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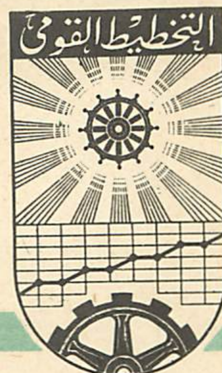

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THE GOVERNMENT ROLE IN DEVELOPMENT OF THE NEW INDUSTRIAL COUNTRIES

THE CASE OF BRAZIL AND ITS IMPLICATIONS TO EGYPT

BY

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Traditionally, nations have been classified economically as rich and poor, industrial and agricultural, first, second and third worlds, North and South and developed and developing. Since the late 60's a new group of countries have emerged from the ranks of the developing nations. This group is called the New Industrial Countries (NICs).

Introduction

Most developing nations suffer from balance of payments deficits and low rates of income growth. Achieving simultaneous growth in income as well as improvement in the foreign sector represents one of the most difficult and challenging tasks facing developing countries. In general, most nations tend to have balance of payment difficulties during their initial stages of development as they tend to be importers of foreign resources' during that period (young debtor). Once the country develops then it is able to pay off its foreign debt obligations and eventually it itself becomes a net exporter of resources to other nations (mature creditor). The following standard equation relates domestic spending to the foreign sector and national income.

$$Y = A + B$$
$$= C + I + (X - M)$$

where Y = National Income

A = domestic spending on goods and services whether foreign or domestically produced

B = Net export balance

This equation defines the increase in income as:

$$\Delta Y = \Delta A + \Delta B$$

In the special case where the supply of resources in many developing nations is almost completely inelastic then it is possible to treat ΔY as equal to zero. Here, the only way for the country to increase its domestic spending will be to decrease the net export balance. The long-term effect of this negative balance on income depends on the components of ΔA, namely ΔC and ΔI. Undoubtedly an increase in ΔI would accelerate the country's growth potential.

The development strategies aimed at building a sound industrial sector to foster income growth fall into two main categories: import substitution (i.e. ΔM decreases) and export-oriented (i.e. ΔX increases). Theoretically, both strategies are supposed to lead to an eventual improvement in the net export balance (i.e. ΔB increases). Many nations (e.g. Egypt, Brazil, South Korea) had followed the import substitution policy before and during the 60's. However, by the end of that decade many of these nations had started to realize the limitations of the import substitution policy. One of the major limitations is the misallocation of resources as a result of building less than optimum plant sizes. Producing at higher cost prevented the countries from selling overseas and deprived them of foreign exchange sources needed to modernize their economy.

The countries that adopted the alternative strategy of export-oriented growth evolved into a group of nations classified as the New Industrial Countries. The emergence of this, the NICs, represents a unique experience of development different from anything tried in the past among the development nations.

The present day NICs include Taiwan, South Korea, and Singapore in Asia. Brazil, Mexico and Argentina in Latin America and India in South Asia. The objectives of this paper are to:

I. Discuss the general characteristics of the NICs.

II. Analyze the specific economic policies adopted by one of the leading New Industrial Countries, Brazil.

III. Infer the Relevance of the NICs experience To Egypt.

I. General Characteristics of the NICs

The common and unique feature of all the NICs is a strong government public policy commitment to manufactured export oriented growth. In most cases the policy of export orientation entails a liberalized unified and realistic exchange rate. It avoids over valuation and does away with the multiple exchange rate system. Finally, it removes many import restrictions and grants export subsidies across the board in order to provide specific incentives to the producers of manufactured exports. In short the government policy entails a holistic and internally consistent shift in the entire range of foreign economic policies.

The emphasis on international trade leads to an improvement in the country's allocation of resources where production is based on an input-mix that takes the individual country's comparative advantage into consideration. Brazil, for example, has a relative high rate of illiteracy. The country favors capital-intensive projects. This is reflected in the high ratio of capital intensity in their exports (e.g. cars, trucks, arms). Some of the

other NICs (e.g. South Korea and Taiwan) have invested heavily in human capital through education. Consistent with this advantage their exports include traditional labor-intensive products (e.g. textiles, footwear) as well as skill-intensive products (e.g. brand name garments, TV's, Calculators).

Table 1 gives the growth in the value of the manufactured exports of the NICs.

Table 1. NIC Manufactured Exports, 1973-9 (billion US$)

Country	1973 $	1979 $	1979 ÷ 1973
Taiwan	3.8	14.1	3.7
South Korea	2.7	13.4	5.0
Hong Kong	3.6[a]	13.2	3.7
Singapore	1.6	6.4	4.0
Brazil	1.2	5.6	4.7
Mexico	1.5	3.2[b] (1977)	
Argentina	0.7	1.6 (1978)	
India	1.6	3.4 (1977)	
Global total	17.8		

[a]Excludes re-exports (Hong Kong).

[b]Exports SITC 5 to 8 (minus 68) for 1977 for Mexico are $1-2 billion. These tables exclude imports into free zones in Mexico and exports from bonded factories, mostly to the USA. The value of this export trade was over US$2 billion in 1977 (UN, 1980, country notes for Mexico, p. 24).

Sources

1. Turner, L. and McMullen, N., The Newly Industrializing Countries: Trade and Adjustment. G. Allen and Unwin, UIC, 1982, p. 14.

There is a second group of countries that are also considered as Candidates for this classification Table 2 shows the value of exports by the industrial sector of the present day NICs and the next tier NICs

Table 2. Manufactured Exports from the NICs and the Next Tier of Developing Countries: 1976 (million US$)[1]

EAST ASIA								
NICs	Taiwan	6,921						
	South Korea	6,747						
	Hong Kong	6,480[a]						
	Singapore	2,920						
			23,068					
Next tier[b]				Malaysia	799			
				Thailand	511			
				Philippines	397			
				Macao	207			
				Indonesia	119			
								2,033
LATIN AMERICA								
NICs	Brazil	2,332						
	Mexico	2,327						
	Argentina	976						
			5,635					
Next tier[b]							(1975)	
				Colombia	384	El Salvador	200	
				Jamaica	345	Guatemala	155	
				Uruguay	170	Chile	150	
				Venezuela	150	Dominican Republic	120	
				Trinidad and Tobago	122	Costa Rica	119	
					1,171	1976 increase (20%)	(149) 893	
								2,064
AFRICA								
Next tier[b]				Tunisia	203			
				Morocco	202			
				Bahrain	200			
				Senegal	200			
				Ivory Coast	134			
								939
SOUTH ASIA								
NICs	India	2,803						
			2,803					
Next tier[b]				Pakistan	677			
				Bangladesh	220			897
NIC total			31,506					
Next tier[b] total								5,933

a. Excludes re-exports

b. Countries in the 'next tier' are determined by the amount of manufactured exports in 1976 in value terms.

1. Turner and McMullen, op. cit. pp. 12, 13.

The conclusion derived from the above tables is that the NICs consist of countries with diverse economies and social structures. They include small as well as large countries, countries that are rich in natural resources as well as countries that are poor in natural resources. The experience of the NICs is relevant to Egypt because most of them tend to have high rates of population growth. Many of them are poor in natural resources and depend on imports to feed their growing populations.

The next section deals with the specific economic policy adopted by one of the leading New Industrial Countries, Brazil.

II. The Brizilian Experience in Development

The Brazilian economy has consistently experienced above average rates of economic growth in both the agriculture as well the industrial sectors. The following table shows the changes in the sectoral shares of G.D.P.

TABLE 3
Changes in the Sectoral Shares of Gross Domestic Product
(percentage distribution)

	1939	1947	1953	1957	1960	1966
In Current Prices						
Agriculture	25.8	27.6	26.1	22.8	22.6	19.1
Industry	19.4	19.8	23.7	24.4	25.2	27.2
Other sectors	54.8	52.6	50.2	52.8	52.2	53.7
	100.0	100.0	100.0	100.0	100.0	100.0
In 1953 Prices						
Agriculture		30.0	26.1	24.6	22.2	21.9
Industry		20.6	23.7	24.5	28.0	28.3
Other sectors		49.4	50.2	50.9	49.8	49.3
		100.0	100.0	100.0	100.0	100.0

Source: Baer, W,; The Brazilian Economy, Grid, Inc., Columbus, Ohio, 1979, P. 80

The main characteristic of the modern Brazilian experience of development is the dominant role played by the government in discouraging consumption and encouraging investment. An analysis of these policies follow.

Government Strategies to Reduce Consumption

Reducing consumption is realized through government control over wage policies and curtailing consumption-oriented public spending.

Wage Control

In Brazil, there is considerable evidence that the real wages for most blue collar workers have been rather low and the rate of increase has been significantly lower than the rate of productivity increase. [1] The real wages of Brazil's unskilled workers declined from 1964 to 1974 while the real wages received by skilled workers increased only by 2.6% during the same period. On the other hand the increase was rather dramatic in the case of executives whose real salaries rose by 8.1% [2]. Undoubtedly, the increase in demand for top and middle management executives is responsible for widening the income gap between them and the rest of the labor sector. A curious feature about the Brazilian development is the high degree of mobility of top management between the private and public sectors.

A study of the income distribution in Brazil would show an income pattern that favors capital owners, top and middle management and skilled labor. Most of the population,however, do not fall in these categories. The following table shows that the per capita income of the lowest 40% of the population has increased from $84 in 1960 to only 90$ in 1970.

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1. Baer, W., op. cit., P. 112
2. Kandell,J. The Bonus Babies of Brazil, The New York Times, July 11, 1976, p. 3.

TABLE 4
Changes in Income Distribution

	1960	1970	Per capita income in US$ 1960	1970
Lower 40%	11.2	9.0	84	90
Next 40%	34.3	27.8	257	278
Next 15%	27.0	27.0	540	720
Top 5%	27.4	36.3	1,645	2,940
Total	100.0	100.0	300	400

Source: Baer, op. cit p.101

During the same period, about 80% of the population had hardly been affected by the fruits of development while the top 5% families have increased their income significantly from $1645 to $2940. The middle class families income share has remained relatively constant though in,absolute terms,their per capita income has increased from $540 to $720. This pattern of income distribution has resulted in low consumption levels for the working class and allowed more resources to be devoted to investment. Another factor that helps to increase the rate of investment is a system of forced savings that is very effective in reducing the propensity to consume for the majority of the population. Next is an analysis of the government role in determining the wage levels and in increasing the rate of domestic capital formation by the working class.

The Brazilian labor legislation is based on the concept of "corporate state" which calls for restrictions on union activities coupled with government control over the labor sector. Under this system, federal regulation provides for hiring requirements, social welfare payments, work hours, renumeration, employment of minors and women, time-off and dismissal procedures. This system leaves little room for bargaining between workers and management. A corollary of this system is that Brazilian wages are not set freely in the labor market. Since 1940, the government has had the power of establishing minimum wages. After 1965 adjustments of other non-minimum wages have been also set by the government.

Once a year, the government decides on what minimum wages should be applied to the five different regions to Brazil. These wages vary from one region to another depending on the degree of development of the region affected. The setting of minimum wages by the government allows it to set the pace for other salaries all over the country. The salaries of blue-collar workers and other skilled labores are closely related to the minimum wages set by the government. As an example, the salary of technical workers has been customarily twice or three times the minimum wages[1]. In addition to setting the minimum wages the government has also established an upper limit to the adjustment a given worker may be entitled to. A worker whose salary is over that limit would not receive any increase authorized by the government. In general, the government reserves for itself the right of establishing overall salaries periodically. It contends that salaries set by market forces could hamper the government's effort to fight inflation. To set non-minimum wages, the Brazilian government uses an annual formula which accounts for changes in the expected cost of living and expected changes in productivity. In practice, however, the formula underestimates them both. This implies that indexiation of wages is true only in name. In short the government wage policy explains the relative stagnation of wages over extended time periods.

Brazilian experience is a system of forced savings that was initiated in 1970 and has proved quite successful in accelerating the rate of domestic capital formation. The system is called the Social Integration Program. It seeks to "encourage individual savings, improve income distribution, and increase the supply of capital funds available for business use." Under this system, accounts are opened at the Caixa Economica Federal (Federal Savings Bank) for each employee.

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1. Schlghek L. J., The Political, Economic and Labor Climate In Brazil, Philadelphia: University of Pennsylvania, 1977, P.132

Employers opening the accounts should deposit in them a given precent of their related sales-invoices in a monthly basis. The funds of the program are then invested in stocks, mortgage shares and loans to industry. The fund also works for employees to build up savings. 50% of firms contribution to the fund are credited to the accounts of their employees. The remaining 50% is divided up among those workers who have labored 5 years or more in those firms. the amount so saved by workers may only be withdrawn upon retirement, disability, marriage or the purchase of a new home. The Social Integration Program gives workers some participation in the profits of firms even when those profits are uncertain since companies' contributions to the fund are based on sales.

Brazilian workers are also provided with other funds that was established in 1966. This is called the Employee's Indemity Guarantee Fund. (FGTS). Under this program, accounts are also opened for every employee in a bank of the employer's choice. Each month employers deposit in such accounts a percentage of the worker's previous monthly salary. These deposits accrue interest. They can be withdrawn in full upon the employee's retirement or dismissal without fault. If an employee is discharged without any valid reason, employers are required to make an extra contribution to the fund equal to 10% of the balance of the worker's account at the moment the dismissal took place. [1] The FGTS System is mandatory for employers and voluntarily for workers. Nevertheless, employers tend to hire workers who want to participate in the program [2] .

(1) It should be said that many unions have opposed the FGTS Program. The reason is that before the system was implemented, employees with 10 or more years in their jobs could only be dismissed in terms of "just cause". The new system changed this situation and workers could be discharged at any time whatever the cause is (Lara,J.R.,Brazil's labor market: An overview, Unpulished paper 111, 1982.)

(2) Brazilian labor legislation also provides for a national social security system, which was created in 1966. The social security system is based upon a third fund which has been established for workers as a complete social welfare package. In that sense, it provides not only for retirement benefits, but also for a full range of medical, dental and hospital services. Contributions to the system are mandatory for all workers and management alike. Companies must also subscribe to a mandatory accident insurance system. The reason for this obligatory insurance is the abnormal rate of industrial accidents observed in Brazilian factories which is somewhat six times the size of their counterpart in the United States. (J. Schlgheck, op. cit, P. 61).

As a result of this system the various unemployment and retirement program funds have constituted a sizable proportion of domestic savings. In 1973 forced private savings as well as government savings accounted for 52% of total savings.

It is interesting to notice that the above funds are used for investment purposes or to subsidize the middle and upper class. A recent study has shown that funds drawn from the retirement funds have been used by the Housing Bank to finance middle and upper income housing, urban infrustructure rather than housing the poor.[1]

Reducing Consumption - Oriented Spending

Before 1964 the size of the government deficits was quite substantial. the government resorted to printing money as a way of financing the deficit. This policy resulted in Brazil suffering from a high rate of inflation. After the military takeover in 1964 the government has followed a new policy where the deficit was reduced through curtailing government subsidies and improving the tax collection system.

The government sharply raised the public utility rates which had lagged behind the rate of inflation. It gradually eliminated the deficits of the various government entitities (e.g. transportation). The direct short term effects of these measures was an increase in the level of prices. The "corrective inflation", however, has been beneficial in the long run as the government deficits continued to decline. To finance the imbalance between government revenues and expenditures, the Brazilian government relied increasingly

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(1) Baer, op cit., P. 105

on non-inflationary financing (e.g. government indexed bonds). This resulted in a decrease in the demand - pull pressures and hence the long run inflation trend. In 1963 the deficit amounted to 4.3% of GDP; by 1971 it declined to 0.3%. The inflation rate during that period was reduced from 78% to 17.3% [1].

The efforts of the new government to raise the efficiency of tax collection resulted in a sizeable increase of both direct and indirect taxes as a percentage of GNP.

(Table 5)

Gross Capital Formation and Taxes as a Percentage of GNP

Year	Gross Capital Formation	Direct taxes	Indirect taxes
1949	13.9	4.7	9.2
1959	20.7	5.2	12.8
1970	23.5	8.6	15.3
1971	25.3	9.0	15.0
1972	25.5	10.1	14.8
1973	27.3	10.5	14.7
1974	31.6	10.8	14.2
1975	25.3	11.7	13.2

Source: Baer, op. cit., P. 97

One policy that helped to increase the amount of taxes collected on time is the application of indexing to tax debts.

1. Tyler, W.G. The Brazilian Industrial Economy, Lexington Book, DC Heath & co. Lexington, MASS, Toronto P. 3

Government Strategis to Increase Investment

In Brazil, increasing the level of investment has been achieved through subsidizing private domestic industries and exporters, the building of an infrastructure and government dominated projects, the creation of modern capital markets and attracting foreign capital and technology through the multi-nationals.

Subsidies to Private Domestic Industries and Exporters

Many of the government agencies are empowered to provide subsidies to domestic industries (e.g. the Ministry of Industry, regional and sectoral development institutions). Typical of these agencies is a government investment organization called Consello de Reservalviments Industrial (CDI). It approves investment projects based on a number of criteria. The main criterion used is whether the proposed project is part of a "priority" sector. The definition of "priority" sector changes over time and tends to be rather flexible.

If a project obtains official approval, then a series of incentives and benefits are granted. The incentives include allowances of accelerated depreciation for income tax payers and the reduction of import duties which sometimes is coupled with a committment of the firm to export a certain amount of its output. Another incentive is to grant access to subsidized government credit. For domestic firms, financial subsidies are granted only if they buy domestically produced capital goods [1].

1. This is according to the law of National Similars. The law was applied to encourage vertical integration. The enactment of this law has been a most powerful incentive for foreign investors to switch from importing into assembly or from assembly into full fledged manufacturing. The investors would have to preserve their market position by building local plants. The law allows exceptions when imports have no domestic subutitutes or the domestic product is excessively expensive or there are uncommonly long delays in obtaining the domestic product.

The specific economic effects of the government credit subsidy is in increasing the attractiveness of domestically made products through reducing their price . In 1982 the Brazilian companies and their foreign customers had almost unlimited access to dollar credits at 7.5% to 8% interest rates with terms usually ranging from six months to eight years, and covering 85% to 100% of the value of the sale[1]. A case in point is the 27 million dollars loan granted to an American customer (the Ohio River Steel Corporation) for 12 years at 8%. The loan will be used to finance a Brazilian built steel laminating mill in Kentucky, U.S.A.[2].

Export Promotion

Brazil's export performance has been impressive. Total 1981 foreign sales of $23.3 billion were 12 times greater than the 1968 figure of $1.9. The 1981 surplus of $1.2 billion was equal to total exports in 1962. Highly diversified processed goods and manufactured items have led the way. In 1973, for example, raw materials accounted for two-thirds of Brazil's $6.2 billion in total exports. But then, in 1978 industrialized products pulled ahead of the basics for the first time, and they have stayed there ever since. In 1981, processed and manufactured exports accounted for fully $13.4 billion of Brazil's $23.3 billion in overseas sales. And there are many export items which Brazil, 15 years ago, never would have dreamed of marketing overseas[3].

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(1) Business Week 12/06/82, P. 21
(2) Business Week, op.cit. P. 25
(3) Business Week, op.cit., p. 33

Brazil did not have an aircraft industry in 1970 but today it has the world's sixth largest and U.S. commuters in the Southwest frequently fly Brazilian - made Bandeirantes, two engine turbo crafts. In 15 years, Brazil has taken control of the Latin American cutlery market away from Germany. Brazilian orange - juicemakers are closing in on U.S. dominance of Canada's orange-juice market. In a majority of African countries, Brazillian-made Volkswagons outsells most other cars. Brazil's shipbuilding industry now rivals that of South Korea and is one of the World's largest. In the U.S. among the new products sold by Brazil are paperpulp (1978 sales of $2.5 million; 1981 sales of $43.7 million), iron plating (1978 sales $31 million; 1981 sales $93.7 million) and airplanes (1978 sales $2 million; 1981 sales $71.3 million).[1] Even its coffee is being sold, to an increasing degree, as a packaged good.[2]

Brazil is one of the main exporters of arms and amunition. It produces sophisticated tanks and planes. Some of its main customers are in the Middle East. Its largest customer is Iraq which has bought more than $800 m in weapons since 1976. It is negotiating deals with Jordan, Libya and SaudiArabia. Arms sales may reach $2b in 1985 equaling coffee as one of the country's top exports [3]

The crucial element behind this stunning success is the special attention paid by the government to encourage exports through granting subsidized credit to exporters. The Brazilian monetray authorities provide export financing for capital goods. This is available for both export production and export sales. The Brazilian central bank channels working capital to export producing firms Through the commercial banking system. Credit is provided for up to a year and eligibility is based upon export preformance.

1. Christian Science Monitor, Oct 27, 1982, P. 3
2. Business Week, Op. Cit, p. 27
3. Time Oct., 26, 1981, P. 33

To promote exports, the government has also abolished the state export taxes amd simplified the administrative procedures for exporters. It has adopted an aggressive and more realistic exchange rate policy consisting of frequent but unpredictable small devaluation of the cruzerio. The devaluation helps exporters because it keeps the currency form being highly overvalued as inflation continues. The unpredictability of the devaluation keeps speculation against the currency at a minimum. Recent measures taken by the Brazilian government to promote exports include:

(1) Marketing Continuity

In the U.S.,Brazil has 10 consultants. Each of them prominently includes a Commercial Promotion Sector responsible for "marrying" American buyers to Brazilian sellers. A sophisticated computer information system provides up-to-the minute product information - everything from inventory figures to prices - for all Brazilian export companies listed in the definitive Brazilian Exporters Register. This in turn interacts with American requests and allow the companies to communicate through computer mail. This aggressive and continuous international marketing effort helps to reinforce customers' perception that the country will be a steady exporter.

(2) Flexibility

Export arrangements and the infrastructure have been flexible enough to accomodate customers' special needs. The Overseas Trade Division of the Brazilian Foreign Ministry canvasses entire Brazilain industries on an ad hoc basis whenever "unusual" marketing opportunities arise. For example, a massive export campaign was waged by Brazilian orange growers when a severe frost hit Florida's fruit orchards in 1981. This flexibility arose out of the quick mobilization of the Brazilian orange growers to meet the unusual opportunity.

(3) Product Reliability

Until the late 1970's, Brazilian exporters of manufactured goods concentrated on low-technology labor-intensive products. Quality control was a problem but most quality and efficiency barriers have now been overcome with the cooperation of the Brazilian government agencies and the foreign buyers themselves. Today, the proof that they deliver the quality they promise is reflected in the many Brazilian export products that are being sold to American consumers under the trade names of U.S. buyers.

Government role in Infrastructure and Projects

The Brazilian government, in conjunction with the U.S. and international agencies (e.g., AID, Worldbank), carried out sectoral studies designed to guide the expansion of the nation's power supply, urban infrastructure and heavy industries. The time lag between carrying out the feasibility study, finance regulations and actual investment activities was about 3 to 4 years. It is interesting to note that government attempts to decrease its spending have been only in consumer related areas. On the other hand, spending related to investment has never been reduced.

Government enterprises dominate the steel, mining and petrochemical industries. The Government controls over 80% of the power generating capacity and most public utilities. In 1974, for the 100 largest firms (in value of assets), 74% of the combined assets belonged to Government enterprises, while for the 5,113 largest firms, 37% of the assets belonged to the government [1].

Similarly, government of Brazil's capital formation in the late 60's and the first half of the 70's consisted of public investments (e.g. the government increased steel production capacity, petrochemicals, urban rapid-transit systems which amounted to 60% of the total capital formation in 1969).

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1. Baer, W. op. cit., p. 100

The Brazilian government prohibits the public sector from directly importing any consumer goods. The law of National Similars applies to all government purchases. The government projects are prohibited from buying machinery, equipment and vehicles produced abroad unless there is no domestic equivalent. In international bidding a 15% preference is given to domestic supplies. Moreover, each government organization submits an annual foreign exchange budget to the planning Secretariet. The planning Secretariat yields a great deal of power. It scrutinized meticulously the foreign exchange budgets submitted before it approves public imports[1]. Such policy amounts to the imposition of an emplicit import quota system.

The result of this policy has been a reduction in the size of imports and an increase in the magnitude of the domestic share of the Nationalization Index of equipment purchases for investment projects. The share of domestic capital government-purchases under approved investment program grew from 53% in 1973 to 82% in 1979[2].

The creation of modern capital markets and encouraging domestic capital formation

Efficient capital markets are important in facilitating the process of financing economic development. In Brazil, a capital market law was enacted in 1965 to provide an institutional setting for strengthening and increasing the use of the stock market. It also encouraged the establishment of investment banks adjunct to the Brazilian government development bank. Most of the financial resources for these official credit institutions was supplied by the system of forced savings discussed before.

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1. Teyler, W.G., op. cit. p. 45
2. Teyler, W.G., op. cit., p. 45

In order to protect the lenders from the vagaries of inflation, a system of indexation is used, where the principal and interest on debt instruments are readjusted to the rate of inflation. Indexing refers to provisions in a law or a contract whereby monetary payments are automatically adjusted whenever a specified price index changes. In Brazil, interest payments on bonds and savings accounts are indexed.

Indexing keeps the real purchasing power of monetary assets from being eroded by inflation. It takes most of the sting out of inflation. To see how indexing would accomplish this, a review of some of the social costs of inflation is in order. One important cost is the capricious redistribution of income caused by unexpected inflation. Borrowers and lenders normally incorporate an inflation premium equal to the expected rate of inflation into the nominal interest rate. Then, if inflation turns out to be higher than expected, the borrower has to pay to the lender only the agreed-upon nominal interest rate including the premium for expected inflation, he does not have to compensate the lender for the (higher) actual inflation. Thus the borrower enjoys a windfall gain and the lender loses out. But if interest rates or loans were indexed, none of this would occur. Borrowers and lenders would agree on a fixed real rate of interest and then the borrower would compensate the lender for whatever inflation occured. No one would have to guess what the inflation rate would be. A second social cost is that uncertainty over future price levels makes it difficult to enter into long-term contracts - rental agreements, construction agreements, and so on. One way out of this problem is to write indexed contracts, which specify all future payments in real terms.

The mechanics of indexing are quite simple. If a person has an indexed savings account, the bank might guarantee him a 1% real interest rate on his savings by automatically increasing the balance by the account of inflation. For example, if a deposit of $1000 was made in a 6% savings account on January 1, and was withdrawn on December 31, then an ordinary savings account would pay $1060. On the other hand, if the deposit was in an indexed bank account paying 1% and prices rose by 10% during the year, then the balance at year-end would be $1110 - the original $1000 plus 1% real interest ($10) plus 10% ($100) to compensate for the loss of purchasing power. The nominal interest rate would thus be 11%. In general, the nominal rate of interest would be 1% plus the rate of inflation. Undoubtedly indexing would have a positive effect on encouraging domestic savings.[1]

Multinationals Involvement

During the 1960's, Brazil boasted an annual growth in GNP of more than 9% a year. By 1961 multinationals accounted for some 64% of the total net profits in the five major dynamic sectors of the Brazilian economy (rubber, motor vehnicles, machinery, household appliances and mining), by 1971 that share was up to 70%[2] In June 1979 the registered foreign capital in Brazil totaled 14.5 billion, with 77% invested in manufacturing. Multinationals had a share of the assets in nearly all manufacturing activities. The greatest being found in tobacco, machinery, rubber, electrical appliances pharmaceutical products and transportation equipment. It is estimated that foreign firms accounted for at least 60% of the increase in manufacturing production between 1965 and 1971.[3]

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1. The apponents to indexing fear that it might lead to a situation where a mild inflationary disease could turn into a ravaging epidemic in a highly indexed economy.

2. Barnet, R. J., Muller, R.E., Global Reach-The Power of Multinational Corporations, Simon and Schuster, New York, 1974, (p. 149).

3. Barnet, R.J., Muller, R.E., op. cit., P. 147.

Table 6 elucidates the pattern of asset ownership of 5113 of the largest nonfinancial enterprises in Brazil in 1976.

Table 6 patterns of Asset Ownership of the 5,113 Largest Nonfinancial Enterprises, 1974

Sector	Total net assets (millions of cruzeiros)	Percentage share: Public enterprises	Foreign enterprises	National private enterprises
Mining	9,637	62	12	26
Manufacturing	161,571	20	29	51
Nonmetallic	7,551	2	35	64
Metallic	27,711	34	12	54
Mechanical	8,293	1	46	53
Electrical	6,476	0	61	39
Transport Equipment	15,155	4	63	33
Wood	8,782	0	9	91
Furniture	577	0	0	100
Rubber	1,834	6	61	33
Leather	685	0	11	89
Chemicals	40,162	55	23	22
Textiles	12,411	0	13	87
Food	16,910	1	31	68
Beverages	3,571	0	14	86
Tobacco	2,095	0	99	1
Printing	2,143	0	2	98
Mischellaneous	8,211	0	47	54
Agriculture, Forestry	4,825	1	3	96
Construction	18,317	15	3	82
Public utilities	97,836	88	7	6
Transport	19,052	78	1	21
Other	78,784	90	8	2
Commerce	30,735	1	5	95
Services	84,656	27	4	69
Total	407,557	37	15	48

Note: Percentages may not add to 100 because of rounding.
Source: Taylor, Baih, Cardoro and Lysy, Model of Growth and Distribution for Brizil, Oxford University Press, 1980, P. 27.

By inviting foreign firms in and providing a hospitable and profitable environment, Brazil created an opportunity to close the perceived gap between its immediate domestic capabilities and the requirements for rapid industrialization, especially in those non-traditional industries where investment were large and lumpy, and technical requirement were great.[1] The heavy protection afforded to Brazilian industries had an added effect of attracting foreign capital into Brazil which otherwise would not have located itself there.

The Brazilian Government, by adopting a policy of intensive multinational involvement gained the following advantages on its long road to development:

i. It obtained foreign investment funds. Multinational's contribution to total investment, however, has been only 10%.[2]

ii. It made a sizable portion of its economy an integral part of the international division of labor.

iii. It obtained access to international markets. Multinationals because of their inherent knowledge of world markets, their ability to meet international standards and partly because of the needed imporst of their integrated global network open marketing avenues to the host nation.

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1. Tyler, W.G., op. cit., p. 29.

2. Baer, W., op. cit., p. 129.

A closer look at the Brazilain Auto Industry will help us understand the significance of the three major gains made by Brazil. The multinational auto firms are the principal channels through which the auto component exports from Brazil penetrate the OECD markets. In 1970, the value of total auto component exports to the OECD exceeded that of motor vehicle exports by $132 millions. By 1982 G.M. plans to manufacture and export 70-75% of the engines for its 'world car' from Brazil to Germany and the U.K.. Fiat plans to export small, Brazilian made diesel engined cars to Italy. Ford has announced a 5 year investment program totalling $500 million to expand its Brazilian operations. In general,Brazil is encouraging motor-vehicle exports by negotiating incentives programs with virtually all the major multinational motor-vehicle firms. These agreements link their export performance with tax exemptions on their imports. Table 7 gives an overview of the rapid rate of expansion of motor-vehicle production of Brazil between 1960-79:

Table 7 Motor Vehicle Production

1960 - 1979 (thousands)

	1960	1970	1975	1979
Total	133.0	416.0	929.8	1,128.0
Motor cars	37.8	269.9	526.2	498.3
Commercial Vehicles	95.2	166.1	405.6	629.6

Source: Turner, L., McMullen, N., op. cit., P. 75

The dominant role played by multinationals in Brazil and their contribution to the country's growth is not without is critics. Sometimes multinationals are criticized for conditioning the milieu in which they operate because of their control over new technological developments in industrial processes and products. Countries playing host to multinationals have been criticized for " pragmatically " adapting their policies, infrastructure, investment and the countries saving potential to the growth needs of leading, privately controlled sectors. The fact remaining, however, that without the active involvement of the multinationals, Brazil could in no way have achieved high rates of growth. Economic justice was not the objective of the Brazilian growth model. It should be mentioned here, however, that over the last two decades other models of multinational co-operation with host nations have developed. These models will be discussed in the next section.

III. Egypt and the NIC's

The Egyptian experience of development in the late 50's and early 60's had paralleled that of the NIC's in the sense that it was based on an import substitution strategy. The Egyptian strategy, however, emphasized planning and economic cooperation with the Eastern block. Between 1967 and 1974 the Egyptian economy was on a war footing. After 1974 the Country tried to change its direction. The new direction emphasized trade with the Western block. This was done through the "open door policy" where foreign capital flows from west in the form of loans, grants[1] and Foreign investment was to play a major role in rejuvenating a economy battered by war as well as an exploding population. The initial results of Egypt's open door policy to the West had been the attainment of relatively high rates of growth that could be compared with the experience of the Western oriented economies of the NIC's. A closer inspection of the two cases, however, shows major dissimilarities.

Most of the growth in the Egyptian economy has been in the following sectors: Suez Canal, Oil and remittances from Egyptian expatriates. Such a policy does not provide steady growth of employment opportunities at home and seriously exposes the economy to the vagaries of external market forces (e.g.recession, OPEC decision) over which the country has little control. The above sectors are extremely sensitive to any adverse change, however small, in market conditions. In the meantime, the "open door policy" has been unsuccessful in building a strong industrial base; let alone increasing the size of Egyptian exports of manufactured products.

Another feature of the "open door policy" is the increase in income disparity. This increase in income inequality coupled with a rapidly growing population and a labor force made affluent by the petrodollars has resulted in

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1. From fiscal years 1975 to 1980, the U.S. obligated a total of $5.5 billion in grants and loans under economic assistants programs to Egypt. Foreign Economic Trends (FET), Egypt, U.S. Department of Commerce, International Trade Administration, Washington, May 1981, p. 15).

decidedly consumption-oriented spending. The Brazilian experience shows that consumption spending could be controlled through the reduction of Public spending and the adoption of a strict wage policy. In Egypt similar attempts to control the economy's propensity to spend on consumption could be made. The setting up of retirement funds-Brazilian Style-in Egypt would provide a boost to domestic saving. One main advantage of such funds is the ease of tax collection at the source.

Another area with tremendous potential for increasing Egyptian saving is through a more efficient use of Egyptian expatriates transfers. Forced transfers could be achieved through the introduction of a system of tax deduction (e.g.Motherland tan) and compulsory contribution toward retirement and pension funds at the source. The difficulty associated with implementing this system should not be underestimated. Its success hinges on the cooperation of the host governments, especially the Arab Oil nations where many Egyptian are employed.[1] The government revenues from such a system should then be channelled to Egyptian investment banks.[2]

To encourage voluntary saving, the Brazilian method of realistic currency rate of exchange coupled with the indexation of saving might prove successful in Egypt. The main adavantage of this policy is two pronged. First: it will encourage domestic savings in general. Second: it will provide the holders of foreign currency (e. g. Egyptian expatriates) with an incentive to save in Egyptian-currency denominated savings accounts.[3]

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1. The Palestinian experience in the Persian Gulf Countries could provide insight into this system of forced savings.
2. The open-door policy in Egypt has resulted in the mushrooming of a large number of foreign-based bank. These banks.however,have created a Bahrain like situation where foreign Banks have mainly acted as financial intermediaries between Egyptian savings and Eurodollar market. They have a minimal effect on supplying Egypt with its need of development funds.
3. By May 1981, the gap between dollar and Egyptian pound savings rate was almost 10 percentage points (FET,op.cit.p.11).

Regional cooperation between Egypt and other Arab nations could also provide a boost to the process of capital formation. Their surplus of oil money could find a convenient investment outlet in Egypt provided that profitable projects exist. One complaint that is often heard from is the potential suppliers of foreign capital (e.g. IMF, World Bank, Arab investors, etc) is the fact that investment opportunities in Egypt are limited.[1] The many reasons cited include entrenched beauracracy, suspicion of multinationals, lack of coordination among the different government agencies, the shortage of well-defined projects, the lack of proper feasibility studies, etc. In short a lack of dynamism is perceived.

Fortunately, the lack of dynamic movement towards development has been changing recently. This is evident from the attempts of the new government to follow a realistic and level-headed economic policy. In the last year, economic conferences at different levels of government have been held. This is rather encouraging because they provide a platform where economic policies are objectively evaluated and where policy makers interact through official and non-official channels. Some of the recommendations involve the promotion of Egyptian exports. Any export-promotion policy will find the Brazilian strategy of development rich in policy measures to draw upon.

The multinationals play an indispensable role in the development of Brazil. The Brazilian case shows that the multinationals have tended to concentrate their activities in capital intensive projects. The questions that pose themselves with regard to Egypt are:

1. What type of cooperation should Egypt have with multinationals?

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1. Since the implementation of Law 43 in 1974, 103 projects involving America, capital has been approved. The American companies are expected to invest $350 billion, many of these projects are now in operation. In 1980, inflows of foreign private (non-oil) capital are believed to have reached $400 (FET, op. cit. pp. 12, 15).

2. What are the possible effects of the multinational on the employment picture in Egypt?

A detailed answer to these questions is beyond the scope of this paper. What we will provide here is a report on the recent experience of other countries with the multinationals.

In Egypt the question of multinationals is a sensitive one. It brings back painful memories of economic exploitation by foreign companies during the colonial era. In those days, the traditional agreement between the host country and some foreign companies involved concessions that lasted from 50 to 100 years. The contracts were static and demanded strict compliance with its terms throughout the long life of the concession. After the end of the colonial era, most developing countries have replaced the concession agreements with new forms. Because any export-oriented policy would imply the involvement of the Egyptian economy with the multinationals, we now analyze, in some detail, the recent developments of the developing nations - multinationals modus-operandi.

The modern-day multinationals are more flexible in their dealings with the host governments than they were in the past. The relationship between the two parties depends on the degree of astuteness of the host government as well as the business acumen of the multinationals. The major fears of the developing nations regarding a deep involvement of multinationals in their economic affairs are:

a) Economic exploitation in the form of exacting monopoly profits, most of which are not reinvested in the developing country.

b) A new style of life transmitted through their operations, that is alien to the host country's traditions and values.

One way of mitigating the above negative effects is for the host country to participate in the control and decision-making of the multinationals. An

important vehicle for achieving these objectives is the establishment of joint ventures. In general multinationals tend to seek local partners when the latter can bring with them resources that are a useful complement to their own . The attitudes of the multinational differ substantially by country of origin, sector and strategy.

One advantage of joint-venture for the host countries is that it allows for domestic participation in broad policy decisions. This process of learning by doing makes it possible for the ultimate takeover of the project by the host country. Many host countries tend to treat joint ventures as temporary arrangements leading eventually to full national ownership. Accordingly a few countries have developed formal policies aimed at insuring the transition to complete takeover. These policies are called fade-out policies.[1] This planned divestment may make provisions for continuing foreign input (e.g. technical information without continuing the foreign ownership or control). The time horizon for divestment would vary from one industry to another. A short time horizon would have a disruptive effect, for example, in mining because it tempts the producer to "cream" the richest materials.

Another method that has been suggested to deal with the problem of monopoly rents paid to multinationals is called depackaging. The main assumption behind this idea is that the rewards to the multinationals factors of production imported to the host country (e.g. capital, technology, management, market-access) tend to be higher if all these inputs are combined into a single fixed package. The package associated with this traditional type of direct investment has to be accepted or rejected as a whole. Depackaging means that the developing country would deassemble the package in order to acquire only the inputs needed. The negotiation and payment for each component separately (e.g. technology,

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1. Transnational Corporation in World Development: A Re-Examination, U.N. Economic and Social Council, May 1978, p. 152.

management) could result in a considerable reduction in the total cost of the project.

Alternate modalities that are a far cry from straightforward joint ventures and licensing agreements imply extending the concept of depackaging to re-packaging. The various methods include for example:

- Combinations of equity investments with contractual arrangements in joint ventures between multinational and host governments (sometimes involving international agencies as well) or between home and host Governments with multinational acting as contractors;
- Multinational corporation consortia (industrial or regional);
- Multinationals participation in international investment companies which act as catalysts in the development of new ventures in developing countries;
- Tripatrate arrangements among local firms (as project owners), multinational (as technology suppliers), and Arab Petrodollars or international finance agencies (as providers of capital);
- New Corporate forms, such as temporarily finite multinational associations.

An interesting form of relationship exists between the multinationals and the governments of planned economies. These goverments prefer the multinationals as partners because of their technology, managerial skills, autonomous financial resources and large-scale productive and marketing capabilities. Many of these countries do not allow foreign direct investment. Their currencies are not convertible. The following list includes, the main types of cooperation between the multinationals and governments:

(1) Licensing

There is an extreme diversity of agreements governing the transfer of technology. In its simplest form, a licensing agreement provides for the transfer to the recipient of the suppliers' patent rights, design specifications and manufacturing techniques for the product(s) involved. In industries, manufacturing techniques represent the most important part of the technology package. They are typically transferred through the dual mechanism of training technical specialists in suppliers plants and of periodic visits by multinationals' specialists to the facilities of the partner. Payment for the supply of technology may take the form of a lump sum payment or royalties that are based on plant capacities, sales or other criteria. Payments may be wholly or in part in the form of resultant products. Licensing agreements could also be part of a deal where the granting of a license is tied to the sale of equipment. In that case the cost of the license is included in the price of the goods supplied.

(2) Sale of industrial plants or installations with payment in resultant products

The multinational undertakes to deliver the machinery and assemble it. It also provides training of the local staff and helps in the early stages of operation. A feature common to most of these projects is the large-scale investment and the necessity of credit backing.

(3) Co-production and Specialization

In co-production both partners supply each other with parts and components to be incorporated in adjoined final products. The product is marketed by both of them in their respective markets[1].

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1. An example is the 1977 contract between a Hungarian firm and a West German company for joint manufacturing of transport belts and breaker machines for the mining industry.

Specialization implies that certain parts of a product line are manufactured by one partner and others by the other partner. These products are exchanged and the reciprocal marketing rights are granted.[1]

The above forms of cooperation represent only some of the arrangements prevelant in recent years. Other arrangements include joint - research and development, and joint tendering. These types overlap to a large extent. For example, licensing and supply of factories are often coupled with contract manufacturing or subcontracting and joint tendering.

Past experience has shown that in a number of cases, technology suppliers and licensors have imposed terms and conditions which operated to the disadvantage of developing country licencees. To deal with this problem national regulatory institutions, such as the National Registries of Technology in many Latin American Countries are excercising second-check functions to ensure that contractual provisions work in favor of licencees. In some cases, the licensing agreements require official approval. Government leadership is sometimes excercised regarding payments for technology. In some Latin American Countries a ceiling of 3% of net sales is imposed. This system is better than the one where licensors seek to impose a minimum royalty which could result in the effective royalty becoming 10% or more of net sales. Another related policy is to a maximum period on duration of the technology agreement. The period varies from 5 to 10 years.

One serious problem facing the developing nations, such as Egypt, in their dealings with the multinationals is the lack of technical expertise on the part of the host government appointed director or committee members. It is essential in these cases to appoint committees of technical experts who advise government directors on the technical aspects of the projects. Another policy

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1. An example is an agreement between a Yugoslavian firm and a West German Company where the first specializes in the production of small diesel engines while the larger engines are made by the West German partner.

is to establish national agencies staffed by full-time technical experts with overall responsibility of supervising the host country's interest in all projects in a given sector.

Next is a brief summary of the effects of multinationals on the employment picture in the developing countries. The effect of multinationals on the general level of employment is rather small. The number of persons directly working in multinationals' affiliates is only 3 to 4 million in all the developing countries.[1] This is due to the fact that multinational corporations tend to be in high-technology, capital intensive industries. On the other hand, the share of employment provided by the multinationals in export-oriented industries tend to be rather high.[2]

Undoubtedly one of the main features that attracts multinationals to the NICs is the availability of inexpensive labor. The advantage that Egypt has is the quality of its population. The Egyptian population is basically optimistic, talented and hardworking. This labor force, properly educated, trained and organized, would enable the country to join the ranks of the NICs.[3]

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1. Transnational Corporations. Op. Cit., p. 91.
2. In 1969, in the manufacturing industry in Singapore, 30% of the labor force was employed by foreign subsidiaries, and in sectors with high export-propensity (e.g. textiles, electronics and electrical appliances) the share of employment was more than 60%. Data for South Korea shows that between 1970 and 1973 the share of employment by multinationals increased from 3 to 11%. (Trans. Corp.,Op.Cit.,p.92)
3. Turkey is a Middle-Eastern country that is similar to Egypt in many respects It is a country of 35 million people. Its population, like Egypt, is increasing at a rate of one million per year. It is interesting to note that it has recently adopted many features of the Brazilian experience of development. It is following a combination of austerity and liberalism. Turkey has imposed a fiscal and monetary squeeze on domestic consumption, a wage freeze, high currency devaluation (about 70%), liberalization of market forces and export promotion. Since 1980, public deficits has been cut by two-thirds. Inflation has dropped from 150% to 40%. The economy has risen from zero growth to 4.5%, the highest in Europe. (Christian Science Monitor, Nov. 23, 1982 p. 3). In the Eastern Block, Hungary is an example of a country where export-promotion is emphasized.

An export oriented policy for Egypt must be tied to a comprehensive development plan. Outlining such a plan is beyond the scope of this paper. Suffice to say that the Brazilian strategy points to the need for adopting a hollistic approach where the government plays a key role. Brazil and Egypt are not endowed with the same input-mix. The first is rich in natural resources except in oil and natural gas. Its geographic location is a disadvantage in terms of increased transportation cost. Egypt on the other hand is relatively rich in energy cources and has marine potential.[1] Its proximity to demand centers in Europe, Asia and Africa is a distinct advantage.

Countries achieve greatness through overcoming their limitations and making full use of their potentials. Egypt has provided the world with one of the greatest civilization known to mankind. A living civilization must be able not only to give but to receive and to borrow. Borrowing wisely is more difficult than it seems. The spirit of this paper is to provide some insights into the experience of what nations are capable of doing to overcome their limitations . If further thought and action stimulated in that direction, then its purpose is achieved.

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(1) In Brazil, imaginative exporters sell tropical fish and plants to American museums, parks and even retail outlets. (Business Week, Sept. 13, 1982,p.22).