and due to a lack of Portuguese language ability, the Brazilian (Portuguese) literature has not been extensively reviewed. These sources tend to have a rather western bias as they are primarily English and overall the information gathered has a tendency to be rather Canadian-centric. Sources of data include academic and professional journals, periodicals, books, newspapers and some Internet documents. Data and information from sources within Canada include Canadian government documents, documents from Brascan Limited in Toronto, a number of Canadian academics with Latin American and Brazilian expertise, as well as information and data from Brazilian academic and government sources. It was a real challenge to uncover some of the information regarding Canada's connections with Brazil due to the lack of scholarly work on the subject.

2.3 Literature Review

This section looks at what might be considered the seminal works in the area of multinational corporations and their impact on developing countries. They will be considered in four categories applied by Rhys Jenkins with considerably more attention

² Reza Bassiry, Power vs. Profit: Multinational Corporation - Nation State Interaction, (New York: Arno Press, 1980), p. 100.

being given to the neoclassical school. These authors' works provide an overview of the issues and debates that characterize the study of MNCs and their role in the development of the economies of the South.

The perspectives that will be addressed in this paper fall into two basic paradigms; the dominant and the alternative. In further organizing the views that various authors have expressed, the concepts and ideas will be further categorized using the divisions suggested by Jenkins.³ Jenkins proposes Marxist and non-Marxist categories and further subdivides the theoretical perspectives into pro TNC and TNC critics. These categories prove useful in organizing the literature and demonstrate the difficulty in utilizing one theoretical perspective to look at all aspects of MNCs in developing countries. It becomes evident that the affect of MNCs on developing countries differ according to one's perspective. In the final analysis one must recognize that when considering the role of multinationals in the Third World, there is no definitive black and white assessment of their impacts.

The following is a discussion of each of the four schools of thought and their various outlooks and foci. Important authors in each school will be discussed and their major points examined. The first school of thought to be discussed will be the neo-imperialist Marxist approach (anti-MNC), followed by the neo-fundamental Marxist approach (pro-MNC), the orthodox Global Reach approach (anti-MNC), and finally the neo-classical approach (pro-MNC).

Neo - Imperialist School

The neo-imperialist approach, also known as the Marxist or neo-Marxist approach, is firm in its opposition to MNCs. This approach views the MNC as a major institution that essentially blocks development in the Third World and obstructs socialist

³ Rhys Jenkins, Transnational Corporations and Uneven Development: The Internationalization of Capital and the Third World, (London: Methuen and Co. , 1987), p. 17.

transformation. The following authors are seen as important writers that espouse this position. Baran and Sweezy are two of the most important writers in the so-called “Monthly Review school”. This school builds on the classical writings of Marx and Lenin on imperialism.⁴ The concentration and centralization of capital and the links between this monopolization of industry, capital export, and imperialism are stressed.⁵ Briefly, these classical writings argue that as industries become increasingly monopolistic, profits increase and due to the increased monopolization, possibilities for expansion in domestic markets is severely curtailed forcing capital to find new markets in peripheral areas. This imperialism was seen to inhibit progress and prevent industrialization in the colonies in the developing world. This structure of imperialism is given an excellent summary by Sunkel and Fuenzalida in their work, “Transnationalization and its National Consequences”.⁶

Baran and Sweezy identified surplus in US industry in a more current context in their work Monopoly Capitalism. They suggested that one of the more important outlets for this surplus was foreign investment.⁷ This foreign investment was seen in the Third World as a major factor leading to the “development of underdevelopment” (Gunder Frank) or “blocking of development” (Amin)⁸. Three instruments are seen by the neo-imperialist school to link foreign capital to underdevelopment. The first is the drain of surplus from developing nations.⁹ Whether this is in the form of profit repatriation, selling of technology to subsidiaries, or simply extracting resources from the periphery, MNCs play an important role in this extraction of surpluses and their transfer to the developed centre or core. This reverse flow of resources (from the developing areas to the developed areas) is

⁴ Ibid. , Jenkins (1987), p. 27.

⁵ Paul A. Baran and Paul M. Sweezy, Monopoly Capitalism: An Essay on the American Economic and Social Order, London: Monthly Review Press, 1966.

⁶ Osvaldo Sunkel and Edmundo F. Fuenzalida, “Transnationalization and Its National Consequences” in Transnational Capitalism and National Development, Atlantic Highlands, New Jersey: Humanities Press, 1979.

⁷ Op. Cit. Jenkins (1987), p. 28.

⁸ Ibid. , p. 28.

⁹ Ibid. , p. 28.

seen by the Marxist school as a major part of the balance of payments difficulties that face many of the peripheral nations.

A second mechanism that links foreign firms to underdevelopment is the expansion of MNCs into the developing world and the accompanying monopolistic structures that exist in the developed world, according to the neo-imperialists.¹⁰ These monopolistic MNCs with high profit rates are seen to repatriate profits and therefore drain surpluses and limit capital accumulation in the host country.

The third link between underdevelopment and foreign capital is the relationship that exists between local and foreign firms. MNCs that reinvest in developing countries are seen to have a tendency to expand through the displacement or acquisition of local activities, or by moving into new areas of activity.¹¹ This is believed to result in the problem of an increasing control by foreigners over the national economy and the reduction of local capital to only the most competitive and therefore least profitable portions of the economy. At this point, it is important to raise one of the central tenets that is embraced by the neo-imperialists; the local bourgeoisie is reduced to a so-called 'comprador' or 'dependent' bourgeoisie which is unable to play the historical capital development role envisaged by Marx.¹² This is coupled with the fact that capital is directed towards the export sector and therefore blocking national industrial capitalism. Dependency writers further analyzed this feature of foreign capital and noted that local bourgeoisie interests were too closely tied to those of foreign capital to ensure a national development. Those in the dependency school argue that development is impossible while this structural arrangement remains in place. Decisions were made in view of the interests of the parent companies and not in the interests of local economic development although there are close

¹⁰ Ibid. , p. 29.

¹¹ Ibid. , p. 29.

¹² Ibid. , p. 29.

links with the local business and political elites in the host country.¹³ Links between the foreign parent, the subsidiary, and local suppliers are limited and not integrated at the local levels. This is thought to result in a rather shallow distribution of benefits at the highest levels only and gives the MNC an influence that is out of proportion to investment in the national economy. These three mechanisms; the drain of surplus, creation of monopolistic structures, and the presence of a 'comprador' bourgeoisie, are the important factors in explaining why foreign capital is believed by the neo-imperialists to have led to the underdevelopment and high exploitation of the periphery. Osvaldo Sunkel writes that the system associated with the MNC has a tendency to, "disrupt the rest of the economy [that not incorporated into the MNC sphere] and society, segregating and marginalizing significant sections of the population."¹⁴ Imperialism was no longer viewed as that of classical colonialism but rather of an economic structure that was as pervasive as the political structures of empire that had existed prior to World War II.

The MNCs are objects of hostility for the neo-imperialists since they represent the existing capitalist system and the neo-imperialists are disposed to a need to delink or to break out of the capitalist system (socialist revolution) in order to bring about national development.¹⁵ This socialist transformation would face considerable and sustained opposition from the MNCs and their parent states.

The neo-imperialist approach fails to explain adequately many of the benefits that accrue to developing countries as a result of MNC expansion. With an increasingly globalized world, it is unrealistic to suggest that a delinking from the world economic system, such as advocated by some dependency theorists such as Gunder Frank, would

¹³ For an excellent look at this relationship of the 'tripé in Brazil see: Peter Evans, Dependent Development: The Alliance of Multinational, State, and Local Capital in Brazil, Princeton, New Jersey: Princeton University Press, 1979.

¹⁴ Osvaldo Sunkel, "Transnational Capitalism and National Disintegration in Latin America" in Social and Economic Studies, Volume 22, (1973), p. 163.

¹⁵ Op. Cit. . Jenkins (1987), p. 30.

result in an increase in the standard of living in developing areas.¹⁶ Similarly, the transfer of technology to developing areas can be an important function that is performed by the MNCs. This can be seen in the growing economies of Asia and Brazil where manufactured goods have replaced natural resources as the economic base. For instance Brazil has a significant aircraft industry that has developed from projects with Fokker in the Netherlands. It is an accurate analysis insofar as capital is viewed as a global rather than national entity. In the final analysis, the neo-imperialist approach is useful in analyzing the social implications of capital expansion into the developing world and it raises questions that should be addressed by policy makers in both the developed and developing worlds. Its solutions, however, would undoubtedly result in substantial disruption in the political, economic, and social spheres simply because the degree of interaction and intertwining of the world economy would make the process of delinking from the developed world virtually impossible.

Neo - Fundamentalist School

Recently, the neo-fundamentalist Marxists have gained a degree of prominence and have put forward the position that the impact of MNCs on developing countries have been predominantly positive. This positive outlook stems from the fact that the expansion of capital in developing areas plays a progressive role in developing productive capacities and thereby providing a material basis for the emergence of a socialist society.¹⁷ These authors trace their theories to Marx's analysis that imperialism destroyed pre-capitalist structures and institutions and laid the groundwork for the emergence of capitalism and its 'progress'.¹⁸

¹⁶ It should be noted that many of the dependency writers were writing in a period before globalization and the extensive interdependence that exists currently.

¹⁷ Ibid. , p. 31.

¹⁸ Ibid. , p. 31.

Warren is perhaps the most succinct proponent of this viewpoint. He argues that the competitive nature of capitalism has increased since the collapse of British hegemony and sees a global competition despite the oligopolistic nature of market structures in separate countries. Warren considers the expansion of capitalism as a result of the 'competition of capitals' as opposed to surplus capital theory expressed by the Leninist view. The positive impact of imperialism on developing countries is seen in the fact that it develops productive forces. In this view he perceives foreign investment in the developing world as being economically beneficial as it increases diversification and builds a bulwark against measures that could be imposed by the developed nations. In effect, foreign investment and the presence of MNCs, far from increasing dependence, are seen as instruments that will reduce dependency in the developing countries in the longer term.¹⁹ Warren also uses data to demonstrate that "the post-war period has witnessed not merely a change in the character of inegalitarian relationships but a significant and continuing reduction in inequality as well."²⁰ In his 1980 work, Imperialism: Pioneer of Capitalism, Warren states:

"Contrary to widespread populist-liberal opinion, the Third World has not been marked by stagnation, relative or absolute, in the postwar period. On the contrary, significant progress in material welfare and the development of the productive forces has been made, in an acceleration of prewar trends. This fact also runs counter to current Marxist views, which have stressed the alleged impossibility of vigorous national development in the Third World within a capitalist framework."²¹

Many of Warren's views are based on arguments that are accepted and endorsed by the neo-classical school in the area of foreign investment. Three of these assumptions are; that foreign capital is complimentary to local capital rather than replacing it; there is increased international competition among MNCs that enhance the bargaining power of the host states; and that MNCs supplement existing resources such as local capital and skills

¹⁹ Bill Warren, Imperialism: Pioneer of Capitalism, (London: Verso, 1980), p. 176.

²⁰ Bill Warren, "Imperialism and Capitalist Industrialization" in New Left Review, Number 81, (1973), p. 10.

²¹ Op. Cit. , Warren, (1980), p. 252.

and generate local resources or utilize underutilized resources.²² MNCs are also seen as instrumental in opening up developed economies to the manufactured exports of the Third World through their subsidiaries .

Warren's positions are considered extreme among Marxists. Other authors in this school who wish to stress that the issue of underdevelopment is a result of capitalism and not specifically MNCs, and that the ownership of capital is not a major factor, come close to Warren's position. Arghiri Emmanuel stresses the technological transfer aspects of the MNCs and gives particular attention to the lower cost of importing technology rather than the high cost of developing indigenous technologies.²³

One of the major contributions of this school is that it stresses that anti-imperialist rhetoric must be separated from the economic benefits that occur as a result of MNC involvement in the economy of the developing countries. Warren suggests that one must distinguish between the anti-MNC rhetoric that is used to serve the bourgeoisie in the developing world and the 'true' anti-capitalist struggles.²⁴ This refers to the fact that local elites often use anti-MNC rhetoric in order to protect their own positions.

It is interesting to compare the two Marxist outlooks. The neo-imperialists emphasize the rise of monopolization and the extraction of surplus from the peripheral areas as capital expands. Neo-fundamentalists on the other hand stress the competitive nature of capitalism and despite concerns of concentration, view capitalist expansion as a progressive action that destroys pre-capitalist structures and lays the foundation for capitalist development that will eventually provide the conditions for the transition to socialism. In the final analysis, the neo-imperialists view capitalism and the MNCs at their most

²² Op. Cit. , Jenkins, (1987), p. 31.

²³ Ibid. , p. 32.

²⁴ Op. Cit. , Warren (1973), p. 44.

exploitative while the neo-fundamentalists see the capitalistic process and the associated transnationals as bringing much needed development to underdeveloped areas.

Global Reach School

The Global Reach school of the orthodox paradigm sees foreign investment as a strategy pursued by oligopolistic firms to use advantages the firm enjoys over a foreign firm and to remove competition and eliminate conflict through the establishment of subsidiaries. There is a focus on the market power of MNCs which is seen to result from their access to capital, their control of technology, their skilled use of marketing through advertising and diversification, and their privileged access to raw materials.²⁵ Unlike the neo-classical writers who view market imperfections as resulting from government intervention or other externalities, the Global Reach school sees the MNCs as creating market imperfections. The multinationals do not increase efficiency but rather reduce it through their oligopolistic strategies.²⁶ The following are five areas which the Global Reach school identifies as posing problems for host countries in developing areas that stem from the powerful impact of the MNCs.

First there is the belief that MNCs tend to invest in oligopolistic markets in developing countries and therefore they contribute to increased concentration. Secondly, monopoly profits are seen to be problematic according to the Global Reach perspective. The market power of the MNCs allow them to earn these profits which do not necessarily appear in the tax returns of foreign subsidiaries through various accounting practices such as transfer-pricing. The third consequence of MNCs and capital investment in developing countries is the fact that MNCs are seen to act in either a collective or individual nature in order to restrict competition particularly through restrictive licences to subsidiaries. The Global Reach school also sees MNCs as colluding to form cartels and/or engaging in

²⁵ Op. Cit. . Jenkins (1987), p. 23.

²⁶ Ibid. . p. 24.

market sharing agreements or allocating spheres of influence. Fourthly, MNCs are seen as creating demand rather than responding to local demand. This is seen as happening through the process of 'taste transfer' wherein MNCs create demand for their products even though they may be inappropriate for local conditions. Informally, this is often referred to as the 'CocaColaization' of a developing country. Western products are heavily advertised thereby creating a demand. Nestlé was sharply criticized for such a campaign that encouraged breast-feeding mothers to use their formula but ignored the fact that there was no access to clean water and many children died. The fifth consequence seen by the Global Reach school is the fact that the nature of direct investment by the MNCs dislocates local inputs. Imported technology not available locally could supplement local resources but at the same time it can also bring capital and managerial imports which could displace local capital and entrepreneurship. This raises concerns over the question of national sovereignty and the denationalization of indigenous industries through control by the parent companies.²⁷

This Global Reach perspective raises the question of the need for control of MNCs by the State (either national or international) particularly with respect to transfer pricing and restrictive business practices. Lall and Streeten stated this concern stating when they noted:

“the increasing role of a few hundred TNCs in international production, trade, investment and technology, and the increasing centralization of power within these corporations have important implications for the structure of socio-political power within developed as well as less-developed countries.”²⁸

Moves in this direction can be seen through the creation in most countries of agencies to monitor MNCs, oversee and control foreign investment, as well as investigating

²⁷ Ibid. , p. 24 - 25.

²⁸ Sanjaya Lall and Paul Streeten, Foreign Investment, Transnationals and Developing Countries, (Boulder, Colorado: Westview Press, 1977), p. 46.

technology transfer.²⁹ Attempts have also been made to establish a code of conduct for MNCs by the United Nations (among others) to police and facilitate the transfer of technology and multinational activities in general. The Global Reach school sees a role for the State in bargaining with the MNCs in order to ensure that an appropriate share of economic benefits accrue to the host country.³⁰ Government policy is seen to be important not only in terms of assessing whether or not an investment project has a positive value, but also that the best possible terms are gained from the foreign investor.

In a related area, the Global Reach school can be extrapolated to the concern of theorists about the collapse of the nation-state in an increasingly interdependent world and globalized economic structure. Governments are seen to be more and more ineffectual in managing the national economy while the MNCs are gaining more and more influence in the economic decisions of nations. This increase in global business power is not restricted to the developing world; it also affects the developed North as well. Once again the question of controlling these business enterprises is raised and the role of the State, as mentioned above, comes to the fore.

In the final analysis, the Global Reach school views the MNCs as creators of market imperfections rather than promoters of the ideals of competitiveness and efficiency. MNCs are seen as substitutes rather than complements to local factors. There is also a concern with the distributive effects of MNCs on a global and national basis.

Neo - Classical School

The neo-classical school has come into considerable prominence with the rise of conservative outlooks worldwide and can be seen in the promotion of structural adjustment

²⁹ In Canada exactly such a institution was established in the Trudeau era. The Foreign Investment Review Agency (FIRA) approved or prevented the purchase of Canadian assets by foreign companies. This agency has existed in various forms since then but has a much reduced scope.

³⁰ Op. Cit. , Jenkins (1987), p. 25.

programmes (SAPs) throughout the developing world. The primary theme running through the neo-classical school with regard to MNCs is that they are efficient allocators of resources internationally such that world welfare is maximized. Benefits are seen to accrue to both the home and host countries. The works of Raymond Vernon provide useful analyses of the relationships that exist between MNCs and governments.³¹

Three models at the macro level are articulated by the adherents of the neo-classical school. The first are the capital flow models. These models were one of the earliest attempts to explain the effects of foreign investment in host countries. Capital is seen simply as a flow to a country. Total output of the economy would increase and assuming perfect competition and no negative effect on local capital, the income of the host countries' inhabitants, after deducting profits for the MNC, would increase. Direct investment was seen as a method of breaking out of the 'vicious cycle of poverty' as the shortage of capital was viewed as the major obstacle to development.³² Foreign investment was seen as increasing savings and foreign exchange availability as well as increasing technological and managerial expertise, and training labour in new skills.

Underlying the capital flow models that are in favour of direct foreign investment are three main assumptions.³³ There is the supplement assumption whereby foreign resources supplement domestic resources and allow for local production which would be impossible without this foreign interest. Secondly, there is the competitive assumption which views the market as the closest approximation to perfect competition that ensures that profits are not excessive, and imperfections, where they exist, are results of government policies. The third assumption is that MNCs not only play a supplemental role in utilizing

³¹ Vernon's most popular work, Sovereignty at Bay: The Multinational Spread of U. S. Enterprises, New York: Basic Books, Inc. , 1971., provides a very interesting perspective and perhaps a less emotional outlook on the impact of MNCs than others. Another of Vernon's works, Storm Over the Multinationals is also an excellent work.

³² Op. Cit. , Jenkins, (1987), p. 18.

³³ Ibid. , p. 19.

local resources but also generate additional resources or bring formerly underutilized resources into production.

Following the development of the capital flow models, the neo-classical school shifted focus from capital contribution to technology transfer with an emphasis on the product cycle in the late 1960's rather than straight capital inflows.³⁴ This model addressed some of the perceived shortcomings of the capital flow model such as the fact that direct investment incorporated not only capital but technology and management techniques; the strong relationship between direct foreign investment and concentrated market structures; and the need to integrate trade and foreign investment theories.

The product cycle theory suggests that developing countries will develop a comparative advantage in mature, standardized products. Benefits are seen to derive to the developing country as they take over the production of mature products that were previously manufactured in the developed countries. As products mature and technology for their production becomes standardized, competition increases and host countries are able to obtain technology on more favourable terms in line with the theories of competitiveness.³⁵ Stemming from this is also the belief that over the product cycle, host countries are able to get increasingly favourable terms as technology becomes standardized and the bargaining power of the MNC declines. This 'obsolescing bargain' provides an important counterweight to the view that the MNC is all powerful against the wishes of the host government.

The product cycle theory suggests that not only do MNCs provide technology to the less developed regions of the world but they also provide important access to overseas markets for exports through affiliations with the parent company. Without the presence of

³⁴ Ibid. , p. 20.

³⁵ Ibid. , p. 20.

MNCs it is thought that firms in the developing areas would have a difficult time penetrating markets in the developed regions.

A third model presented by the neo-classical school appeared in the mid-1970's and early 1980's which suggest that MNCs exist as result of market imperfections.³⁶ This model is known as internalization and has as its basic premise that by controlling subsidiaries in various countries, imperfections in external markets can be bypassed. The underlying assumption in this approach is that markets do not operate in a perfect manner and only by internalizing as much of the processes and activities as possible, can firms operate in an efficient manner³⁷.

These market imperfections are varied, often complex, and assumed to be exogenous; either natural or government induced. Technology and advertising markets are imperfect as a result of their public goods nature, imperfect knowledge, and uncertainty. For vertically integrated industries, particularly those involved in natural resource industries such as oil and aluminum, gains can be made from internalization due to the small number of firms and the large investments that take a considerable time to mature.³⁸ Through the process of internalization, the uncertainties of market prices and other unknowns are avoided. One of the more important imperfections that are seen by internalization theorists is the intervention of governments in the form of trade barriers, restrictions on capital movements, or taxation policies. These are seen as reasons for the firm to undergo internalization in order to mitigate against the impacts of these controls. In this light the MNCs are presented as an efficient means of overcoming market failure and thereby increasing the efficiency of the world economy³⁹.

³⁶ Ibid. , p. 21.

³⁷ Alan M. Rugman, Inside the Multinationals: The Economics of Internal Markets, (New York: Columbia University Press, 1981).

³⁸ Op. Cit. , Jenkins (1987), p. 21.

³⁹ Op. Cit. , Rugman, p. 36.

Internalization theory views any problem as the result of misguided government policies and recommends that government induced distortions in the form of high tariff barriers be removed and replaced with policies that provide a favourable climate for investment. Government attempts to regulate and control the activities of MNCs are also discouraged and are viewed as doing more harm than good.

One of the more interesting perspectives to emerge out of the neo-classical school is the notion of bargaining theory. Like the product cycle and internalization models, bargaining theory occurs at the micro level in that it involves decision making at the level of the firm and various government agencies. It also provides one of the more useful analytical tools when one investigates the impact of MNCs on the economies of developing countries.

In the developing regions of the globe, government has a higher profile in the economy than in developed countries. For this reason, MNCs cannot underestimate the importance of dealing with the host government and therefore careful consideration is given to government-business relations. (This is particularly true in Latin America where company activity is heavily influenced by rapidly changing government policies and a statist tradition.⁴⁰) Bargaining theory assumes that there is competition not only between rival firms but also between governments for the distribution of revenues and expenses.⁴¹ Of equal importance is the following statement by Grosse,

Since the government in each country establishes the rules of the game for the MNEs operating there, competition with governments is generically different from that with rival firms. That is, governments not only compete for economic gains but they also define the rules of competition. Since the governments, and companies are players in the game of resource allocation, and their success is dependent on relative strengths and weaknesses, the situation in this sense is quite similar to competitive strategy between firms.⁴²

⁴⁰ Robert Grosse, Multinationals in Latin America, (New York: Routledge, 1989), p. 43.

⁴¹ Ibid. , p. 43.

⁴² Ibid. , p. 43.

This statement indicates that governments in the developing world have more influence over multinationals than is often recognized, although this must be tempered by the fact that the relative strength of governments vary considerably.

Both players in bargaining theory control one or more factors that are a basic necessity to the other. An example of this is the fact that the host government controls access to a country's markets and/or production inputs while the MNC controls the source of technology and access to foreign markets which could only be obtained by the host country by other means at a much higher cost. The result is that both parties are involved in a process of positioning and decision making in an ongoing bargaining relationship with the goal of maximizing one's own gains without causing the other to withdraw from the game.

The following indicates the benefits or bargaining advantages that each of the parties are seen to possess⁴³.

Governments: - sovereignty over raw materials
- control over market access to the domestic market
- right to establish and change the rules of the game on all business
- right to establish and change the rules on MNCs, ie. taxes, permissions, subsidies, ownership
- ability to play MNCs against each other to obtain more benefits

Firms: - control over technology
- control over the international transmission of technology
- ability to move production from one country to another
- flexibility to change strategies and activities
- market access to other countries through affiliates

Overall the goal of the government is to maximize the investment made by the MNC and channel earnings back into the local economy. The host country seeks to stimulate the economy; a task that the MNC accomplishes through investment and the consumption of local inputs and through exports, as well as through more employment, an improvement in the balance of payments, and the inflow of modern technology. The MNC on the other

⁴³ Ibid. , p. 44.

hand wishes to invest as few financial, physical, and human resources and obtain the largest return for shareholders. In this relationship, governments may initially be at a disadvantage due to the operational and managerial complexity of the situation that the government may not have the resources to deal with effectively. This changes as host governments gain more and more experience in dealing with foreign firms. The MNC also generally sees its position diminish as it commits more and more resources and trains local people in operation and management. As mentioned previously, this is known as the 'obsolescing bargain'. These factors account for the fact that some MNCs have a long history in some developing countries.

In the final analysis, the neo-classical approach stresses efficient resource allocation and emphasizes the belief that direct foreign investment is far superior to other alternatives for development. The neo-classical school does not address concerns over the sovereignty of the nation-state and the questionable business practices that are associated with some multinational activities in developing countries.

Comparisons and Conclusions

The four categorizations have points of merit and can be seen to have their perceived validity ebb and flow over time. Multinationals in general have seen this ebb and flow in the perception of their value to the host country. Immediately following de-colonization, MNCs were allowed to enter developing countries with little or no restrictions. This was a result of the existing colonial economic structures and the acceptance of free trade (and perhaps the belief that the removal of their colonial status would be sufficient for growth). This turned out to be incorrect and the 1960's and 70's saw the emergence of nationalistic governments such as Brazil in Latin America as well as many African countries, that nationalized domestic affiliates of multinationals and banned their presence in many cases. These actions came to an end with the debt crisis and once again developing countries looked to attract foreign capital and direct investment. Unlike in

the post-colonial period, host countries developed a pragmatic approach to the MNC which was made possible by the increased capacity to negotiate through the development of administrative skills and an increased competition among MNCs themselves.

2.4 Theoretical Framework

Different tools or analytical frameworks highlight different aspects of the roles played by MNCs in developing countries. Because no one framework adequately explains all aspects of an issue, it is important to select the framework that best illustrates those points that are deemed most important. In this connection, the author's view is that the pro multinational, non-Marxist paradigm best explains the impact of Brascan Brazil on economic and industrial development of the Brazilian South-centre.

Perhaps one of the most challenging aspects of development, is to arrive at a definition of development itself. For the purposes of this thesis, development refers to what could be considered a rather restricted definition by looking at national development focusing on the conditions of economic and industrial progress. Development will be considered in the context of economic development measured minimally by an increase over time in the gross or per capita output of goods and services (growth in GDP), and industrial progress measured by changes or increases in the share of total output that is accounted for by the industrial sector of economic activity. These increases are seen to occur by the utilization of previously underutilized resources (land, labour, and raw materials), improvement in economic relations through a more effective organization of labour, raw materials, etc. , and by raising technological efficiency (increased technological efficiency in non-industrialized societies imply a fundamental change in industrial and agrarian techniques and energy use as well as a substantial addition to the stock of productive facilities through investment.⁴⁴

⁴⁴ Bernard J. Siegel, "Social Structure and Economic Change in Brazil" in Economic Growth: Brazil, India, Japan, (Durham: Duke University Press, 1955) p. 388.

In focusing on the industrialist aspect and the weight of industry in the structure of production, the impact of Brascan Brazil can perhaps be most clearly analyzed. Because of the nature of Brascan's interests in Brazil, it is more useful to look at the economic and industrial contributions of the company to the Brazilian economy from the viewpoint of economic liberalism. The use of the economic liberalism framework is an appropriate one for the purposes of this work. This type of framework provides focus by looking at the economic and infrastructural aspects of Brascan's involvement in the Brazil economy. This approach also allows for a better assessment of Brascan's impact on the national economy and the industrialization process in Brazil. The economic liberal school of thought concentrates on the economic and industrial impacts of foreign investment and in looking at these aspects of the operations of Brascan, this framework best explains its impact and contributions to the economic and industrial infrastructure development of Brazil.

This chapter has looked at the theoretical frameworks that are useful in investigating the impacts and contributions to the development processes in developing countries. This chapter in combination with the following chapter will provide the underlying framework for the study of Brazilian Traction, Light and Power Company and its role in the evolution of the Brazil's economy and the industrial infrastructure.

CHAPTER THREE

CANADIAN - BRAZILIAN RELATIONS

3.1 Introduction

Since the establishment of an independent Brazil until the present, the country has not been a priority for Canadian policy-makers, and efforts in this area have been a result of pressure from Canadian business people with interests in the country and not the traditional interests and ties that explain Canadian policy towards other countries. The relationship between Canada and Brazil has been a rather sporadic and low profile one. This chapter traces the development of Canadian foreign policy towards Brazil, the largest country in Latin America. Canadian foreign policy-makers have not traditionally focused their attention on Latin America. This is changing as Canadian business looks to expand trade and investment opportunities around the world in order to secure the economic future of the country .

Traditional ties to Europe and the United States have been the main focus for Canadian foreign policy-makers. Latin America was rarely given the attention that it warranted and foreign policy regarding this area was rather ad hoc in its formulation. This, coupled with the fact that Washington has considered the territory south of the Rio Grande River as its purview and the forging of closer Canadian ties to the developing regions of Africa and Asia through the Commonwealth and La Francophonie organizations, accounts for the relative lack of Canadian government and public interest in this region of the world. Recently, Canadian foreign policy has concentrated on the high growth rate “Asian Tigers” and hemispheric free trade, initially with Mexico and more recently with Chile.

The initial section of this chapter discusses the development of Canadian relations and foreign policy with Brazil. The final section of this chapter will examine the impact of Canadian investment in Brazil since the early part of the century. The context will be set by assessing the attitude of Brazilian officialdom and the public to investment by foreign companies. These attitudes are contrasted with the actual investment of Canadians in Brazil.

3.2 Foreign Policy

Since the turn of the century, Latin America has been situated as number five in Canada's international priorities behind relations with the Commonwealth, Europe, the United States, and the United Nations.¹ This accounts for Canada's lack of definable foreign policy for the Latin American region prior to the 1940s, except for a ranking of the regional powers that were most important economically to Canadians. Brazil was placed in the top tier with Argentina, while Chile, Mexico, and Cuba were placed in the second tier.²

The January 1995 high profile Chrétien expedition to Latin America was merely the latest in a series of Canadian trade missions to the area. This mission diplomacy to the region appeared to be the tool of choice used by Canadian politicians and policy-makers in Ottawa and it underscored the importance of the economic and business issue focus for Canadians in Latin America and particularly Brazil.

The first formal contacts made by Canadians with Brazil occurred during a trade mission to that country in 1866. These trade missions have occurred at fairly regular intervals every two decades between the months of October and March.³ The first

¹ J. C. M. Ogelsby, "Canada and Latin America" in Canada and the Third World, (Toronto: Maclean-Hunter Press, 1976), p. 190.

² James Rochlin, Discovering the Americas: The Evolution of Canadian Foreign Policy Towards Latin America, (UBC Press: Vancouver, 1994), p. 15.

³ This leads one to wonder whether these were business excursions or rather just an excuse to gain some relief from the frigid Canadian winter!

commissioners were appointed by the governments of Canada (Upper and Lower), Nova Scotia, New Brunswick, and Prince Edward Island, "to proceed to the British West Indies and to the Foreign West India Islands, Brazil and Mexico, for the purpose of inquiring as to the trade of these countries and ascertaining how far it might be practicable to extend the commerce now existing between them and British North America."⁴ This initial junket was to investigate the possibility of increasing trade with the area and indicates that Canadian-Brazilian relations have been centred around economic interests from the outset. The 1866 Commission recommended that a direct steamer line be established between Halifax and Rio de Janeiro in order to facilitate communications between the two countries. It also suggested that British North America "procure, by reciprocal treaties or otherwise, a reduction of the duties now levied on flour, fish, lumber, pork, butter, and other staple productions of British North America, in the West Indies, and especially with Brazil and the Colonies of Spain."⁵ The Commission discovered that there was also an opportunity for Canadians to export ice to Brazil as the current quality shipped from Boston was poor.⁶ It was also noted and recognized that the greater portion of Brazilian trade was with the great ports of London, Hamburg, Le Havre, Liverpool, and New York - giving it access to larger populations. This is indicative of continuing Canadian relations with Brazil as there has always been a perception that Canadians have only played a small role in comparison with the larger economic powers in relations with Brazil.

A second trade junket occurred in 1880. This followed the House of Commons voting "\$50 000 per annum, to aid the establishment of a direct line of steamers between the Dominion of Canada and Brazil dependent, however, on the government of Brazil

⁴ Government of Canada, Commission of Inquiry on the Trade of the West Indies, Mexico, and Brazil, Report of the Commissioners from British North America: Appointed to Inquire into the Trade of the West Indies, Mexico, and Brazil: Laid before both Houses of Parliament by Order of His Excellency the Governor General, (Ottawa: G. E. Desbarats, 1866), p. v.

⁵ O. Mary Hill, Canada's Salesman to the World: The Department of Trade and Commerce, 1892 - 1939, (Montreal: McGill - Queen's University Press, 1977), p. 11.

⁶ Op. Cit. , Government of Canada, Commission of Inquiry on the Trade of the West Indies, Mexico, and Brazil, p. 30.

agreeing to give a like amount.”⁷ Concessions were also made on the tariffs charged on Brazilian coffee and sugar (the only Brazilian products taxed). In a report by the commissioners, the establishment of a regular steamship between the two countries was once again endorsed so as to allow for direct banking ties thereby avoiding the delays of commercial negotiations going through London. In the concluding remarks of the Report, the Commissioners wrote regarding trade that there were “ample inducements for increased enterprise on the part of Canadian merchants” and that “Canadian merchants should, for themselves, carefully examine and embrace the opportunities that seem to offer for the extension of trade relations”.⁸ These remarks were seen in the context of a commission that couched its report in terms of the tropics versus the north which “naturally and mutually offered the best and cheapest markets.”⁹

In the final paragraph of the Commission’s Report, the opportunity for Canadian business was underscored. The Commissioners wrote that “the question of trade with the west Indies and South America promises substantial results; and it ought, therefore to command the cordial efforts of every business man to aid in building up the INDUSTRIAL AND COMMERCIAL FUTURE OF THE DOMINION OF CANADA (sic).¹⁰

Until the turn of the century Canadian involvement in Brazil had remained quite small. Despite the trade missions that told of lucrative opportunities for Canadian business in Brazil, the country remained a tiny footnote in Canadian external relations. This relative unimportance of Brazil can be noted in the fact that the Canadian trade office in Rio de Janeiro was closed in 1912 after the commissioner was fired for inefficiency and not reopened until 1919.¹¹

⁷ W. Darley Bentley, Direct Trade Between the Dominion of Canada and the Empire of Brazil, (Barnet, England: S. Baldock, 1880), p. ii.

⁸ William J. Patterson, Commercial Relations Between Brazil and Canada with Supplementary Information Relating to Trade with the West Indies, (Montreal: D. Bentley, 1880), p. 18.

⁹ Ibid. , p. 18.

¹⁰ Ibid. , p. 19.

¹¹ Op. Cit. , Hill, p. 296.

Trade missions, official and semi-official, ventured south of the Rio Grande in 1930, 1940-41, 1946, 1953, and 1958.¹² In 1929, another trade mission departed for Brazil on the steamship service that had finally been established earlier in the year between Canada and Brazil, Uruguay, and Argentina. The Department of Trade and Commerce contracted Reuters to distribute Canadian news throughout Latin America and began circulating Canadian films in every South American country south of the equator.¹³ In the 1930s, Canadian and Brazilian relations continued to develop with the gradual establishment of reciprocal most favoured nation status. This period saw a continued expansion of the Toronto-based Brazilian Traction, Light and Power Company, one of the most important of the ties linking Canada and Brazil.

After receiving responsibility for conducting its own foreign policy under the Statute of Westminster in 1931, Canada was able to direct its own diplomatic relations. Despite this, Canada left a large part of its diplomatic activities to London. In 1939, Canada had only five legations worldwide (United States, France, Japan, Belgium, and the Netherlands) in addition to the Canadian High Commission in London and a delegation at the League of Nations. Latin American interests in general and Brazilian concerns were left in the hands of Great Britain despite significant Canadian investments in Brazil and Mexico.¹⁴ Until the end of the war Canada's diplomatic service was very small and the Prime Minister had traditionally held the post of Secretary of State for External Affairs and therefore had real control over foreign policy.¹⁵ Ottawa gave first priority to establishing High Commissions with the other members of the Commonwealth who joined Britain in the fight against Hitler's Germany. With the outbreak of World War Two, Canada was occupied with defeating Germany rather than in establishing more diplomatic ties.

¹² Op. Cit. , Ogelsby, "Canada and Latin America" in Canada and the Third World, p. 164.

¹³ Op. Cit. , Hill, p. 308.

¹⁴ British diplomatic and consular authorities looked after Canadian interests in countries where Canada had no diplomatic missions.

¹⁵ D. R. Murray, "Canada's First Diplomatic Missions in Latin America" in Journal of Interamerican Studies and World Affairs, Volume 16, Number 2, (May 1974), p. 155.

The process that finally resulted in the establishment of a Canadian legation in Brazil was a long and tortuous one. Canadian relations with Brazil were initiated at the behest of the Brazilians. With the outbreak of the Second World War, Canadian overseas trade with Britain and France was adversely affected and increased interest in Latin America stemmed from the trade dislocation that had resulted from Germany's overrunning of Europe and the search for new markets in the south. Trade commissioners brought back from Europe were assigned to Latin America in order to strengthen trade and expand exports in order counteract an increasing trade deficit with the United States.

Brazil had approached the Canadian trade commissioner in Rio in late 1937 and was uncertain about what to do. Because of Canada's reliance on London to handle its diplomatic affairs, there was some confusion about the proper route to take to exchange Ministers. Achieving little success in contacting the Canadian trade Commissioner, the Brazilian government approached the British Ambassador and repeated the proposal for an exchange of Ministers with Canada.

Canadian hesitancy to accept this overture stemmed from the fact that in expanding diplomatic relations with Latin America, Ottawa could not open a mission in one of the ABC countries (Argentina, Brazil, Chile) without risking offending the other two. Brazil suggested that Canada might appoint a minister of Eastern Southern America based in Rio that would serve Brazil, Argentina, Uruguay, and Paraguay. One of the Prime Minister's closest advisors suggested that Argentina would not find such an arrangement acceptable.¹⁶ The decision making process was further complicated by reports by the British High Commissioner in Ottawa that the Brazilian overture might be somewhat less than sincere as pressure for the exchange of ministers came from the Secretary of the Ministry of Foreign Affairs in Rio who reportedly sought the position in Ottawa for himself.¹⁷ Dr. O. D.

¹⁶ Ibid. , p. 155.

¹⁷ Ibid. , p. 156.

Skelton, Canadian Under-Secretary of State for External Affairs was also suspicious of British motives and suggested that the British ambassador in Rio merely wished to have a Canadian colleague.¹⁸ These various machinations resulted in the government postponing action on the matter rather than risk making an embarrassing decision. The issue was dropped but it did underscore the confusion regarding the conduct of Canada's foreign policy as an independent nation, but with London looking after Canadian interests abroad.

While leery of opening a Canadian legation in Brazil, Prime Minister Mackenzie King was prepared to welcome the establishment of a Brazilian legation in Ottawa providing that Canada was not committed to reciprocate. In May of 1939, Brazil formally requested an exchange of Ministers but as Brazil was unwilling to open a legation without Ottawa doing the same in Rio de Janeiro, the request was placed on hold.

In the spring of 1940 new overtures were made by both Brazil and Argentina about the possibility of exchanging diplomats and establishing permanent diplomatic links with these countries. Once again Canada was being courted by the two leading countries in South America. Ottawa began to pay more attention to Latin America and had established a hierarchy in the region, with Brazil and Argentina in the top rank. Prime Minister Mackenzie King first hinted at sending diplomatic representatives to Argentina and Brazil in late 1940. By 1941, Canadian legations had been established in Buenos Aires and Rio de Janeiro in advance of a Canadian trade mission to the area in the same year. The creation of these legations in the two most important countries in South America was motivated by the desire to give diplomatic authority and support to Canadian representatives engaged in trade promotion and commercial activities with these countries.¹⁹

¹⁸ Ibid. , p. 156.

¹⁹ H. Gordon Skilling, Canadian Representation Abroad: From Agency to Embassy, (Toronto: Ryerson Press, 1945), p. 258.

Canada was now faced with the problem of finding diplomats to fill these positions due to the small size of the diplomatic service and the demands of the war. The lack of action in this matter became embarrassing and the British ambassador in Buenos Aires wrote that the Argentines refused to send a representative if Canada was not willing to reciprocate. With a neutral Argentina agreeing to look after Canadian interests in Japan and China should hostilities break out, as well as with Germany should Washington and Berlin go to war, this situation became crucial. Ottawa finally moved and appointed Canada's first Minister to Brazil on June 24, 1941 and to Argentina at the end of July.

In establishing relations with Brazil and Argentina, Skelton and the Prime Minister realized that both had to be treated equally as "Argentina is the leader of the countries whose trade and cultural connections are mainly with Europe. Brazil is the largest of the countries in the northern part of South America which in trade matters, at least, are more closely connected with the United States."²⁰ This resulted in a recommendation by the war committee that two legations should be opened in Rio de Janeiro and Buenos Aires as soon as was possible.²¹ After going through the appropriate channels, including consultation with the British government, the arrangement was agreed to and by November of 1940 the exchange was agreed to by the Brazilian and Argentine governments whose legations arrived in Ottawa in January 1941. In 1941, the Minister of Trade and Commerce, James MacKinnon, led a trade mission to the area that was successful in improving and promoting commercial activities and establishing more broad contacts through the presence of the Canadian Broadcasting Corporation and the National Film Board. This trade mission coincided with the opening of the Canadian Mission in Rio de Janeiro; the first official contact between the two governments had been made and at the initiative of the Brazilian government.

²⁰ Op. Cit. , Murray, p. 162.

²¹ Ibid. , p. 162.

It was, in fact, Brazil that had initiated the movement toward the exchange of diplomatic representation in 1940 using the Brazilian Traction, Light, and Power Company (later called Brascan) in order to persuade Ottawa to open a diplomatic mission in Rio de Janeiro in hopes of attracting further Canadian investment. In June of 1940, the Brazilian Minister of Foreign Affairs looked to strengthen ties with the countries of the British Commonwealth, but after a rather lukewarm reception from the British ambassador, the minister spoke to K. H. McCrimmon, a senior official with the Brazilian Traction, Light, and Power Company, who in turn passed along a memorandum on to the Department of External Affairs stating the desire of the Brazilians to establish formal relations with Canada. This was passed on to the Prime Minister and in October Ottawa made its formal offer to Brazil to exchange ministers. Canadian interest in this exchange stemmed from a hope that Latin America might help relieve the Canadian trade deficit through closer political and economic relations. Brazil used the influential Brazilian Traction, Light, and Power Company to press home its case and initiated actions to persuade Ottawa to open a diplomatic mission in Brazil. The trade mission finally arrived in Brazil in November of 1940, a country that had been interested in establishing relations for some time. The mission was warmly received primarily due to the fact that Brazilian Traction, Light and Power Company was a well respected company in Rio.

Around this time, Ottawa was also faced with the quandary of whether or not to join the Organization of American States (OAS). While recognizing the economic and trade benefits of Latin America, Ottawa faced strong opposition from the United States which saw Canada as the “straw man of England”²² on one hand, and the desire of the other countries in the hemisphere that wished to see Canada provide some sort of balance against the overwhelming power of the United States. (This conflict centred around American and British competition in what were considered the jewels of Latin America; Argentina and

²² Op. Cit. . Rochlin, p. 18.

Brazil.) This issue was debated for fifty years until Canada finally joined the OAS officially in the January of 1990 as a full member. Canada's initial entry into the Organization in 1940, was sponsored by Brazil and was opposed by Cuba, Costa Rica, and El Salvador (all puppets of the US). Swirling around at this time were suggestions that Canada should join the Pan American Union (PAU), the fore runner of the OAS. While most countries supported Canadian membership, the United States was not in favour of such a move as Canada would serve only as a conduit for British interests and would be a competitor for Latin American markets.²³ The countries of Latin America looked forward to Canadian membership as Canada was seen to be able to provide a credible counterbalance to the overwhelming influence of the United States. Later, when Canadian ties to the US became stronger as ties with Britain weakened during the post-war era, Washington lobbied for Canadian participation in the OAS as a staunch ally, while Canada expressed concerns about its ability to dissent from US in this international forum.

By 1943, Ottawa was committed to developing a Latin American Policy that was independent of the US and the UK. This policy still lacked coherence and concern over an increased US presence in Brazil led diplomats there to suggest that there was opportunity for Canadians to establish stronger links as an alternative industrialized country with companies that had a record of reputable conduct in the country. The Canadian representative in Rio was upgraded to the rank of Ambassador from that of Minister in 1944 and the post of commercial attaché was created.

In the post-war world, Latin America did not figure prominently in Canadian foreign policy. With the end of the war and the beginning of the Cold War era, Canada continued its low key role in Latin America as Ottawa focussed its attentions on the United Nations (UN) and the North Atlantic Treaty Organization (NATO) alliances rather than on enhancing its ties with Latin America. Trade and other relations quickly returned to their

²³ Ibid. , p. 17.

post-war pattern of focusing on Europe, the US and the Commonwealth. Under the government of Louis St. Laurent, Ottawa sent a ministerial mission to Latin America in 1953 under the direction of C. D. Howe, minister of Trade and Commerce but this mission had the same minimal effect as the many that had previously set off. By this time, Brazil had become Canada's sixth largest customer with purchases of over CAN\$ 59 million in staple products and manufactured goods.²⁴ Brazilian exports to Canada, on the other hand totalled about CAN\$ 27 million.²⁵ During this mission, Howe toured the hydroelectric works of Brazilian Traction that provided him with tangible evidence of what Canadian enterprise and capital could do. Howe considered Brazilian Traction a great credit to Canada.²⁶ This mission was not followed by another major junket until 1968, although as Minister of External Affairs in the Diefenbaker government, Sydney Smith became the first Canadian Foreign Minister to visit Latin America shortly after the 1958 election. Smith's successor²⁷, Howard Green, became a strong advocate of closer Canadian ties to Latin America and established a separate Latin American division and extended diplomatic relations to those countries that had not previously been established by 1961.²⁸

In 1968, the largest mission to have ever visited Latin America departed for a month long "voyage of discovery" headed by External Affairs Minister Mitchell Sharp.²⁹ The mission's objectives were to learn more about Latin America, to investigate the common benefits that might result from closer relations, to see what development was taking place in the region, to enter into direct contact and discussion with Latin American leaders, to help make Canada become better known in the area, and to bring the region to the attention of Canadians.³⁰ Besides the requisite politicians and their advisors, this junket included a

²⁴ J. C. M. Ogelsby, Gringos from the Far North, (Toronto: Maclean-Hunter Press, 1976), p. 27.

²⁵ Ibid. , p. 27.

²⁶ Ibid. , p. 28.

²⁷ Smith died shortly after returning from his trip to Brazil, Mexico and Peru.

²⁸ Op. Cit. , Ogelsby, Gringos from the Far North, p. 288.

²⁹ Sharp was intimately connected with Brascan Ltd. following his retirement from politics and sat as a board member for a number of years

³⁰ Op. Cit. , Ogelsby, Gringos from the Far North, p. 31.

number of representatives from the Canadian cultural community; the CBC, National Film Board, Canada Council, and the National Gallery.

The 1968 mission report bore an amazing resemblance to the reports of the 1866 junket and all those that followed in that it established that there were a number of opportunities available to Canadians in Brazil and the rest of Latin America. In the report issued following the mission, it was noted that traditional exports could be increased but also that potential existed for the export of Canadian technology and expertise in areas such as telecommunications, nuclear technology, and forestry techniques; joining existing areas of expertise such as hydroelectricity, railway, agriculture and mining.³¹ The report also suggested that the initiative must come from Canada itself and that Canada should assist Latin American business people identify possible markets in Canada and assist them in breaking out of what was perceived as traditional lines of trade.³²

The 1968 mission was viewed as being different from those previously as it provided the basis for the release of one of the definitive policy papers regarding Canadian foreign policy. The Trudeau government's booklet, Latin America: Foreign Policy for Canadians was part of the Government's White Paper on Canada's external relations.³³ This publication represented one of the most broadly defined Canadian position papers regarding Latin America. It laid the basis for future political and economic relations with Latin America and made a serious attempt to improve trade and development contacts. This mission and the resulting policies led commentators to suggest that this 1968 mission was the first time that Canadian mission diplomacy had been truly productive.³⁴

³¹ Ibid. , p. 33.

³² Ibid. , p. 33.

³³ This publication provides an in-depth look at the policy of close to 15 years of Canadian foreign policy towards Latin America.

³⁴ Op. Cit. , Ogelsby, Gringos from the Far North, p. 36.

The election of the Trudeau government in 1968 saw a government that was less comfortable with the dependency of the Canadian economy on the United States market. In 1972, his announcement of the 'Third Option' was designed to enhance Canadian sovereignty by placing less emphasis on the US, reduce Canadian vulnerability to the US, and focus more attention on other regions, including Latin America, which were seen as a growing force in the world.³⁵ Once again, due to its economic potential, Brazil was placed at the highest level of importance. Ottawa had recognized the particularly important role played by Brazil in Canadian relations. Canada had CAN\$ 1 billion invested in the country, most of which was through Brascan; which made Brazil the largest site of Canadian investment outside of the United States.³⁶ Brazil was just entering its 'miracle' phase with growth rates reaching 11% in 1971 and Ottawa hoped to increase its exports to that country.³⁷ At the same time, concerns over human rights and social issues under the military dictatorship, presented significant obstacles to expanded relations with Brasilia.

Despite these concerns, Canada's relations with Brazil continued to grow. As this occurred, Canadian activity came under closer scrutiny and some authors suggested that huge investments such as Brascan had perpetuated inequality and social injustice. It was also revealed that a Brazilian officer of Brascan was a fascist.³⁸ In 1976, Prime Minister Trudeau made the first visit by a Canadian Prime Minister to Latin America but Brazil was not on the itinerary due to the right-wing nature of the military government.³⁹ Ottawa was concerned about the domestic policy of the military government in view of increased income disparities, human rights violations, and the authoritarian nature of the regime.⁴⁰ This made it difficult for the Canadian government to establish high profile connections with Brazil.

³⁵ Op. Cit. , Rochlin. p. 81.

³⁶ Ibid. , p. 85.

³⁷ Ibid. , p. 85.

³⁸ Ibid. , p. 96.

³⁹ In 1976, Eugene Whalen, Canadian Minister of Agriculture, did visit Brazil.

⁴⁰ Op. Cit. , Rochlin, p. 99.

In spite of these drawbacks, Brazil remained a key component in Ottawa's Third Option policy. Canadian bank loans to Brazil amounted to more than CAN\$ 1 billion in 1976 and substantial investments ensured the importance of Brazil in Canada's Latin America policy.⁴¹ The Trudeau government was also faced with the situation of an increasing global ranking for Brazil, while Canada's position as a trading partner with the country was slipping.⁴² Of equal concern was the fact that the traditional pattern of industrialized nations selling manufactured goods to developing countries and developing countries selling raw materials to developed countries was not the case in the Canadian-Brazilian relationship. Brazilian exports to Canada were 42% manufactured goods while Canadian exports to Brazil were only 11% manufactured.⁴³

This era in Canadian foreign policy development was unique. It was one of the apexes of Canadian involvement on the international scene. Canadian foreign policy reached out from its traditional bases of Europe and the United States to other areas of the world, particularly those countries in the developing regions. While ties to Africa and Asia were motivated more by humanitarian concerns, economic issues were more prominent in the case of Latin America and Brazil in particular. The Trudeau era saw the first coherent policy developed for Latin America with the establishment of an aid programme as well as an expansion of diplomatic and trade relations and contacts.⁴⁴ While concerns about the military regime in Brazil did dampen Canadian policy towards the country, large Canadian investments in Brazil, such as Brascan as well as the economic and trade potential that could be realized by closer ties with Brazil, ensured that it remained a cornerstone, albeit a less visible one than others, of Canadian foreign policy.

⁴¹ Ibid. , p. 98.

⁴² Ibid. , p. 99.

⁴³ Ibid. , p. 99.

⁴⁴ Op. Cit. , Rochlin, p. 83.

The Mulroney era saw Canadian foreign policy towards Latin America take place in a far different context from that of the previous twenty years. The countries of the region were instituting comprehensive democratic reforms and the authoritarian regimes of countries like Brazil were being replaced by emerging democracies. This democratization was accompanied by a move away from import-substitution economic strategies to export-oriented policies and other market-oriented strategies. Many of the countries were demonstrating a desire to enter the world marketplace and were willing to compete for markets, investment, and technology. Canada was now better able to accept politically, morally, and economically, the countries of the region as they embarked on a strategy of representative democracy, economic liberalization, and more open societies.⁴⁵

The election of the Mulroney government in 1984 saw a shift in Canadian foreign policy and coincided with the debt crisis in Latin America. There was more convergence between Ottawa and Washington regarding foreign policies.⁴⁶ With respect to Latin America, the Conservatives noted that the area was becoming an increasingly important market for Canadian exports, that the region was the second largest destination for Canadian investment after the US, and that Canadian banks had CAN\$ 15 billion in loans to the area.⁴⁷ The Mulroney government also had a different perception of how to ensure positive Canadian trade balances. Unlike the Trudeau Third Option, which tried to diversify markets for Canadian products by reaching out to Europe, Asia and Latin America, Mulroney's government looked to secure Canadian access to the US market in the face of rising protectionism.⁴⁸ This led to the negotiation of the Canada-United States Free Trade Agreement in 1988 that provided better, more secure access to the US market for Canadians and looked to reduce tariffs. In the early 1990s the North American Free Trade

⁴⁵ Peter McKenna, Canada and the OAS, (Ottawa: Carleton University Press, 1995), p. 143.

⁴⁶ Ibid., p. 145.

⁴⁷ The Right Honorable Joe Clark, Competitiveness and Security: Directions for Canada's International Relations, (Ottawa: Minister of Supply and Services, 1985), p. 17.

⁴⁸ Op. Cit., Rochlin, p. 149.

Agreement (NAFTA) brought Mexico into the free trade grouping. This was preceded by President Bush's 'Enterprise for the America's Initiative' that envisioned a free trade regime from the Arctic Ocean to Tierra del Fuego.⁴⁹ During the 1980s and 1990s Canada also joined the United States in attacking narcotic trafficking which resulted in parts of the drug trade being pushed out of Peru and the Andes and into Brazil.⁵⁰

Overall, the Mulroney period was characterized by a convergence and harmonization of Canadian policies towards Latin America with those of the United States. Latin America was viewed in Ottawa as an area in which Canada could jeopardize the special relationship with the United States.⁵¹ With the exception of concern with the debt crisis and the ongoing conflicts in Central America, Canadian policy tended to ignore the rest of Latin America. This stemmed from the fact that the countries of South America were undergoing substantial economic hardship as they dealt with the huge debt problem and a restructuring of their economies and were not lucrative places for Canadian investment. Towards the end of the Mulroney government and on into the Chrétien, the move towards hemispheric free trade has seen Canada look to further integrate itself into the Latin American region. This also indicates a shift away from Europe, which, while remaining very important, is competing for Canadian attentions with Asia and Latin America as can be seen by the recent Prime Ministerial junkets to China, Asia, and Latin America and the Caribbean.

The Chrétien visit to Latin America in late January of 1995 was the latest example of Canadian mission diplomacy. In the company of more than 250 Canadian business people, the mission saw around CAN\$ 2.8 billion in agreements and potential contracts

⁴⁹ Ibid. , p. 185.

⁵⁰ Ibid. , p. 209.

⁵¹ Peter McKenna, "Needed: A Policy for Latin America" in Policy Options, Volume 14, Number 4, (May 1993), p. 27.

signed in the ABC countries.⁵² (This amount contrasts with the CAN\$ 8 billion of the mission to China the previous year although the Latin American total was greater than Canadian officials had expected.) Of this amount, more than CAN\$ 600 million was in Brazil and included a CAN\$ 350 million investment by Brascan to expand its presence in the Brazilian real estate sector.⁵³ Other deals were negotiated by the Canadian Wheat Board (wheat being the largest Canadian export to Brazil), as well as a number of electronic companies that entered into joint ventures with Brazilian environmental, communications and natural resource firms. Chrétien commented on the Brazilian leg of his tour saying: "These jobs will create thousands of jobs in Canada. They will also create thousands of jobs here in Brazil. That is the essence of trade-growth and prosperity for both partners."⁵⁴ In the larger context, this mission was seen to reinforce Ottawa's goal of forging stronger political and economic ties beyond the United States. "There will be more economic power in an association of all these countries, and not be so dominated by the big U. S. economy", Chrétien said.⁵⁵ Most Latin American countries are supporters of hemispheric free trade and question the US commitment to such an agreement; however, Canada is viewed as having influence in Washington that will aid in the establishment of such a free trade area. Many of these deals, particularly that of Brascan, had been in the planning stages long before the Chrétien mission had begun.

The preceding section illustrates the economic and business interests that have predominated in Canadian-Brazilian relations since the late 1800s. With few traditional ties and a huge economic potential in the areas of trade and investment for Canadians, it is little wonder that Canadian missions to the country were designed to enhance and promote Canadian commercial interests in Brazil. Ottawa sought to use its political influence to

⁵² Drew Fagan, "Canada Clinches Brazilian Deals, Trade Mission Tally Hits \$2.8 Billion" in Globe and Mail, January 30, 1995, p. B1.

⁵³ Ibid. , p. B1.

⁵⁴ Ibid. , p. B1.

⁵⁵ Drew Fagan, "Chrétien Cools NAFTA Hopes, Urges Central American Leaders to Enact Economic Reforms to Prepare Way" in Globe and Mail, January 31, 1995, p. B5.

assist business people in finding new opportunities in Brazil and also found itself under pressure from Canadian businesses in Brazil to promote and develop links between the two countries. The following section looks at the investment climate in Brazil, particularly during the military regime era and investigates the extent of Canadian investment since the early 1900s.

3.3 Investment

Foreign investment has traditionally been important in the development of the Brazilian economy. Sufficient local capital was not available or was exported to safer investments abroad, therefore there leading to a lack of domestic capital for economic development. By far the largest contributors of capital were the US and the UK, although in the early part of the 20th century, Canadian investors made a great impact on the Brazilian economy that has had repercussions to the present. This section outlines Brazilian attitudes towards foreign investment and looks at Canadian investment in Brazil over the past century while focusing on the post war era.

Throughout the 1940s, 1950s and into the 1960s, various Brazilian governments used differing methods to attract and keep foreign investment. With a deteriorating balance of payments situation in the late 1940s, restrictions were placed on capital outflow, profit remittances, and service payments.⁵⁶ By 1955, foreign investors were offered the incentive of direct investment in an expanding and protected market and special exchange rates were established for imports of equipment deemed to be of “special interest to the national economy”⁵⁷ These changes saw the inflow of venture capital almost double from the years 1947 to 1953 to the years 1954 to 1961.⁵⁸

⁵⁶ Eric N. Balankoff, “Foreign Private Investment and Industrialization in Brazil” in New Perspectives of Brazil, (Nashville, Tennessee: Vanderbilt University Press, 1966), p. 128.

⁵⁷ Ibid. , p. 129.

⁵⁸ Ibid. , p. 129.

In 1958, Brazil hosted an investment conference at which President Kubitschek spoke. He stated that the developing nations were no longer satisfied with the existing system and went on to say that State participation in certain fields should not be mistaken for a sign of State control or interference in Brazil but rather that government would become involved only when private capital was not prepared to accept the risk or where drastic measures were necessary to develop essential elements in the economy.⁵⁹ In 1962, much of the rapid industrialization and economic growth slowed considerably as President Goulart came to power. There was an aura of hostility towards private capital and foreign investment and an increase in government activity and control in the economy. A Profit Remittance Law was enacted that placed a 10% limit on the repatriation of profits of foreign enterprises. This period also saw the nationalization of some foreign-owned power companies without compensation and the refusal of government regulating agencies to allow an adjustment of rates for foreign telephone and electric power utilities in the face of chronic inflation.⁶⁰ Goulart's views of foreign investment were made perfectly clear when he accused the foreign companies of "plundering" the economy.⁶¹ The result of these actions was a complete drying up of foreign investment by the beginning of 1964.

The military takeover on April 1, 1964 saw the emergence of a regime that was interested in getting the stagnant Brazilian economy moving again. The Profit Remittance Law was repealed and the Castello Branco regime agreed to compensate the owners of the nationalized companies.⁶² By the end of 1964, firms were once again making plans for substantial investments in Brazil. The trend toward state monopoly was reversed in the iron ore sector when private competitors were invited to help develop it. The World Bank sent a large team of experts to analyze the economy and in 1965 granted an US\$ 80 million

⁵⁹ Monty Kerr, "Brazil Holds an Investment Conference" in Foreign Trade, Volume 110, Number 5, (August 30, 1958), p. 20.

⁶⁰ Op. Cit. , Balankoff, p. 133.

⁶¹ Ibid. . p. 133.

⁶² Ibid. . p. 134.

credit to Brazil. This was followed by US and IMF credits to the country.⁶³ Overall, with the military in control, Brazil became an important destination for foreign capital as the regime was committed to stability and economic growth.⁶⁴

Since 1964, Brazil has had one of the most liberal foreign investment regimes in the world according to some scholars. This can be seen in Decree 55, 762 of February 17, 1965 which regulates Law 4131 of September 3, 1962, “concerning the registration of foreign capital and reinvestments, the remittance of profits, interests, royalties, and payments for technical assistance as well as the repatriation of foreign capital: Foreign capital invested in Brazil shall enjoy the same legal treatment as that given domestic capital.”⁶⁵ This registration process is one of the rather complicated and detailed maneuvers that foreign capital must undertake under Brazilian legislation. It was not until 1975 that Brazil allowed portfolio investment to occur.⁶⁶

The Brazilian Constitution of 1967 retained protective measures for basic sectors of the economy. Article 161 allowed for authorization to engage in mining and the development of hydroelectric power to be granted only to Brazilian citizens or companies organized in Brazil. This stipulation could be satisfied by foreign multinationals when they applied for authorization to engage in these fields if these companies were organized according to Brazilian legislation regardless of the nationality of the stockholders. This allowed Alcan Canada, a company whose capital was 100% owned by foreign residents, to explore and develop Brazilian bauxite deposits.⁶⁷

⁶³ Ibid. . p. 136.

⁶⁴ This stability and growth came at significant cost to human and democratic rights. It was not until the 1980's that political freedoms and the right to vote were returned to Brazilians. The first free Presidential vote was not held until 1989.

⁶⁵ Marcos Arruda, “Legal Aspects of Foreign Investment in Brazil” in The Multinational Corporations and Brazil: The Impact of MNCs in the Contemporary Brazilian Economy, (Brazilian Studies, Latin American Research Unit: Toronto, 1975), p. 59.

⁶⁶ For an excellent detailed summary of the regulations and issues surrounding investment in Brazil, see the General Agreement on Tariffs and Trade Brazil: Trade Policy.

⁶⁷ Op. Cit. . Arruda, p. 59.

This significant impact of the multinational corporation on the economy of Brazil has resulted in Brazilians having strong opinions about their role. The Brazilian public is often used during times of social tension to oppose foreign investment. Some authors have noted that Brazilians are willing to accept emotional explanations for underdevelopment from opportunistic politicians.⁶⁸ Authors suggest that Brazilian dislike and distrust of foreign multinationals is almost universal due to a resentment of their size, influence, domination, and in some cases insensitivity.⁶⁹ It is useful to note that while the general populace was not a great supporter of the MNCs, those in the elite tended to look upon them favourably as a source of money. These MNCs are seen as capital, not labour intensive, organizations against which local companies cannot compete and the repatriation of profits, royalty payments and management service fees adversely affect the Brazilian balance of payments. Under the military regime, however, the desire to attract foreign capital in order to undertake the development process envisioned resulted in the protection of these multinationals.

Balankoff, in the early 1960s, identified two groups with differing opinions on foreign direct investment. Those who opposed such investment included those that were ideologically opposed and business interests who were opposed due to the increased competition. Those who were ideologically opposed tended to be writers and academics on the left who were statist or those who saw a role for local capital under strict guidance from the State. Many of these leftists saw foreign direct capital as exploitative.⁷⁰ Foreign multinationals were seen to be operating in Brazil to earn huge profits and draining the country of its exchange through profit repatriation. The second group, local business interests, viewed foreign capital as threatening their own comfortable arrangements in the local market, not only from foreign products but also from foreign controlled factories.

⁶⁸ Op. Cit. , Balankoff, p. 126.

⁶⁹ Richard Starks, "A Canadian Perspective On Brazil" in Financial Post, (October 18, 1975), p. D6.

⁷⁰ Op. Cit. , Balankoff, p. 127.

On the other side were those groups that saw an important role for foreign investment. This group was composed of some of the more progressive leaders of the local business community, particularly *paulistas* (residents of São Paulo state) who had entered into joint ventures with foreign capital.⁷¹ Other members of this group were professionals, high ranking government officials in the economic ministries, and US trained economists. These groups were united by their desire to develop a modernization strategy for Brazil and saw government in a supporting rather than a supplanting role in the functioning of the market. Foreign investment was viewed as a source of foreign exchange as well as technical and managerial skills that were scarce in Brazil. This group asserted that over time Brazil would require less and less foreign assistance as the economy grew and diversified.

Even among members of the Geisel regime in the mid-1970's, there were conflicting opinions regarding the MNCs. Severo Gomes, Minister of Industry and Commerce and leader of a faction within Cabinet that had a more cautious approach to foreign investment, stated in 1976: "Multinationals are welcome in Brazil, providing they serve Brazilian interests."⁷² This followed criticism of foreign multinationals in early 1976 for their financing habits that absorbed already scarce local capital and increased external debt. He went on to point out that between 1971 and 1973, 61% of " 'new' US companies represented nothing more than a transfer of shareholder capital."⁷³ Regarding the transfer of technology, Gomes stated that it "often involves no real transfer at all because the technology remains in the hands of the foreign company and its Brazilian subsidiary alone."⁷⁴

⁷¹ Ibid. , p. 126.

⁷² Patricia Anderson, "Brazil: The Bumpy Road to Development" in Financial Post, October 30, 1976, p. B6.

⁷³ Ibid. , p. B6.

⁷⁴ Ibid. , p. B6.

While the Geisel government did single out MNCs as a major cause of the balance of trade problem and sent out letters of reprimand to foreign companies operating in Brazil, the economic ministers of the Geisel Cabinet repeatedly stated that “foreign direct investment is welcome in Brazil, provided it complies with the government’s priorities.”⁷⁵ The pro-foreign investment faction led by Finance Minister Mario Henrique Simonsen and supported by Planning Minister João Paulo dos Reis Velloso and Energy and Mines Minister Shigeaki Ueki, introduced the idea of foreign involvement in oil exploration thus breaking the government monopoly in the oil sector and underscoring the regime’s commitment to foreign investment despite significant opposition.

Following the debt crisis and “lost decade” during which Brazilian growth slowed and stagnated, into the mid-1980s and the return to civilian government, progress has been made in reducing obstacles to foreign investment through constitutional change that allows foreign interests to invest in State run sectors such as petroleum, mining, and utilities. Many of the former State-owned corporations are now being privatized after being nationalized in the 1970s.⁷⁶

The history of Canadian investment in Brazil is one of a small core of companies that were established early and endured the Brazilian economy through the upswings and downswings. Canadian firms have a long history of investments in Brazil and prior to World War One, vied with the US and UK as the largest investor in the country. These companies recognized Brazilian sensitivities towards technological transfer and the training of local labour and operated their Brazilian subsidiaries accordingly.⁷⁷ Following the 1970s, these conditions regarding the transfer of technology have become more formalized.

⁷⁵ Ibid. , p. B5.

⁷⁶ The former Brascan utility company, the Light, is one of the nationalized corporations that have recently been slated for privatization. Many of these privatizations require Constitutional changes and have been difficult to implement.

⁷⁷ Michael Grant, “Brazil: Forever Young and Growing” in Canadian Business Review, Volume 14, Number 4, (Winter 1987), p. 18.

Restrictions on foreign direct investment have resulted in new Canadian investment taking place in the form of joint ventures that unite Canadian capital and Brazilian capabilities. Canada's profile has diminished since the sale of Brascan's utility operations in 1979, but Canadian direct investment still amounts to around 5% of total foreign investment in Brazil.⁷⁸ Alcan, Brascan, Varity (Massey Ferguson), Moore Corporation, and Noranda all have substantial interests.

Canadian investment abroad did not really take off until the end of the Second World War. (See Table 3.1 and Figures 3.1 and 3.2 for more detailed information and graphic representations.) While the country was well situated internationally with access to both British and US capital, the Canadian economy was developing itself in the period leading up to the war. The Canadian economy was industrialized and ranked among the strongest in the world by the mid-1940s, and capital was now more profitable if invested abroad. This increase in the export of capital can be seen in the steady climb of Canadian international direct investment as shown in Figure 3.1. It is evident from the graph that Central and South America, while certainly not the primary destination for Canadian capital, did begin to take on more importance in the late 1970s as Canadian international investment increased overall.

Figure 3.2 demonstrates the important role of Brazil in Canadian international investment. If Mexican data was removed from these statistics, the graph would demonstrate the overwhelming proportion of Canadian international investment that flows to Brazil in comparison with the other South American countries.⁷⁹ Brazil can be seen to account for over one-third of Canadian investment south of the Rio Grande consistently since around 1970. This graph demonstrates the importance of Brazil within Latin America

⁷⁸ Fox Jones and Associates. Canadian Investment Opportunities in Brazil, (Ottawa and Toronto: Canadian International Development Agency and Brazil-Canada Chamber of Commerce, 1989), p. 24.

⁷⁹ This has changed over the last two years as Canadian investors have increasingly invested in the Chilean economy in anticipation of a free trade deal between Canada and Chile.

in the Canadian international investment community and underscores the strong business and economic links that exist between the two countries. While it is difficult to pinpoint exact reasons for fluctuations in investment, it is important to consider some of the reasons that account for these shifts. Canadian investment remained fairly constant from 1920 onward. The great majority of this investment was by the Brazilian Traction, Light, and Power Company as it expanded with the growing Brazilian economy and developed electrical production and distribution systems throughout the São Paulo and Rio de Janeiro axis. There was a decrease in investment during the Second World War which started rising again in 1956. This can be accounted for by the fact that Canadian capital was involved in rebuilding a devastated Europe and moving to a peacetime footing at home.

From 1950 until around 1969, Canadian investment increased slowly but steadily. Brascan was involved in expanding its power utility operations as Brazil continued to industrialize. The 1969/70 period saw a dramatic rise in Canadian investment in Brazil. Statistics Canada figures for 1969 show that around CAN\$ 54 million was invested in Brazil, accounting for 23.58% of the Central and South American total. In 1970, this soared to CAN\$ 648 million and 79.02% of the Latin American total.⁸⁰ This can be understood in two lights. Primarily it can be seen as a response by Canadian investors to the so-called 'Brazilian Miracle' as investors from around the world vied for entry into the rapid industrialization process and economic growth that was occurring in Brazil. With GDP growth increases of over 10% per year, Brazil was the darling of the investment world and Canadians were not about to be left behind.

Further explanations can be found in changes to the Brazilian Constitution made by the military regime. Through a series of Institutional Acts, the military administration governed without consulting Congress. These series of Acts effectively removed any democratic processes in Brazil from the Presidency down to the local levels and

⁸⁰ Canada, Statistics Canada. CANSIM Database, (Matrix 4188, Data 66108, 66107, 65221, 1993).

concentrated power in the hands of President and the military commanders. Any opposition was silenced. In 1969, the military promulgated fifty-eight amendments to the Constitution that codified powers that had been assumed by the Executive since the 1964 takeover. This allowed the President to decree laws on national security and public finances.⁸¹ Economically, this concentration of power and particularly the return to stability, favoured and encouraged foreign investment. A flood of petrodollars had found their way into banks in Europe and North America and these were quickly invested in developing countries that promised to show a good return on investment. Among these countries was Brazil. The military government in Brasilia embarked on a series of huge, high profile (and rather self aggrandizing) projects such as the Itaipu hydroelectric project, the development of an indigenous nuclear capacity, and the construction of the Trans-Amazonian Highway that required the borrowing of huge sums of money. These projects also required the technological input of foreign companies under terms that were quite beneficial and provided excellent opportunities for investors. This perhaps accounts for the huge upsurge in Canadian (and other) investment in Brazil in the 1969 to 1970 period.

The year 1968 also saw the election of the Trudeau government and a more outward-looking policy. Trudeau's interest in international affairs saw an increased emphasis on expanding Canadian relations beyond the usual Ottawa-Washington-London triangle. This new outlook saw the implementation of policies and programmes that enhanced the ability of Canadians to project their influence abroad. The new policies can be seen in the Foreign Policy for Canadians review of foreign policy and the development of the 'Third Option'. While this does not succeed in providing a definitive account for why Canadian investment skyrocketed in Brazil, it does provide some explanation for this enormous increase.

⁸¹ Fortuna Calvo Roth, Gisbert H. Flanz, Kyra Sinkovsky, and Richard J. Perr. "Brazil Supplement" in Constitutions of the Countries of the World, (Dobbs Ferry, New York: Oceana Publications Inc. , September 1992), p 31

Investors from Canada continued to pour money into Brazil until 1979 when investment plummeted over CAN\$ 1 billion in 1978 to CAN\$ 649 million in 1979. This drop coincided with the withdrawal of Brascan from its utility operations and the beginning of the Latin American debt crisis. Canadian investment rose over the next years until the recession in 1983 when investment in Brazil decreased. With the advent of civilian rule in the mid-1980s and an opening of the Brazilian economy, Canadian investors continued to put their capital into a rebounding Brazilian economy although investments until 1991 never reached the 1978 high of CAN \$1.7 billion. Political uncertainty following the impeachment of President Collor de Mello in the late 1980's and questions concerning the continuing of the economic reforms and liberalization programme of the Collor administration under the Franco administration led to a drop in Canadian investment in Brazil in 1991.

Canadian investors, while playing an important role in investing in Brazil, have slowly seen their investment position decrease as other countries increase their investment capital in Brazil. For instance, while Canada competed with the United States and Britain for the position of largest investor in Brazil at the beginning of the century, and remained one of the top three investors until the mid century, this position became eroded as the European economies recovered from the Second World War. Total registered foreign capital in Brazil at the end of 1951 was US\$ 1.5 billion of which US\$ 686 million was US, US\$ 480 Canadian, US\$ 190 million British, and US\$ 50 million French.⁸² By the end of 1973, Canadian investment in Brazil had reached US\$ 360 million for a fourth place far behind the United States and behind West Germany and Japan. In June of 1974, Switzerland had surpassed Canada with investment totalling US\$ 424 million to Canada's US\$ 361 million. (See table 3.2)

⁸² Simon Kuznets, Wilbert E. Moore and Joseph J. Spengler, eds. Economic Growth: Brazil, India, Japan, (Durham, North Carolina: Duke University Press, 1955),p. 59.

Despite the fact that over the period from 1984 to 1988, Canadian investment rose from CAN\$ 952 million to CAN\$ 1.4 billion⁸³, Canada's investment position in Brazil slipped another placing in 1987 by which time British investment had reached US\$ 1.9 billion for 6% of the total compared to Canada's US\$1.4 billion and 4.6% share of the total foreign investment in Brazil. (See Table 3.3) In the 1990s, Canada retained its sixth place with investments totalling around US\$ 1.5 billion.⁸⁴ (See Table 3.4)

This chapter has established the parameters in which Brascan Brazil has operated in its differing manifestations and lays out the economic and political context that will influence the case study that follows. It was within the preceding framework that the Brazilian Traction, Light, and Power Company developed and grew with the Brazilian economy and provided valuable economic infrastructure through its investments in its utility interests in the São Paulo and Rio de Janeiro areas.

⁸³ Op. Cit. , Rochlin p. 162.

⁸⁴ General Agreement on Tariffs and Trade Secretariat. Brazil: Trade Policy, (Geneva: GATT Publication Services, 1993), p 98.

CHAPTER FOUR

CASE STUDY OF BRASCAN BRAZIL

4.1 Introduction

Much of Canada's long, yet low profile, involvement in Brazil has centred around what was until the late 1980s, the largest single Canadian multinational, the Brazilian Traction, Light, and Power Company Limited (known as Brascan since 1969)¹. It was compared in 1947 to a corporation that was a Brazilian version of Bell Telephone, Ontario Hydro, and the Toronto Transit Commission all rolled into one.² The company has been the subject of sporadic writing in Canadian business publications and has had a significant impact on the economic and industrial infrastructure development of Brazil. The Brazilian Traction, Light and Power Company has been eulogized over the years by Canadian financial writers such as Ronald A. McEachern, editor of the Financial Post. In 1952, McEachern wrote during a visit to the south-central region of Brazil where Brazilian Traction, Light and Power operations were centred, that, "For Canadians, 'The Light' is of special interest - and of pride - as our largest single foreign enterprise and as a first-rate representative abroad of Canadian industrialism, foresight, thinking and ideals. And 'The Light' is everywhere. It is in that signs that flutter by day; the lights that glitter by night -

¹ The corporation's original name was the Brazilian Traction, Light and Power Company Limited following the merger of the São Paulo Tramway, Light and Power Company and the Rio de Janeiro Tramway, Light and Power Company. It was referred to informally as 'the Light'. For the purposes of this thesis, the corporation will be referred to as the Light, Brazilian, or Brazilian Traction, Light and Power prior to 1969 and as the Light, Brascan or Brascan Brazil for the years following to the present. Brascan refers to the Toronto-based holding company.

² Charles Lynch, and Pierre Burton, "The Light" in Maclean's, August 15, 1947, p. 12.

that glitter so star-like in this tropic land of flowers and abundance.”³ These rather florid comments did not diminish as the years wore on. In Patricia Best and Ann Shortnell’s 1987 book on Brascan and the Edper empire, The Brass Ring, Brazilian Traction, Light and Power was described as being “as much a part of Brazil as the famous string of lights that ringed Rio’s harbour.”⁴

Brazilians also praised the role of Brazilian Traction, Light and Power. In 1962, Assis Chateaubriand, a Brazilian press mogul and journalist, noted that the two cities were “but miserable colonial towns, infested with yellow fever and malaria, when the Canadians came in. They brought not only a business, but a mission.”⁵ In his retirement speech in 1979, São Paulo’s mayor Olavo Egydio Setúbal, noted that the foundations of his city’s strength were coffee, the Light, and immigrants. The Light was seen by many to be the catalyst which saw capital and entrepreneurship transformed into economic growth.⁶ Because of a lack of oil or coal in Brazil, the hydro-electricity from the Light and the utility services that were made possible by it, allowed for the development of an urban infrastructure in Rio de Janeiro and São Paulo that prepared these two cities for remarkable growth. The importance of the São Paulo - Rio de Janeiro area, where the Canadian company operated, can be seen in the fact that this industrial heartland accounted for 64.4% of industrial production in 1920, 67.7% in 1940, 68.6% in 1950, 71.8% in 1960 and up to 73% of industrial production in 1968.⁷ These figures indicate an incredible concentration

³ Ronald A. McEachern, “In Abundant Tropic Land, Fabulous Canadian Light” in Financial Post, February 23, 1952, p. 15.

⁴ Patricia Best, and Ann Shortnell. The Brass Ring: Power, Influence and the Brascan Empire, (Toronto: Random House, 1988), p. 31. This book, The Brass Ring: Power, Influence and the Brascan Empire, is an excellent account of the post-1979 Brascan empire and focuses on the impact that this conglomerate has had on the Canadian economy.

⁵ Duncan McDowall, The Light: Brazilian Traction, Light and Power Company Limited, 1899-1945, (Toronto: University of Toronto Press, 1988), p. 4.

⁶ Ibid. , p. 3.

⁷ Janet D. Henshall and R. P. Momsen, A Geography of Brazilian Development, London: G. Bell & Sons, 1974), p. 176.

of industrial production in the Rio de Janeiro - São Paulo corridor that was served by the Brazilian Traction, Light and Power Company.

In 1899, Brazilian Traction, Light and Power was initiated when a group of Canadian financiers, fresh from the construction of a railway linking the Maritimes and Central Canada to British Columbia, the development of hydroelectric power at Niagara, and the construction of tramway and streetcar systems in cities across Canada, became interested in investing in the Brazilian city of São Paulo. These financiers were involved in public utilities in Barcelona and other Spanish cities, Cuba, and a number of cities in Mexico. Of all these investments, it was those in Brazil which have lasted for close to one hundred years. From its start in São Paulo in 1899, the acquisition of the Rio de Janeiro concessions in 1904, the period of sporadic growth in the 1920s and 30s, the war years, the challenges of changing regimes and an emerging Brazilian economy of the 1950s, 60s, and 70s, to the sale of Brascan's various utility interests in the 1940s, 60s, and the sale of its electrical facilities in 1978, the Brazilian Traction, Light and Power Company has played a vital role in the development of an economic infrastructure in the industrial heartland in south-central Brazil and the emergence of Brazil as an important and influential global economic power.

The initial section of this chapter will provide a background of the Brazilian Traction, Light, and Power Company from 1899 until the sale of the utility operation to the Brazilian government in 1979. This section will address the history of the Light and follow its growth and the problems and achievements associated with this growth. The following section will examine the Light's electrical interests, both generation and distribution and how they impacted the development of the industrial and economic infrastructure in south-central Brazil. These electric utility interests are arguably the most important contribution made to the Brazilian economy by the company. In the subsequent section, Brascan's

other utilities; its public transport, telephone, and gas concerns, will be briefly addressed. The final section looks at Brascan's post-1979 interests in Brazil.

4.2 Background of the Brazilian Traction, Light, and Power Company

The Light has been in Brazil since 1899 when the São Paulo Tramway, Light and Power Company Limited was formed. The company was initially a small utility operation that was organized to bring electric-powered trams to São Paulo. This beginning was in a country that had not yet felt any of the effects of the Industrial Revolution and had a traditional agricultural economy based on coffee. Both Rio de Janeiro and São Paulo had significant populations; 750 000 and 240 000 respectively, but had yet to introduce hydroelectricity and had streets illuminated by gas.⁸ By the early twentieth century, São Paulo had become the commercial and industrial centre of Brazil and one of the largest cities in Latin America. Its electrical service prior to the establishment of the São Paulo Tramway, Light and Power Company consisted of a few small thermal generators and an urban transit system of a number of companies and their mule-drawn streetcars.

The Brascan story began 1896 with a visit to Canada by Américo de Campos, son of a prominent São Paulo citizen. He was befriended in Montreal by Francisco Gualco, a former member of the Italian Navy. De Campos extended an invitation to Gualco to visit his family in São Paulo. When Gualco arrived in São Paulo he met the father-in-law of de Campos' brother, Antonio Augusto de Souza, who was interested in establishing an electric-powered transit service in São Paulo. Together, de Souza, Gualco, and the two de Campos brothers established a new company that obtained the electricity and transport

⁸ Jorge Niosi, *Canadian Multinationals*, (Toronto: Between The Lines, 1985), p. 74.

concessions for São Paulo and the surrounding area.⁹ Gualco set out for Europe and the US to look for potential investors to develop these concessions and after an unsuccessful trip returned to Montréal where he met Dr. Frederick Stark Pearson, a prominent US engineer that had worked with the Canadian financiers that were responsible for building the railways in Western Canada and constructing hydroelectric plants in Canada, Spain, the United States and Mexico. Pearson was able to bring these potential investors together with the Gualco group and secure funding for the purchase of the São Paulo concessions. Founders of the São Paulo Tramway included William Mackenzie of the Canadian Northern Railway, Frederick Nicholls, a Toronto financier involved in power generation development at Niagara Falls, Dr. F. S. Pearson, a US engineer, Senator George A. Cox of Canada Life, J. R. Plummer of the Canadian Imperial Bank of Commerce, and lawyers from the Toronto firm of Blake, Lash, and Cassels. This group had been previously involved in the development of Canadian railroad, electrical and industrial sectors and had a surplus of capital that they were interested in investing in enterprises in Canada and abroad. Gualco's company sold their concession to the Canadian group and the São Paulo Tramway, Light and Power Company was incorporated in Ontario on April 7, 1899. The company later absorbed other local power, telephone and gas companies and became the foundation of Canada's largest overseas corporations.

The de Souza-Gualco concession provided a 'perpetual franchise' for the use of public streets to operate an electric tramway system and the new company needed the approval of Brazilian authorities for the sale. This was the beginning of the company's relationship with the various levels of government in Brazil and underscores the fact that the company was never able to operate freely from government dictates. The company, in their petition to the government for approval, stated that it would, "spend very large sums

⁹ Many of the public utility systems in Brazil were given to companies by various levels of government in the form of concessions whereby a company had the exclusive right to provide services for a specified period of time. These concession often came with onerous restrictions and caveats.

in the City of São Paulo, and suburbs, and elsewhere in the state, in the construction and establishment of their system of electric railways.”¹⁰ In return the federal government required that the company place a representative in Brazil “with the full and unlimited powers to act and definitively resolve on questions which may arise either with the government or with private individuals, subject to being sued and judicially cited in lieu of the Company.”¹¹ This resulted in the dispatch of Alexander Mackenzie to Brazil to look after the company’s interests there.

Mackenzie first arrived in Brazil in 1899 to study the Gualco concession and organize the São Paulo company. He oversaw a concession that provided for forty years service by electric traction, the right to expropriate “all the lands of the river Tietê ... and transmit its force by electricity... “ to São Paulo.¹² Other conditions of the agreement required that the company keep enough cars in reserve to ensure continued service as well as provide transport to the state governor, his aide, senior police officials, numerous municipal officials and the mail.¹³ In order to initiate these services the company was to have an initial capitalization of US\$ 6 million.¹⁴ This was increased to US\$ 8.5 million by 1906, and to US\$ 10 million in 1907 where it remained until the 1912 merger with the Rio company.¹⁵ The company inaugurated an electric trolley service in 1900 and in 1901 a hydroelectric generating station on the Tietê River was brought into service. The São Paulo Tramway, Light and Power Company was successful as seen by the profits that it made in the company’s first five years when it paid out dividends totalling over US\$ 2.3 million.¹⁶ Construction was begun in 1908 on a second complex generating which was finished in 1914. By the beginning of the First World War, the São Paulo Tramway, Light and Power

¹⁰ J. C. M. Ogelsby, *Gringos from the Far North*, (Toronto: Maclean-Hunter Press, 1976), p. 129.

¹¹ Ibid. , p. 130.

¹² Ibid. , p. 130.

¹³ Ibid. , p. 130.

¹⁴ Op. Cit. , McDowall, p. 39.

¹⁵ Ibid. , p. 184.

¹⁶ Op. Cit. , Ogelsby, p. 131.

Company had acquired a monopoly on the concessions for electricity and urban transit in São Paulo.

In Rio de Janeiro, the Brazilian capital, the same group of Canadian promoters established the Rio de Janeiro Tramway, Light and Power Company in 1904 and absorbed established European companies that provided electrical, transit, light, and telephone services. The group was most interested in the hydroelectric project at Lajes in the Serro do Mar above Rio de Janeiro and they obtained jurisdiction over twenty-two miles of the Paraíba River on the westward side of the coastal escarpment. This project allowed the company to fulfill its exclusive right to provide the capital and the federal district with electric power as it acquired the power concession for the area until 1990.¹⁷ By 1908, the company inaugurated Rio de Janeiro's first hydroelectric station in addition to electrifying the streetcar system, constructing a new gas plant and improving the telephone system. The Rio system was as profitable as the one in São Paulo and by 1910 had a net surplus of over \$3.7 million.¹⁸ The Rio de Janeiro company had an initial capitalization of \$25 million when incorporated in 1907 which swelled to \$45 million in 1911.

In July of 1912, the two subsidiaries, the São Paulo Tramway, Light and Power Company and the Rio de Janeiro Tramway, Light and Power Company, were incorporated under the name of the Brazilian Traction, Light and Power Company Limited in Toronto. The growth of this company in the utility sector can be seen in the figures shown in Table 4.4. This data demonstrates the growth in all sectors as well as the extent of Brascan's involvement in the Brazilian utility sector. With the merger between the two companies there was a further authorization of capital stock for \$120 million, indicating that the investors in the new company had very big plans for their Brazil utility company.¹⁹

¹⁷ Ibid. , p. 132.

¹⁸ Ibid. , p. 133.

¹⁹ Op. Cit. , McDowall, p. 184.

Between 1910 and 1913 the two Brazilian companies had purchased additional utility companies in the two cities. In 1927, Brazilian Traction, Light and Power began a process of buying up smaller companies in the São Paulo and Rio vicinities. These purchases gave the Canadian company a firm grip on the utility services in Brazil's most densely populated and economically important area. The years of the second decade of the twentieth century saw an extensive amount of bonds being sold in Europe and North America to finance improvements and expansions in Brazil and resulted in European members sitting on the Board of Directors although the Toronto group retained a majority on the Board, the key administrative positions and control of the companies.²⁰ By 1912, about US\$ 90 million of stocks and bonds had been issued.²¹ In 1912, the two companies received over US\$ 25 million to expand its capital assets in the form of plant expansions.²² US\$ 2.2 million was invested in 1924 in another plant for São Paulo and the following year a further US\$ 8 million was invested in the beginning stages of the Serra do Mar development.²³ In 1929, the Company issued further bonds that raised US\$ 31 million for capital expansion.²⁴

Overseeing the early growth of Brazilian Traction, Light and Power was Alexander Mackenzie, a Toronto lawyer. Mackenzie was credited by Macleans as being, "the single greatest influence in the affairs of Brazilian Traction - he fought to keep Brazilian Traction an all-Brazilian entity, and checkmated the notorious international financier Loewenstein who wanted to merge and gain control of power interests in Barcelona, Mexico City and Brazil."²⁵ The few months Mackenzie intended to stay in Brazil turned into thirty years

²⁰ For a more in-depth look at the financing and the personalities and how they affected the Light see Duncan McDowall's The Light: Brazilian Traction, Light and Power Company Limited, 1899-1945, Toronto: University of Toronto Press, 1988.

²¹ Christopher Armstrong and H. V. Nelles. Southern Exposure: Canadian Promoters in Latin American and the Caribbean, 1896-1930, (Toronto: University of Toronto Press, 1988), p. 174.

²² Ibid. , p. 175.

²³ Ibid. , p. 239.

²⁴ Ibid. , p. 242.

²⁵ Brascan Ltd. , Brascan: Sixty Years of Brazilian - Canadian Cooperation, (Toronto: Brascan Ltd. , 1972), p. 7. For a more in depth look at the work of Mackenzie and the battle he waged to fight off an

during which he learned to speak fluent Portuguese, became knowledgeable with Brazilian law and developed close relationships with Brazilian politicians and business people that greatly assisted Brazilian Traction in its expansion and acceptance in Brazil; a country where “family, friends of the family, and friends of friends of the family are of crucial importance when negotiating one’s way through life.”²⁶ Mackenzie served as Vice President in Brazil under Pearson from 1902 until 1915 and as President from 1915 to 1928 during which time he directed Brazilian’s first expansion to make electricity more widely available in Rio de Janeiro and São Paulo and saw company growth in other utilities such as telephones, gas, and water. Under the direction of Mackenzie, Brazilian Traction, Light and Power established itself in the lives of the Brazilian people. Mackenzie used his Canadian legal and financial expertise, sold stocks and bonds in Canada and Britain, hired engineers and bought equipment from the United States, and left behind a thriving utility network. The company was often referred to as one built by Americans (Pearson) to American standards (equipment was supplied by American firms) while Britons and Canadians handled the legal and financial areas.²⁷ By the time Mackenzie retired after more than thirty years in Brazil, he had seen São Paulo grow into a city of one million, many of whom worked in industries powered by electricity from the Light; and Rio into a city of 1.6 million. Upon his retirement in 1928, the company was valued at more than \$300 million

attempt by the ‘Belgian Crosseus’, Loewenstein, to take over Brazilian’s profitable operations and merge it with less well run operations in Spain and Mexico, see McDowall’s The Light.

²⁶ Op. Cit. , Ogelsby, p. 133.

²⁷ Ibid. , p. 131. Canada was not an exporter of technology to Latin America. This resulted in Canadian multinationals such as Brazilian Traction, Light and Power purchasing all of its equipment for electrical production and urban transport in São Paulo from General Electric in the US. It was not until after the Second World War that Canada began to supply equipment to its own electric generation MNCs. Purchases made in Canada went to the subsidiaries of American corporations. This is seen by the purchases made by Brazilian Traction Light and Power between 1947 and 1951. Of the \$160 million to supply its Brazilian operations, 39% was spent in Brazil, 31% in Canada, 23% in the US, 4% in the UK, and 3% in other countries. Brazilian purchased lumber, construction materials, office supplies etc., in Brazil while it purchased heavy equipment such as generators, turbines, transformers, and circuit breakers from Canada; primarily from Canadian General Electric and Canadian Westinghouse, American subsidiaries. (Niosi p. 70 -72)

and he was credited with having an important hand in taking Rio from an administrative capital to an emerging modern port and industrial centre.²⁸

Mackenzie used his talents at building local alliances and cultivated prominent Brazilian business leaders, lawyers, and politicians in order to win federal favour and counter Brazilian opposition.²⁹ He saw the importance of connecting the company with the leading figures in Brazil and as early as 1902, small amounts of stock were held by prominent citizens of São Paulo. This strategy saw the Brazilianization of the Light and the appointment of a Brazilian to manage the São Paulo trams. In 1909, the first Brazilian, Dr. Alfredo Maia of Rio de Janeiro, who was well connected to many important Brazilian politicians, was appointed to the board in a bid to alleviate the difficulties of the Brazilian political situation and provide important political capital.³⁰ Mackenzie was able to develop high level accommodations with the politicians of the important states of Minas Gerais and São Paulo who believed that foreign capital and technology had a beneficial role to play in Brazil.³¹ His influence with politicians was seen in the visit of Lauro Müller to Canada in 1916 following a trip to Washington and it is believed that he played a role in Brazil's renouncing its neutrality and fighting on the side of the Allies.³²

Mackenzie excelled in attracting the best legal talent that Brazil had to offer. This was important as the company was constantly going to court to defend its interests against economic nationalists and indigenous competitors. Mackenzie took the fight for the concessions in Rio de Janeiro to Brazilian courts which confirmed Canadian rights to the concessions. Mackenzie was able to mount an effective defence in court against the economic nationalists because the company could afford to hire the most prestigious lawyers. John Wirth in his book on the early years of Brazilian development wrote that "In

²⁸ Op. Cit. , Noisi, p. 135.

²⁹ It also did not hurt that the Rio company built an illuminated triumphal arch for President Pena.

³⁰ Op. Cit. , McDowall, p. 106.

³¹ Ibid. , p. 147.

³² Ibid. , p. 239.

a nation still on the threshold of large-scale industrialization, the lawyers for Rio's Canadian-owned Light and Power Company were prominent and influential men."³³ The Brazilianization of the company's legal department saw the hiring of lawyers who were trained to understand the intricate network of laws that emerged in the Vargas years.

The establishment of the Light as a single utility company in the most prominent industrial region of Brazil did not go unchallenged.³⁴ The Brazilian economy had not been dominated by foreign interests as Argentina and Chile had been by the early 20th century. An important feature of the Brazilian economy was that local elites controlled the export and manufacturing sector and looked at foreign interests with a large degree of skepticism particularly in the transport, finance, manufacturing and utility sectors. The Brazilian Traction, Light and Power Company therefore found itself faced with a significant opposition to their expanding interests in Brazil. Rio de Janeiro differed substantially from São Paulo in attitudes towards growth and the role of foreigners in the early 1900s. (This attitude has continued to the present and São Paulo continues to have a more accepting view of foreign investment than does the Rio de Janeiro.) São Paulo was booming and there was room for everyone who wished to invest. The richest, most industrialized, and cosmopolitan state was where economic nationalism was the weakest. This was much different from Rio where a home-grown nucleus of entrepreneurs and technicians existed that wanted to have Brazilian owned and controlled industrial development.

The utility concessions had been easy to obtain in São Paulo but the success of the company resulted in increased interest in the Rio concessions from a number of indigenous sources. Opposition to the expansion of Canadian interests led to an assertion that the Canadian competitors were making lavish profits.³⁵ Concern over the wisdom of putting

³³ John D. Wirth, The Politics of Brazilian Development: 1930 - 1954, (Stanford: Stanford University Press, 1970), p. 170.

³⁴ One of fiercest opponents and competitors for Brazilian Traction, Light and Power was the Guinle family; a politically and economically important family with utility interests in the south east of Brazil.

³⁵ Op.Cit. . Ogelsby, p. 112.

the city's tramway in the hands of a foreign corporation caused Rio de Janeiro's federal politicians to hesitate and there was some doubt as to the wisdom of conceding the utility field to one enormous producer and supplier of electricity.³⁶ The Rio situation was further complicated by the fact that the city, as part of the Federal District, was controlled by federal politicians who tended to be more nationalistic than the state and municipal politicians that Pearson and Mackenzie dealt with in São Paulo.³⁷ Attacks on the company became a fact of life despite the fact that the quality of service provided by the company never provided a focus for opposition.

These initial experiences in expanding into Rio de Janeiro taught Brazilian Traction, Light and Power valuable lessons for the future. The most important of these was the necessity of cultivating and forming informal alliances with the power brokers of Brazilian society. These contacts insured that the company had influence in political and economic decision-making circles and made sure that the company's interests were well represented.³⁸ This close association between the Light and the Brazilian business elite and between electricity and economic growth was seen by the fact that Francisco Matarazzo, Brazil's leading food processor and textile maker, José Maria Whitaker, a leading banker, and Roberto Simonsen, president of the Santos Construction Company, were all in attendance at the inauguration of the Cubatão complex in 1926.³⁹ The close contacts between the company and officials and businessmen have led to speculation that amounts of money were needed to get things approved and there is little doubt that some Brazilians did well representing the interests of the company.⁴⁰ These intimate contacts

³⁶ Op. Cit. . McDowall, p. 143.

³⁷ Ibid. . p. 66.

³⁸ In Canada, Brascan developed close ties with the federal Liberal party, particularly in the 60s and 70s. Several Cabinet Ministers including Mitchell Sharp, Robert Winters, and Anthony Abbott either apprenticed or retired with Brascan management. The current chair of the board of directors is Conservative senator J. Trevor Eyton.

³⁹ Op. Cit. . McDowall, p. 260.

⁴⁰ Op. Cit. . Ogelsby, p. 142.

with the political and business hierarchy, were essential to the survival of Brazilian Traction, Light and Power.

The 1920s saw the rise of Brazilian nationalism in the form of a call for more Brazilian self sufficiency. This outlook conflicted with the outlook of the Old Republic politicians with whom the Light had made firm alliances. In order to counteract this rising nationalism the Canadian directors advocated the further Brazilianization of the company. Although North American engineers remained in charge, more and more control was delegated to Brazilian born employees and in 1928, a Brazilian was appointed general manager of the São Paulo company. Brazilian-born engineers were also rising in the company and by 1939 certain operations were entirely under Brazilian control. This policy of promoting Brazilians in the hierarchy resulted that by the 1940s, foreign managers formed a very small part of the Brazilian staff.⁴¹ The process of Brazilianization continued and the Toronto head office recognized the importance of this process in insulating the company against the nationalistic tendencies in Brazil at the time of the New Republic.

As the largest private employer in Brazil for more than sixty years, the Light played a crucial role in Brazilian labour history. It was seen to act as a school for the learning of workplace discipline, technical skills, and employees developed a sense of identity among a labour force that was in the upper echelons of Brazilian labour.⁴² The construction of the Parnaíba power station in 1901 saw the beginning of one the most important roles played by the Light in Brazil; the transfer of skills and the employment of Brazilians in the operation of the company. The company began the process of familiarizing large numbers of relatively unskilled local workers with the knowledge and discipline necessary to construct, develop, and maintain modern utility systems. In 1903, the São Paulo company placed an order with a Rio firm to produce tramcars. These tramcars were the first major

⁴¹ Op. Cit. , McDowall, p. 275

⁴² Op. Cit. , McDowall, p. 8

purchase by the company in Brazil and were the result of experiments with new designs in the company's São Paulo shops. The Brazilian-built trolleys were designed to accommodate the special conditions of the tropics and were built using native woods thus reducing the problem of rotting that afflicted the American-built cars.⁴³ The company treated its employees in the traditional paternalistic fashion of the time by barring unionization yet at the same time it deliberately paid wages higher than the Brazilian norm, provided medical and social facilities, and offered opportunities for workers to acquire technical skills and enjoy a better-paid, longer lasting career. All in all there was a high degree of company loyalty among Light workers.⁴⁴

The First World War saw severe material shortages due to the war in Europe. The result was that the company's own machine shops were used to replace foreign suppliers. In 1917, machine shops and foundries in Rio were expanded allowing the company to produce many of the parts that had been imported. By the end of the war, the Rio shops were building passenger trams, trailer cars and freight trams using locally produced components, salvaged items and some imported parts. It was only in the telephone equipment field, which required high precision and high labour skills, that the company's shops were unable to continue to keep up with demand. This situation resulted in the fact that indigenous production lessened supply shortages and saved exchange dollars. Benefits to Brazil were also gained not only through the consumption of local raw materials but also through the training and employment of local workers in producing goods that had previously been beyond the skill of Brazilian workers. The shops surrounding the operations of the Light in Rio and São Paulo became the catalyst for the trained electricians, metal workers, and skilled crafts people that played an important role in the future development of the Brazilian economy.

⁴³ Ibid. , p. 91.

⁴⁴ Ibid. , p. 230.

As the years progressed, the Light's relationship with the Brazilian society in which it operated changed. Instead of relying on imported managers and materials, the company gradually became dependent on Brazilian skills and materials. The company exposed Brazilians to large-scale enterprise and created a stimulus for Brazilian entrepreneurs to manufacture products ranging from tramcars to cement. These linkages were seen to form one of the Light's most positive contributions to the societal and economic makeup of Brazil.⁴⁵ The company also established schools for both adults and minors in the areas in which it had interests. These schools taught students about electricity, drafting, stenography, bookkeeping and general classes. Today Brazilian hydraulic and electricity engineers, many of whom were initially trained by the Light, use their skills to assist developing nations tap their own resources and increase their economic self-determination.

Following the retirement of Mackenzie in 1928, Miller Lash, son of one of the founding lawyers of the law firms Blake, Lash, and Cassels, the legal firm retained by Brazilian, became president. Lash served until his death in 1941 but unlike Mackenzie, ran the company from Toronto. The Brazilian operation of company fell to Kenneth McCrimmon, Mackenzie's nephew. McCrimmon played a role in the establishment of diplomatic relations between Canada and Brazil and is credited with saving Brazilian Traction, Light and Power from nationalization under the Vargas regime through his access to powerful Brazilians.⁴⁶ Under Lash, Brazilian expanded into Santos, the Atlantic port for the city of São Paulo. In 1929, Brazilian Traction purchased the City of Santos Improvement Company Limited which operated the electric, gas, tramway, bus, and water concessions. (The Light continued to operate these services until 1952 when it sold the tram service to the city of Santos. In the following year Brazilian sold the water concession for the city to the state of São Paulo and in 1967 discontinued the gas concession.) By

⁴⁵ Ibid. , p. 85.

⁴⁶ Op. Cit. , Ogelsby, p. 136.

1930, the Brazilian Traction Light and Power Company and its subsidiaries had assets valued at almost \$377 million.⁴⁷

The Light faced problems related to government regulation for an extended period of time as a result of legal wrangling over the Vargas administration's implementation of the Water Code. The Water Code codified water as public patrimony and placed it under the control of federal government and freezing rates at 1934 levels and prohibiting expansion or modification of the hydro electric network. Prior to the Second World War, these rates were seen as acceptable but resistance grew to new rate increases. The uncertainty caused by the Water Code resulted in a complete halt in the expansion of the power sector from the mid 1930s until the post war era. Brazilian Traction Light and Power was able to overcome this problem due to its substantial amount of surplus power. The company argued that increases were needed in order to finance expansion while the customer base was resistant to paying higher rates for decreasing service. This resulted in a confusing system of rates and government compensation.

Despite the problems faced by the company in the 1930s such as the Vargas administration's economic nationalism, the Estado Novo, and the Depression, the Light managed to continue to exist (although the company did not pay out dividends for five of the ten years between 1931 and 1940). This survival was due to the company's role as a fixture in the industrial landscape of the Brazilian south east. It had a solid record in providing electricity to the industrial heartland on which many Brazilian manufacturing jobs depended. Other factors included the Brazilianization of the company, its ability to adapt to changing political climates and close connections with the elites in Brazilian society. Economic nationalists increased their opposition to the company and it was increasingly the "butt of any newspaper which wants to increase its circulation."⁴⁸ During the Vargas

⁴⁷ Op. Cit. , Armstrong and Nelles, p. 252.

⁴⁸ Op. Cit. , Ogelsby, p. 136.

regime and after, government became more involved in the operations of Brazilian Traction, Light and Power. The government ordered that twenty percent of coal used in Brazilian's gas operation must be Brazilian. The company undertook research on how to more effectively use lower grade Brazilian coal and was successful in this endeavour.

The Second World War resulted in restrictions on imported machinery which affected the Light. However, the war also resulted in the continued economic growth of the industrial region of São Paulo and Rio. In the period between 1939 and 1943 the state of São Paulo experienced a growth rate of 7.8% annually and the Rio-São Paulo region saw an increase of 38.5% in electric consumption over the same time period.⁴⁹ The continuing industrialization process resulted in the Light having some difficulty in meeting the demand for electricity by the 1940s. The Light was hampered in making the capital investments to address this situation as the war prevented the raising of sufficient capital and while Brazilian politicians were willing to allow the expansion of existing foreign owned electric facilities, they were unwilling to allow them to acquire or build new ones. The difficulty is underlined by the fact that between 1935 and 1945, installed hydroelectric capacity increased by 26% while consumption of electricity per capita increased by 70%.⁵⁰

The 1940s are often viewed as the pinnacle of Brazilian's time in Brazil as it had reached its peak of employment at 50 000 in Brazil and 100 in Toronto. Its importance to Brazilian labour can be seen in a proverb from the time that suggested, "that it was the ambition of every family to have one son a priest and another in the employ of the Light."⁵¹ By 1946 Brazilian Traction was Canada's largest overseas investment with assets valued at US\$ 477 000 000 and its concessions spread over the 'Golden Triangle' of São Paulo, Rio

⁴⁹ Op. Cit. , McDowall, p. 346.

⁵⁰ Ibid. , p. 367. In the ten year period preceding 1941, Brazilian Traction Light and Power had seen its utilities increase in scope significantly. There had been a 128% increase in kW hours sold, 130% increase in telephone units in service, a 47% increase in passengers on its trams and a 58% increase in cubic metres of gas sold. Brazilian Traction, Light and Power Company Limited. Annual Reports 1940 - 1965, (Toronto: Brazilian Traction, Light and Power Company Limited, 1940 - 1965), p. 6.

⁵¹ Op. Cit. , McDowall, p 386.

de Janeiro, and Santos and into surrounding areas.⁵² The Light supplied over 60% of the total power produced in Brazil and supplied 75% of the country's telephones.⁵³ It was noted that a Carioca (a resident of Rio) woke up in the morning and heated water from the Light using gas from the Light for morning coffee and travelled to work on a tram or bus owned by the Light. The electricity in the office was also provided by the Light and it was generally considered that during the 1940s the service was excellent.⁵⁴

Projections of electrical demand for a post-war Brazil raised concerns about the viability of continuing on in Brazil by some of the company's old guard. The company needed an infusion of funds to meet the anticipated increased demand that was beyond the means of the company to raise through traditional means. In the face of increased demand, the Light was forced to undergo an extensive expansion campaign in order to avoid pressures to nationalize the company. Between 1946 and 1955 the company was committed to a US\$ 500 million capital expenditure in anticipation of a heavy demand for services. The post-war period was not a easy time to raise such funds and the company was unable to fund this through retained earnings as utility rates were frozen at 1934 levels, or in the US and European capital markets. One of the younger members of the Board of Directors, Henry Borden, still saw opportunity for a continued and increased presence for Brazilian Traction, Light and Power and had a novel method of obtaining the capital for the company's expansion. This resulted in negotiations with the World Bank which led to a US\$ 75 million loan in 1949, a second loan for US\$ 15 million in 1951 and a third for US\$ 18.8 million in 1954.⁵⁵

Under Borden's direction, the company applied for a loan from the International Bank for Reconstruction and Development. In May of 1949, Brazilian Traction, Light and

⁵² "Brazil Action Hits Canada - Fewer Here Involved Now" in Financial Post, June 9, 1962, p. 38.

⁵³ Op. Cit. . McDowall, p. 386.

⁵⁴ Op. Cit. . Best, p. 33.

⁵⁵ Op. Cit. . McDowall, p. 388.

Power made financial history when it secured a loan from the World Bank; the first for a private company. After being told that the loan needed the approval of the Brazilian government, Borden called on Antonio Gallotti, chief of Brazilian operations to make a presentation. This resulted in the company being issued a \$US 75 million loan that funded the massive expansion of Brazilian's system in the 1940s and 50s.⁵⁶ The loan was used to expand the services of the Light and saw the addition of new generating units at Cubatão, the diversion of the Paraíba and Piraí Rivers to the Fontes station (considered an engineering marvel as it created a water reservoir inside a mountain and generated 320 000 kW from water that fell 1000 feet through a twenty foot tunnel at the Forcacava power plant - the largest scheme worldwide to that point), and an expansion of the telephone system.⁵⁷ The Brazilian government guaranteed further loans and this amount was increased to \$US 120 million, allowing extensions to existing plants and pumping stations and the purchase of a floating steam plant. This initiative by the company led to further loans from the World Bank to Brazil and between 1949 and 1975, the country received more than \$US 500 million for power projects, most of which went to the public sector.⁵⁸

From 1940 onwards, Brazilian Traction, Light and Power made substantial investments in its Brazilian utilities as shown in Table 4.6. In the period from 1940 to 1977, when the company was sold, Brazilian Traction, Light and Power undertook to develop the utility infrastructure in the south central region of Brazil. (Investments in the utilities will be discussed specifically in the subsequent sections.) A general overview of investment from 1940 onwards indicates a generally increasing amount of capital expenditure by Brazilian Traction, Light and Power. (see Table 4.6) During the war years capital expenditure was relatively low due to the fact that the company was unable to raise capital in Europe and North America was concentrating on the war. In the immediate post-

⁵⁶ Op. Cit. , Best, p. 34.

⁵⁷ Ibid. , p. 34.

⁵⁸ Op. Cit. . Ogelsby, p. 139.

war period, investment rose from \$US 19.4 million in 1945 to \$US 81.2 million in 1952.⁵⁹ (1953 shows what appears to be a halving in investment. This actually stemmed from the fact that due to a foreign exchange crisis, the Brazilian government established a fixed and free exchange rate.) Over the next decade, investment remained relatively stable, averaging \$US 34.5 million a year.⁶⁰ This relatively low figure was a fixture of the instability of the country at the time yet at the same time underscores the company's attempts to keep up with the expansion of the Brazilian economy. By 1962 and 1963, the company's investment shrank to \$US 14.7 million.⁶¹ This resulted from the nationalist attitudes of the Goulart regime and the economic instability that characterized the Brazilian economy in the first years of the 1960s. It is interesting to note that in 1965, the year immediately following the takeover by the military, Brazilian Traction, Light and Power doubled its investment in Brazil to around \$US 28 million.⁶² For the next ten years, the company continued its heavy investment in Brazil, reaching \$US 285 million in 1977, the year before the utility was sold to the Brazilian government.⁶³ These funds for investment came from retained earnings (in the period from 1972 to 1976, half of the \$US 645 million in capital expenditure came from retained earnings⁶⁴), loans from private institutions and also a total of \$US 109 million from the World Bank. (\$US 75 million in 1949, \$US 15 million in 1951, \$US 18.8 million in 1954)⁶⁵

Under Borden, significant changes were made in the corporate structure of the company. Head Offices for the São Paulo Light, the Brazilian Telephone Company, the Rio Light, and other subsidiaries moved to Brazil and acquired Brazilian nationality while the parent company Brazilian Traction, Light and Power Company Limited retained its

⁵⁹ Op. Cit. , Annual Reports, 1945 & 1952, p. 4 & p. 5.

⁶⁰ Ibid. , 1953 - 1962.

⁶¹ Ibid. , 1964, p. 6.

⁶² Ibid. , 1965, p. 9.

⁶³ Ibid. , 1977, p. 11.

⁶⁴ Ibid. , 1971, p. 4.

⁶⁵ Op. Cit. , McDowall, p. 399.

Canadian nationality. By the late 1940s, the state in Brazil began to take over some of Brazilian's public utility interests. In 1947 the city of São Paulo took over the streetcar service and in Santos the service was transferred in 1952. This was not a great loss to Brazilian as the two companies had ceased to be profitable.

In 1955, the first Brazilian was appointed to the post of chief executive officer in Brazil. Dr. Antonio Gallotti had served for almost twenty-five years with the company and his appointment was seen as an important one in the face of nationalist fervour that exceeded that of the 1930s Vargas era.⁶⁶ Brazilian Traction, Light and Power had become a target of the Brazilian left and was referred to as the 'Canadian Octopus' or a 'Yankee trust'. (This last comment had a ring of truth to it because while Canadians predominated at headquarters, the majority of shareholders were American.⁶⁷) Brazilian was the largest foreign-owned firm in Brazil and was therefore a target for nationalists. Judith Tendler noted that "'The Light' was the classic case of a foreign company with monopoly privileges to supply a public service. Its actions were often construed as predatory by the public and the host government, and rate increases were met with great popular resistance."⁶⁸ Canada's ambassador to Brazil noted that "many Brazilians could not differentiate between the two North American countries."⁶⁹ Borden's leadership and vision, ensured that Brazilian never became a reviled Canadian company. The continued Brazilianization of the Light under Gallotti resulted in a great proportion of his advisors being Brazilian. Although policy decisions continued to be made in Toronto, when they affected the utilities, decisions were made in accordance with the views of the executives in Brazil.

The presidency of Juscelino Kubitschek saw an increase in the industrialization of Brazil. Between 1956 and 1961 overall industrial production grew by 80%, steel output by

⁶⁶ Op. Cit. , Ogelsby, p. 139.

⁶⁷ Ibid. , p. 139.

⁶⁸ Judith Tendler, Electric Power in Brazil: Entrepreneurship in the Public Sector, (Cambridge, Massachusetts: Harvard University Press, 1968), p. 2.

⁶⁹ Op. Cit. , Ogelsby, p. 139.

100%, mechanical industries by 125% and the transportation equipment production by 600%.⁷⁰ This resulted in the electrical shortages experienced by the Light in the late 1940's becoming more acute and the company struggled to survive in the face of frozen rates, high inflation and the instability of the Brazilian political scene under the presidencies of Jânio Quadros and João Goulart. This instability saw Brazilian growth plummet from 10.3% in 1961 to 1.5% in 1963.⁷¹

Under the presidency Borden from 1946 to 1963, Brazilian Traction tripled its generating capacity from 680 000 kilowatts to 2 350 000, more than doubled its telephone installations and expanded its gas operations. These increases in power supply could not meet the regions rapid growth and the company began to purchase power from state-owned operations. By 1950, Brazilian was the largest company in Brazil and one of the largest utility companies in the world with an electrical capacity of 932 265 kilowatts, more than 400 000 telephones in operation, 220 000 gas customers, 29 000 water clients, and more than 45 000 employees.⁷²

The 1960s saw an increase in the difficulties faced by the Light. Brazilians became enamoured with the automobile and the Rio tram system was no longer profitable. This resulted in the sale of the tram system to the state of Guanabara. A series of populist governments and an upsurge in economic nationalism resulted in questions of stability and business became more difficult to do. The company was also forced by the government to increase employee wages by 38% in 1960 without a corresponding increase in the rates charged for its services.⁷³ 1961 saw an increase in the withholding tax on profits of foreign-owned companies and in the following year, the government considered implementing legislation that would require 75% of the monies received from the

⁷⁰ Op. Cit. , McDowall, p. 392.

⁷¹ Ibid. , p. 393.

⁷² Op. Cit. , Niosi, p. 75.

⁷³ Op. Cit. , Best, p. 35.

nationalization of any company, to be reinvested in Brazil. This time period was also characterized by chronic high inflation in the Brazilian economy. The value of the Brazilian currency plummeted and the company was unable to pay dividends several times over this period of the 1960s.⁷⁴

The Light faced the prospect of nationalization in the early 1960's, but the 1964 military coup made Brazilian's political worries over the actions of the populist governments of Quadros and Goulart, diminish. The new military government stressed the economic potential of Brazil in efforts to attract outside investment and decided that the nationalization of Brazilian Light's electric utilities would not be in the best interest of such a programme. Brazilian sustained little damage from the coup "save bullet-ridden telephone poles."⁷⁵ The business climate improved and the rate regulations improved over the following years.

The 1964 military takeover saw changes in the relationship between the Light and the government. The strained relations that had existed with the previous federal governments whose refusal to allow rate increases and used the threat of nationalization, had naturally caused the Light to carefully consider further investments in Brazil. The excellent relationship that the Light had developed with the new power brokers in Brazil can be seen by the fact that shortly after taking power, the military government authorized a rate increase that the Light had been fighting for for fifteen years.⁷⁶ The policy makers in the new government were in favour of rate increases and were sympathetic to the concerns of the Light. In a similar vein, these new decision makers remained unconvinced that nationalization would solve the power problems in the São Paulo and Rio de Janeiro region and viewed state-run enterprise as being incompetent.⁷⁷

⁷⁴ Ibid. , p. 35.

⁷⁵ Ibid. , p. 35.

⁷⁶ For a more in-depth discussion about the rate issue see Tendler's book Electric Power in Brazil

⁷⁷ Op. Cit. , Tendler, p. 45.

The close relationship between the Light and the new military government of Castello Branco had other interesting aspects. Shortly after the rate increases were allowed, the Light announced a US\$ 122 million expansion programme in its distribution and transmission facilities. This programme, it should be noted, was for transmission and distribution facilities not new generation facilities. This was seen as less of a commitment than the construction of generating facilities on the part of the Light, a foreign-owned utility company that had just seen a political revolution occur. The company was uncertain as to how the next years would play out and were therefore cautious in their expansion. At the same time the fact that an expansion did occur is indicative of the increased stability in the investment climate than had existed prior to the military takeover in 1964.

In 1966, after years of negotiations, Brazilian Traction signed an agreement to sell the company's telephone utility to the Brazilian government and due to Gallotti's excellent connections with Brazilian government officials, the Light was able to repatriate US\$ 10 million of the US\$ 96 million selling price to Canada. This was a much better deal than the American giant IT & T was able to negotiate and speaks to the superb connections that Brazilian had built over the years with power brokers in the Brazilian government. The Brazilian Telephone Company had been reluctantly acquired in Rio as part of the tramway system deal and had grown into an important asset. The company had been unable to keep up with demand for telephone service and entered into negotiations with the socialist government of Goulart shortly before the government intervened. Although the 1964 coup did not alter the expropriation, it probably helped the company reach a more favourable settlement.⁷⁸ The company was also somewhat relieved that it did not have to invest an estimated US\$ 450 million needed to improve the telephone system's facilities.⁷⁹ These facilities served the states of Rio de Janeiro, São Paulo, Minas Gerais, and sections of

⁷⁸ Op. Cit. , Ogelsby, p. 140.

⁷⁹ Ibid. , p. 140.

Espírito Santo. Following the sale of the telephone company, Brazilian had fixed assets of over US\$ 828 million.⁸⁰

Under the agreement reached with the Brazilian government, the sale price of US\$ 96 million was payable over a period of twenty years and 75% of the selling price had to be reinvested in Brazil.⁸¹ The balance of the sum, US\$86 million, was to be paid over a twenty year period with 25% repatriable to Canada.⁸² This sale began the company's diversification in Brazil through Banco Brascan de Investimento S. A. which oversaw the expansion of Brazilian's interests into the mining, manufacturing and financial sectors.⁸³ J. Grant Glassco, president after Borden in 1963, laid out a general investment policy framework stating that: 1) the enterprise should be productive, contributing to the development of Brazil, 2) company money should be used to expand productive capacity not to buy out existing competitors, and 3) such fields as entertainment, retail, and wholesale trade and real estate would be outside Brazilian's sphere of influence.⁸⁴ These comments are a reflection of the nationalist nature of Brazilian politics at the time and they carefully avoid issues that could jeopardize or lead to the nationalization or expropriation of the electric utility. At the same time they indicate a commitment to the development of Brazil. The diversification programme stemmed in part from the Brazilian government's insistence that industries put more of their earnings into Brazilian development.

In Brazil, the Light's initial diversification programme saw its interests expand into investment banking, food processing, hotel interests and other areas, contrary; in many cases, to the goals laid out by Glassco. In line with Brazilian legislation that granted concessions to companies that invested in depressed areas, Brascan established Brascan

⁸⁰ Op. Cit. , Annual Report 1966, p. 17.

⁸¹ Op. Cit. , Brascan Ltd. , Brascan: Sixty Years of Brazilian - Canadian Cooperation, p. 19.

⁸² Op. Cit. , Best, p. 36.

⁸³ Op. Cit. , Niosi, p. 76.

⁸⁴ Martin Sinclair, "How Brazilian Light Plans to Spend Cash" in Financial Post, October 22, 1966, p. 40.

Nordeste-Sociedade Civil de Desenvolvimento e Pesquisas which financed agro-industrial research in the Brazilian northeast.⁸⁵ This \$1.8 million dollar non-profit research organization, designed to develop agriculture and other employment opportunities for the Northeast of Brazil, a traditionally underdeveloped region, was a result in part of profit repatriation restrictions imposed by the Brazilian government as well as the company's desire to take advantage of federal government tax incentives. The proceeds from the sale of the telephone utility were used to make Brazilian's first of acquisition of Canadian subsidiaries. Brascan expanded into Canada when it purchased one million shares of John Labatt Limited, purchased shares in the Hudson's Bay Company and Elf Oil, established Brascan Resources Limited, and established an international trading group with offices in Toronto, London, New York, Rio de Janeiro, and Tokyo.⁸⁶

These diversifications can be seen in Figure 4.1 which shows Brascan's corporate structure in 1970 under the presidency of J. H. Moore. This diagram shows that Brascan's Brazilian operations had moved into consumer and industrial good sectors such as the security company Brinks (Brazil) and Fábrica Nacional de Vagões, a manufacturing company supplying the railway and automobile industry. In Canada, the company's main interest was in John Labatts Limited but the company's interests were still focused primarily on Brazil. This continued into the mid 1970's as shown in Figure 4.2. Well over 85% of Brascan's assets remained in Brazil and the Light continued to account for over \$US 1.6 billion of the company's assets of \$US 2.2 billion.⁸⁷ By 1975, the Brazilian arm of the company had moved further into the consumer goods sector, owned a 41% share of the Brazilian branch of the food processing company Swift-Armour, and had also entered the real estate market.

⁸⁵ J. C. M. Ogelsby, "Canada and Latin America" in Canada and the Third World, (Toronto: Maclean-Hunter Press, 1976), p. 192.

⁸⁶ Op. Cit. , Best, p. 36.

⁸⁷ Brascan Ltd. Annual Report 1975 (Toronto: Brascan Ltd. , 1975), p. 8.

In August 1967, the two systems Rio and São Paulo Light were merged into one firm, Light-Serviços de Eletricidade S. A. The company also changed its name to Brazilian Light and Power Company to reflect the focus on the supply of electricity to south-central Brazil. In 1969, the company's gas service was sold to the Brazilian government and the name of the company changed once again to Brascan Limited to reflect the increased importance of the company's Canadian investments.

In 1978, the state owned electric company, Eletrobras, purchased the Light for US\$ 380 million.⁸⁸ Brascan president Jake Moore stated at the time that "Because of its size, it (Light-Serviços de Eletricidade S. A.) is an integral part of the economic, political, and social fabric of the country. It is understandable that Brazil should wish to integrate it into the public sector."⁸⁹ At the time of the sale of the Light, Light-Serviços de Eletricidade S. A. had 41% of the electrical distribution and supplied 60% of the industrial electrical needs in the Rio de Janeiro and São Paulo area.⁹⁰ The utility had become a plaything of Brazilian regulators according to company officials and as the company was free to repatriate the full sum paid for the Light, Brascan exited from the utility sector that it had been in since before the turn-of-the-century. At the time of purchase, Brascan's portion of the Light (83%) was book valued at US\$ 840 million and total assets valued at US\$ 2.2 billion.⁹¹

The sale of the Light was not without controversy. Brazilian news magazines were incensed that the Brazilian government was buying a company whose concessions would have reverted to the Brazilian state in four years in São Paulo and in thirteen years in Rio de Janeiro.⁹² Under Brazilian law such concessions for companies operating in the public

⁸⁸ Op. Cit. , Niosi, p. 76.

⁸⁹ "No Light in Brazil" in Executive, Volume 21, Number 2, (February 1979), p. 12.

⁹⁰ Bob Carty, "Nationalization Without Tears: Brascan's Corporate Homecoming" in This Magazine, Volume 13, Number 2, May/June 1979, p. 43.

⁹¹ Op. Cit. , Niosi, p. 76.

⁹² Latin American Working Group, "Canada in Brazil: Brascan's Plan to Dump the 'Light'" in The Last Post, Volume 6, Number 2, (April 1977), p. 20.

service reverted to the state without right to remuneration. Critics of the sale argued that the government should merely have allowed the concessions to expire or expropriated the utility without compensation.⁹³ Other critics contend that Brascan had intentionally reduced expenditures to a minimum in the preceding years and that much of the equipment was run-down and in need of replacement. They argued that annual investments of \$US 300 million were needed to replace old equipment and upgrade service.⁹⁴

The sale of the Light in 1978 ended the integral role played by Brascan in the industrial development of the Brazilian economy although it continues to operate in Brazil to the present.

4.3 Electrical Generation and Distribution Interests

The most important impact made by Brascan on the economic and industrial development of Brazil has been through the company's investment in the infrastructure of the electrical generation and distribution sector. Charles Lynch and Pierre Burton in a 1947 article in Macleans stated that Rio de Janeiro had the best lighted streets in the world and that this was made possible by Canadian enterprise.⁹⁵ The Light had grown by 1968 into one of the largest electric utilities in the world serving the São Paulo and Rio de Janeiro areas. (See Figure 4.3)

The overall importance of hydroelectricity in Brazilian development can be seen in Figure 4.4 which shows the overwhelming amount of electricity that was generated through the damming of rivers when compared to the amount of power produced by thermal energy.⁹⁶ Table 4.2 also demonstrates the periods of greatest growth in electrical capacity through hydroelectric generation. The substantial increase between 1924 and 1944

⁹³ Ibid. , p. 20.

⁹⁴ Ibid. , p. 20.

⁹⁵ Op. Cit. . Lynch, p. 43.

⁹⁶ The quantity of electric power generated per year is given in kilowatts per hour (kWh) and hourly capacity given in kilowatts (kW). One megawatt (MW) equals 1 000 kilowatts.

occurred as the complexes designed by A. W. K. Billings came into production and the period from 1952 to 1960 demonstrates further expansions in generating capacity made by the Light. The large increases in hydroelectric capacity in the 1970s are an indication of the significant number of hydroelectric projects undertaken by the Brazilian state in the period of rapid growth. New complexes in the southern part of the country such as Itaipú and the development of projects in the Brazilian interior are reflected in these increases. The ability of Brazil to construct these huge hydroelectric complexes is indicative of the transfer of technological know-how that had passed to the Brazilians from foreign-owned electric concessions such as the Light over the preceding seventy years. This increase in Brazilian-owned generation facilities is further evidenced in Figure 4.5 which demonstrates that while the Light's share of Brazilian electrical capacity peaked in 1962, the total for all of Brazil rose sharply, particularly after 1969.

The Light accounted for over one quarter of all of Brazil's electrical capacity for more than 55 years; from around 1912 until 1968. (see Table 4.3) From 1939 until 1956 Brazilian Traction, Light and Power maintained a fifty percent share of Brazilian electrical capacity with a peak at close to 56% of total Brazilian capacity in 1953. (Table 4.3) The construction of state-owned facilities saw the Light's share of total electrical capacity drop to 8.4% by 1978 when the Light was sold to the Brazilian government. These later figures also reflect the Light's focus on distribution facilities rather than power generation.

Brazilian Traction, Light and Power provided the south-central area of Brazil with the energy needed for urban and industrial development. The Light initially went to Brazil in order to substitute electric power for animal traction in the urban transport systems in Rio de Janeiro and São Paulo as well as take advantage of an excellent return on investment. These subsidiaries took advantage of the hydroelectric possibilities of nearby rivers and engineered some amazing generating complexes on the Tietê River near São Paulo and on the Paraíba and its tributaries near Rio de Janeiro. Most of the rivers on the Serro do Mar

flowed westward into the Paraná River and on to the Atlantic. The Light and its engineers succeeded in reversing these rivers at their heads and forced the water over the edge of the Serro do Mar escarpment to generate power. Using a complex of dams, canals, pumping, and generating stations, these systems could be expanded when needed. These dams were some of the most ambitious electrical generating projects of their time.

In 1901, Brazilian constructed the Piratininga dam for São Paulo and in 1905 built the Ribeirão das Lajes for Rio de Janeiro. These two complexes were built to reduce the dependence of the utility on expensive imported coal generated electricity as well as to meet increased demands of these cities as they grew. These projects were unique as they required the development of towns and roads in remote areas by the day's standards in order to maintain the electrical supply. These dams were soon enlarged to meet increased demand. One author, Rollie Poppino wrote in the late 1960's that: "Much of the industrial growth of São Paulo and Rio de Janeiro was due to the abundance of water power along the Serro do Mar, a mountain range bordering the coastline of the southeast region, where imaginative engineers dammed the westward flowing waters to reverse their direction, and tapped the current as it spilled over the escarpment into the Atlantic."⁹⁷ By 1913 the São Paulo utility system was supplying 62 650 kW and the Rio system 47 700kW.⁹⁸

Under A. W. K. Billings, an American engineer who joined the company in 1922, the Light developed an organization that planned and built a power system that played an important role in the growth of the most populated and industrialized part of Brazil. Billings' work included the major generating stations in the São Paulo and Rio de Janeiro systems such as Ilha dos Pombos, extensions to Lajes and Rasgnão for the Rio system, as well as the huge Serro do Mar development (Cubatão) for São Paulo which stood as one of the most complex and productive developments in South America until the mid 1970s.

⁹⁷ Op. Cit. , Brascan Ltd. , Brascan: Sixty Years of Brazilian - Canadian Cooperation, p. 3.

⁹⁸ Op. Cit. , McDowall, p. 205.

These complexes were unique as they allowed for expansion as demand warranted. Billings' work is made more impressive when one remembers that these constructions occurred prior to the development of access roads that made surveying and the transport of heavy equipment easy. In 1944, Billings served as President of the company, a position he held for two years.

Brazilian Traction, Light and Power employed more than 30 000 employees and provided utility services that were unrivalled in their scope and efficiency on the South American continent by 1928. In the 1920s, São Paulo had established itself as the economic engine for Brazil. From producing 30.7% of national output in 1914, the region had increased its share to 41.7% by 1938 as a result of a diversification process made possible by coffee revenues. The importance of the provision of electricity to the development of the São Paulo economy has been noted by many writers of Brazilian economic history.⁹⁹ The infrastructure available to business in the area was important. The extensive rail system and the availability of electricity was in large part responsible for this economic advance. The 1920's saw power sales in Rio and São Paulo more than double from a combined sales in 1921 of 379 156 343 kW to 816 557 897 kW in 1929.¹⁰⁰ Electricity stimulated economic growth and fed off the result.¹⁰¹

Between 1924 and 1944, the company expanded the generating capacities of both the São Paulo and the Rio de Janeiro system. With the demand for power increasing rapidly in the south-central area of Brazil, there was a need to significantly expand the Light's generating capacity. The most important of these building plans was the Serro do Mar diversion scheme in the late 1930s that saw the construction of a series of dams, canals, pumping stations, surface and underground generating stations which resulted in the reversal of the flow of the Tietê River. The Cubatão complex reversed the flow of the

⁹⁹ Ibid. , p. 101. These include Richard Morse, Warren Dean, and Werner Baer.

¹⁰⁰ Ibid. , p. 246.

¹⁰¹ Ibid. , , p. 261.

originally westward flowing headwaters of the Tietê river, pumped its waters over and through the escarpment before dropping 2300 feet to the sea and generating 900 MW of power for São Paulo.¹⁰² The Cubatão development on the Tietê River near São Paulo was one of the most impressive of the Light's engineering feats. Cubatão ushered in a new era for electricity production in that it was designed to be expanded should the need arise. The Serro do Mar project included the development of the main generating station, Cubatão, as well as new or improved facilities at Sorocaba and Rasgnão.

The company's Lajes complex that served Rio de Janeiro, was smaller (550 MW) and was originally based on a small water flow that flowed naturally over the escarpment. Rio de Janeiro's Light system was also upgraded and expanded during this twenty year period with the diversion of the Paraíba River and the construction of the Ilha dos Pombos system which saw the import in 1922, of generating equipment from Switzerland and the United States, cement from Sweden and flood gates from Britain. The Lajes complex, whose height was doubled during this period, played an important role in the development of all of Brazil as the Rio de Janeiro Light system, in addition to serving the Rio de Janeiro area, also supplied the energy for the huge steel complex at Volta Redonda. This complex was constructed by the government in the late 1930s and is credited with giving a huge boost to the development of heavy industry in Brazil through the production of indigenous steel. In 1944 Brazilian Traction, Light and Power was contracted to provide power for the complex which required a separate transmission line. The steel complex began production in 1947 and by 1948 power consumption had increased by 93% over the previous year.

In the 1930's the low price of coffee decreased the availability of foreign exchange and resulted in an increase in locally produced goods and saw an accelerated growth in chemical, paper, furniture, and metallurgical industries particularly in the south-eastern

¹⁰² Warren Dean, The Industrialization of São Paulo, 1880-1945, (Austin, Texas: University of Texas Press, 1969), p. 110.

industrial heartland of Brazil which was supplied almost exclusively by the Light's power plants. This growth can be seen in the fact that industrial production grew by 11.2% annually between 1933 and 1939.¹⁰³ Consumption of electricity by industry in Rio and São Paulo grew 12.23% in 1934 over the previous year. São Paulo saw much of this growth and by 1939 accounted for 28.8% of all industrial plants, 34.9% of industrial workers, and 37.4% of installed electrical capacity.¹⁰⁴

In the 1930s and 40s, the Light came to be considered a dynamic force in the development of the São Paulo and Rio de Janeiro region through the production of abundant power as well as because it was able to take the new technology of hydroelectricity and adapt it to the geography of Brazil.¹⁰⁵ This new technology removed an impediment to the development of the southeast and was viewed by many as a symbol of the ability of humankind to triumph over nature, a concept that is often repeated in Brazilian history. In addition to this conquest over nature, the hydroelectric development near São Paulo was considered to be especially important as it took place in a context of a lack of transportation, malarial swamps and at a site that was more than thirty kilometres away from the coast. Judith Tandler suggests that this conquest over the environment, more so than the provision of electric power, gave the Light its reputation as a major contributor to the development of what is today the most important industrial region in Brazil.¹⁰⁶

The first three decades of Brazilian Traction, Light and Power's presence in Brazil, laid the groundwork for the rapid expansion of the Brazilian economy following World War Two. Over this thirty year period, the Light developed the foundation for the expansion of the utility infrastructure from the 1940s onward.

¹⁰³ Op. Cit. , McDowall, p. 303.

¹⁰⁴ Ibid. , p. 303.

¹⁰⁵ Op. Cit. , Tandler, p. 31.

¹⁰⁶ Ibid. , p. 33.

Perhaps one of the most important developments in the post war period was the construction of a transmission line connecting the Lages plant of the Rio de Janeiro system and the Cubatão plant of the São Paulo system. This line, begun in 1944 was completed in 1948 and allowed for the transfer of power between the two systems.

The São Paulo-Rio de Janeiro region was the post war economic powerhouse that fuelled Brazil's economic growth in the following decades and the Light fuelled the great part of this growth. Between 1947 and 1962 gross internal product in the state of São Paulo grew at 7.5% per year and the states of Rio de Janeiro and Guanabara increased by 7.1%.¹⁰⁷ This compares with a national growth rate of six percent per year over the same period.¹⁰⁸ This period also saw Brazil's industrial product increase by 9.6% while São Paulo state increased its industrial product by 11.8% and Rio de Janeiro and Guanabara state increased at 8.1%.¹⁰⁹ These figures indicate the substantial industrialization process that occurred in Brazil during this period and the importance of the states of the South-centre. This in turn reflected the role of the Light as the company supplied the vast majority of the electrical power to undertake this industrialization process.

It is necessary to look at the growth context that Brazilian Traction, Light and Power operated in from the late 1940s onwards. A look at GDP increases and increases in industrial growth demonstrate the linkages that existed between growth in the Brazilian economy and the Light's expansion of its utility infrastructure. Table 4.7 illustrates this growth pattern. GDP growth in the late 1940s and early to mid 1950s was rather sporadic with rates ranging from 9.7% in 1948 to 2.9% in 1956. The early 1950s was a time of considerable economic instability and this is demonstrated in the low industrial growth rate in 1952 and the small increases in kW hour sales in 1952 and 1953. Growth rates plunged during the 1963 to 1965 period as a result of the instability of the Goulart years which had

¹⁰⁷ Ibid. , p. 9.

¹⁰⁸ Ibid. , p. 9.

¹⁰⁹ Ibid. , p. 9.

a decidedly nationalist tone and kept away foreign investment thus leading to very low GDP growth rates (0.6% in 1963, 3.4% in 1964, and 2.4% in 1965). These were far below the previous five year average annual growth rate of over 9%. Industrial growth experienced a similar pattern of low to negative growth in these same years (0.2% in 1963, 5.5% in 1964, and -5.0% in 1965). This compared with an annual growth rate of close to 11% between 1958 and 1962. KW hour sales by the Light for the same period also plummeted to 0.5% in 1964, down from 0.8% the previous year and rising to only 3.6% in 1965. This compares with annual growth rates in kW hour sales of close to 10% in the previous five years.

Despite these difficulties, real product in São Paulo state between 1947 and 1960, grew at 7.5% annually and industrial product grew at 11.8% a year over the same period.¹¹⁰ Overall consumption of electricity grew at 9.5% and sales to industry at 12.8% in São Paulo between 1947 and 1960 with industrial consumption accounting for 55% of annual sales of São Paulo Light.¹¹¹ The importance of São Paulo in the early 1950s can be seen by the fact that those states that are within the city's hinterland, (São Paulo, Rio de Janeiro, Espírito Santo, Minas Gerais, Paraná, Santa Catarina, Rio Grande, and the Federal District) while containing only 18% of Brazil's land area, contained 50% of the population, 71% of the highways, 74% of the railways and 89% of the electrical power.¹¹² Similar, although not such impressive, statistics point to a matching experience in Rio de Janeiro and Guanabara states. Between 1950 and 1960, income and industrial income grew respectively at 7.1% and 8.1%.¹¹³ Power sales grew at a rate of eight percent per year and sales to industry at nine percent.¹¹⁴

¹¹⁰ Op. Cit. , Niosi , p. 15.

¹¹¹ Ibid. , p. 15.

¹¹² Richard M. Morse, From Community to Metropolis: A Biography of São Paulo, Brazil, (Gainesville: University of Florida Press, 1958), p. 226.

¹¹³ Op. Cit. , Tandler, p.15.

¹¹⁴ Ibid. , p. 15.

By 1968 growth rates in GDP, industry and kW hour sales were showing increases of close to 10% per year or better as Brazil entered its so-called 'miracle' phase. The period from 1968 to 1977 saw GDP increase by an average rate of 9.7%, peaking in 1973 at 13.6%.¹¹⁵ The huge growth rates translated into the industrial sector as well with an average growth over the same ten year period of 10.8%. KW hour sales demonstrated a 10% per year average growth. By the time of the sale of the Light's utility operations in Brazil in 1977, the 'Miracle' was over and the 'Lost Decade' that saw any of the 'Brazilian Miracle' growth gains wiped out with GDP growth of only 5.7%, and industrial growth of only 3.9%, had begun.

Total Brazilian output was estimated to have risen by 6% annually between 1953 and 1962. This resulted in a 70% increase in total output over the same period measured by GDP. Industrial production was estimated at having more than doubled during the same year period.¹¹⁶ In the three years following 1957, automobile output, centred in São Paulo, more than quadrupled.¹¹⁷ This indicates the incredible pace of industrialization that was centred in the region of Brazil to which the Light supplied electricity. These figures are important; particularly those relating to industrial production, as Brazilian Traction, Light and Power provided the majority of the electrical power to the industrial south east during this time. In fact by 1971, industrial consumption accounted for close to half of the total energy supplied by Brazilian and economic activities in the region served by the Light accounted for over 63% of Brazilian GDP.¹¹⁸

These figures demonstrate the close relationship between Brazilian GDP, industrial growth and kW hour sales by the Light although it should be noted that the electrical power distributed by the Light systems consisted of significant amounts of government produced

¹¹⁵ Werner Baer, "Brazil's Rocky Economic Road to Democracy" in The Political Economy of Brazil: Public Policies in an Era of Transition, (Austin: University of Texas, 1990), p. 45.

¹¹⁶ Op. Cit. , Annual Report 1962, p. 12.

¹¹⁷ Ibid. , 1960 p. 13.

¹¹⁸ Op. Cit. , Annual Report 1972, p. 13.

energy. This does not in any way diminish the role played by Brascán as its distribution systems provided the essential link between state power producers and the industries in the São Paulo - Rio de Janeiro axis that required the power to enable the large GDP growth experienced by Brazil in the late 1960s and early 1970s.

The company was successful due to the fact that it was able to provide enough generating capacity to keep ahead of demand and it was not until the post-war urban and industrial growth in the late 1940s that the company had difficulty in keeping up with demand. Throughout the war the Light was able to cope with the demand for electricity stimulated by the war as it had already developed sufficient surplus. These growth rates required substantial increases in power supply and although the Light was able to meet the energy needs of its concession areas until 1946, supply problems soon arose. The two systems had been able to keep pace with electrical demand. In São Paulo the system in 1938 had a generating capacity that was 53% greater than peak demand and in 1942 capacity was still 33% greater than peak demand.¹¹⁹ By 1946 peak demand was equal to installed capacity and for the next two decades, the Light struggled to meet demand.

The late 1940s and 1950s saw the electrical utility faced with the problem of insufficient water supply due to a prolonged period of below normal rainfall. This resulted in the rationing of power. With rationing still in place from after war, the Light still showed an average yearly increase in kW hours sold between 1945 and 1950 of 10%.¹²⁰ Combined with rates kept at low levels by the government and an increase in demand from the industrializing area, Brazilian faced challenges from many directions. Growing discontent appeared among the customers of Brazilian from 1946 onwards as the expansions undertaken were unable to meet increasing demand and the waiting list for service expanded. Electricity was rationed and blackouts were common. This was in part

¹¹⁹ Op. Cit. , Tendler, p. 9.

¹²⁰ Op. Cit. , Annual Report 1950, p. 7.

due to the rapid industrial development that was concentrated in the São Paulo and Rio de Janeiro area.

It was not until 1954 when the Piratininga thermal plant was commissioned that the São Paulo system had access to non-hydroelectric energy. This thermal plant accounted for 22% of non-hydro electricity in 1954 and rose to 30% in 1960. Rio de Janeiro remained dependent on hydroelectric power except for the Piraquê thermal installation which accounted for only three percent of the Rio system's installed capacity.¹²¹

By 1962, Brazilian Traction, Light and Power's two systems in São Paulo and Rio de Janeiro accounted for almost fifty percent of the power generated in Brazil in an area that covered only 0.4% of the country's territory and 15.2% of its population.¹²² Power consumption in the two systems was substantially higher than the national average. Even by the mid 1950s, São Paulo's electric consumption per residential customer was higher than Chicago, an indication of the large number of industrial customers.¹²³ Per capita consumption in São Paulo was 1314 kWh and 783 kWh in Rio de Janeiro; three and a half and two times more respectively, than the national average of 365 kWh in 1962.¹²⁴ These two systems were the major retail suppliers of electricity in the states of São Paulo, Rio de Janeiro, and Guanabara which in 1957 accounted for close to 58% of national income and sixty percent of income from the industrial sector in 1960.¹²⁵ Per capita income for these states was US\$216 in São Paulo state, US\$354 in Guanabara state, and US\$116 in Rio de Janeiro state. These figures compare with the 1960 average per capita income for the whole country of US\$122.¹²⁶

¹²¹ Op. Cit. , Niosi, p. 10.

¹²² Op. Cit. , Tendler, p. 7.

¹²³ Op. Cit. , Morse, p. 228.

¹²⁴ Op. Cit. , Tendler, p. 7.

¹²⁵ Ibid. , p. 8.

¹²⁶ Ibid. , p. 8.

According to Judith Tandler, the figures that show the growth of the São Paulo and Rio de Janeiro systems between 1947 and 1962 at 8.1% and 7.4% per year, indicated more than a doubling of electrical capacity every ten years which is the rule-of-thumb for projecting the growth of power production in developing countries.¹²⁷ Tandler states, “The power shortage, then, was not due to complete stagnation in the power sector; rather, installed capacity was growing at an average rate made unacceptable by the unusual rate of growth of the economy.”¹²⁸ One expert on the company stated that, “It was really the saving grace for Brazil when the so-called economic miracle happened in the late fifties and sixties. It was a neck-and-neck race with demand, but basically they kept up with it. It was a tremendous Canadian adventure.”¹²⁹

In the twenty years between 1942 and 1962, Brazilian Traction, Light and Power saw an increase in generating capacity of around 1 460 000 kW within their own systems. These included capacity increases at São Paulo’s Cubatão complex in 1942 (55 000kW), 1947 (65 000kW), and 1950 (66 000 kW).¹³⁰ The Rio system saw capacity increases at the Lages/Fontes and the Ilha dos Pombos complexes. These occurred in 1942 (42 000 kW), 1947 (35 000 kW), 1949 (45 000 kW), and 1953 (35 000 kW).¹³¹ 1954 was a particularly important year in the generating sector of the Light’s operation in Brazil. This year saw 420 000 kW of generating capacity come on line through the inauguration of four 65 000 kW units at the Nilo Peçanha (Forçacava) on the Rio system and the 160 000 kW steam plant at Piratininga on the São Paulo system.¹³² Since 1944 the capacity of Brazilians generating system had increased by 132%.¹³³ Despite these increases, demand still outstripped the company’s ability to provide power to all those who wished it.

¹²⁷ Ibid. , p. 17.

¹²⁸ Ibid. , p. 17.

¹²⁹ Op. Cit. , Best, p. 34.

¹³⁰ Op. Cit. , Annual Report 1942, p. 6; 1947, p. 8; 1950, p. 9.

¹³¹ Ibid. , 1942, p. 7; 1947, p. 8; 1949, p.6; 1953, p. 10.

¹³² Ibid. , 1954 p. 10 - 11.

¹³³ Ibid. , 1954 p. 10.

By 1954, with further generating facilities coming on line, the company had increased its generating capacity by 150% over the previous ten years.¹³⁴ Two years later, one of the final large generating projects undertaken by the Light was inaugurated with the operation of four 65 000 kW at Cubatão. With these systems working, the Light was able to supply all energy demands without restriction.¹³⁵ (Restrictions and rationing had continued from the war period as Brazilian was unable to meet demands.) In 1956 the company initiated a construction programme that increased the capacity of the two systems by 28%.¹³⁶ In the first two years of the 1960s two further 125 000 kW units were added to the Piratininga plant and two 65 000 kW units to the Cubatão complex on the São Paulo system and 93 500 kW to the Rio de Janeiro system leading to a combined generating capacity of 2 350 000 kW in the two systems.¹³⁷

Table 4.6 demonstrates the expenditures made by Brazilian Traction, Light and Power in the electrical distribution, transmission, and generation sectors between 1955 and 1968. While the table does not provide an individual breakdown of the utility spending and does not indicate the amount of investment due to a change in the calculation of foreign exchange rates, if the exchange rate had remained unchanged, the expenditure level would demonstrate the significant amount of capital (in excess of \$US 80 000 000¹³⁸) that brought the 420 000 kW of power online in 1954.¹³⁹ The almost \$US 41 000 000 of expenditure for electrical generation in 1959 indicated the installation of the 380 000 kW of power that was made available by the Light's systems in 1960 and 1961.¹⁴⁰ The amount invested in the distribution system increased dramatically from 1967 onwards. The majority of the investment in the electrical utility went towards improving and expanding

¹³⁴ Ibid. , 1956, p. 6.

¹³⁵ Ibid. , 1956 p. 8.

¹³⁶ Op. Cit. , Tendler, p. 24.

¹³⁷ Op. Cit. , Annual Report 1962, p. 8.

¹³⁸ Ibid. , 1953, p. 5.

¹³⁹ Ibid. , 1954, p. 9.

¹⁴⁰ Ibid. , 1959, p. 6; 1960, p. 10; 1961, p. 12.

the distribution system and resulted in \$US 285 million being invested in the delivery network in the final year of operation in 1977.¹⁴¹

This expansion of government owned generating systems began in the early postwar period. 1954 saw the creation of the state owned company, Eletrobrás. This company became involved in electrical generation in Brazilian's concession areas in the states of São Paulo, Rio de Janeiro, and Minas Gerais. Eletrobrás developed its own production facilities that operated alongside the systems of private foreign companies. The state-owned companies grew out of concerns over specific problem areas - an imminent power crisis in São Paulo resulted in the Furnas project; parts of São Paulo state that had been left out of the concession to the Light wished to develop their own source of power; Minas Gerais wished to develop its own adequate power supply. These reasons all served to promote the development of state-owned companies to increase power supply and stimulate development.¹⁴² Challenges to the existing Light concessions by state companies was largely avoided as Brazilian flexed its superior technical and financial power to develop a successful working relationship with the emerging state companies.¹⁴³

The late 1950s saw the Light enter into agreements with the Brazilian government and the state governments to construct new hydroelectric complexes such as the Furnas development in São Paulo state. In conjunction with the Furnas electrical generation project, the Light was contracted to provide engineering and technical services. By the early 1960s these government facilities were producing power and in 1963, Brazilian noted in its Annual Report that it saw no further expansion in the company's generating facilities but rather that future power needs would be supplied by government or government and private entities.¹⁴⁴ 1970 saw government owned facilities supplying the Light with 53% of

¹⁴¹ Ibid. , 1977, p. 11.

¹⁴² Op. Cit. , Tandler, p. 153.

¹⁴³ Ibid. , p. 112.

¹⁴⁴ Op. Cit. , Annual Report, 1963, p. 9.

the energy distributed by the Light's distribution network.¹⁴⁵ Three years later this had risen to 62%.¹⁴⁶ Despite this the Light continued to distribute around 43% of all the energy consumed in Brazil; about 4.2 million customers, just prior to being turned over to the Brazilian government in 1977.¹⁴⁷ Following the gradual withdrawal of the Light from the field of energy generation (this resulted from a greater percentage of the power produced coming from government sources rather than a decrease in the amount of energy produced), Brascan's distribution network proved vital to the industrial south east. The Light was a vital link between energy suppliers such as the São Paulo state electrical utility, CESP, and its Furnas development and the consumers in the São Paulo - Rio axis.

In 1957, the company announced a three year \$US 165 million plan to enlarge the generating, transmission and distribution networks. Much of this expenditure focussed on the distribution networks as the company's share of the generating capacity decreased, (Between 1947 and 1957, the company's share of total electric power produced in Brazil decreased from 65% to 50%.¹⁴⁸) as the public authorities invested in the production of power in Brazil. After 1963, Brazilian concentrated on its distribution services and ceased to expand its generation operations. This indicated that indigenous Brazilian companies were now capable of planning, building, and operating electric generation systems and associated services. Further evidence of the confidence that Brazil had in its ability to operate its own electrical systems can be seen in the fact that the American and Foreign Power Company was nationalized in 1965. In 1963 the first connection was made with the Furnas plant in order to supply a large share of the power supply to the São Paulo Light system, and by 1964, 45% of the São Paulo system's energy was coming from the state-owned plant, Furnas. (A total of 24% of the power distributed by the Light's two systems

¹⁴⁵ Ibid. , 1970, p. 4.

¹⁴⁶ Ibid. , 1973, p. 3.

¹⁴⁷ Ibid. , 1976, p. 2.

¹⁴⁸ Ibid. , 1957, p. 8.

in 1965 was purchased from outside sources.¹⁴⁹⁾ The company relied on government construction projects to supply the energy for the Rio de Janeiro-São Paulo region and in 1965 announced that, “In accordance with government policy, additions to Brazil’s generating facilities are entrusted to government organization.”¹⁵⁰ This commitment by the government to generation can be seen in the fact that the construction of seven new plants and expansions in fourteen others were undertaken by government sponsored entities between in 1963 and 1966.¹⁵¹

In 1962, the Light connected with the São Paulo state generating system. The large Furnas development began production in 1964 and made 450 000 kW available to the Light distribution system from government sources.¹⁵² With Brazilian ceasing to expand its generating facilities, the distribution system was connected with eleven other power companies by 1972. The new focus on distribution saw the Light undertake a capital investment programme between 1972 and 1976 that was designed to extend and improve its transmission and distribution facilities in order to cope with the demands of larger loads and improved quality. The Light continued to invest in the electrical distribution system and during the period from 1974 to 1978, the Light’s capital expenditure totalled US\$ 1.3 billion. These were insufficient to undertake the necessary expansion and acquire expensive new technologies.¹⁵³ The focus on the distribution system can be seen in the Light’s expenditures in the electrical utility sector. From 1960 onwards, the concentration on the distribution system can be seen in expenditure which grew very quickly and when compared to the investment in generation. (see Table 4.6) The focus on the distribution network can be seen by the fact that in the three years between 1965 and 1968, Brazilian invested more than \$US 186 million on the expansion and improvement of its distribution

¹⁴⁹ Op. Cit. , Tandler, p.24.

¹⁵⁰ Ibid. , p. 24.

¹⁵¹ Ibid. , p. 24.

¹⁵² Op. Cit. , Annual Report, 1964, p. 8.

¹⁵³ Op. Cit. , McDowall, p. 396.

and transmission systems.¹⁵⁴ Much of the investment in this column after 1960 is predominantly in the upgrading and expansion of the transmission systems. This focus on the delivery of electrical power from the early 1960s onward allowed connections to be made in a prompt manner and allowed service levels to be restored. This continued commitment to the Brazilian operations can be seen in Table 4.5 which shows the increases in kilowatt hours sold, customers, and employees from 1963 to 1977 while generation capacity remained the same. Over the same period of time distribution network lines grew from 181 085 kilometres to 331 024 kilometres.¹⁵⁵ J. H. Moore, president of Brascan from 1969 to 1979 stated that the investment expansion programme in Brazil indicated that, "Brascan plans to participate in the realization of the Brazilian potential."¹⁵⁶ These sentiments indicating the degree of connection between the Brascan's Brazilian and Canadian interests were reiterated by Light-Serviços president and Brascan vice-president, Dr. Antonio Gallotti, who was with the company from 1933 onwards, when he stated, "Brascan is one of the most important links between Canada and Brazil."¹⁵⁷

From the early 1970s until the sale of the Light in 1977, Brascan was estimated to have spent more than \$1 billion on the utility as part of a massive capital investment programme to support future growth.¹⁵⁸ In 1976 Brascan was able to negotiate a \$100 million loan to finance the expansion of the facilities of the utility.¹⁵⁹ This indicates that despite discussions about the purchase of the Light by the Brazilian government, capital inflows for infrastructure improvements continued.

The increase in utility infrastructure can be seen in the following figures. In 1940, Brazilian Traction, Light and Power had 224 069 telephones in service in the south central

¹⁵⁴ Op. Cit. , Annual Report 1968, p. 3.

¹⁵⁵ Ibid. , 1967, p. 28; 1977, p. 47.

¹⁵⁶ Op. Cit. , Brascan Ltd. , Brascan: Sixty Years of Brazilian - Canadian Cooperation, p. 25.

¹⁵⁷ Ibid. , p. 25.

¹⁵⁸ Allan Robinson, "Brazil Utility Is No Light Burden" in Financial Post, July 1, 1978, p. 18.

¹⁵⁹ "A Financial Coup For Canada's Brascan" in Business Week, Number 2385, June 16, 1975, p. 86.

area.¹⁶⁰ By the time the company sold the telephone utility to the Brazilian government in 1965, 877 525 units were in service.¹⁶¹ Similar, if not more impressive, figures exist for electrical generating capacity and distribution networks. In 1940, the combined systems had a generating capacity of 554 234 kW.¹⁶² The company's capacity peaked in 1962 with a combined generating power of 2 350 000 kW¹⁶³ and decreased as older plants were shut down resulting in a generating capacity of 2 075 000 kW when the electric utility was sold in 1977.¹⁶⁴ The distribution system showed significant growth rates with 47 840 kilometres of wire in 1940¹⁶⁵ increasing to 331 024 kilometres in 1977.¹⁶⁶ These figures demonstrate the impact that Brazilian Traction, Light and Power had on the development of a utility infrastructure in the industrial heartland in Brazil.

4.4 Other Utility Interests

Although perhaps not as integral to the development process in Brazil, Brascan's other utility interests; urban transport, telephones, and gas, played important roles in the development and modernization of the cities of São Paulo, Rio de Janeiro and Santos. Brazilian operated tram systems in São Paulo and Rio de Janeiro for more than half a century. The importance of the tramways is reflected in the name of the company until the early 1960s; the Brazilian Traction, Light and Power Company. The company ran the tramway concessions in São Paulo and Rio de Janeiro from the founding of the individual companies in 1899 and 1904 respectively until 1947 in São Paulo and 1963 in Rio de Janeiro when operations were transferred to the municipal governments. The company, in

¹⁶⁰ Op. Cit. , Annual Report 1940, p. 18.

¹⁶¹ Ibid. , 1965, p. 11.

¹⁶² Ibid. , 1940, p. 18.

¹⁶³ Ibid. , 1962, p. 8.

¹⁶⁴ Ibid. , 1977, p. 47.

¹⁶⁵ Ibid. , 1940, p. 18.

¹⁶⁶ Ibid. , 1977, p. 47.

the process of obtaining its tram and electrical concessions, came into possession of the telephone and gas concessions in the south-central cities as well. The Brazilian Telephone Company provided phone service to the cities of São Paulo, Rio de Janeiro and Santos from 1912 until it was sold to the Brazilian government in 1966. The company's gas concessions in Rio de Janeiro, Santos, and São Paulo were operated from 1912 until 1968 in Rio, when it was transferred to the state of Guanabara, and until 1967 in Santos where the service was discontinued, and São Paulo where it was transferred over to the municipality.

The tramway situation in Rio was complicated if not chaotic in 1904. Different areas were served by different mule-drawn tramlines which resulted in large numbers of people transferring from line to line. Four companies accounted for 75% of the tramlines but the remaining quarter was a jumble of other steam and mule powered trams that had exclusive rights to sections of the metropolitan area.¹⁶⁷ The Rio de Janeiro Tramway, Light and Power trams covered 75% of the city, and was integrated by a standard gauge. (Prior to this the individual tram companies had differing gauges that resulted in passengers having to make numerous transfers in order to reach their destination.)

The cities of Rio de Janeiro and São Paulo had by far the largest urban transport systems in Brazil. In terms of both passengers and kilometres of track, the sum of the two networks accounted for around fifty percent of the Brazilian total. In 1912 Rio de Janeiro had a network of 332 kms that carried 165 347 000 passengers and São Paulo carried close to 48 million passengers on 203 kms of track compared to figures of 318 424 000 passengers on 1 160 km of track for all of Brazil.¹⁶⁸ By 1932 these numbers had increased dramatically with the Rio de Janeiro system transporting 429 692 000 passengers

¹⁶⁷ Op. Cit. , Armstrong and Nelles, p. 64.

¹⁶⁸ Josef Barat, "A Brief Review of the Development of Urban Transportation in Brazil" in International Journal of Social Economics, Volume 16, Number 12, (1989), p. 46.

on 476 kms of track and 214 103 000 passengers on a 270 km network in São Paulo.¹⁶⁹ Total Brazilian figures for 1932 saw just over a billion passengers per year on 1 693 kms of network¹⁷⁰ These growth figures had levelled off by 1942 when Rio saw 664 255 000 passengers on 468 kms of track and São Paulo 379 725 000 passengers on its 306 km network.¹⁷¹ Brazilian totals for that year saw over 1.6 billion passengers travelling on 1731 kms of track.¹⁷²

One of the more important contributions of the tramway industry to the development of the Brazilian economy was the establishment of an industry to manufacture rail cars. The company began to manufacture their tram cars in Brazil using local wood and established the practice of supplying rolling stock from local factories using Brazilian labour and materials, very early in its existence in Brazil. This proved to be invaluable during the periods when Brazil was cut off from the world as a result of the World Wars. The Brazilian economy was able to continue to move its products such as coffee to its ports using the expertise developed by the employees of Brazilian's rail car manufacturers.

By the late 1930s and early 40s, Brazilian was ready to remove itself from the business for which it had originally been established. The government insisted on keeping fares low and they had remained at the same level since 1912. The inability of Brazilian politicians to allow a raise in tramway fares led to serious problems for the public transport utilities of the Light. The city limited the number of trams, refused to let the company put in new tracks and would not allow fare increases.¹⁷³ The São Paulo company informed the city that it did not wish to renew the concession when it expired in 1941 and the city took over the tram system in 1947 at which time it increased fare prices by 250%.¹⁷⁴ The

¹⁶⁹ Ibid. , p. 46.

¹⁷⁰ Ibid. , p. 46.

¹⁷¹ Ibid. , p. 46.

¹⁷² Ibid. , p. 46.t

¹⁷³ Op. Cit. , Lynch, p. 42.

¹⁷⁴ Op. Cit. , Ogelsby, p. 137.

Rio and Santos operation continued to operate at a loss as the government allowed fare increases only to meet wage demands. Ridership continued to fall and by the time Brazilian sold its final tramway concession in Rio de Janeiro to the state of Guanabara in 1963 it had plummeted to under 193 million passengers per year; a figure substantially lower than the 1912 level of over 231 million passengers.¹⁷⁵ The company was also required to hand over six billion cruzeros as part of the transfer in order to have the money losing system taken off of its hands.¹⁷⁶ By the end of the 1960s, the now publicly owned streetcars had ceased to operate in Brazil and were replaced by bus services and other urban transit systems which deteriorated in the face increased automobile ownership and industrialization.

The Brazilian Telephone Company had been reluctantly acquired and had expanded from 47 642 telephones in service in 1918 when the utility added São Paulo state to the existing Rio de Janeiro area network, to close to 900 000 in 1966 when the company was sold to the federal government and became part of the state-owned company, Embratel.¹⁷⁷ Through out the 1940s, 50s and 60s the company undertook expansion programmes to improve the telephone system in the states of São Paulo, Guanabara (Rio de Janeiro), Minas Gerais, Espirito Santos, and the cities of São Paulo, Rio de Janeiro, Niterói, Belo Horizonte, Campinas, and Vitoria. These expansions included the replacement of manual switchboards and other outdated equipment with automated systems and the attempts to meet burgeoning demand for telephone service. These expansions saw large expenditures in the mid 1950s (see Table 4.6) in the face of some of the lowest phone rates worldwide.¹⁷⁸ These government dictated rates were problematic for the Light as they

¹⁷⁵ Op. Cit. , McDowall, p. 406.

¹⁷⁶ Op. Cit. , Ogelsby, p. 140.

¹⁷⁷ The telephone utility took credit for several additions and changes to the language in Brazil. The Portuguese words for 'three' (*tres*) and 'six' (*seis*) sound the same and the company urged Carioca customers to use half dozen instead of six; a habit which has stuck. The company also claims credit for inventing the verb "*discar*" (to dial). Op. Cit. , Lynch, p. 43.

¹⁷⁸ Op. Cit. , Annual Report 1956, p. 9.

were too low to allow for the expansion and the updating of equipment and at the same time satisfying the demand for telephone service. This demand for service can be seen by the fact that in the mid 1940s there was a backlog of 50 000 subscribers that rose to 143 000 subscribers waiting to be connected in 1948.¹⁷⁹ Like the electrical utilities, the company had been unable to keep up with demand for service and was willing to sell in 1962 in an atmosphere of economic nationalism. Investment in the telephone system, while not on the same scale as the electrical utility, indicated upgrading and expansion of the system in the mid 1950s and due to the issue of frozen rates resulted in fairly flat investment prior to the utilities sale in 1965.

In the process of creating a unified electric system in the south-central region of Brazil, the Light came into possession of the gas concessions in São Paulo, Rio de Janeiro, and Santos. Prior to the construction of the large hydro projects in the 1920s, gas was used to light the homes and streets of Brazil. With the electrification of the country, gas became primarily an industrial commodity although it was still used in cooking. These concessions were expanded over a period of fifty years and ways were devised to utilize poorer quality Brazilian coal under government decree. Consumption of Brazilian's gas peaked in 1962 and plans were made to remove itself from this utility. In 1967 the São Paulo operation was transferred to the municipality and discontinued in Santos while in 1969 the Rio de Janeiro service was transferred to the state of Guanabara. Despite the low profile of the gas utility, investment in the utility amounted to an average of around \$US 1.26 million per year from 1955 until the utility was sold to the state of Rio de Janeiro.

These were the other interests that Brazilian had in the south-centre region of Brazil and while they did not contribute to the same extent as the provision of electricity, they were important in the infrastructure development of the region. A growing region required these services and Brazilian was able to maintain and expand these services for a time into

¹⁷⁹ Ibid. , 1948, p. 15.

the post-war period. A rapidly expanding economy and a climate that questioned the foreign ownership of utility industries saw Brascan remove itself from the utilities and focus on expanding the distribution system of its electrical system.

4.5 Post-1979 Interests

The sale of the Light in 1978 led to dramatic changes for Brascan. With \$US 380 million in cash assets, (see table 4.1) the company was the target of a successful takeover by Peter and Edward Bronfman. This takeover was one of most interesting in Canadian corporate history and saw J. H. Moore lose the company he had headed for ten years.¹⁸⁰ Under the leadership of J. Trevor Eyton and Jack Cockwell, Brascan Limited, as a major part of the Edper empire, continued to expand its interests. The Brazilian arm of the company received little attention as the company expanded its operations in Canada. By 1985, the Brazilian operations were only a footnote in the company's annual report while the company expanded very rapidly in Canada. The extent of the Edper Empire can be seen in Figure 4.6 and included interests in Canadian companies in the food products, natural resources, entertainment, financial, and real estate sectors. Through its interests in these sectors, Brascan came to effect huge portions of the lives of Canadians as shown in Table 4.8.

The company was criticized for lacking focus which can be seen in Figure 4.7. This figure shows the large number of companies and interests under the Brascan umbrella. By 1992/93 the corporation had withdrawn from the consumer products sector through the sale of John Labatt Limited. The company now confines its interests to the natural resource, financial services, and power generation sectors in North America as shown in Figures 4.8, 4.9, and 4.10. Similarly Brascan Brazil's operations have been streamlined

¹⁸⁰ Immediately following the sale of the Brazilian utility, Brascan was the subject of a takeover by the Edper group (Peter and Edward Bronfman). For an excellent account of one of the most dramatic takeovers in Canadian corporate history see, "How Jake Moore Lost Brascan" in Canadian Business, Volume 52, Number 11, (November 1979), p. 122.

particularly during the early 1980s as the company dealt with the economic woes facing Brazil as a result of the debt crisis and chronic inflation.¹⁸¹ The corporation in Brazil has confined itself to the agriculture and natural resource, real estate, and financial and business services. (see Figure 4.11)

Despite the purchase by the Brazilian government of Brascan's utility assets in 1978, the company has continued to play a substantial role in Brazil. Following the sale, Brascan Brazil saw its interests aligned with Brazil's development needs in sectors that demonstrated long-term growth potential. These sectors were agricultural and natural resource development, real estate, and financial and business services. This mix of interests has emerged from the challenges of the Brazilian economy in the 1980s and 90s as a strong diversified operation.

Brascan Brazil remains a wholly owned subsidiary of Brascan Limited and operates through a number of wholly and partially owned affiliates that employs 15 800 employees with gross revenues exceeding US\$ 340 million and assets valued at over US\$ 800 million.¹⁸² These employees and assets are engaged in cattle ranching, coffee plantations and other crops, forest products operations, tin mining and smelting, solder and chemical plants, residential and commercial real estate, merchant banking, brokerage and financial consulting services, and a voucher service operation. These operations are managed out of Brascan Brazil's corporate head office in Rio de Janeiro which is responsible for the group's overall investment programme, relations with various levels of government, new initiatives and financial and legal matters. The head office is also responsible for the charity Fundação Brascan, which makes contributions to various social and culture programmes.

¹⁸¹ Peter Smith, "Canadian Firms Ride Out Brazil's Economic Storms" in Financial Post, October 22, 1983, p. 12.

¹⁸² Brascan Ltd. , Brascan Brazil: Review of Operations, (Toronto: Brascan Ltd. , 1996), p. 3.

Brascan Brazil's agricultural operations are conducted on two ranches, Fazenda Bartira in western São Paulo state and Fazenda Pirapitinga in southwestern Minas Gerais, that have a combined area of 79 600 acres and employ about 360 employees.¹⁸³ The cattle ranching operations see 24 500 head of cattle raised on 42 000 acres.¹⁸⁴ 6000 of these cattle are sold annually and various improvements to pasture utilization and feed lot operations are under way to allow for a 4000 head expansion by 1998.¹⁸⁵

Food crops and grass seed operations are important components of current Brascan Brazil operations as well. More than 9000 acres produce soya beans and rice and over 500 tonnes of grass seed is produced annually.¹⁸⁶ Recently more emphasis has been placed on the production of higher yield crops which are anticipated to generate more than 50% of agricultural income. Other crops include coffee trees, citrus trees, and rubber trees. These operations, as well as ranching concerns, are the agribusiness part of the diversified company that Brascan Brazil has become. These operations are important not only to Brascan itself but to the Brazilian economy and population as the success of various agricultural experiments make important contributions to the Brazilian agricultural sector.

Forestry operations in Brascan Brazil's portfolio are concentrated on 139 800 acres with 480 employees in Santa Catarina state and extending into Paraná state. These forestry interests are conducted through the Comfloresta company. The forestry plantations produce fence boards (over 700 000 cubic feet annually¹⁸⁷), packing materials and other sawmill products. Initiatives have recently been undertaken to construct a fibreboard and particleboard mill. These products supply the domestic market as well as export markets.

¹⁸³ Ibid. , p. 6.

¹⁸⁴ Ibid. , p. 6.

¹⁸⁵ Ibid. , p. 6.

¹⁸⁶ Ibid. , p. 6.

¹⁸⁷ Ibid. , p. 7.

75% of Comfloresta's lumber is exported to Europe, North Africa, the Middle East, and the US.¹⁸⁸

Mining and metal operations are conducted by the wholly owned Cesbra company that was acquired in 1980. This company operates a tin mine and smelter in Rondônia and two processing operations in Volta Redonda in Rio de Janeiro state employing 370 employees.¹⁸⁹ Cesbra produces 1000 tonnes of tin ore annually and has reserves of 20 000 tonnes.¹⁹⁰ The company built a smelter in 1995 which processes its own ore as well as that from a neighbouring mine and has the capacity to produce 3600 tonnes of ingots annually. Cesbra's chemical plants in the industrial centre Volta Redonda, produce tin compounds for use in fire retardant materials and heat stabilizers as well as over 600 tonnes of tin solder annually.¹⁹¹ Cesbra also owns a potentially lucrative gold property in Maranhão state; Mineração Aurizona.

Perhaps the highest profile operation that Brascan Brazil maintains in Brazil is its real estate operation with assets totalling US\$508 million that include condominium developments, five star hotels, and major shopping centres in São Paulo and Rio de Janeiro.¹⁹² Brascan Brazil's condominium developments are conducted through BISA (Brascan Imobiliária S. A.), a company that was founded in 1978. Since 1978 the company has sold over 8 700 condominium apartments, single-family homes, club shares, and commercial condominium units totalling over 10.8 million square feet.¹⁹³ In conjunction with Banco Brascan, BISA manages, on behalf of shareholders that include three of Brazil's largest pension funds, the Panamby Real Estate Investment Fund which will develop 5.1 million square feet of land in São Paulo.¹⁹⁴

¹⁸⁸ Ibid. , p. 7.

¹⁸⁹ Ibid. , p. 8.

¹⁹⁰ Ibid. , p. 8.

¹⁹¹ Ibid. , p. 8.

¹⁹² Ibid. , p. 9, 10, 11.

¹⁹³ Ibid. , p. 9.

¹⁹⁴ Ibid. , p. 9.

Important shopping centres in Rio de Janeiro are owned and operated by Brascan Brazil's 90% owned affiliate, Embrascenter. Embrascenter operates two major retail complexes in Rio de Janeiro, the Rio Sul and Madureira centres. These operations go back to 1983 when Embrascenter purchased the Rio Sul centre. Embrascenter also manages other retail centres in Rio de Janeiro as well as in Niterói and is looking to expand its operations in Rio de Janeiro and São Paulo.

Brascan Brazil operates two five star hotels in São Paulo and Rio de Janeiro through its 60% stake in Gávea, a partnership with Intercontinental Hotels Corporation. Gávea developed and owns the 433 room Rio Intercontinental Hotel in Rio de Janeiro and the 194 room Intercontinental Hotel in São Paulo while Intercontinental Hotels manages the properties. Brascan Brazil is also involved in the ownership and management of 61 smaller hotels across Brazil through its business services operation. These real estate operations account for close to two thirds of Brascan Brazil's total assets and are the highest profile investments that Brascan has in Brazil.

Financial services operations are carried out through the 49% owned Banco Brascan which has offices in São Paulo and Rio de Janeiro. Banco Brascan started activities in 1981 and carries out investment and merchant banking activities. The company manages a US\$ 50 million investment portfolio of employees of recently privatized Brazilian companies as well as the previously mentioned Panamby Real Estate Investment Fund.¹⁹⁵ Banco Brascan also owns the brokerage firm Brascan Futuros operating in the spot, futures, and options markets as well as the stock brokerage house Brascan Corretora that operates in the capital markets. Other companies that are part of the Banco Brascan group include the 70% owned financial consulting firm Capitaltec Consultoria. This company's services ironically saw Banco Brascan play a key role in the privatization of Light-Serviços de Eletricidade, (the state-owned utility company that Brascan had owned

¹⁹⁵ Ibid. , p. 12

from 1899 until 1978) in 1996. Capitaltec Internacional is the group's international investment banking arm and in 1995 Brascan Brazil established the Brascan International Bank in the Bahamas to assist in international operations.

Brascan Brazil also operates a huge business services operation in Latin America through Tickets Serviços, a 50% owned company in partnership with a French company, Accor.¹⁹⁶ Tickets, as it is known, was founded in 1976 and provides voucher, restaurant, and other business services to more than 4500 communities throughout Brazil and Argentina.¹⁹⁷ This company prints, distributes and finances vouchers on the behalf of more than 69 000 clients.¹⁹⁸ These include restaurant, fuel, and supermarket vouchers as well as transportation vouchers for commuters in São Paulo. Tickets manages close to 500 workplace restaurants as well as incentive programmes, maintenance and security contracting, restaurant concession operations, business travel, workplace training, and recently acquired an interest in a company that owns and manages 61 smaller hotels throughout Brazil.¹⁹⁹

Through its banking interests and real estate concerns, the company has maintained a profile in the industrial heartland of the south-centre. Plans have recently been unveiled to increase Brascan's presence in the real estate sector in Brazil through a CAN\$ 350 million investment as part of a strategy of giving a higher profile to the company's Brazilian operations.²⁰⁰

In addition to having a great impact on the development of Brazil, Brascan has also had a significant impact in improving the understanding between the two countries. The

¹⁹⁶ Ibid. , p. 13.

¹⁹⁷ Ibid. , p. 13.

¹⁹⁸ Ibid. , p. 13.

¹⁹⁹ Ibid. , p. 13.

²⁰⁰ Drew Fagan, "Canada Clinches Brazilian Deals, Trade Mission Tally Hits \$2.8 Billion" in Globe and Mail, January 30, 1995, p. B1 and correspondence with Alan Dean, Brascan Vice-President for Corporate Development, July 9, 1996.

company has provided funding to support Brazilian studies at the University of Toronto. Donations of money and documents have allowed the University of Toronto to develop an extensive collection of Braziliana that includes books, documents, maps, and other materials that date back to some of the earliest days of Brazil.

Brascan has been involved in a number of exchange programmes designed to enhance the skills of employees in the electrical and mining sectors. Employee exchange programmes whereby accountants were transferred between Canada and Brazil to learn each other's accounting systems, accompanied a further programme in which Brazilian engineers were transferred to Canada for a two year period for training to acquaint them with North American electrical generating facilities and the manufacturing companies that supplied the electrical equipment. Brascan also established the Brascan Mining Technology Fund that saw the establishment of a laboratory in Porto Velho and promoted the exchange of Canadian and Brazilian technicians for training purposes.²⁰¹

The increased utility infrastructure can be seen Brascan's investments during its final years in Brazil by looking at the following figures. In 1940, Brazilian Traction, Light and Power had 224 069 telephones in service in the south central area.²⁰² By the time the company sold the telephone utility to the Brazilian government in 1965, 877 525 units were in service.²⁰³ Similar, if not more impressive, figures exist for electrical generating capacity and distribution networks. In 1940, the combined systems had a generating capacity of 554 234 kW.²⁰⁴ The company's capacity peaked in 1962 with a combined generating power of 2 350 000 kW²⁰⁵ and decreased as older plants were shut down resulting in a generating capacity of 2 075 000 kW when the electric utility was sold in

²⁰¹ Correspondence with Brascan Ltd. , February 27, 1996.

²⁰² Ibid. , 1940, p. 18.

²⁰³ Ibid. , 1965, p. 11.

²⁰⁴ Ibid. , 1940, p. 18.

²⁰⁵ Ibid. , 1962, p. 8.

1977.²⁰⁶ The distribution system showed significant growth rates with 47 840 kilometres of wire in 1940²⁰⁷ increasing to 331 024 kilometres in 1977.²⁰⁸ Between 1966 and 1977, Brazilian invested over \$US 1.3 billion in the utility in Brazil.²⁰⁹ In the last five years of the company's existence as a utility provider, expenditures exceeded \$US 1 billion.²¹⁰ These figures demonstrate the impact that Brazilian and its subsequent incarnation had on the development of a utility infrastructure in the industrial heartland in Brazil.

The preceding demonstrates not only the amount of involvement by Brazilian Traction, Light and Power but also its incredible scope. The impact that the company had on the development of Brazil and particularly its economic engine; the south-central region, cannot be overlooked. Each of its utility operations, but particularly its electrical generation and distribution and to a lesser extent, its telephone, gas, and tramway interests had a lasting impact on the Brazilian economy. Brascan's utility no longer had a strong bargaining position as a result Brazil had been given the tools for the development of an indigenous hydroelectric industry. The sale of its last utility, the Light, signalled the confidence that Brazilians had in their future and their ability to run their own affairs. Brascan Limited still maintains a significant presence in Brazil through its Brascan Brazil operations.

Brazilian's survival into the 1990s from 1899 stems in large measure from flexibility and its network of friends who are friends of friends. Other companies based in the US and Britain attempted similar ventures in Latin America but eventually were nationalized. Best and Shortnell account for Brazilian's success by the fact that the corporate managers in Toronto were of excellent quality and the company's practice of putting Brazilians in charge of the company's operations in Brazil. Despite the company's

²⁰⁶ Ibid. , 1977, p. 47.

²⁰⁷ Ibid. , 1940, p. 18.

²⁰⁸ Ibid. , 1977, p. 47.

²⁰⁹ Ibid. , 1976, p. 6.

²¹⁰ Ibid. , 1977, p. 11.

nickname “the Canadian Octopus”, Brazilians recognize that “Yes the company made a lot of money, but we are the foremost nation in the developing world industrially and a lot of it is due to the power we got from the Canadian company.”²¹¹

²¹¹ Ibid. , p. 33.

CHAPTER FIVE

CONCLUSION

Since the establishment in the waning years of the nineteenth century and the first years of the current one to the present, the Brazilian Traction, Light and Power Company Limited has played a vital role in the development of an industrial infrastructure in Brazil that has assisted that country's economic and industrial development. Brascan demonstrated a commitment to Brazil as evidenced by its almost century long history in the country. Through a network of electrical, urban transit, telephone, and gas utility services, the company developed an industrial infrastructure in Brazil's economic heartland; the South-centre, that has seen that country mature into a major industrial power. The following chapter draws some conclusions about the company's contribution to the Brazilian economy as well as about why the kind of company it was and sector in which it was active made Brascan different from other multinational corporations.

The contributions of the company were made in the areas of capital, technology, and labour. In these three areas, Brazilian Traction, Light and Power provided Brazil with the essential infrastructure that permitted the country to attain the levels of economic development that it experiences today. The Canadian company was able to direct capital to the utility building in Brazil. This capital allowed the company to purchase the latest technology and also to train a work force in modern labour practices as well as providing them with high-skilled jobs. These three essential factors in economic development were

either provided or made possible by Brazilian Traction, Light and Power and allowed for the development and expansion of Brazil's industrial heartland.

Brascan's initial foray into Brazil was made by a group of Canadian financiers who saw an investment opportunity to enter the Brazilian urban transit sector and build on the experience of such operations in Canada. The entrepreneurs of the company were well placed between the technological needs, the need for capital, and the need for business management. The Toronto office coordinated corporate decision making, financing, procurement, and shareholder relations and stood at the centre of a network of that linked the site of operations in Brazil with the legal and financial services in Canada with the technical services in New York with the financial resources in London.¹ The company had gone to Brazil in search of profits and in return it offered cheap, efficient electric power; one of the most important factors in urban industrial life.² From this introductory venture into the electrified tramway systems of São Paulo and Rio de Janeiro, the company grew into a utility giant that operated not only the tram systems of three of Brazil's most important cities, São Paulo, Rio de Janeiro, and Santos, but also the electric generation and distribution systems, the telephone system, and gas system. The Canadian investors had been well placed with access to capital from Canada and Europe for investment, the ability to attract experienced competent management, and access to the latest technology. With these three factors in place, Brazilian Traction, Light and Power was able to grow and mature with the emerging Brazilian economy and make a substantial impact on the industrial development of the country.

The use of the economic liberalism framework was an appropriate one for the purposes of this work. This framework provided focus by looking at the economic aspects of Brascan's involvement in Brazil. This approach also allowed for a better assessment of

¹ Duncan McDowall, The Light: Brazilian Traction, Light and Power Company Limited, 1899-1945, (Toronto: University of Toronto Press, 1988), p. 75.

² Ibid. , p. 48.

Brascan's impact on the national economy and the industrialization process in Brazil. The pro-multinational orthodox paradigm best provided the analytical tools that allowed for insights into the economic and industrial impacts of multinationals on developing countries and their infrastructure. The links between GDP and industrial production are closely linked. The additional factor of access to energy to undertake this growth is also closely linked. KW hour sales increases followed the exact pattern of GDP and industrial production growth. This indicates linkages between three of the indicators of growth. As these three indicators increased, Brazil's overall economic status did as well resulting in its current position as one of the top ten economies worldwide. The economic liberal school of thought concentrates on the economic and industrial impacts of the MNCs through an analysis of foreign capital investment, transfer of technology, and the provision of jobs. These factors most adequately explain the impact of Brazilian Traction, Light and Power on the economic and industrial infrastructure in Brazil.

The selection of economic liberalism as a framework of analysis allows insights into economic aspects of the development process. It does ignore substantive issues. It does not assist in the assessment the social aspects of development. Social aspects are best investigated using other frameworks. (This is not to suggest that the social aspects of are less important, rather they are not the focus of this thesis.) The economic liberalism approach also ignores important environmental concerns that arise out of multinational activity in the developing world. This is relevant for the case study of Brazilian Traction, Light and Power as Brazil's power generation and distribution interests relied significantly on hydroelectric power. These issues are important as the development of the Light's hydroelectric projects resulted in the reversal of the flows of entire rivers. Subsequent projects taken on by the Brazilian government throughout the country have been the subject of criticism for their disregard of environmental damage. At the time that Brazilian Traction, Light and Power's projects were constructed, however, environmental concerns were not at the forefront of public interest as they are currently..

In the final analysis, the economic liberalism model best demonstrates the impact of Brazilian Traction, Light and Power on the economic and industrial development of Brazil. It stresses the importance of foreign capital in developing industrial potential through the transfer of technology, the impact of bargaining theory, the 'obsolescing bargain' and the provision of skilled jobs. The concept of bargaining theory also leads to some interesting conclusions. The factors that improved the government's bargaining position with the Light, such as its sovereignty over raw materials (in this case the rivers of Brazil) and particularly its ability to change the rules under which the company operated, demonstrated that the company was negotiating with a very savvy government. Brazil had been independent for a half century and had been the seat of government for the Portuguese empire during Napoleon's occupation of Portugal. This allowed the country to develop a sense of itself and acquire a substantial degree of negotiating know how. Brazilian officials developed the knowledge to negotiate on a basis of strength with the Canadians that arrived from Toronto to invest in the fledgling electrical industry. The country has had a sense of destiny since independence and Brazilians have long been aware of their potential. This has contributed to the ability of the Brazilians to negotiate deals that significantly benefited the Brazilian economy. The Brazilian government's initial control over the Canadian utility was through the granting of the concessions but even following this most aspects of the Light's operations remained subject to governmental directives regarding rate increases and improvements such as the development of new hydroelectric systems and the expansion of older ones.

Important factors impact on the analysis of the case study. One must consider the type of multinational, area of investment and the particular country context. Abuse and less than savoury actions by multinational corporations are well documented. Those with significant capital outlay and whose capital investments are less mobile can be assumed to be less likely to engage in damaging actions. In a similar vein a company which is dependent on local consumers is probably more concerned with maintaining good relations

with their clientele. Brascan Brazil's utility concerns fit into this category. The high degree of capital outlay in the form of generators, dams, penstocks, and transmission facilities in the electrical industry, tram tracks and cars in the urban transit sector, gas production and distribution facilities, and telephone lines and switchboards, have an aura of permanency that prevented Brazilian Traction, Light and Power from moving to more lucrative pastures. This contrasts with those transnationals that move about the developing world in a constant quest for the country with the least expensive operating costs.

The company did not have control over the technology that it used. It was an importer of technology and its relationship to that technology was really only that it could afford to purchase it. As mentioned previously, Brascan did not have the option of moving production from one country to the other due to the nature of its operations as hydroelectric complexes and their accompanying systems do not travel well. The company did not have a product to export and therefore access to other countries through affiliates was not an issue. Brazilian Traction, Light and Power's product was provided to customers where it operated. Their products were not for export. This introduced a factor into the operation of the Brascan multinational that saw a company that had every reason to keep their local customers satisfied.

A remarkable ability to adapt was shown by the company throughout the changes in the Brazilian political landscape; through the Old Republic, the New Republic, the Estado Novo, the military regime, and through the democratization process into the period of democracy today. Through its connections with the elite of Brazilian society, the Light was able to insure that its operation continued more or less smoothly. These relations with the government and bureaucracy is perhaps one of the most important reasons for the success of the Light in Brazil. The company's almost century-long history in Brazil is due not only to the ability of the company to provide utility services but also in large part due to the active persual of well placed people within the Brazilian political and business hierarchy.

Brazilian Traction Light and Power depended on the vigor of the local economy and the abilities local managers and engineers to negotiate effectively with the local government.³ In the course of developing its utilities network, the company developed excellent connections with the elite of Brazilian society. These connections grew with the company and Brascan was able to take advantage of its connections with the elite of Brazilian society to insure that its interests were taken into consideration. The relationships protected Brascan's interests and mitigated the effect of the nationalist opposition to the company from the outset. These connections were not sufficient to withstand the pressures to nationalize the country's largest utility and the Brazilian government purchased the utility in 1977. Connections did, however, allow Brascan to exit Brazil with all of the funds from the sale.

The challenges of economic nationalism were encountered as well as restrictions imposed upon the company by the host state. Brascan was able to emerge relatively unscathed from these challenges due in large measure to its Canadian nationality which was looked on in a somewhat better light than similar American corporations. While economic nationalism was a problem for foreign companies in Brazil, American companies appeared to bear the brunt of this nationalism. This was undoubtedly a factor of American management style which saw American managers supported by diplomatic intervention. American managers, upon arrival in Brazil, did not go to their facilities first but rather went directly to the United States embassy.⁴ Duncan McDowall wrote that "Brazilians regard Canadians in a more positive light than US industry. They don't see us as threatening."⁵ This can be seen in the nationalization of companies such as the American and Foreign Power Company and ITT.

³ Christopher Armstrong and H. V. Nelles, Southern Exposure: Canadian Promoters in Latin American and the Caribbean, 1896-1930, (Toronto: University of Toronto Press, 1988), p. 291.

⁴ Op. Cit. . McDowall, p. 391.

⁵ Ann Shortnell, "The Lure of Southern Money" in Macleans, Volume 100, Issue 3, January 19, 1987, p. 26.

The Brazilianization process was vital to the success of the company. Through this process of incorporating Brazilians into the management structure of the company, the Light was able to develop political capital that was every bit as important as the investment capital needed to construct physical assets. These connections tempered the effects of nationalism that plagued the company throughout its time in Brazil. In addition to mitigating against the influences of the economic nationalists, this process of incorporating Brazilians into the company provided a training ground for following generations of managers that would be needed as Brazil developed. The company's policy of buying Brazilian products and developing its facilities in Brazil also resulted in the development of a group of skilled technical workers that played an important role in the economic development of industrially important sectors in Brazil today.

The role of a skilled labour force was important to insure the longevity of the company and accounts for much of the reason the company was successful. The employees were skilled workers earning a higher wage than most and gave the company a remarkable degree of stability. This work force, trained by Brazilian Traction, Light and Power, went on to develop an indigenous utility industry that now exports expertise to other countries.

The Light's activity in the electric energy field was perhaps the most vital part of its contribution to the development of the Brazilian economy. The Canadian investors in the company provided the initial capital that constructed the first hydroelectric stations. These initial hydroelectric complexes provided an excess of power that fed the early industrialization period in Brazil's south-centre. Through this infrastructure, the necessary power to run the industrial sector in Brazil's economic heartland - the Rio de Janeiro/São Paulo area, was provided. Even following the company's decision to stop expanding its generation facilities the fact that the region had a unified electrical system allowed for the quick integration of the new state-owned generation complexes to be easily integrated into

the existing power grid. The single grid also prevented the development of an unwieldy group of small power suppliers and distributors that would have hindered development. The single system in the area run by a large company with a good financial record allowed for access to large amounts of capital and therefore technology thereby resulting in a more efficient and up-to-date system than would have been possible for a smaller entity.

Brazilian Traction, Light and Power's long history in Brazil also puts the corporation into a different category from many of the MNCs that are regarded as exploitative. The longer the company remained in Brazil, the more technology and know-how was assimilated by the Brazilians, thus reducing the dependence of the Brazilians on the technological contributions of Brascan. The training of Brazilians at these operations allowed Brazil to develop, expand, and manage their own utilities later. Brazil had acquired the necessary expertise in the engineering and management in the electrical generation and distribution sector and the bargaining power of the foreign MNCs had eroded. The development of the power generation aspects came to be undertaken by Brazilians themselves to the point that the country has constructed the largest hydroelectric project at Itaipú on the Paraná River as well as other ambitious hydroelectric projects throughout the country. The indigenous construction of rolling stock for the tramway systems also insured that technological expertise would be passed onto Brazilians that would develop this craft into an industry.

The other utilities, while perhaps not having the same impact on the industrial development of the region, did play a role in the modernization of Brazil. This role was important psychologically as Brazilians could access services that were on par with those in the developed areas of the world. The trams provided an urban transportation service that equalled the systems of the cities of North America and Europe. The factories that manufactured the cars also provided the skills and technology necessary for Brazil to develop an indigenous capacity to manufacture rolling stock. The unified systems that the

company developed in Rio de Janeiro and São Paulo replaced an inefficient, outmoded system that allowed for easier movement and remained very cheap due to government restrictions. The Brazilian Telephone Company provided Brazil with a service of similar characteristics and its size allowed for the purchase of newer technology. The gas systems major contribution to development was its use of Brazilian coal. This innovation reduced dependence on imported coal and developed the Brazilian coal industry.

It is difficult to guess how the development of Brazil would have progressed without the influence of the Light. It might very well have occurred as it did but with a different set of actors or the process of industrial development could have been strikingly different. If nationalistic sentiments had prevailed, the system might have been seriously flawed as the capacity to manage such an operation would have challenged Brazilian managers. The two regions would also have been under pressures from two very different elites which regularly fought for control of the country. This would have undoubtedly resulted in two separate systems that would have seriously hampered the industrial progress of the south east. Perhaps it is sufficient to note that Brazilian Traction, Light and Power was able to bring together the capital, the management talent, the technology, the Brazilian elites, and the south east region of the country and allow Brazil to evolve into the economic heavyweight that it is currently.

Today, Brascan's interests in Brazil are less integral to the further development of the company and are more of a reminder of the long history the company has had in the country. Its continued presence is however a very important link between Canada and Brazil and should be enhanced. As Brazil continues to expand and grow as an economic power, the 100 year relationship that has been established by Brascan could be used to develop closer economic and political ties between the two countries. Historically, Canadian foreign policy has been focussed elsewhere despite the important role that a major Canadian company played in the growth and development of Brazil. An excellent basis has

been established and the Light as a Canadian company was recent enough to remain in the minds of Brazilians today.

The privatization programme of the 1990s in Brazil provides opportunities for Canadians to enter the growing Brazilian economy. As a major economic force in the developing world and increasingly in the developed world, Canada should build on the substantial ground work that Brascan has laid in the past and position itself to take advantage of a new market for Canadian products. Brascan itself is undertaking a significant expansion into the country and will be well placed to take advantage of continued Brazilian expansion

Overall the sheer size and extent of Brazilian Traction, Light and Power Company's interests in Brazil made it inevitable that it would have an impact on the economic and industrial development of Brazil through its infrastructure facilities. There is perhaps more than a little truth in the Paulista saying "*Deus é Brailiero - e também da Light*".⁶ If God is a Brazilian there is a distinct possibility that He in fact did work for the Light.

⁶ Clyde Sanger, Half a Loaf: Canada's Semi-Role Among Developing Countries, (Toronto: Ryerson Press, 1969), p. 169.

Figure 1.1 Brazil

This map illustrates the geographical and infrastructural layout of Brazil. Key features include:

- States and Territories:** Labeled states include Amazonas, Acre, Roraima, Pará, Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia, Espírito Santo, Minas Gerais, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, and Rio Grande do Sul.
- Major Cities:** Numerous cities are marked, including Manaus, Belém, Fortaleza, Recife, Salvador, Belo Horizonte, São Paulo, Rio de Janeiro, Curitiba, and Porto Alegre.
- Transportation:** A network of main roads (solid lines) and main railways (dashed lines) is shown across the country.
- Boundaries:** International boundaries are indicated by thick solid lines, and internal state boundaries are shown as thin solid lines.
- Geography:** The map shows the Atlantic Ocean to the east and the Pacific Ocean to the west. Neighboring countries are labeled in all caps.
- Legend:**
 - Main roads (solid line)
 - Main railways (dashed line)
 - International boundaries (thick solid line)
 - Internal boundaries (thin solid line)
 - Main airports (circle with a dot)
- Scale:** A scale bar at the bottom right shows distances in kilometers (0 to 1000) and miles (0 to 600).



Table 3.1 Canadian Direct Investment 1920 – 1991
(Millions of \$CAN)

Year	Total Canadian	Total South & Central America	Brazil	Brazil as % of Total S&C America
1920	212	37	6	16.22%
1921	220	40	6	15.00%
1922	225	43	7	16.28%
1923	233	48	8	16.67%
1924	238	51	8	15.69%
1925	246	55	9	16.36%
1926	397	83	13	15.66%
1927	402	86	13	15.12%
1928	412	87	13	14.94%
1929	424	94	14	14.89%
1930	443	103	15	14.56%
1931	450	105	16	15.24%
1932	458	105	16	15.24%
1933	467	105	16	15.24%
1934	478	105	16	15.24%
1935	485	107	17	15.89%
1936	550	109	19	17.43%
1937	554	87	2	2.30%
1938	625	111	3	2.70%
1939	671	106	2	1.89%
1940	681	106	2	1.89%
1941	689	103	2	1.94%
1942	696	82	8	9.76%
1943	701	67	8	11.94%
1944	711	61	7	11.48%
1945	720	59	6	10.17%
1946	767	56	6	10.71%
1947	822	65	8	12.31%
1948	788	41	6	14.63%
1949	926	47	6	12.77%
1950	990	47	7	14.89%

1951	1166	56	10	17.86%
1952	1265	68	10	14.71%
1953	1477	72	9	12.50%
1954	1619	77	12	15.58%
1955	1742	89	12	13.48%
1956	1891	86	12	13.95%
1957	2073	116	23	19.83%
1958	2149	142	27	19.01%
1959	2286	164	29	17.68%
1960	2468	168	35	20.83%
1961	2596	170	31	18.24%
1962	2784	159	37	23.27%
1963	3082	171	37	21.64%
1964	3272	178	37	20.79%
1965	3469	191	41	21.47%
1966	3711	213	47	22.07%
1967	4030	235	47	20.00%
1968	4617	231	50	21.65%
1969	5211	229	54	23.58%
1970	6188	820	648	79.02%
1971	6538	827	711	85.97%
1972	6715	808	685	84.78%
1973	7835	903	792	87.71%
1974	9210	1054	929	88.14%
1975	10526	1199	1039	86.66%
1976	11491	1371	1157	84.39%
1977	13509	1604	1403	87.47%
1978	16422	1980	1687	85.20%
1979	20496	1092	649	59.43%
1980	26967	1162	691	59.47%
1981	33847	1311	745	56.83%
1982	35558	1471	825	56.08%
1983	39859	1193	783	65.63%
1984	47422	1426	952	66.76%
1985	54123	1525	1123	73.64%

1986	58492	1565	1194	76.29%
1987	66794	1701	1248	73.37%
1988	72146	1827	1353	74.06%
1989	80779	2072	1582	76.35%
1990	87886	2198	1611	73.29%
1991	94435	2125	1354	63.72%

Source: CANSIM Database

Figure 3.1

Total Canadian, South / Central America, and Brazil International Direct Investment 1920 - 1991

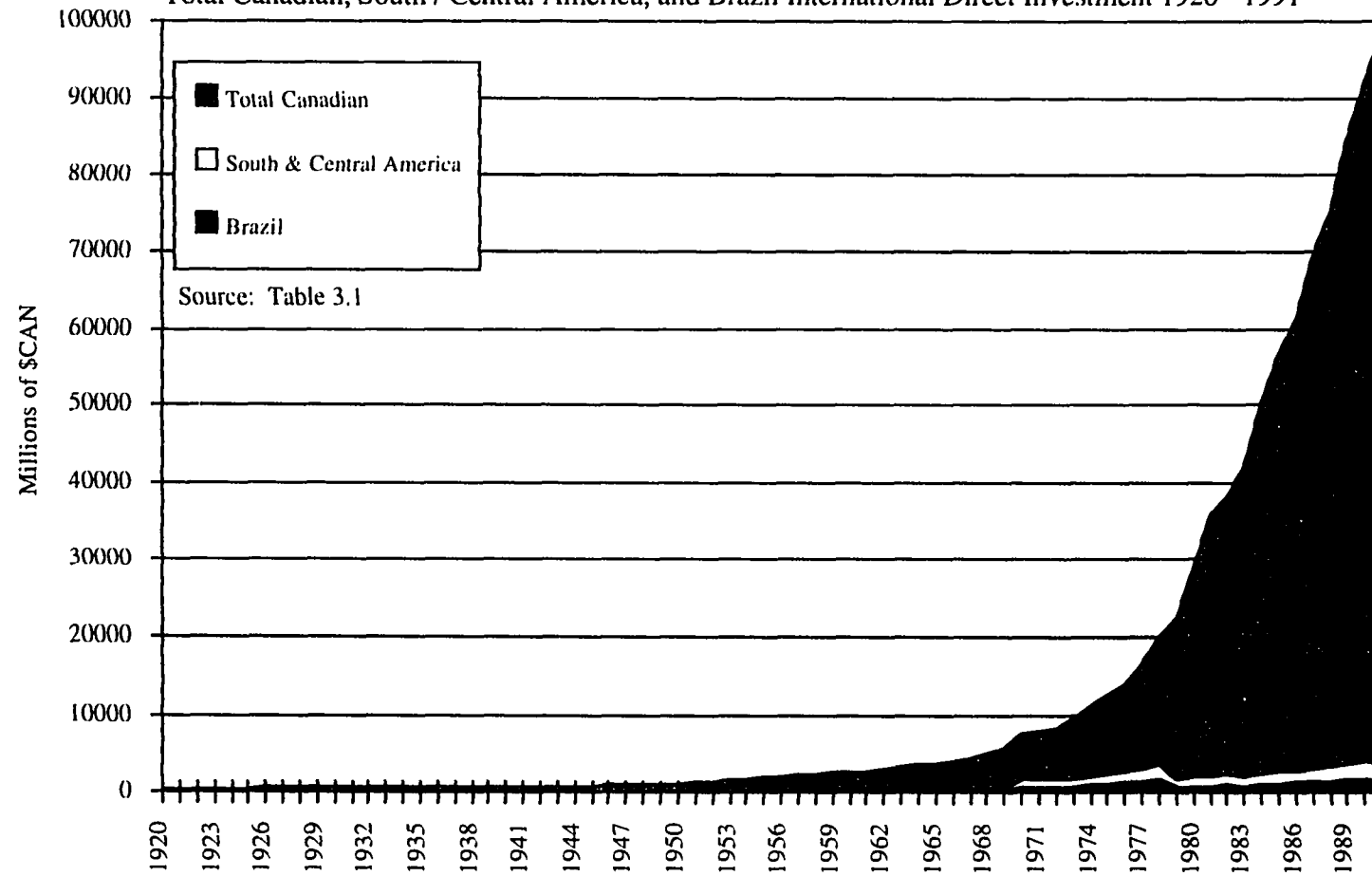


Figure 3.2

Canadian Direct Investment: South / Central America and Brazil 1920 - 1991

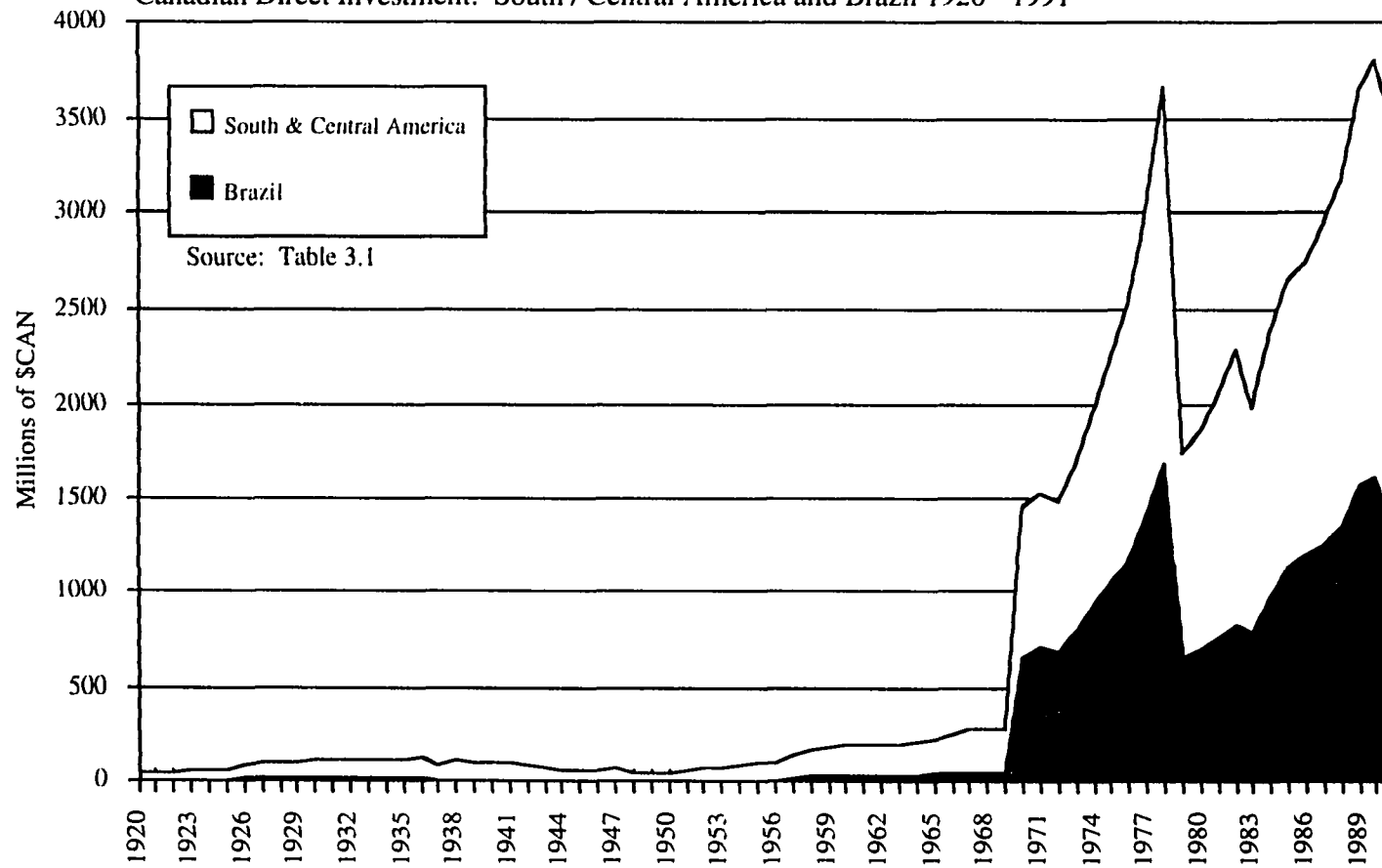


Table 3.2 Investment in Brazil, 1973 - 1974 (\$US Millions)

Country	June 1974	December 1973
United States	1855	1717
West Germany	586	520
Japan	429	318
Switzerland	424	357
Canada	361	360
United Kingdom	349	324
France	207	205
Panama	154	132
Netherlands Antilles	118	113
Netherlands	114	96
Sweden	101	73
Other	415	364
TOTAL	5113	4579

Source: Financial Post, October 18, 1975.

Table 3.3 Investment in Brazil, December 1987

Country	\$US Millions	% Share of Total
United States	8 341	26.5
West Germany	5 352	17.0
Japan	2 961	9.4
Switzerland	2 804	8.9
United Kingdom	1 898	6.0
CANADA	1 435	4.6
France	1 389	4.4
Panama	1 354	4.3
Italy	1 094	3.5
Others	4 840	15.4
TOTAL	31 468	100.0

Note: Brazilian figures show Canada as having over \$US 1.4 billion in registered investments in the country. Brazilian statistics are based on investment made from Canada, not necessarily from Canadian owned firms. These figures do not take into account investment made through Canadian subsidiaries of foreign companies or investment made by Canadian owned companies through other countries.

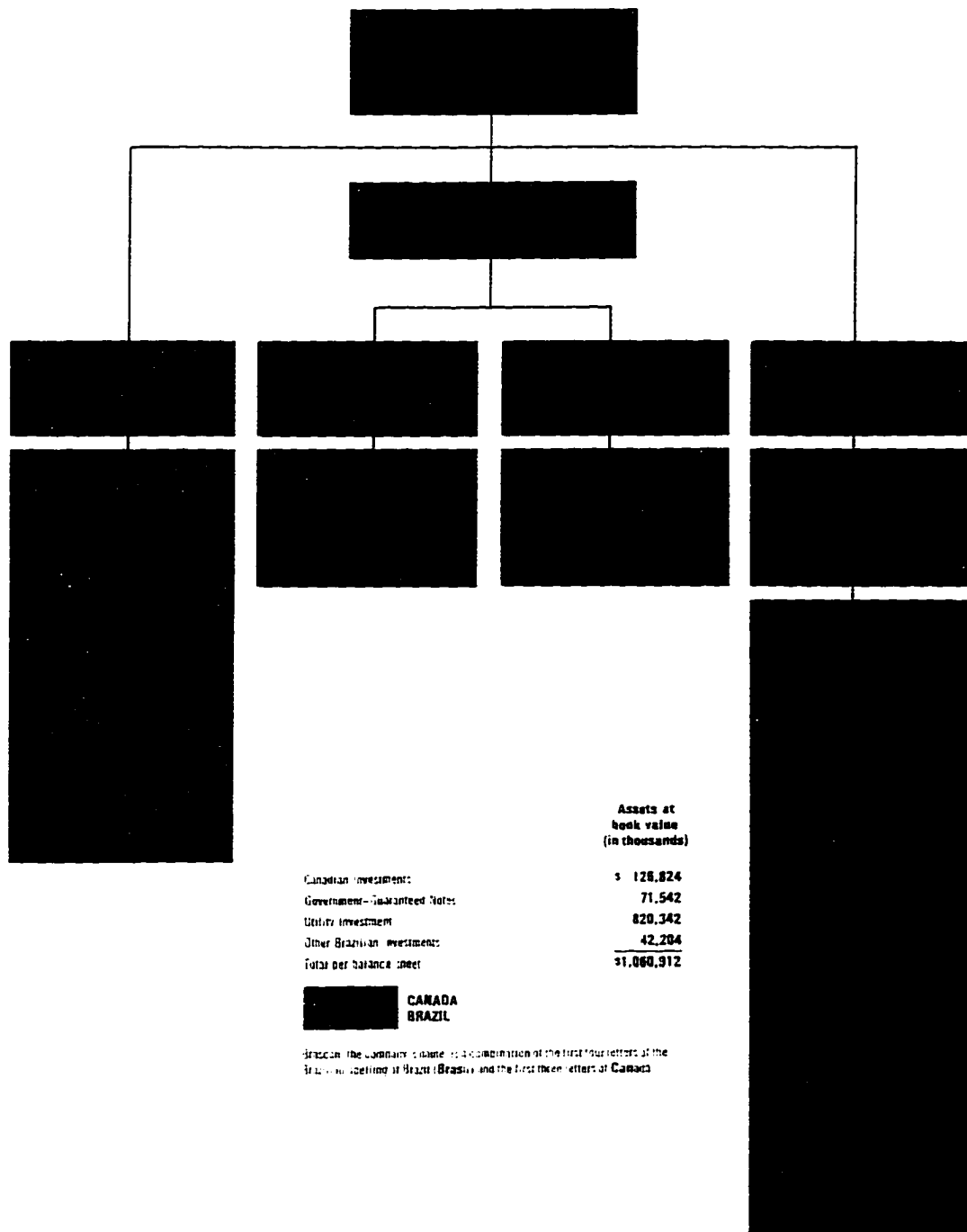
Source: Fox Jones and Associates. Canadian Investment Opportunities in Brazil.

Table 3.4 Stock of Foreign Investment in Brazil at September 30, 1991 by Source (\$US Millions)

Country	Investments	Re-investments	Total	% of Total
United States	7501	3102	10602	28.92
Germany	3426	1801	5226	14.26
Japan	3020	573	3593	9.80
Switzerland	1849	1149	2998	8.18
United Kingdom	1626	999	2625	7.16
Canada	1495	747	2242	6.12
France	992	859	1851	5.05
Italy	898	344	1242	3.39
Netherlands	569	339	909	2.48
Panama	521	336	857	2.34
Sweden	374	287	661	1.80
Luxembourg	469	139	607	1.66
Belgium	259	234	493	1.35
Netherlands Antilles	351	14	365	0.99
Liberia	299	27	326	0.89
Cayman Islands	259	24	283	0.77
Liechtenstein	238	40	278	0.76
Bermuda	172	15	187	0.51
Spain	125	15	140	0.38
Bahamas	118	6	124	0.34
TOTAL	25522	11141	36663	100.00

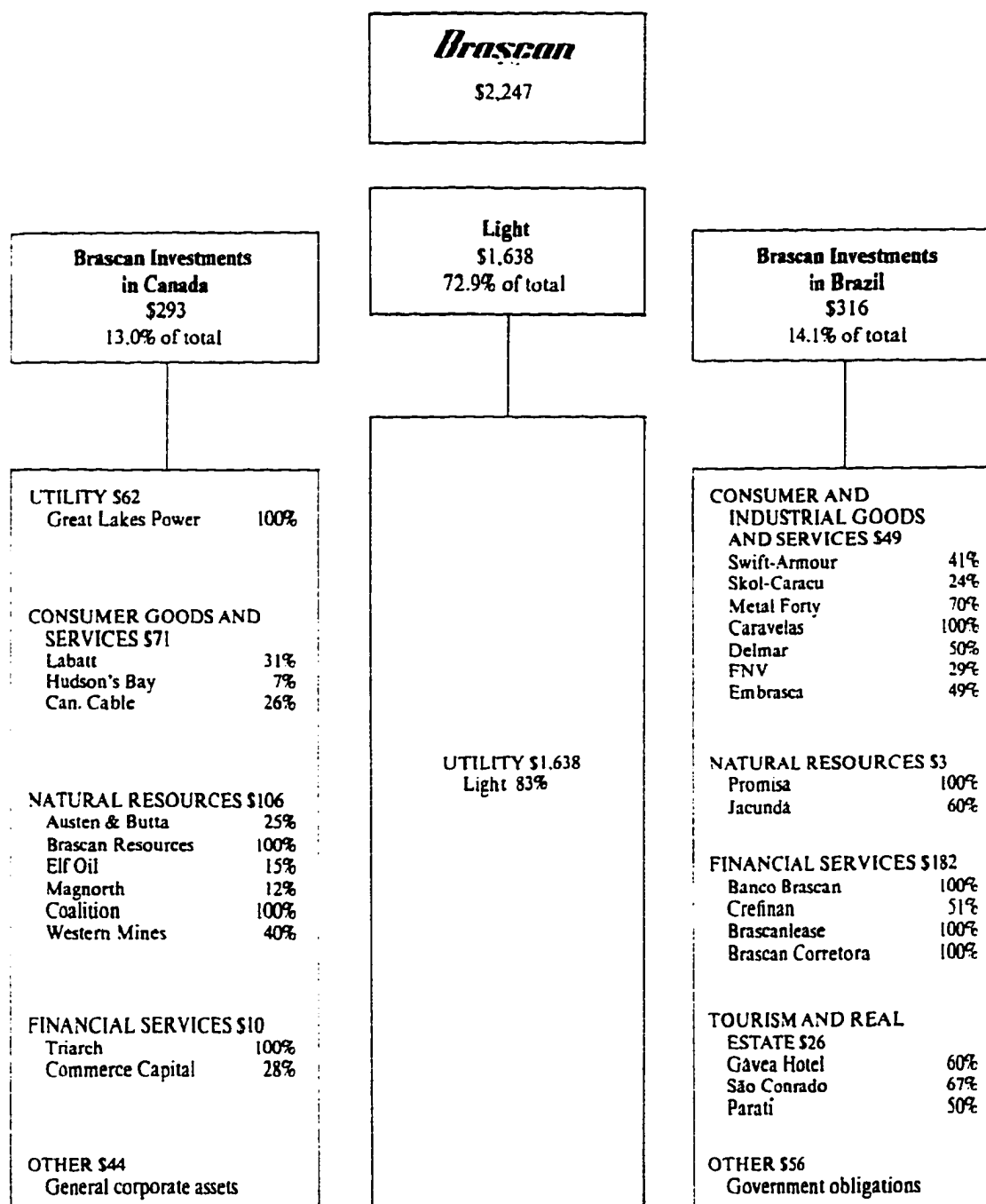
Source: General Agreement on Tariffs and Trade, Brazil: Trade Policy Review, (Geneva: GATT Publications Services, 1993), p. 98.

Figure 4.1 Brascan Limited Corporate Structure 1970



Source: Brascan Limited Annual Corporate Report, 1970

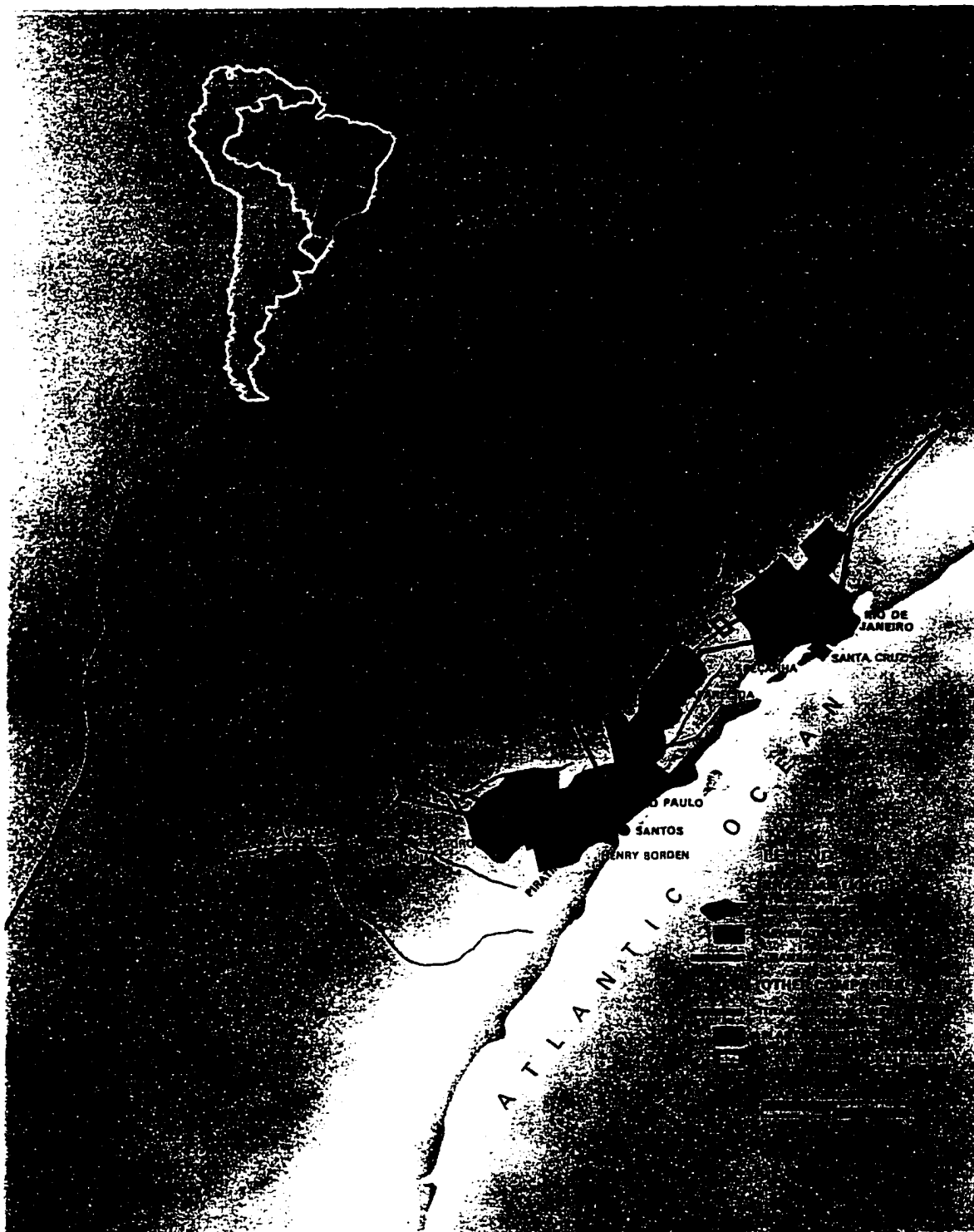
Figure 4.2 Brascan Limited Principal Investments 1975



*Figures are stated in millions of United States dollars and represent book values of assets at December 31, 1975 as shown in the Consolidated Balance Sheet without deduction of liabilities. Except as otherwise stated, percentages represent the percentage voting interest without deduction of nominal minorities.

Source: Brascan Limited, Annual Report 1975.

Figure 4.3 Brazilian Light and Power System 1968



Source: Brazilian Light and Power Company Limited Annual Report 1978

Table 4.1 Brascan Limited Assets, January 1979 (\$US Millions)

CASH		380
INVESTMENTS IN CANADA		328
Natural Resources	103	
Brascan Resources Ltd. (100%) (oil, gas, and coal)		
Western Mines Ltd. (51%) (copper, lead, zinc, silver, and gold)		
Consumer Goods and Services	65	
John Labatt Ltd. (24%) (brewing, food, and wine)		
Utility	61	
Great Lakes Power Corp. (Northern Ont. hydroelectricity)		
Financial Services	28	
London Life Insurance (24%) Triarch Corp. (63%) (merchant banking and investment management)		
Other	71	
INVESTMENTS IN BRAZIL		469
Financial services	278	
(investment bank)		
Consumer and Industrial Goods and Services	55	
(brewing, meat processing, mobile equipment)		
Real Estate Development	45	
(hotel and resort)		
Natural Resources	4	
(tin mining and mineral exploration)		
Other	87	
TOTAL		1177

Source: Financial Post January 6, 1979.

Table 4.2 Brazilian Electrical Capacity 1900-1987 in MW

Year	Hydro-Electricity	Thermal	Total
1900	5	5	10
1901	33	5	38
1902	34	5	39
1903	34	5	39
1904	34	5	39
1905	38	7	45
1906	40	9	49
1907	44	9	53
1908	99	12	111
1909	103	13	116
1910	124	33	157
1911	132	35	167
1912	180	44	224
1913	195	49	244
1914	253	50	303
1915	259	51	310
1916	260	53	313
1917	266	53	319
1918	272	55	327
1919	278	63	341
1920	301	66	367
1921	305	66	371
1922	313	69	382
1923	321	75	396
1924	387	79	466
1925	417	90	507
1926	489	103	592
1927	539	111	650
1928	576	131	707
1929	622	138	760
1930	630	149	779
1931	646	153	799
1932	649	156	805
1933	658	159	817
1934	665	163	828
1935	677	173	850
1936	746	179	925
1937	755	192	947
1938	947	215	1162
1939	952	224	1176
1940	1009	235	1244
1941	1019	242	1261
1942	1061	247	1308
1943	1067	248	1315
1944	1077	257	1334
1945	1080	262	1342
1946	1134	281	1415
1947	1251	283	1534
1948	1333	292	1625

1949	1431	304	1735
1950	1536	347	1883
1951	1585	355	1940
1952	1659	326	1985
1953	1704	385	2089
1954	2173	632	2805
1955	2481	667	3148
1956	2875	675	3550
1957	3003	764	3767
1958	3224	769	3993
1959	3316	799	4115
1960	3642	1158	4800
1961	3809	1396	5205
1962	4126	1603	5729
1963	4479	1876	6355
1964	4894	1946	6840
1965	5391	2020	7411
1966	5524	2042	7566
1967	5787	2255	8042
1968	6183	2372	8555
1969	7857	2405	10262
1970	8828	2405	11233
1971	10244	2426	12670
1972	10721	2528	13249
1973	12495	2859	15354
1974	14285	3241	17526
1975	16150	2906	19056
1976	17670	3157	20827
1977	19293	3198	22491
1978	21740	3560	25300
1979	24265	3705	27970
1980	27014	4133	31147
1981	31452	4282	35734
1982	32975	6014	38989
1983	33464	6120	39584
1984	35426	6142	41568
1985	38061	7024	45085
1986	38963	6945	45908
1987	43244	7085	50329

Source: Brazil – Centro de Documentação e Disseminação de Informações
Instituto Brasileiro de Geografia e Estatística

Table 4.3 Brazilian, São Paulo Light, & Rio de Janeiro Light Electrical Capacity 1912–1978 in kW

Year	Brazil	São Paulo	Rio de Janeiro	São Paulo & Rio de Janeiro Light Systems	Light Systems as % of Brazil
1912	224000	20000	32000	52000	23.21
1915	310000	59000	61000	120000	38.71
1918	327000	59000	61000	120000	36.70
1921	371000	59000	61000	120000	32.35
1924	466000	59000	105000	164000	35.19
1927	650000	159000	105000	264000	40.62
1930	779000	179724	134000	313724	40.27
1933	817000	179724	134000	313724	38.40
1936	925000	232000	134000	366000	39.57
1939	1176000	364739	178000	542739	46.15
1942	1308000	370304	248000	618304	47.27
1945	1342000	370304	248000	618304	46.07
1946	1415000	374804	248000	622804	44.01
1947	1534000	460204	283000	743204	48.45
1948	1625000	538497	283000	821497	50.55
1949	1735000	538647	328000	866647	49.95
1950	1883000	604788	353000	957788	50.87
1951	1940000	604788	353000	957788	49.37
1952	1985000	604685	353000	957685	48.25
1953	2089000	738397	423000	1161397	55.60
1954	2805000	738937	683000	1421937	50.69
1955	3148000	738937	683000	1421937	45.17
1956	3550000	990771	683000	1673771	47.15
1957	3767000	990771	683000	1673771	44.43
1958	3993000	989676	683000	1672676	41.89
1959	4115000	990426	683000	1673426	40.67
1960	4800000	1305426	683000	1988426	41.43
1961	5205000	1370426	683000	2053426	39.45
1962	5729000	1370426	726750	2097176	36.61
1963	6355000	1370426	776500	2146926	33.78
1964	6840000	1369699	777124	2146823	31.39
1965	7411000	1369699	777124	2146823	28.97
1966	7566000	1369699	777124	2146823	28.37
1967	8042000	1369699	778114	2147813	26.71
1968	8555000	1368243	753114	2121357	24.80
1969	10262000	1368243	753114	2121357	20.67
1970	11233000	1368243	754000	2122243	18.89
1971	12670000	1368243	754000	2122243	16.75
1972	13249000	1368243	754000	2122243	16.02
1973	15354000	1368243	754000	2122243	13.82
1974	17526000	1368243	754000	2122243	12.11
1975	19056000	1368243	754000	2122243	11.14
1976	20827000	1368243	754000	2122243	10.19
1977	22491000	1368243	754000	2122243	9.44
1978	25300000	1368243	754000	2122243	8.39

Source: Brazil – Centro de Documentação e Disseminação de Informações
Instituto Brasileiro de Geografia e Estatística

São Paulo & Rio de Janeiro – Duncan McDowall, *The Light*, p. 406

Table 4.4 Brazilian Traction, Light and Power Company Limited 1912-1978

	Tramway passengers	Available generating capacity - São Paulo (in kw)	Available generating capacity - Rio (in kw)	Total kilowatt hours sold (in 000s)	Total light and power customers	Telephones in service	Total gas sales (in 000s cu m)
1912	231,585,668	20,000	32,000	230,983	28,750	9,020 ^a	45,636
1915	243,130,447	30,000	61,000	299,489	66,927	13,786 ^b	49,300
1918	283,466,433	30,000	61,000	378,303	109,384	47,642 ^c	57,973
1921	377,082,951	30,000	61,000	458,061	140,344	67,862	65,358
1924	498,342,281	30,000	105,000	479,527	175,397	77,977	65,043
1927	584,055,135 ^d	159,000	105,000	629,558	230,721	86,053	91,590
1930	743,795,671	179,724	134,000	791,519	317,494	105,828	114,368
1933	753,786,219	179,724	134,000	903,467	366,094	122,253	102,044
1936	882,882,798	232,000	134,000	1,235,689	442,057	165,852	120,328
1939	978,561,798	364,739	178,000	1,335,197	532,003	208,633	144,480
1942	1,160,506,565	370,304	248,000	1,984,507	632,051	261,549	144,082
1945	1,289,612,635	370,304	248,000	2,606,418	694,957	305,889	152,175
1946	1,162,589,794	374,804	248,000	2,825,522	731,751	325,893	166,081
1947	908,513,656 ^e	460,304	283,000	3,092,006	768,014	349,492	176,426
1948	735,455,108	538,497	283,000	3,482,345	811,338	380,260	194,935
1949	748,281,956	538,647	328,000	3,874,529	858,981	398,396	211,460
1950	735,489,253	604,788	333,000	4,051,703	909,661	427,869	223,648
1951	704,370,302	604,788	333,000	4,302,538	979,696	467,237	245,983
1952	620,726,645 ^f	604,685	333,000	4,472,511	1,056,871	510,430	254,765
1953	580,875,027	738,937	423,000	4,601,389	1,137,005	546,871	267,566
1954	541,620,660	738,937	683,000	5,173,545	1,220,284	599,235	292,214
1955	539,460,900	738,937	683,000	5,701,104	1,299,373	646,733	314,641
1956	485,309,111	990,771	683,000	6,384,980	1,377,651	677,316	330,041
1957	465,242,064	990,771	683,000	6,949,373	1,474,692	698,974	325,774
1958	451,861,507	989,676	683,000	7,812,890	1,571,367	729,857	326,410
1959	396,655,379 ^g	990,426	683,000	8,422,799	1,671,069	756,694	323,574
1960	328,791,341	1,306,426	683,000	9,362,503	1,766,362	787,198	335,383
1961	243,468,443	1,370,426	683,000	10,216,568	1,868,632	812,037	330,132
1962	211,688,379	1,370,426	729,750	11,093,116	1,975,351	832,047	342,509
1963	192,813,783 ^h	1,370,426	776,500	11,182,880	2,076,710	844,725	328,260
1964		1,369,699	777,124	11,241,000	2,182,275	862,648	340,771
1965		1,369,699	777,124	11,641,000	2,285,025	877,525 ⁱ	329,800
1966		1,369,699	777,124	12,797,000	2,403,078		319,914
1967		1,369,699	778,114	13,643,000	2,536,389		308,114 ^j
1968		1,368,243	753,114	15,329,000	2,662,376		261,542 ^k
1969		1,368,243	753,114	16,880,000	2,847,602		
1970		1,368,243	754,000	17,919,000	3,056,593		
1971		1,368,243	754,000	20,310,000	3,273,943		
1972		1,368,243	754,000	22,402,000	3,485,000		
1973		1,368,243	754,000	24,957,000	3,699,000		
1974		1,368,243	754,000	27,376,000	3,862,000		
1975		1,368,243	754,000	29,081,000	3,973,000		
1976		1,368,243	754,000	32,334,000	4,173,031		
1977		1,368,243	754,000	33,500,000	4,365,470		
1978		1,368,243	754,000	38,500,000	5,561,847		

a Rio de Janeiro only

b Includes Rio, Niterói, Petrópolis, and Barra do Pirai

c Includes São Paulo state telephones

d Now includes tramways, funicular railway, electric buses, and gas buses

e On 1 July 1947 the São Paulo tramway system passed to municipal ownership.

f Santos tramway system was transferred to municipal ownership.

g In January 1959 tramway zones in Rio were reduced, and the basis of calculating ridership was revised.

h On 30 December 1963 all tramway services were transferred to the state of Guanabara.

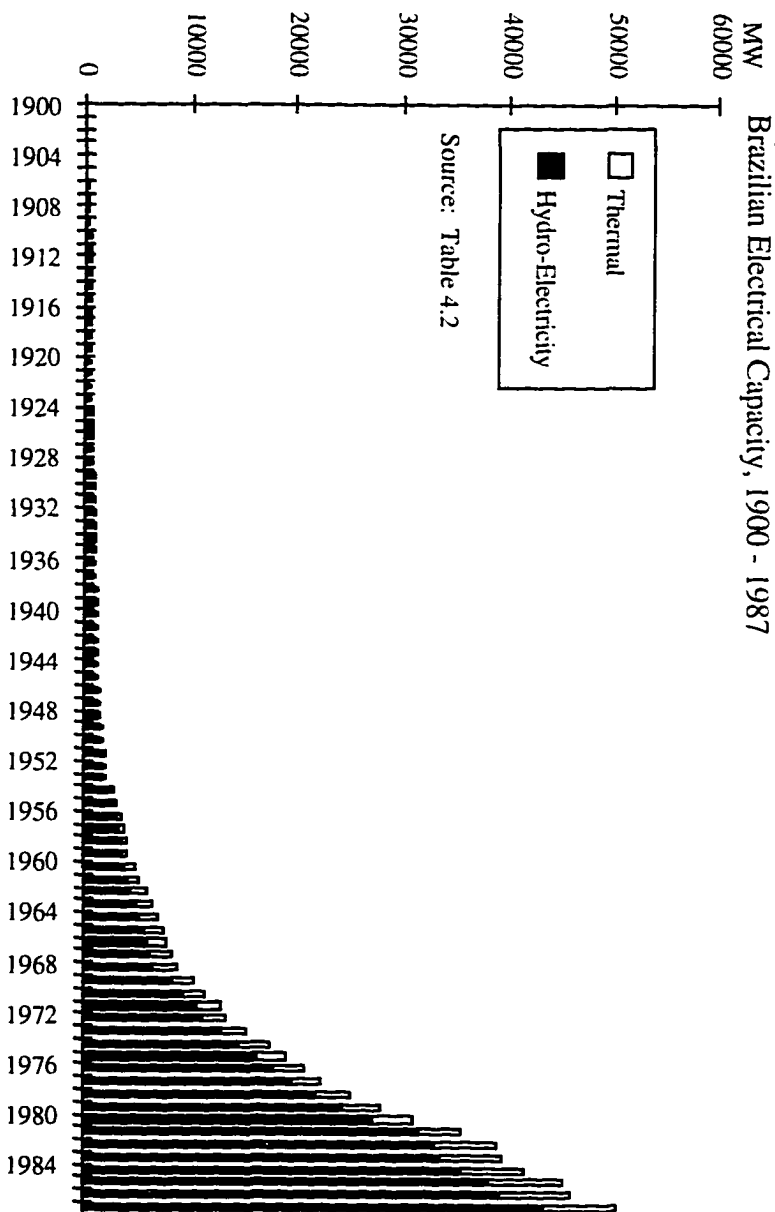
i Brazilian Telephone Company was sold to the Brazilian federal government.

j In 1967, gas service was discontinued in Santos and taken over by the municipality in São Paulo.

k Gas service in Rio was transferred to the state of Guanabara.

Source: Duncan McDowall, *The Light*, p. 406

Figure 4.4
Brazilian Electrical Capacity, 1900 - 1987



MW Figure 4.5
Brazil and Light System Electric Capacity 1912-1978

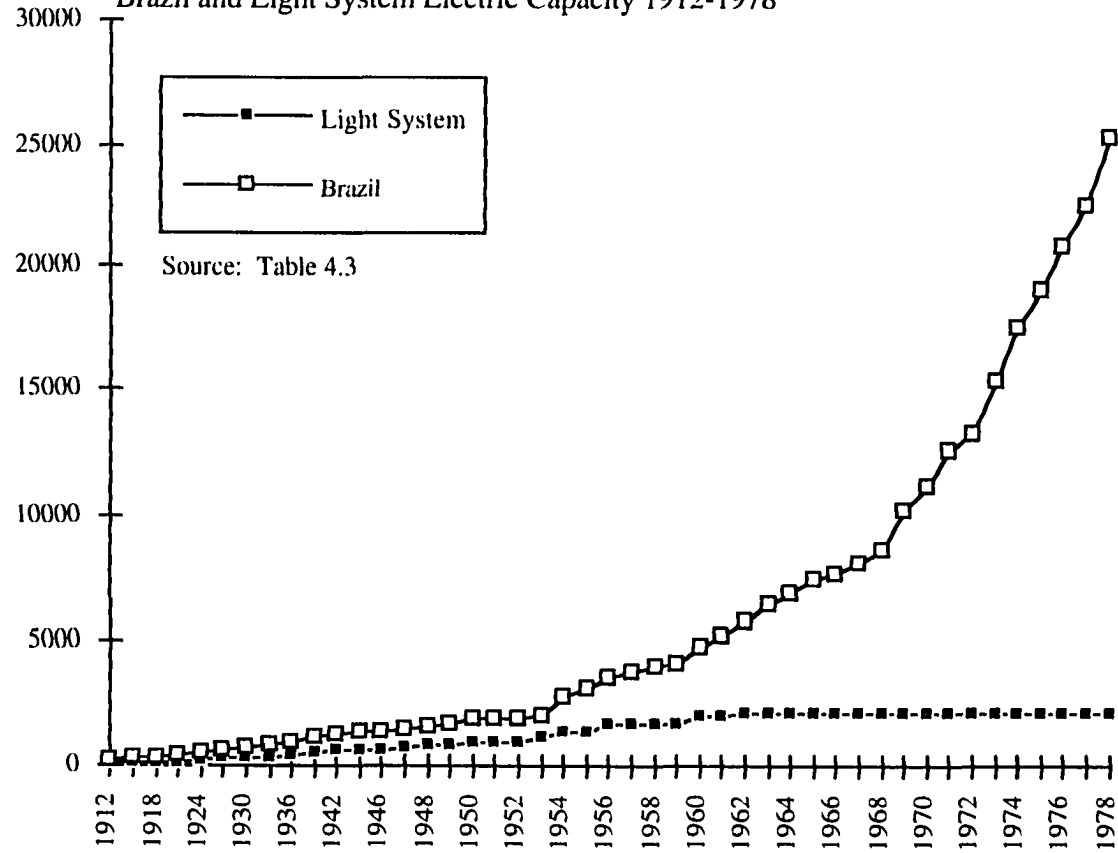


Table 4.5 Brazilian Electric Light and Power 1963-77

Year	Total Kilowatt Hours Sold (millions)	Customers (thousands)	Employees	Generating Capacity (000s of kW)
1963	11 183	2 076	18 028	2 148
1964	11 241	2 185	18 022	2 147
1965	11 641	2 285	19 319	2 147
1966	12 797	2 403	21 562	2 147
1967	13 645	2 535	22 949	2 148
1968	15 329	2 662	23 449	2 121
1969	16 880	2 847	24 549	2 121
1970	17 919	3 056	25 216	2 119
1971	20 310	3 273	25 866	2 119
1972	22 402	3 485	25 968	2 119
1973	24 957	3 699	27 584	2 119
1974	27 376	3 862	31 555	2 064
1975	29 081	3 973	29 824	2 064
1976	32 334	4 173	30 646	2 064
1977	35 537	4 365	31 729	2 075

Source: Brascan Limited Annual Reports 1968 to 1977.

Table 4.6 Brazilian Traction, Light and Power: Capital Expenditure, 1940 - 1977 (\$US)

Year	Gas Production and Distribution	Telephones	Electrical Distribution	Electrical Generation and Transmission	Total
1940					11 841 000
1941					11 036 000
1942					9 219 000
1943					13 773 000
1944					11 945 000
1945					19 440 000
1946					34 069 000
1947					47 986 000
1948					32 437 000
1949					41 410 000
1950					56 000 000
1951					67 154 000
1952					81 154 000
1953					48 160 000
1954					54 832 000
1955	1 219 000	12 951 000	13 293 000	11 441 000	38 905 000
1956	2 835 000	12 296 000	9 522 000	8 475 000	33 128 000
1957	1 915 000	11 140 000	24 685 000	8 210 000	45 950 000
1958	1 226 000	7 714 000	21 154 000	5 856 000	35 950 000
1959	1 446 000	6 204 000	17 828 000	40 732 000	66 210 000
1960	1 277 000	8 505 000	9 209 000	7 980 000	26 971 000
1961	879 000	7 593 000	11 512 000	10 197 000	30 181 000
1962	930 000	6 392 000	13 048 000	1 811 000	22 181 000
1963	775 000	6 914 000	9 458 000	1 791 000	18 938 000
1964	615 000	5 518 000	8 484 000	129 000	14 746 000
1965	460 000	8 596 000	16 901 000	990 000	26 947 000
1966	634 000		38 075 000	4 310 000	43 019 000
1967	1 211 000		53 861 000	4 541 000	59 613 000
1968	2 203 000		54 209 000	13 797 000	70 209 000
1969					75 074 000
1970					77 900 000
1971					83 613 000
1972					98 700 000
1973					123 200 000
1974					246 000 000
1975					233 900 000
1976					262 000 000
1977					285 000 000

Notes: 1966 Telephone utility sold to the Brazilian government
1969 Gas utility sold to the state of Guanabara
1977 Electric utility sold to the Brazilian government
Sector break down from 1940 to 1954 and 1969 to 1977 unavailable

Source: Brazilian Traction, Light and Power Company Limited, Annual Reports 1940 - 1977

Table 4.7 Growth Rates in Brazilian GDP, Industry, and kW Hour Sales for Brazilian Traction, Light and Power, 1948 - 1977 (%)

Year	GDP	Industry	kW Hour Sales
1948	9.7	11.2	14.5
1949	7.7	10.1	11.2
1950	6.8	11.3	4.6
1951	4.9	6.2	7.7
1952	7.3	5.0	4.0
1953	4.7	8.7	2.9
1954	7.8	8.7	12.0
1955	8.8	10.6	10.0
1956	2.9	6.7	15.5
1957	7.7	5.7	5.5
1958	10.8	16.0	12.4
1959	9.8	11.0	7.8
1960	9.4	9.3	11.2
1961	8.6	10.5	9.1
1962	6.6	7.8	8.6
1963	0.6	0.2	0.8
1964	3.4	5.5	0.5
1965	2.4	(5.0)	3.6
1966	6.7	12.0	10.0
1967	4.2	3.0	7.2
1968	9.8	13.2	12.1
1969	9.5	10.8	10.0
1970	10.4	11.1	6.2
1971	12.0	11.2	13.3
1972	11.1	13.8	10.3
1973	13.6	16.3	11.4
1974	9.7	9.2	9.7
1975	5.4	5.9	6.2
1976	9.7	12.4	11.2
1977	5.7	3.9	9.9

Sources: GDP,

1948 - 1970, Instituto Brasileiro de Geografia e Estatística
1971 - 1977, Werner Baer, "Brazil's Rocky Road to Democracy" in The Political Economy of Brazil: Public Policies in an Era of Transition, Austin: University of Texas, 1990.

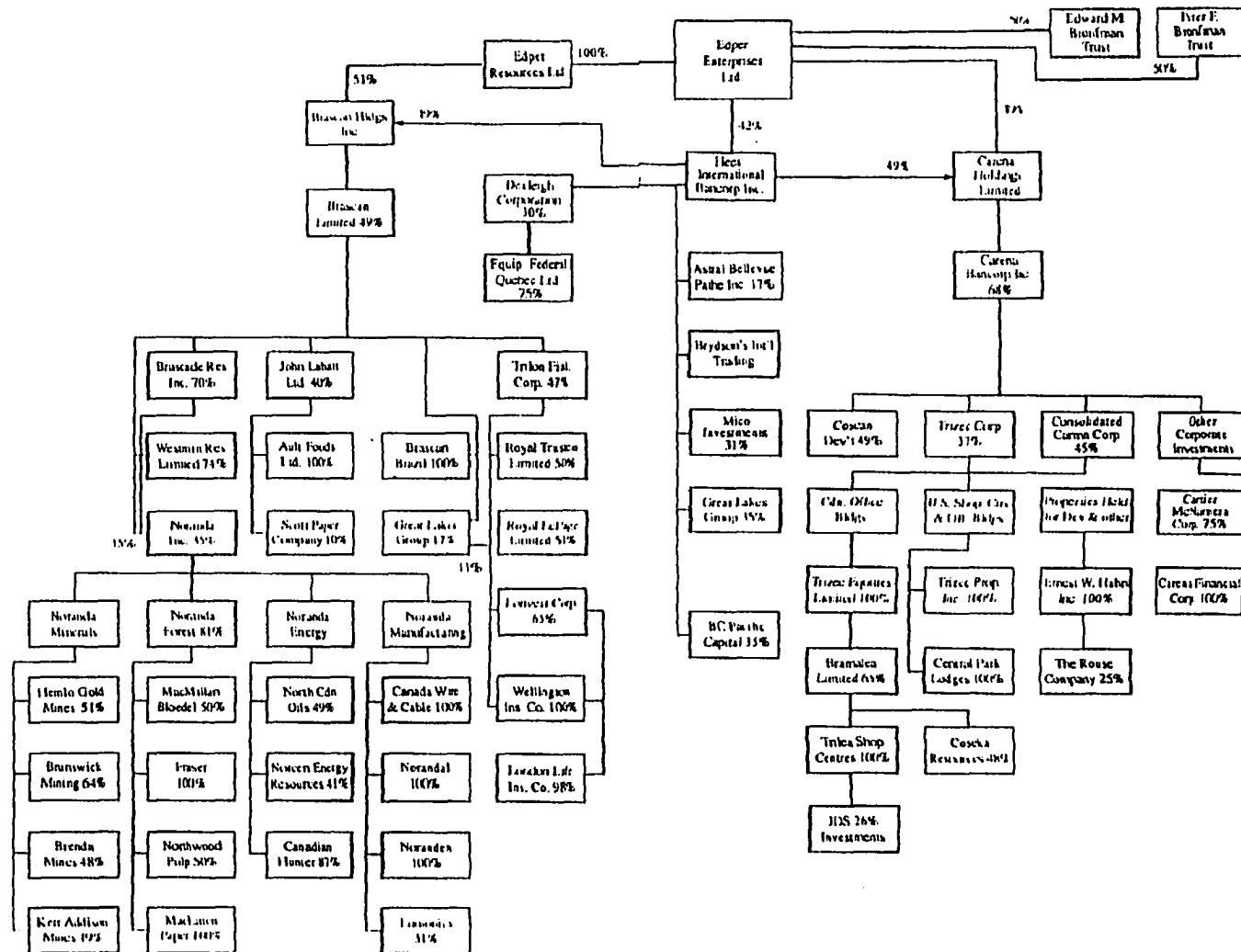
Industry Growth,

1948 - 1972, Donald E. Syvud, Foundations of Brazilian Economic Growth, Stanford: Hoover Institution Press, 1972.
1973 - 1977, Werner Baer, "Brazil's Rocky Road to Democracy" in The Political Economy of Brazil: Public Policies in an Era of Transition, Austin: University of Texas, 1990.

kW Hour Sales,

1948 - 1977, Brazilian Traction, Light and Power Company Ltd., Annual Reports, 1948 - 1977.

Figure 4.6 The Edper Empire 1987



Source: Patricia Best and Ann Shortnell, The Brass Ring





Table 4.8 Brascan Limited Production in 1987

WHAT BRASCAN COMPANIES PRODUCED IN 1987

<u>Products</u>		<u>Units</u>	<u>Canadian Market Share (%)</u>
Softwood Lumber	1,800	MMFBM	7
Market Pulp	1,191	'000 TONNES	14
Newsprint	712	'000 TONNES	7
Oil and gas (translated into barrels of oil)	33	MILLION BARRELS	4
Copper	113	'000 TONNES	14
Zinc	504	'000 TONNES	30
Gold	467	'000 OZS	12
Milk	2.3	BILLION POUNDS	14
Beer	8,401	'000 HECTOLITRES	41
Frozen Confectionery			24
Residential Mortgages Disbursed	4.3	BILLIONS \$	11
Individual Life Insurance Premiums	540	MILLIONS \$	15

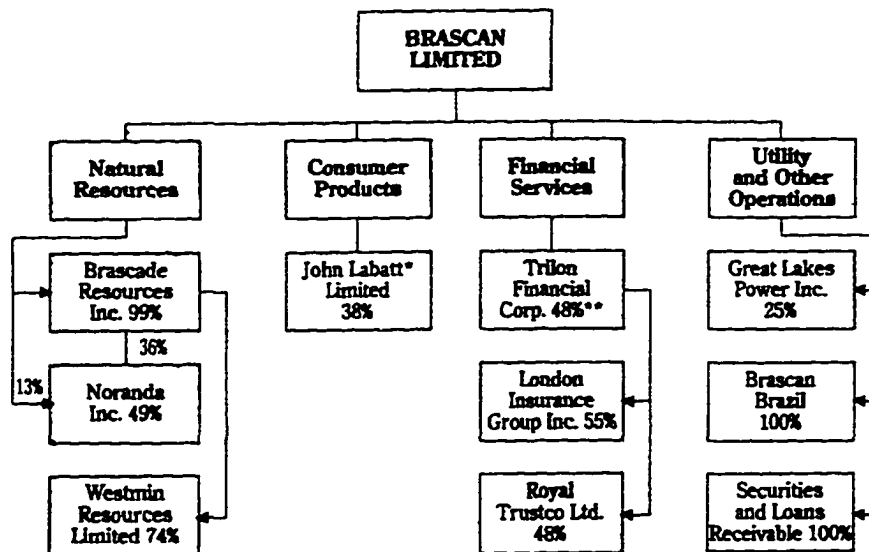
Source: Patricia Best and Ann Shortnell, The Brass Ring.

Figure 4.7 Brascan Corporate Affiliates 1989

Natural Resources	Consumer and Industrial Products	Financial Services	Other Operations
			
Noranda Minerals Metallurgical Group Eastern Mining Group Western Mining Group Noranda Sales Noranda Exploration Kerr Addison Group Falconbridge	Labatt Brewing Labatt Breweries of Canada Labatt Breweries of Europe Labatt's U.S.A. Supercorp Entertainment BCL Entertainment Canada Malting Auscan Closures	Trilon Financial Corporation Trilon Bancorp Trilon Securities Triathlon Leasing Trilon Pacific Trilon Capital Eurobrokers International	Great Lakes Group Inc Power Generation Power Distribution Investment Portfolio
Noranda Energy Norcan Energy North Canadian Bankeno Resources Cosoka Resources Canadian Hunter American Hunter Anderson Exploration	Labatt Food Everfresh John Labatt Foods Ault Foods Johanna Dairies Ogilvie Mills Ogilvie Aquitaine McGavin Foods	Royal Trustco Limited Royal Trust Bank Royal Trust Energy Royal Trust International Royal Trust Tokyo Pacific First Financial Royal Trust Asia Pacific First Bank	Brascan Brazil Group Real Estate Agribusiness Natural Resources Financial and Services
Noranda Forest Inc. Fraser Inc. James MacLaren MacMillan Bloedel Island Paper Normick Perron Northwood Pulp Noranda Forest Sales	Broadcasting and Entertainment Group The Sports Network Dome Productions TSN Enterprises Les Réseau des Sports Other Investments Toronto Blue Jays	Levest Corporation London Life Insurance Company Wellington Insurance Company Holden Group Optimum Financial Trivest Insurance	Brazil Real Estate Rio Sul Madureira Água Branca Garden Mall Intercontinental Hotel Condominiums
Noranda Manufacturing Canada Wire and Cable Noranda Aluminum Wire Rope Industries Westmin Resources Ltd. H-W Mine Complex Premier Gold Coal Colony Pacific	M.A. Hanna Formulated Polymers Iron Ore Company of Canada Colowyo Coal	Royal LePage Limited Real Estate Brokerage Capital Management Commercial Development Commercial Brokerage Property Management Royal LePage Taiwan Appraisal Services	Brazil Financial and Services Banco Capitaltec Ticket Services Fininvest Brazil Agribusiness Fazenda Bartira Fazenda Pirapitinga Embrasca

Source: Brascan Limited, Annual Report 1989.

Figure 4.8 Brascan Limited Corporate Structure 1992

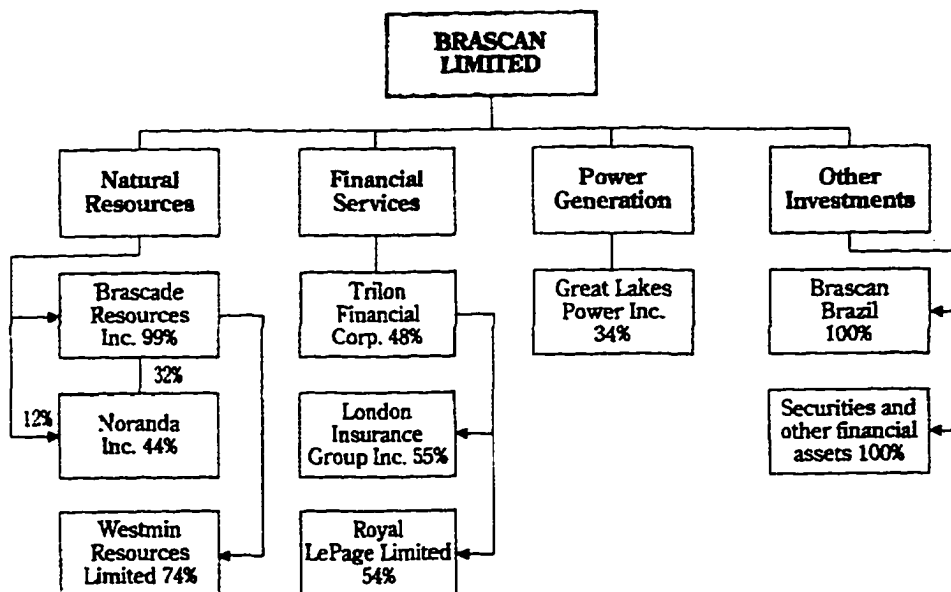


* Brascan's ownership interest in John Labatt Limited was sold in February 1993.

** Includes 12% owned by Great Lakes Power Inc.

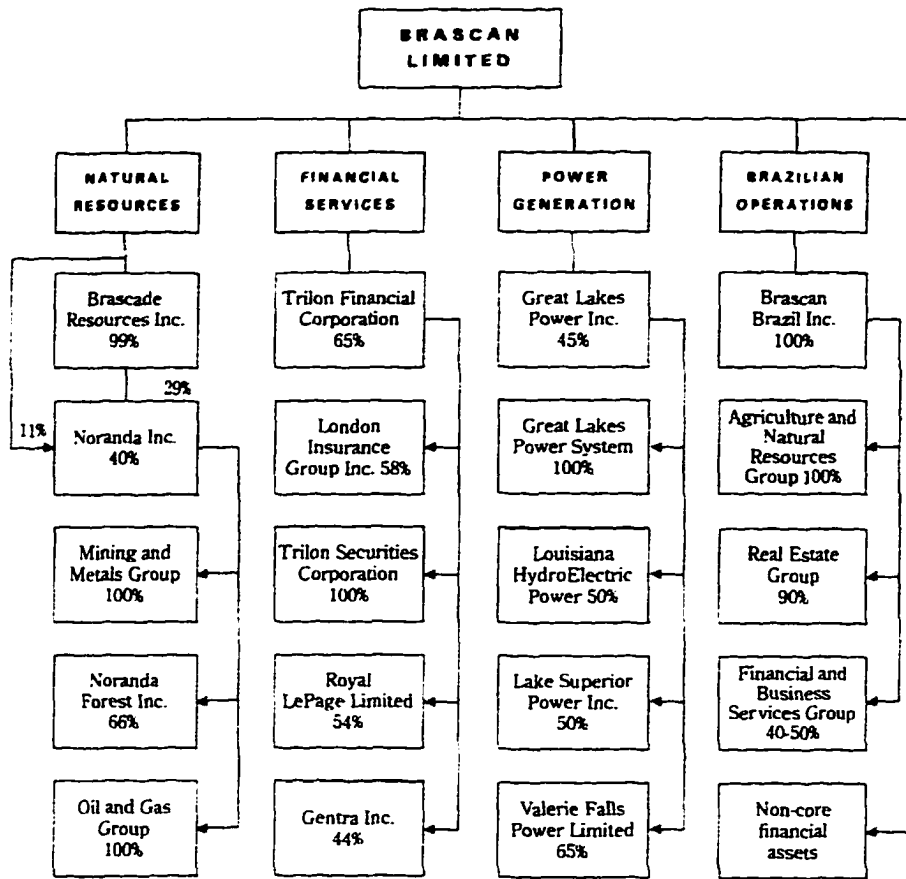
Source: Brascan Limited, Annual Report 1992.

Figure 4.9 Brascan Limited Corporate Structure 1993



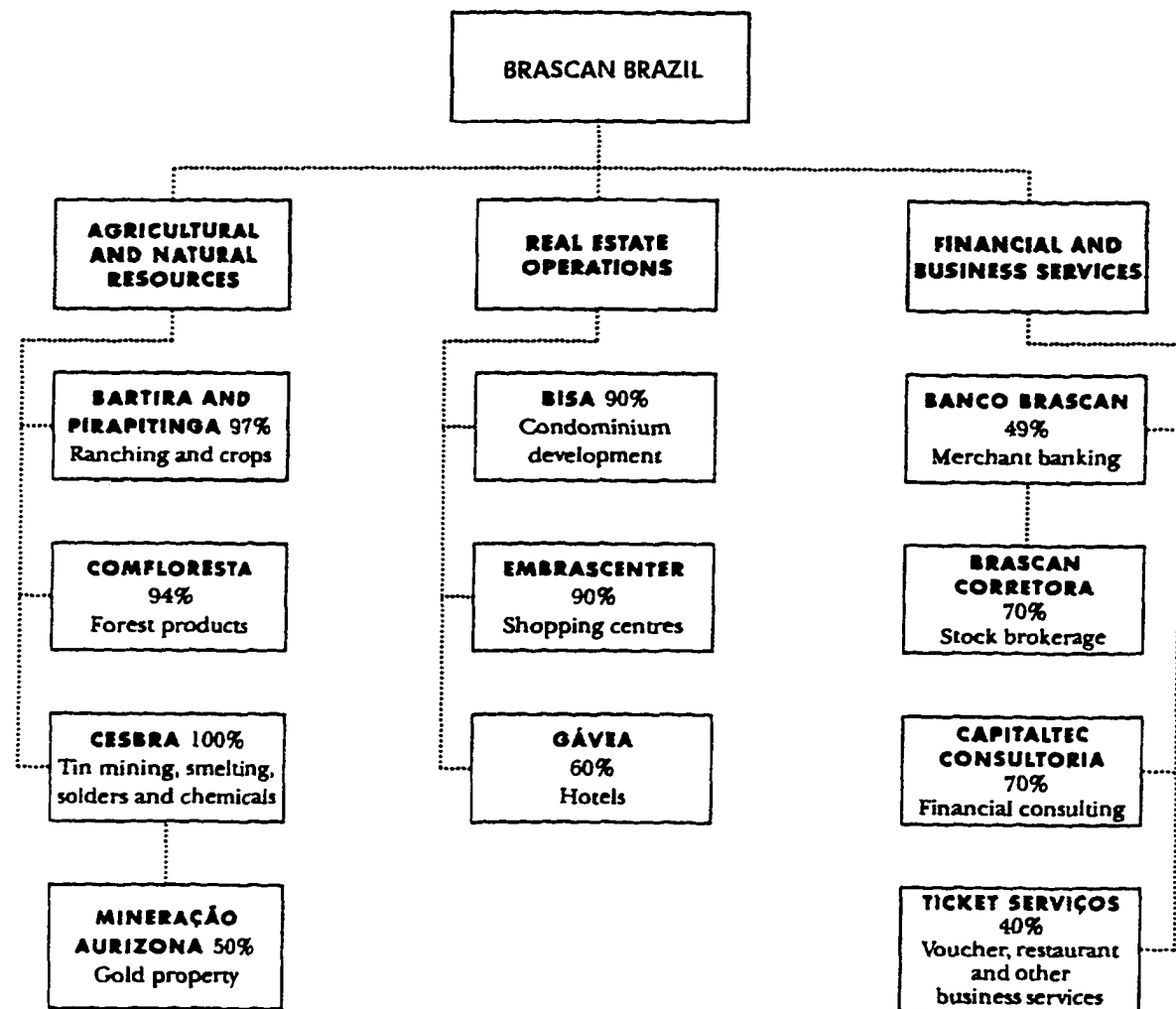
Source: Brascan Limited, Annual Report 1993.

Figure 4.10 Brascan Limited Corporate Structure 1995



Source: Brascan Limited, Annual Report 1995.

Figure 4.11 Brascan Brazil Corporate Structure 1996



Source: Brascan Brazil, Review of Operations 1996.

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