

CUBA'S SOCIAL POLICY AFTER THE DISINTEGRATION OF THE SOVIET UNION: SOCIAL DEVELOPMENT AS LEGITIMACY OF THE REGIME AND ITS ECONOMIC EFFECTIVENESS

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Since the disintegration of the Soviet Union, Cuba has experienced a severe economic crisis, and the country's social policy has played an important role in showing the people a *raison-d'être* for the revolution. This role has become even stronger in recent years, as internal and external actors demand political reforms and economic liberalization. This article first examines the Cuban government's use of social development to counter the demands for changes. It then looks at the extent that government social policy contributes economically to improving the Cuban living standard.

The article demonstrates empirically how the leadership emphasizes their social accomplishments whenever demands for change come, and then shows that after the suspension of Soviet aid, Cuban social policy has been able to provide services mainly by relying on human capital and reducing quality materially because of the shortage of foreign reserves. This has limited the economic effectiveness of the services.

I. INTRODUCTION

WITH the collapse of the Soviet Union, which had been Cuba's patron and partner for three decades, Cuba confronted a serious political and economic crisis. Yet the Cuban revolutionary regime has succeeded in maintaining its socialist system. It seems that the regime's social policy has contributed greatly to its survival.

It has been assumed that since the onset of the economic crisis, the Castro regime has needed stronger political leadership to distribute its scarce resources to social services with a high priority. On the other hand, social justice has been one of the principal goals of the regime since the triumph of the revolution. Historically, the

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Cuban Revolution succeeded in obtaining the support of the people because of its two principles: (1) national independence and sovereignty and (2) social justice. U. S. threats of invasion helped mobilize popular support for the regime during the Cold War. But after the collapse of the Soviet Union, the principle of "national sovereignty and independence" declined in importance, and now the principle of "social justice" has become the most important legitimizer of the regime. While Marxist socialist ideology has decreased in importance since the Soviet Bloc disappeared, Castro has used social justice in almost an identical manner as he used socialism to legitimize his regime. This comes out in the addresses and speeches of the Cuban leadership which will be cited in this study.

After giving an historical overview of Cuba's social policy, this article analyzes the economic side of this policy. The government has allotted a large part of its budget for social policy, making every effort to maintain Cuban social development, and it has managed to keep up the level of social services despite Cuba's serious economic crisis. Although social expenditures have been a heavy burden on the budget, the government has continued to allot a high percentage of its resources in social policy. Consequently, Cuba has achieved outstanding social indicators which stand at almost the same level as developed countries. However, while social indicators as publicized by the government have not worsened (and have even improved), the quality of social policy has been deteriorating, especially materially.

There are a number of studies on Cuban social development. Some studies have classified it, along with other Stalinist socialist countries, as a welfare state. Tanaka argued that Stalinist countries give their peoples social benefits in exchange for labor obligations and loyalty to the state, and they guarantee a certain level of equality and social welfare (Tanaka 1997, p. 33). In Cuba's case, one of the most well-known studies of its social development is the book by Mesa-Lago which examines how economic development and social equity have been realized in Cuba by comparing it with Chile and Costa Rica (Mesa-Lago 2000). He argues that Cuba sacrificed economic growth for equity, but it was able economically to achieve a high level of social services and a highly egalitarian society because of generous Soviet aid.

On the other hand, Drèze and Sen regard Cuba as a country exemplifying "support-led security" (Drèze and Sen 1989). They point out that some developing countries have been able to achieve high standards of social development despite their poor access to resources.¹ However, their analysis was done before the disintegration of the Soviet Union. Nevertheless, they consider that social development should be realized not only by government initiative and policy, but also through the public actions of the third sector under a free and democratic political system.

¹ Drèze and Sen regard Chile, Costa Rica, Cuba, China, and Jamaica as countries typifying support-led security.

Mesa-Lago's work is based on development economics, and his main interest is in the equilibrium between growth and equity. Drèze and Sen deal only with Cuba of the Soviet era. Because of Cuba's limits on political freedom and on the market mechanism in its economy, the premise of Drèze and Sen could only be applied partially. This article will mainly analyze the development of Cuba's social policy itself, and will deal with the period after the Cold War. It will examine politically and economically how Cuba has realized its social policy despite increasing financial difficulties.

This study begins with an overall description of Cuba's social policy. Then it shows how Castro and other leaders have cited social policy in order to legitimize the regime, especially when the regime confronts internal and external pressure for reforms. The usual approach in a political analysis is to examine the domestic political actors, such as political parties, trade unions, and pressure groups, as was done by Korpi (1985), Esping-Andersen (1990), and Mesa-Lago (1978). However, in the case of Cuba, it is very difficult to see the activities of the actors when they do not conform with government policies. Therefore this study deals only with the leadership's initiatives to realize their generous social policy.

The study then shows that economically Cuba's social policy has declined in quality while nominal government spending on it has gradually increased. It is argued that economically Cuba's social policy is no longer able to provide the many benefits it used to, and therefore cannot be the strong legitimizer of the revolutionary government that it used to be, although to some extent it is still playing a role in supporting the socialist system.

II. CUBA'S SOCIAL POLICY: HISTORICAL OVERVIEW

Cuba's social policy includes a generous pension system, universal and free medical services and education, full employment, a ration system providing necessities to every citizen, and various types of social assistance for socially vulnerable people. Cuba is proud to have one of the highest literacy rates and lowest infant mortality rates in Latin America, and it considers that these and other indicators of Cuba's remarkable social development demonstrate the excellent accomplishments of the revolutionary government.

Even in the pre-revolutionary period, Cuba had a higher degree of social development in comparison with other Latin American countries (Mesa-Lago 2002). The pension insurance system was already highly developed before the revolution (see Table I). The old-age pension insurance was divided into fifty-one programs, and labor accident insurance was also widely available, although the informal sector was not covered. There was a great disparity in social services between urban and rural areas, but within Latin America, Cuba generally had highly developed social programs before the revolution.

TABLE I
HISTORY AND DEVELOPMENT OF CUBA'S SOCIAL POLICY

1902	<i>Cuban independence and the start of the Republic of Cuba.</i>
1913	The first old age pension program for the public sector introduced for military personnel.
1916	Labor accident pension program started.
1923	The first old age pension program in the private sector introduced for the staff of the telephone company.
1933	Medical insurance for labor sickness started.
1934	Child birth insurance started for female workers.
1940	National Corporation of Social Assistance (CNAS) established under a new constitution.
1951	Coverage of child birth insurance programs expanded.
1957	The 51st pension program established for workers in the driving professions.
1959	<i>The Cuban Revolution</i>
1959–63	All old age pension programs unified under Law No. 1100 of 1963.
1961	Literacy Campaign
1962	Ration system of essential consumer goods started (and continues to the present.)
1963	Universal and unified national health care system created by Law No. 1100.
1974	Unification and expansion of the child birth insurance program.
1976	Pension programs for old age, labor accidents and medical insurance established for personnel in the military (Decree-Law No. 101) and Ministry of Interior (Decree-Law No. 102).
1979	Restructuring of social security (old age, labor accidents, and health care) by Social Security Law No. 24
1983	Social security programs for agricultural cooperatives.
1985	An old age pension program established for people who participated in guerilla warfare in rural areas and the underground resistance in urban areas during Castro's revolutionary movement against the Batista military government (Decree-Law No. 91 of 1985).
1987	Family doctor system introduced.
1998	Workers in enterprises permitted to transfer to the new pension system under the reform of state enterprises (known as <i>perfeccionamiento empresarial</i>) have an obligation to contribute 5–7 per cent of their salary into their pension program (Decree-Law No. 187).

Sources: By the author from various sources, such as Mesa-Lago (2002).

After the Cuban Revolution of 1959, the new revolutionary government started to unify and centralize all social services. The state started to administer education and medical services by unifying all public and private facilities. The pension system was unified in 1963 by the Social Security Law (Law No. 1100), and revised in 1979. Article 1 declares that the state guarantees the social security of workers and their families. All employed workers are eligible for benefits, and the conditions of these benefits are the same for all workers, with the exception of those in the mili-

tary service and Ministry of Interior who have more favorable conditions, and those who fought in Castro's July 26 Movement against the former Batista military government. On the other hand, private farmers and members of old type cooperatives (Cooperativa de Producción Agropecuaria, CPA) have less advantageous pension programs, while self-employed workers and those in the informal sector do not have any specific programs, although the government is now preparing one for self-employed workers. Nevertheless, the state security enterprise (Empresa de Seguros, ESEN) has a pension savings program for all citizens, and no Cuban is excluded from this pension program.

The Cuban pension system can be considered generous because (1) the age of retirement is early, sixty for males and fifty-five for females; (2) workers do not need to contribute, only the employer contributes 12 per cent of a worker's salary for old-age pensions and 2 per cent for short-term income compensation. While pensions as a system are very generous, their role in supporting recipients is not so important since there are many universal free or inexpensive social support programs, such as medical services, education, rationing, and public utilities. But because of Cuba's severe economic situation, people need to purchase many necessities on the black market, at farmers' markets, or at dollar shops, and pensions have not been able to ease these difficulties.

In medical services, which is a labor-intensive sector, the government had provided a considerable amount before the collapse of the Soviet Union. They introduced highly advanced and costly medical treatments which included organ transplants and advanced cardiovascular operations, and started up a preventive public health system such as the family doctor program. These generous Cuban medical services had to be cut back in the 1990s mainly because of a serious shortage of medicines and medical supplies. Cuba was unable to produce 85 per cent of the medicines it needed, and consequently lacked 229 drugs such as insulin and antibiotics (Barret 1993). According to Alonso, Lago, and Donate-Armada (1994, p. 16), 50 per cent of Cuba's infants between six and twelve months showed symptoms of anemia, and 10 per cent of the children between six and eleven years suffered from goiter.

The ration system was started in 1962, and has guaranteed the minimum level of consumption for every citizen. Until the end of the 1980s, some items were available in unlimited quantities, such as eggs and some kinds of fish. However, since the 1990s, all rationed items have become scarce, and now rationed food is only enough for ten days or two weeks. Clothes, shoes, and other necessities have disappeared from the ration supply. The people need to purchase these items at expensive dollar shops or at free markets unless they can expect to obtain them as gifts from relatives abroad.

According to Ferriol Muruaga (2001), the greater part of the people's nutrition is still provided by the state. She states that 89 per cent of calories, 93 per cent of

protein, and 80 per cent of fat are obtained through the ration system, meals offered at workers' dining rooms or schools or hospitals, as well as from such things as voluntary production activities at workplace (Ferriol Muruaga 2001, p. 36). In research done in 1995, it was estimated that 73 per cent of calorie intake was obtained through social services, 13 per cent came from production areas designated for self-production by state entities, cooperatives, and the private sector, and 14 per cent was obtained through commercial services (Ferriol Muruaga, Quintana Mendoza, and Izquierdo 1999, p. 68). Castro himself said in an interview that his government tried to keep the supply of food from free markets to within 20 per cent of total production, so that the people could purchase food within their salaries.² However, people who are not connected to a workplace in the formal sector, or who are not in school, do not have access to these benefits.³ Furthermore, it is unclear to what extent these improvements have satisfied the people's needs, as Cubans traditionally used to enjoy meals of quite high quality for a developing country. Nevertheless, without doubt people have been able to obtain better nutrition in recent years.

Education is also universal and free. It is very unlikely that a child or youth cannot go to school or university for reasons other than his own lack of academic ability. Since the early 1990s, some courses that are not obligatory or directly related to one's career development have not been free, but most education has been provided free of charge to students and their families. The economic crisis has also affected education. Castro often declares proudly that no school has ever been closed and no teacher laid off, but he has also admitted that there are shortages of textbooks and other needed educational materials.⁴

III. SOCIAL POLICY AND REGIME LEGITIMACY

The disintegration of the Soviet Union had a severe impact on the Cuban economy, and the living standard of ordinary Cubans deteriorated greatly. This section uses the leadership's speeches and public addresses, the sole primary sources available at this time, to analyze how the regime has utilized its social policy to demonstrate its legitimacy. It will look at two time periods: 1990–95 and 1999–2003. During the 1990–95 period, the Cuban economic crisis was at its worst. Economic growth was

² Castro's interview by *El Sol de México*, published on January 28, 1995. Taken from LANIC (Latin America Network Information Center), Castro Speech Data Base, University of Texas, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1995/19950128>.

³ Such people include self-employed workers, those who work in the informal sector, retired people, and housewives who make up about one-third of the female working-age population.

⁴ Castro's address to the Federation of University Students (FEU), March 26, 1995. Taken from LANIC, Castro Speech Data Base, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1995/19950326>. The government supplies books, notebooks, pencils, and other necessities in Cuban schools. In principle, parents do not need to purchase them.

negative or only slightly positive which caused a massive emigration of boat people to Florida in 1994. People suffered severely from shortages, and were more likely to doubt the legitimacy of the government.

During the second period, from 1999 to the present, the government has had to confront increased internal and external pressure for change. In January 1998 Pope John Paul II visited Cuba for the first time since the revolution in 1959. During his visit, the Pope called for both the opening of Cuba to the world and the world to Cuba, and the international community watched to see how Castro would respond to the pontiff's words. However, the Castro regime still has not carried out any political reforms, nor improved its human rights record. Whenever external or internal pressure grows, the government uses its social accomplishments to counter this pressure. In 1999 and 2003 the regime launched crackdowns against dissidents and was criticized internationally for its actions. In 2002 the government was confronted by an effort called the Valera Project which sought to bring about changes using Cuba's existing legal framework and institutions. Thus in recent year the government has had more need to demonstrate its legitimacy to the people.

Between the above two time periods, during the years from 1996 to 1998, economic growth was high (as shown in Table II) and people came to have some expectation that the economic situation would improve under the current regime. Thus the government did not need to make any special efforts to strengthen its legitimacy.

A. *The Period of Most Severe Economic Crisis, 1990–95*

Throughout this period, Castro repeatedly referred to Cuba's social development, although the majority of his topics were on how to survive the economic difficulties and revive the economy. Although the state was unable to maintain economic performance, it guaranteed everyone at least the minimum level of living standard. In 1991 Castro said, "We chose socialism because it is a much fairer system, a much more humane system. It is a system of true equality. What kind of equality could you talk about with capitalism?"⁵

In 1992, when the government was preparing for the election of the National Assembly of People's Power, the body with legislative authority in Cuba, the first election for this assembly since the disintegration of the Soviet Union, Castro emphasized egalitarianism and the humane side of his system:

We are not going to starve the scum even though they contribute nothing. . . . Never has there been such a kind and humanitarian state. This state leaves no one abandoned in the street, does not abandon any sick persons, does not leave a single human being to his own luck.

⁵ Castro speech to the Cuban Communist Party (PCC) Havana Provincial Assembly, February 5, 1991. Taken from LANIC, Castro Speech Data Base, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1991/19910205>.

TABLE
ECONOMIC GROWTH AND

	1990	1991	1992
GDP ^a (1)	19,644.80	16,248.10	14,904.60
Growth rate ^b	-2.9	-10.7	-11.6
Current expenditures ^c (2)	11,327.20	11,088.90	11,775.70
Gross social security expenditures (2)	1,352.30	1,401.10	1,590.40
Long-term social security expenditures ^d (4)	1,164.10	1,225.70	1,348.00
Short-term social security ^e (4)	188.20	175.40	242.40
Contributions for social security (2)	690.50	666.30	672.50
Contributions from employers (3)	188.20	175.40	242.40
Balance in social security budget	-473.60	-559.40	-675.50
Social assistance budget (2)	95.60	88.40	98.20
Education budget (2)	1,619.50	1,504.00	1,426.70
Budget for medical services (2)	937.40	924.90	938.30
Subsidies for household consumption ^f (5)	318.70	243.30	202.60
Public social spending (PSS) ^g	4,323.50	4,161.70	4,256.20
PSS/GDP (%)	22.01	25.61	28.56
Education/GDP (%)	8.24	9.26	9.57
Medical service/GDP (%)	4.78	5.69	6.30
Number of pensioners (1,000)	1,133.20	1,174.20	1,218.30
Number of persons receiving social assistance (1,000)			
Exchange rate at black or unofficial market (peso/U.S.\$)	7	20	45
Gross social security expenditure in U.S. dollars	193.19	70.06	35.34
Subsidy for household consumption in U.S. dollars	45.53	12.17	4.5
Consumer price index	n.a.	n.a.	n.a.

Sources: (1) From 1990 to 1996, Oficina Nacional de Estadísticas, 1996 edition; from 1997 to editions. (3) For 1990 and 1991, UNDP (2000, p. 201, Tables 10 and 11); from 1992 to 2001, p. 201); from 1992 to 2001, Ministerio de Trabajo y Seguridad Social (2003, p. 24). (5) From 2001, Ministerio de Finanzas y Precios, 2001 edition.

Note: All the values for expenditures were taken from each year's budget. All values are

^a Values are current prices. The method of calculating GDP in Cuba was changed in 2000, and

^b Growth rate is calculated at real values.

^c All expenditures of the government excluding investments.

^d Mainly old-age pension insurance.

^e Social insurance for professional accidents, maternity leave, sick leave, etc.

^f Mainly the costs for the ration system.

^g Calculated according to the standard of the UN Economic Commission of Latin America and sewerage, therefore these are excluded.

... not one child has missed school because a school has had to be closed. Not one patient has been turned away from a hospital because a hospital, a clinic, or a rural health center has had to be shut down. There are no homeless, no one without an income.⁶

⁶ Castro's address at the Science Workers Congress, March 30, 1992. Taken from LANIC, Castro Speech Data Base, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1992/19920330.1>. Similar phrases were repeated throughout the period of 1992-96.

II

SOCIAL EXPENDITURES

(Pesos million)								
1993	1994	1995	1996	1997	1998	1999	2000	2001
15,094.50	19,198.30	21,737.10	22,814.70	22,951.80	23,900.80	25,503.60	27,634.70	29,557.00
-14.9	0.7	2.5	7.8	2.5	1.2	6.2	5.6	2.9
12,529.00	11,495.20	12,064.20	10,770.10	10,823.60	11,480.90	11,967.90	13,838.10	13,781.30
1,705.90	1,752.80	1,750.00	1,783.50	1,895.70	1,963.50	1,948.30	1,956.70	1,944.10
1,452.30	1,532.40	1,533.40	1,630.20	1,635.90	1,705.10	1,785.70	1,785.60	1,780.30
253.60	220.40	196.60	153.30	259.80	258.40	162.60	171.10	163.80
924.90	880.50	898.10	959.20	1,070.50	1,025.00	1,115.40	1,181.20	1,247.80
253.60	220.40	216.60	153.30	259.80	258.40	162.60	171.10	163.80
-527.40	-651.90	-635.30	-671.00	-565.40	-680.10	-670.30	-604.40	-532.50
94.20	93.60	118.70	128.40	135.20	145.40	157.60	178.80	215.20
1,384.90	1,334.60	1,358.70	1,421.30	1,453.90	1,509.70	1,829.60	2,094.60	2,368.60
1,076.60	1,061.10	1,108.30	1,190.30	1,265.20	1,344.90	1,533.10	1,683.80	1,796.60
344.00	349.50	325.90	431.70	434.80	384.90	538.30	809.20	847.80
4,605.60	4,591.60	4,661.60	4,955.20	5,184.80	5,348.40	6,006.90	6,723.10	7,172.30
30.51	23.92	21.45	21.72	22.59	22.38	23.55	24.33	24.27
9.17	6.95	6.25	6.23	6.33	6.32	7.17	7.58	8.01
7.13	5.53	5.10	5.22	5.51	5.63	6.01	6.09	6.08
1,272.60	1,311.10	1,352.20	1,354.80	1,355.90	1,363.70	1,326.00	1,335.20	1,345.30
100	60	25	19	137.4	137.8	134.2	119.1	135.8
17.06	29.21	70	93.87	23	21	21	21	26
3.44	5.86	13.04	22.72	82.42	93.5	92.78	93.18	74.77
n.a.	n.a.	-11.5	-4.9	18.9	18.33	25.63	38.53	32.61
n.a.	n.a.	-11.5	-4.9	1.9	2.9	-2.9	-2.3	

2000, 2000 edition; for 2001, 2002 edition. (2) Ministerio de Finanzas y Precios, 1990 and 2000 Ministerio de Trabajo y Seguridad Social (2003, p. 24). (4) For 1990 and 1991, UNDP (2000, 1990 to 2000, data was obtained from Dirección de Presupuesto del Ministerio de Finanzas; for

nominal.

we cannot compare the values up to 1999 and those from 2000 and after.

the Caribbean (ECLAC). But for Cuba there is no data on housing construction, water supply, and

He also compared this social indicator with the pre-revolutionary period to emphasize the regime's accomplishments. Speaking about the start of the literacy campaign that his regime commenced in 1961, Castro said:

There were 1 million illiterate people out of a population of 6.5 million people. Over half the children did not have schools. The existing public schools had practically no

resources. They lacked materials, facilities, everything. . . . This is how the idea of the literacy campaign arose one day.⁷

In order to encourage people to approve the candidates that the government proposed at both national and provincial levels for election to the Assembly of People's Power, Castro strongly emphasized the history of the revolutionary government's efforts in social development. He also referred to the infant mortality rate which had continued to decrease even after the disappearance of the Soviet Union.

Castro also used Cuba's international cooperation as part of his effort to strengthen the regime's legitimacy. He suggested that Cuba had helped other Third World countries by sending Cuban physicians and other medical personnel, and he indicated that Cuba would continue to send them.

Cuba has the greatest number of doctors per capita in the world, . . . We have one teacher per 45 inhabitants and three students. . . . More than 10,000 Cuban doctors have performed service abroad free of charge. We had 25,000 students from Third World countries on grants at one point, more than any other country. . . . our doctors treated 13,000 children who were at Chernobyl.⁸

B. *Confronting Internal and External Pressure for Change, 1999–2003*

Since the Pope's visit in 1998, the economy has been sluggish but stable. People's lives have not been as distressful as in the first half of the 1990s. Nevertheless, since 1999 there has been strong external and internal pressure on the regime demanding political and economic reforms. From 1996 the government started to tighten its grip on the economy because it did not want corruption and a wide difference in income among the people.

In 1999, one year after the Pope's visit, the Cuban government launched a crack-down against dissidents. In February it renewed its security law and tightened its political control. The government started to arrest and jail more dissidents. This was the first clear sign of tightening control inside the country since the Pope's visit, and showed that Castro's government was not ready to undertake political reforms. Canada reacted first. In June Premier Chrétien of Canada announced that his country would lower the level of its diplomatic relations with Cuba, and would review its bilateral assistance plans.

In March 1999 Vice President Carlos Lage defended Cuba before the United Nations Human Rights Commission (UNHRC) in Geneva, where its members were discussing a resolution against Cuba's human rights record.

Where, in Cuba, are the illiterates, the children without schools and the teachers without classrooms? Where is there a single citizen without health care coverage? Where are

⁷ Castro's speech at "Education 93," February 9, 1993. Taken from LANIC, Castro Speech Data Base, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1993/19930209>.

⁸ Castro's address at UNESCO, Paris, March 14, 1995. Taken from LANIC, Castro Speech Data Base, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1995/19950314>.

the handicapped without opportunities to study and work? Where can you find in Cuba a retired person without a pension or an unprotected elderly? Where are the women who get lower salaries than men for equal work? Where are racial discrimination or xenophobia? Where in Cuba are the workers fired without guarantee nor protection?⁹

Castro pointed out shortcomings of the U.S. health care system. In November of the same year, Castro talked in a Cuban TV interview about his meeting with Illinois Governor George Ryan. Castro said that during his conversation with Ryan, he contrasted Cuba's social accomplishments with America's. He pointed out that some of the most advanced and costly medical procedures such as heart and liver transplants had been successfully carried out in Cuba, while in the United States such procedures were financed by donations.¹⁰ Yet in that same interview he explained how Cuban hospitals had resolved material shortage problems. One way was through voluntary assistance from abroad; another way was for main hospitals to reserve some beds for foreigners who paid in dollars; a third way was to allow Cuban Americans who visited their families in Cuba to bring in up to ten kilograms of medicines duty-free. The first and third solutions were the equivalent of donations, not so different from the U.S. situation he depicted in the interview.

On September 7, 2000, Castro talked at the United Nations' Millennium Summit Roundtable. After describing how low social development in the Third World was, he took the example of his country. He noted how much qualified human capital Cuba had, and said that Cuba would offer its medical personnel to assist Third World countries in improving their social development. Cuba's health care assistance to developing countries is well known, but it should be noted that this activity is also a good opportunity to demonstrate Cuba's social achievements and use them to strengthen the regime's legitimacy.

In April 2002 Cuba was again criticized at the UNHRC for its human rights violations, and for the first time the resolution was passed. Castro's May Day speech of that year was a response to the resolution. Firstly, he pointed out that almost all Cubans are literate. One hundred per cent of the population above fifteen years old has completed six years of education, and 90 per cent has finished nine or more years of education. He countered his critics by pointing out that many other countries have problems of child workers, unemployment, workers in the informal sector who have no social security or other protection, the lack of medical services for pregnant women, infants, senior citizens, and the poor, and Castro implied that

⁹ Speech by Carlos Lage Dávila at the 55th session of the United Nations Human Rights Commission, Geneva, March 24, 1999.

¹⁰ Cuban national TV interview on November 1, 1999. Castro stated that Governor Ryan offered an invitation to a Cuban boy who needed costly treatment for his liver problem. Castro indicated that Cuba did not need such an invitation because the country had enough facilities to carry out such advanced treatment.

such failures in social services were a human rights injustice in those countries considered to have human rights and democracy.¹¹

He argued that those who are illiterate, or have studied only to the third or fourth grade, or who live in absolute or relative poverty, or have no job and live in slums can become the victims of abuse, intimidation, oppression, fraud, and other social evils. Such people have no power to resolve the complicated problems of their society, and their circumstances do not allow them to exercise true democracy. In his speech Castro went on to say that most Latin American countries have great inequalities in distribution, and it is impossible for such countries to realize democracy or to respect human rights. By comparing the situation in other Latin American countries, Castro indicated the education and other social services of the revolutionary system, had given the Cuban people the strength to confront social evils.¹²

Shortly before the visit of former U.S. President Carter in mid-May of 2002, a dissident activist, Osvaldo Payá, organized the Varela Project which sought to change the Cuban system through the existing institutional and legal framework. He and his supporters succeeded in collecting more than 10,000 signatures which made it possible to petition the legislature for a referendum to revise the constitution. This is provided for in Article 63 of the constitution. The Varela Project was the first attempt to change the governing system through legal and peaceful means. It was a great challenge to the revolutionary government from inside of the country.

Less than a month after the UNHRC passed its resolution against Cuba, more pressure came from the United States. One was Carter's visit in mid-May. This was the first visit by a former U.S. president in the Castro era. Supporting the Varela Project, Carter cited the Universal Declaration of Human Rights which Cuba had signed in 1948 under another government. Carter called on Cuba to recognize these universal human rights. He also referred to the defects in the health care service of

¹¹ Castro's May Day Speech of May 1, 2002. He said, "The revolution, the government, and power belong to the people. All the Latin American and other members who voted against Cuba at the U.N. Human Rights Commissions have not achieved high educational, cultural and social levels." (Translated by the author from a Spanish text.)

¹² Castro's May Day Speech of May 1, 2002. He pointed out the differences in the averages for social indicators between Cuba and Latin America: "Illiteracy: Latin America 11.7%; Cuba 0.2%; Population per teacher: Latin America 98.4, Cuba 43; Enrollment of primary education: Latin America 92%, Cuba 100%; Enrollment in secondary education: Latin America 52%, Cuba 99.7%; Proportion of pupils who reach 5th grade: Latin America 76%, Cuba 100%; Infant mortality rate: Latin America 32, Cuba 6.2; Number of physicians per 100,000 people: Latin America 160, Cuba 590; Number of dentists per 100,000 people: Latin America 63, Cuba 89; Number of nurses per 100,000 people: Latin America 69, Cuba 743; Number of beds per 100,000 people: Latin America 220, Cuba 631.6; Life expectancy: Latin America 70 years, Cuba 76 years The results of research by UNESCO on the quality of education which covered twelve Latin American countries including Cuba: Average scores of pupils of 3rd and 4th grades: Spanish of 3rd grade: Cuba 85.74, others 55.11; Spanish of 4th grade: Cuba 87.25, others 63.75; Arithmetic of 3rd grade: Cuba 87.75, others 58.31; Arithmetic of 4th grade: Cuba 88.25, others 62.04."

the United States, but claimed that because democracy guarantees opportunities to correct mistakes made in the past, it was better than the Cuban system.¹³

Several days after Carter's visit, further pressure came from the White House. U.S. President Bush spoke at a White House party on May 20, 2002 celebrating the Centennial of Cuban Independence. Bush repeated the traditional U.S. hard-line views toward Cuba, vowing that his government would never ease economic sanctions unless Cuba carried out "free and fair elections and meaningful economic reforms." He stated that were Cuba to carry out free and fair election in 2003, his government would not only ease or lift economic sanctions, but also provide humanitarian assistance to build a civil society in Cuba. He would also offer scholarships so that Cuban scholars and students could study in the United States to build a civil society. Family members of political prisoners would also be offered such scholarships.

The rising reformist pressure both inside and outside of the country triggered a strong reaction from Castro's government. In June the Committees for the Defense of the Revolution (CDR) called a nation-wide referendum to counter the petition of the Varela Project, and won support from over 97 per cent of the total electorate. Castro convoked a special session of the National Assembly of People's Power which voted unanimously to revise the constitution making "socialism unchangeable." The assembly also passed a constitutional reform law. The third clause of the law's preamble says that the United States criticizes the state of Cuba which has "high educational, cultural, and social indicators, including 0.2 per cent illiteracy rate, 100 per cent enrollment rate in primary education, 99.7 per cent in secondary education, and 6.2 infant mortality rate."¹⁴

Castro addressed a special session of the national assembly on June 26 where he turned down Bush's offer, saying that in Cuba almost a half million youths received scholarships to continue their education, and that Cuba did not need the scholarships that Bush had offered in his May 20 speech to Cubans who participate in anti-government activities. Castro added that Bush should distribute his resources not for Cubans but for Native Americans and African Americans who do not have enough access to education. He also referred to himself, noting that although he had been born in a wealthy family, he now had very little property, which showed how Cuba's egalitarianism brought about redistribution through education and other social policies. He himself had given up his own family property as part of realizing this system.

In his speech on July 26, 2002, the Anniversary of the Attack on Moncada Barracks, Castro pointed out that in Cuba no child walks without shoes or begs, and

¹³ Jimmy Carter's speech at the University of Havana, May 14, 2002, <http://www.cartercenter.org/viewdoc.asp?docID=517&submenu=news>.

¹⁴ Translation by the author.

that thirteen vaccines protect every child's health. All citizens receive free medical service without waiting. All children complete elementary education and almost all finish the ninth grade. Castro also claimed that social conditions were recovering:

Unemployment is not growing, rather it is going down; 6 per cent for the past two years. . . . The shortage of medicines is apparently more moderate. Medical services are improving and other new services are coming in. People receive preventive and immediate assistance against natural disasters. Recovery from the damage of Hurricane Michel was achieved in record time. Hundreds of thousands of television sets are supplied yearly. Schools are remodeled and new ones constructed. In education and more generally, audiovisual equipment and computers have been introduced. New programs were started such as the mass organization of social workers, the University for All, and the emergency teachers program which enhances personal education and reduces the number of pupils per classroom. Computer instruction starts from pre-school level. . . . Those are the social and humane advantages of our system.

. . . There should be no doubt of the fact that no one can ever destroy the Cuban people's voluntary aspiration to win or die fighting for our socialism as a more just, humane, and dignified society.¹⁵

External criticism of the Castro regime became even stronger in 2003. On April 2, almost two weeks after the Iraq War started, the Cuban government carried out the most thorough program of arrests in the history of the Cuban Revolution and jailed seventy-five dissidents after one-day trials. Then on April 11, after a very short secret trial, the government executed three men who had hijacked a ferry to flee to the United States. This series of crackdowns aroused much more external criticism. In the United States the crackdowns stalled congressional action to loosen restrictions on travel by U.S. citizens to Cuba. The EU decided to lower the level of diplomatic relations in June, and in the following month, announced the suspension of humanitarian aid to Cuba. Canada, Italy, and other countries sent letters of protest to Castro. Pope John Paul II and the Cuban Catholic Church regretted the executions because the Roman Catholic Church is against the death penalty. The ex-president of Costa Rica and Nobel Peace Prize winner, Oscar Arias, sent a letter to the *Miami Herald* newspaper on April 24, criticizing Castro's actions, and calling for protests by the international community. Also some leftists in Latin America and Europe, who were well known for their friendship with the Cuban regime, such as José Saramago, the Portuguese Nobel Prize laureate in literature, criticized the regime's actions. Although the EU and Canada have not ended their "engagement policy" toward Cuba, their criticism and sanctions have helped isolate the country.

In the face of this hardening international attitude, Castro and his government stood fast. On the crackdown against the seventy-five dissidents, they explained

¹⁵ Fidel Castro's speech on the anniversary of the Attack on the Moncada Barracks, at Ciego de Avila, July 26, 2002. Translated by the author from a Spanish text.

that all of them had received assistance from the United States, that therefore they were working for that country and their activities were counter-revolutionary. Regarding the executions, Castro claimed in his May Day speech of that year, in which he first emphasized Cuba's social accomplishments, that hijacking is a very serious crime because it endangers the lives of innocent passengers, indicating that the executions were justified.¹⁶

In addition to the long-time assertions about health care, social security, housing, and water supply, from 2002 the Cuban government started to put more importance on social assistance. Cuba is now in the middle of reforming its social assistance system. Cuban socialism in principle guarantees every citizen a moderate quality of life, and in June 2003 Castro declared in his speech at a meeting for the study of the physically and mentally impaired that "no handicapped person will be left abandoned." The Cuban revolutionary government is expanding its concern to a broader area of social policy and is using this to help maintain the legitimacy of the regime.

As shown above, for the last five years, the Cuban leadership has continually used its social policy and achievements to counter its internal and external critics.

IV. ECONOMIC IMPACT OF THE SOVIET UNION'S COLLAPSE

A. *Evaluating the Nominal Values of Public Spending*

During the Cold War the Cuban economy was supported by generous Soviet aid. After the disintegration of the USSR, Cuba fell into unprecedented economic crisis, and social policy was severely affected. Yet social services as part of the government's budget have not been cut and instead have been gradually increasing. At the same time, however, it has become obvious that social sectors such as medical services and education are suffering from material shortages.¹⁷ Also the ration system subsidizes household consumption has reportedly deteriorated seriously since in the 1990s. This section will analyze how social policy has been realized economically in order to achieve the political goals discussed in the previous section.

Ferriol Muruaga points out that Cuba's social indicators, such as infant mortality rate and life expectancy at birth, improved in the 1990s, and that there is no direct correlation between material shortages and the results of social policy (Ferriol Muruaga 1997, p. 91). Speaking about education in his 2002 May Day address,

¹⁶ Castro's May Day address, May 1, 2003. In this speech Castro referred to Cuba's free education, to its medical services which have achieved a low infant mortality rate, and to the country's housing program where 85 per cent of the people own their own house.

¹⁷ Castro has admitted this publicly on several occasions. For example, he referred to the shortage of paper to produce textbooks and notebooks, and to the shortage of pencils (his speech at the 5th Congress of the Federation of University Students, March 25, 1995). In another speech on August 13, 2002, in Havana, to celebrate the construction or remodeling of 734 primary and secondary schools in the city, Castro described the bad condition of the schools until they were remodeled.

Castro noted UNESCO's research which showed that among thirteen Latin American countries, Cuban primary school pupils got outstanding scores in Spanish and arithmetic.¹⁸ Both Ferriol Muruaga and Castro take as their examples only medical services and education. There is no study that reaches a similar conclusion about the pension and ration systems.

In this author's view: (1) in medical services and education, fields where human resources play important roles, the government has tried to maintain a high level by hiring human resources paid in nonconvertible Cuban pesos;¹⁹ but (2) there has been considerable deterioration in quality in fields where human capital cannot compensate for material shortages in maintaining the level of services. In the case of the pension system, the 50 per cent or at best 70 per cent of salary paid to pensioners has never been sufficient for living moderately in the dollarized economy. In the ration system, the majority of necessities distributed through the system are imported. Therefore, when the government suffers from a shortage of foreign reserves, the amount and quality of rations decline.

This analysis in this section of non-labor-intensive sectors focuses on the shocks to socially vulnerable people, such as the sick, unemployed, and elderly (pensioners). The economic crisis hit most segments of the population, but the most severely affected sector has been socially vulnerable people. For example, a study of the shortage in rationed food showed that most affected people have been those who do not have jobs and do not attend school. Employed workers are not only paid their salaries, but also get fringe benefits such as meals distributed by their workplace. Children who go to school and patients at hospitals also can receive meals given by their schools and hospitals, although some families who have the resources bring their hospitalized members home cooked meals because of the poor quality of institutional meals. People who have ties with the government through their jobs and schools are a little better off than those who do not.

Workers in the public sector generally receive lower salaries than those who work in tourism or some areas of the informal sector, or those who do business on the black markets, or who are self-employed workers. This is because workers in tourism, in some parts of the informal sector or the self-employed can receive a certain amount of their earnings in U.S. dollars, while public workers cannot, except for those who receive special bonuses as work incentives. In the dollarized segments of the economy where people need dollars to obtain necessities, the dif-

¹⁸ Castro's May Day speech of 2002.

¹⁹ Amartya Sen, "Public Action to Remedy Hunger," Fourth Annual Arturo Tanco Memorial Lecture arranged by The Hunger Project, August 2, 1990, <http://www.thp.org/reports/sen/sen890.htm>. In the lecture he said that "the cost of delivering public health care and basic educational facilities is enormously *cheaper* in a poor country than in a rich one. This is because both health and educational are labour-intensive activities and this fact makes them much cheaper in poorer countries because of lower wages."

ference between those who have access to dollars and those who do not is very wide.

This section will examine this wide difference by comparing the fluctuation in government public spending data with that of the exchange rate on the black market or the later unofficial market,²⁰ shown in Table II. All the values of public spending are from the budget, since there are no other statistics available. In order to compare the values of each year's budget, which are nominal, the nominal values of GDP are shown in the table.

From Table II it can be seen that the proportion of public social spending (PSS) to GDP grew in the first half of the 1990s, then from the middle of the decade to 2000, the rate stabilized at around 21 to 25 per cent (see PSS/GDP). In each classification, long-term social security expenditures, which mainly includes old age, disability, and survivors' pensions, continued to grow without exception throughout the 1990s and the beginning of the 2000s. The values given here are in nominal unconvertible pesos. The budget for social assistance also kept increasing except 1991, 1993, and 1994. The education budget also showed increases although it went down considerably between 1991 and 1994 in nominal value; as a proportion of nominal GDP, the rate was low from 1994 to 1998. Unlike education, the budget for medical services continually increased without any drops, and its portion of GDP remained stable.

Both long-term and short-term social security expenditures have steadily increased in nominal value. But while long-term social security expenditures have almost never decreased (showing small drops only in 2000 and 2001), short-term expenditures have often decreased. The most frequent fluctuation has been observed in the subsidy for household consumption, or ration system. It fell in 1991, 1992, 1995, and 1998, in nominal terms.

Nevertheless, the nominal values in Table II have generally tended to increase even during the worst period of the economic crisis (1992–94), and the ratio of public social spending went up in 1993. There is no obvious correlation between economic growth and Cuba's social spending. The reason that the ratio of PSS to GDP became larger during the worst years of the crisis is apparently because the government cut other items of expenditure but did not cut items related to social policy. According to Table III, it mainly cut the defense budget and expenditures for state enterprises. According to the official statistics, the government reduced defense after the Cold War, and started to rationalize inefficient or sluggish state enterprises to cope with the economic crisis and sudden suspension of trade with the former Eastern Bloc.

²⁰ The unofficial market means the state-run foreign exchange house opened in 1994. The official exchange rate has not changed for four decades: 1 dollar = 1 peso.

TABLE III
NATIONAL BUDGET

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total revenues	12,255.0	10,949.0	9,262.5	9,515.9	12,756.9	13,043.2	12,242.8	12,203.6	12,502.0	13,419.2	14,915.2	15,033.5	16,196.7
Total expenditures	14,213.1	14,713.8	14,131.5	14,566.5	14,178.3	13,808.7	12,813.5	12,662.6	13,061.7	14,030.9	15,587.4	15,771.0	17,193.2
Education	1,619.5	1,504.0	1,426.7	1,384.9	1,334.6	1,358.7	1,421.3	1,453.9	1,509.7	1,829.6	2,094.6	2,368.6	2,751.6
Medical services	937.4	924.9	938.3	1,076.6	1,061.1	1,108.3	1,190.3	1,265.2	1,344.9	1,553.1	1,683.8	1,796.6	1,923.0
Defense and internal order	1,149.0	882.2	736.4	712.8	651.2	610.1	496.7	637.5	537.1	752.3	879.6	1,273.8	1,261.8
Social security	1,164.1	1,225.7	1,348.0	1,452.3	1,532.4	1,594.0	1,630.2	1,635.9	1,705.1	1,785.7	1,785.6	1,870.3	1,984.8
Social assistance	95.6	88.4	98.2	94.2	93.6	118.7	128.4	135.2	145.4	157.6	178.8	215.2	398.0
Expenditure for state enterprises	3,956.0	4,721.8	5,583.5	6,168.1	4,154.2	2,777.1	2,605.7	2,236.2	2,588.4	2,669.8	3,075.7	2,622.2	3,285.8
Deficit	1,958.1	3,764.8	4,869.0	5,050.6	1,421.4	765.5	570.7	459.0	559.7	611.7	672.2	737.5	996.5

Sources: Oficina Nacional de Estadísticas, 1996, 2000, and 2002 editions.

The steady increase in long-term social security (mainly old-age pensions) can be explained by the aging population which began in Cuba in the mid-1980s. With the increasing number of retired persons and an old-age pension system that is universal and pay-as-you-go, government spending for pensions has to grow in nominal value. The general increase of the budget for medical services can also be explained by the aging population.

Examining more specifically the labor-intensive sectors of education and medicines, Table IV shows that there was a major drop in staff at the secondary and pre-university levels of education, while the staff for primary education has remained at the same level. This indicates that the government, within its limited resources, is determined to put first priority on primary and secondary education up to the ninth grade.

As shown in Table IV, the amount of staff in education decreased in the middle of the 1990s, and that drop has not been overcome. Also the number of graduates in higher education who specialize in education decreased until 2000/01 (Table V). This can be explained partially by the aging of the population, but the major declines have been at the higher education and pre-university levels, and Castro explained that this was part of the rationalization of education.²¹ However, teachers' salaries have not been increased, and presumably there are teachers at the lower levels of education who have quit over the years because of the deteriorating material incentives and the lower social respect compared with physicians.

The reason that the amount of staff at the primary and secondary levels has remained at the same level is because the government has kept hiring new teachers. In 2002 Castro announced a new special program called the emergency teachers program. Under this program the government trains students for a short period of time who then specialize in education and are sent to primary and secondary schools. The government pays them salaries but less than those for teachers who have worked after completing regular teacher education. In this sense, even though many experienced teachers have quit, the government has had enough money to provide for new teachers. But undeniably there has been a decline in the quality of teachers due to the number of experienced people who have left the field. The University for All program, which also started in 2002, utilizes Cuba's television network for education which allows the government to hire much fewer teachers.

In the field of medicine, there were clear increases in staff throughout the 1990s (Table VI). Physicians in hospitals, and family doctors increased in number; the number of dentists and nurses declined only in 2000, while that for pharmacists fell only in 2001. The number of graduates in higher education specializing in medicine has begun to decrease only recently. Therefore, judging from the current level

²¹ Castro's address at the Federation of University Students (FEU) Congress, March 25, 1995, Castro Speech Data Base, <http://www.lanic.utexas.edu/la/cb/cuba/castro/1995/19950325>.

TABLE IV
NUMBER OF PERSONNEL IN EDUCATION

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/ 2000	2000/ 2001	2001/ 2002	2002/ 2003
Total	233,415	232,626	230,714	220,865	195,450	202,153	199,747	197,892	195,617	195,917	206,657	215,883	234,288
Primary education	70,962	74,354	76,161	76,193	74,225	78,586	80,223	78,625	77,735	76,897	79,341	83,119	92,991
Secondary education	100,118	96,828	92,858	85,094	68,960	73,581	70,104	71,025	70,476	71,613	78,973	83,140	85,552
Secondary education (first three years)	42,894	41,986	41,049	39,838	34,177	36,698	37,241	37,475	36,612	36,532	40,947	42,993	38,820
Pre-university Level	20,961	19,818	16,451	13,585	9,456	9,516	8,864	9,176	9,605	10,186	12,156	13,080	17,498
Technical and professional schools	29,265	30,121	31,708	29,996	24,700	27,066	23,806	24,374	24,259	24,895	25,870	27,067	29,234
Higher education	24,668	24,915	25,726	24,848	23,340	22,967	22,574	21,596	21,573	21,318	20,753	22,046	23,657

Sources: Oficina Nacional de Estadísticas, various editions.

TABLE V
NUMBER OF GRADUATES FROM HIGHER EDUCATION

Year	1993/ 94	1994/ 95	1995/ 96	1996/ 97	1997/ 98	1998/ 99	1999/ 2000	2000/ 2001	2001/ 2002
Total	31,015	31,706	27,741	23,703	19,413	16,938	16,769	17,136	18,093
Specialized in medical and related areas	6,604	7,029	6,213	6,313	4,952	4,597	4,846	4,708	4,941
Specialized in education	10,636	10,975	8,891	7,456	6,020	6,057	5,742	5,696	5,963
Combined percentage in medical and educational fields	55.6	56.8	54.4	58.1	56.5	62.9	63.1	60.7	60.3

Sources: For 1993/94 and 1994/95, Oficina Nacional de Estadísticas, 1999 edition. From 1995/96 to 2001/2002, 2002 edition.

of staff, the hypothesis of this section is more likely to be proven correct in the area of medicine, although in the future it is possible that the amount of staff might drop when the present graduates finish training and start to work.

The drop in number of personnel in education and medicine could be explained by the government's policy to rationalize these sectors. Castro implied in 1995 that he thought there were too many university graduates and physicians for an aging population,²² and he announced that the government would cut by half the number of admissions to universities. Yet the importance of medicine and education has continued to grow. While the total number of university graduates in 1999/2000 was half that of 1993/94, the number of graduates in medicine did not drop so much; and during the same period the proportion of graduates in medicine and education increased from 55.6 per cent to 63.1 per cent.²³ Thus, while there has been a general down trend in the number of students in higher education, the labor-intensive social sectors of medicine and education have increased in importance. Thus, while the absolute number of personnel in education has decreased, the importance of education and medicine has become greater relative to the other sectors that require human resources with higher education.

A medical doctor is a socially respected profession, and physicians have chances to receive gifts from their patients. Thus while doctors have advantages both socially and economically, teachers are less prestigious and thus less motivated. Perhaps this fact is also one of the reasons for the difference in the decrease between the amount of staff in medicine and education.

²² Castro's interview by *El Sol de México*, published on January 30, 1995, and Castro's address at the Federation of University Students (FEU) Congress, March 25, 1995, LANIC, Castro Speech Data Base, <http://lanic.utexas.edu/la/cb/cuba/castro/1995/19950130>.

²³ In 2000/01 and 2001/02 the proportion became a little smaller.

TABLE VI
NUMBER OF PERSONNEL IN MEDICAL SERVICES

Year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	167,266	176,167	184,604	186,524	190,234	197,996	202,832	211,722	214,345	224,651	223,226	223,155	226,866
Physicians	38,690	42,634	46,860	51,045	54,065	56,836	60,129	62,624	63,483	64,863	65,997	66,325	67,079
Family doctors	11,915	15,141	18,503	22,021	25,055	27,169	28,350	28,855	29,924	29,648	30,133	30,726	31,059
Dentists	6,959	7,515	8,057	8,531	8,834	9,148	9,600	9,816	9,873	9,918	9,917	9,877	9,955
Pharmacutists	719	766	857	543	1,035	1,112	1,393	1,474	1,825	1,899	2,080	1,976	2,034
Nurses	69,060	71,388	73,943	72,786	71,707	77,339	76,013	81,333	82,527	87,280	83,170	84,232	81,459
Medical technicians and others	51,838	53,864	54,887	53,619	54,593	53,561	55,697	56,475	56,637	60,691	62,062	60,745	66,339

Sources: Oficina Nacional de Estadísticas, various editions.

B. *Evaluation Based on Real Values Deflated by the Foreign Exchange Rate*

The hypothesis of this section is that social services not requiring human resources or which are based mainly on material and monetary factors should have declined in quality since the 1990s. These services would include long-term social security (old-age, disability, and survivors' pensions) and subsidies to household consumption (ration system).

Table II shows the exchange rate of the U.S. dollar on the black or unofficial markets, and deflates the nominal values of long-term social security and subsidies to household consumption. During the first half of the 1990s, the Cuban peso, the national unconvertible currency, devalued considerably against U.S. dollar. During that time of economic crisis, the worst since the triumph of the revolution of 1959, the national currency lost most of its value, and the economy became dollarized.

Following the revolution the majority of the population came to work for the government or state enterprises, and their main source of income has been salaries paid by the government. Pensioners have received 50 per cent (in a few cases 70 per cent, or 40 per cent) of their salary which is based on the five highest years of salary in the last ten years of his or her working history. Most of pensioners depend on their pensions as their sole source of income, and when severe shortages occurred in the first half of the 1990s, supplies through official state channels became very scarce, and people had to find most of their necessities on the black market and at state-run hard currency shops; and after October 1994, at farmers' markets and other newly opened free markets where prices were much higher than through the subsidized ration system or parallel markets of the 1980s. Table VII shows how great the distortion was between state-controlled official supply channels and informal markets.

Under such conditions, the nominal value of pensions and the budget for the ration system can be deflated. This can be done for old-age pensions because most

TABLE VII
PRICE INDICES

Year	1986	1987	1988	1989	1990	1991	1992
GDP deflator	96.4	96.8	98.2	100.0	103.4	96.1	99.5
Informal market	90.0	100.1	97.6	100.0	102.1	263.4	509.9

Year	1993	1994	1995	1996	1997	1998
GDP deflator	116.9	142.4	157.0	155.1	152.5	158.5
Informal market	1,552.6	1,396.5	739.6	554.7	n.a.	n.a.

Sources: ECLAC, *La economía cubana: reformas estructurales y desempeño en los noventa*, 1996 and 2000 editions.

pensioners depend totally on their pensions after retirement. Of course, medical services are free, the ration system guarantees the minimum supply of food at subsidized prices, and public utility charges are heavily subsidized and extremely low. But when the ration system supplies only the minimum level of food, and people need to buy quite a lot of food through other channels to survive; and when prices on free markets and at hard currency shops are very high, we need to reevaluate how much pensions really support retired people.

Usually the inflation rate is used in this kind of analysis, but it is not publicized in Cuba. Also, at state-run hard currency shops, the government decides prices irrespective of the market mechanism. The value-added tax on most of the merchandise in these shops is supposedly 150 per cent,²⁴ and their prices are high. Therefore, most Cubans buy the majority of their necessities on other markets, such as farmers' markets or the black market where prices change mainly in accordance with fluctuations in the exchange rate with the U.S. dollar.²⁵ Because these free markets are dollarized, one can measure at least the rough trend of real expenditure by deflating at the unofficial dollar rate.

The reason that the author considers it useful to deflate the value of ration budget is that since the collapse of the Soviet Union, most of goods that people obtain by the ration system are now imported. Cuba's overall self-sufficiency rate in food is low. All Cubans receive one piece of bread daily, but wheat is 100 per cent imported. Cuba's staple food is rice, but its self-sufficiency rate in 2000 was 32.5 per cent (IFIC-JICA 2002, p. 102). Therefore, the government imports most of food for the ration system, and has to cut supplies when it suffers from a shortage of foreign reserves. The government can purchase food for the ration system and other state-run food supply systems at very low prices from state enterprises and cooperatives, so the cost for rationed food that is produced domestically is not so high. But the proportion of imported food is much larger than that produced domestically, and deflating by the exchange rate can be used to observe the trend.

Until the collapse of the Soviet Union, the ration system provided all minimum necessities, not only food but also clothing and other necessities such as soap and detergent. Soap and detergent have been provided through the ration system, and in recent years the quantity and frequency have increased. But clothing and shoes have not been provided by ration system since the collapse of the Soviet Union.

²⁴ For example, in 1999 the author found that a Mexican brand vegetable oil was sold in Cuban hard currency shops at double the price of a Mexican supermarket in Guadalajara. Vegetable oil is essential for Cuban cooking, and it is not considered something luxurious. Virtually all Cubans need to buy vegetable oil in dollar shops as the ration system supplies a very small amount of oil.

²⁵ Prices on free markets change according to the supply-demand mechanism, but in the short term, one can observe price changes caused by the fluctuations in the exchange rate. The prices of some products which are supplied year round, such as pork, are directly related to the exchange rate. Regular pork for steaks, with no bone nor lard, has almost always been one dollar and 50 cents per pound in Havana City.

That means everyone has to purchase clothes and shoes on other expensive markets.

Table II shows the deflated values for both long-term social security and subsidies to household consumption. Both recorded sharp declines in the first half of the 1990s, then started to recover in 1995, and improved more in 1996, 2000, and 2001, corresponding to the high economic growth rate of those fiscal years. These data reflect the lack of function in the old-age pension and ration systems.

Castro has admitted to material shortages in the medical and education sectors. In 1995 he said that notebooks and textbooks were in short supply in various schools, and the government had to run searches for these products.²⁶ In his 2002 Moncada speech, he said that in the past medicines had been in short supply but the situation was improving.²⁷ While there has been an obvious decline in quality on the material side, it is not so clear if there has been a decline in the quality of service on the human resource side in labor-intensive social sectors such as education and medical services. The Cuban government provides a highly educated labor force to education and medical services. Table V shows that in 1993/94 21.3 per cent of all graduates from higher education were expected to work starting in medical services. This percentage became even greater in 1999/2000 when it rose to 28.9 per cent. The same table shows that in 1993/94 the percentage of graduates who specialized in education was 34.3 per cent, and in 1999/2000 34.2 per cent. The proportions of graduates in medicine and education declined in 2000/2001, but nevertheless, more than half of all the graduates in higher education are either in medicine or education.

Of course it is also obvious that medical services cannot be carried out well without a sufficient supply of medicines and medical equipment, and students learn better if there are enough textbooks and notebooks for everyone. Nevertheless, according to the government's data, the infant mortality rate kept improving throughout the 1990s (Table VIII), and enrollment rates in primary and secondary education did not worsen greatly (Table IX). The scores of Cuban pupils in arithmetic and Spanish double according to UNESCO's research,²⁸ although the scores for pupils in Havana City were half the level of the other regions in Cuba, which was the same level as the average for Latin American countries.²⁹ In medical services, it

²⁶ Castro's address at Federation of University Students (FEU), on March 26, 1995, LANIC, Castro Speech Data Base, <http://lanic.utexas.edu/la/cb/cuba/castro/1995/19950326>.

²⁷ Castro's speech celebrating the Day of the Attack on the Moncada Barracks, at Ciego de Avila, July 26, 2002.

²⁸ Castro's May Day speech in both 2002 and 2003 referred to the outstanding scores of Cuban pupils in comparison to other Latin American countries. Part of the 2002 speech is cited in his speech on July 26, 2002.

²⁹ Castro's speech on August 13, 2002 (Fidel's seventy-sixth birthday), at a ceremony in Havana City to celebrate the completion of remodeling or constructing of 734 primary and secondary schools in Havana City.

TABLE VIII
INFANT MORTALITY RATE

1989	1990	1991	1992	1993	1994	1995
11.1	10.7	n.a.	n.a.	9.4	9.9	9.4

1996	1997	1998	1999	2000	2001
7.9	7.2	7.1	6.4	7.2	6.2

Source: Banco Central de Cuba, *Informe económico 2001* (Havana, 2002).

TABLE IX
RATE OF ENROLLMENT IN PRIMARY AND SECONDARY EDUCATION

Age group	1994/95			1999/2000		
	6–11	12–14	6–14	6–11	12–14	6–14
All Cuba	99.2	90.7	96.7	99.1	96.3	98.2
Havana City	100.0	96.6	99.0	98.9	97.2	98.3
Provincia de Granma	99.2	90.6	96.6	99.1	95.1	97.8

Source: Oficina Nacional de Estadísticas, 2000 edition.

seems that some measures which were introduced in order to compensate for material shortages have helped achieve good results. For example, herbs and other traditional medicines have been introduced; family doctors pay more visits to prevent diseases, and physicians generally try to solve patients' problems without prescribing medicines; they avoid or shorten the periods of hospitalization (Mesa-Lago 1993, p. 641). Indeed, the number of consultations by physicians increased from 64,761,000 in 1993 to 80,544,000 in 2000 (Cuba, ONE, 2000 edition, p. 283). This number decreased in 2001 (77,933,000) and 2002 (76,190,000) (Cuba, ONE, 2002 edition, p. 291), but still was much greater than that of 1993. Yet it is unclear to what extent compensative measures have really worked because the data on the success rate of advanced operations and other treatments that require a high level of material input are not open to the public.

This section analyzed the relationship between material and human resources in labor-intensive and non-labor-intensive sectors. In the labor-intensive social sectors, such as medicine and education, the government has generally maintained the levels of services. The medical sector has increased the amount of personnel, and it could be concluded that the government has compensated for material shortages by increasing the amount of human resources in medical services. But the situation in education seems to be different because it seems that both the material and human resources in this sector have deteriorated. Although the amount in primary education has been maintained primarily by introducing the new emergency program to

hire students as teachers. Castro himself explained the reason for the drop in the amount of staff in higher education. The state had produced too many professionals, and Castro wanted to reduce their number in order to distribute more labor to sectors that need more workers.

On the other hand, it is clear that the government has not been able to compensate for material shortages in non-labor-intensive social sectors, such as social security (pensions) and the ration system. Pensioners have been severely affected by the dollarized economy, and the government has not been able to provide enough food and other necessities through the ration system because most rations have to be imported, and the government does not have enough foreign reserves for this. It is shown especially clearly in data deflated by U.S. dollars. Therefore, socially vulnerable people who are unable to work much, or are unable to work at all and thus totally dependent on rations and pensions to survive, have been the most seriously affected portion of the population. Although since 2002 the government has given more attention to social assistance, it has yet to have an effect.

V. CONCLUSION

Since the disintegration of the Soviet Union, which triggered the worst economic crisis in the history of the Cuban Revolution, the Castro regime has made every effort to maintain socialism, and has frequently referred to its social accomplishments to retain the people's support for the system.

When the economic crisis was at its severest during 1990–95, Castro's appeal to the people how his regime had realized a just and humane society through its social policy, citing the difference between the pre-revolutionary period and the 1990s, or comparing Cuban social indicators with those of other developed countries and Latin America.

Confronting internal and external pressure for political and economic reforms since the pontiff's visit in 1998, Castro again has used the social accomplishments of the revolution to legitimize his regime. He asserts that its universal health, education, and other social services are better than the U.S. system. Furthermore, he points out that Cuba has sent assistance to the social sectors of developing countries, and has contributed to the world's social development which shows to the people of the world the advantages of Cuban socialism.

However, from an economic standpoint, there could be some controversy in evaluating Cuban social policy. The government has largely continued to increase the budget for the social sectors, and Cuban social indicators have been quite good. But the quality has deteriorated, and non-labor-intensive social services in particular, such as pensions and rationing, have not been able to recover.

As a whole, the article concludes that the government's intention to strengthen the legitimacy of the regime through social policy has been partially realized, since

labor-intensive social sectors have continued to perform by maintaining or increasing the size of staff, although the material shortages have not been completely compensated for by human resources. But non-labor-intensive social sectors have not been able to function as they did in the Soviet period. Thus, the role of social policy to strengthen the regime's legitimacy is working in part, but the general effects have been limited. Cuban social policy has not provided enough materially to guarantee a moderate living standard for the people, and thus has not been performing well enough to convince the people completely of the legitimacy of the regime.

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