

Social protection systems in Latin America and the Caribbean: Cuba

Carmelo Mesa-Lago



This document was prepared by Carmelo Mesa-Lago, consultant with the Social Development Division of the Economic Commission for Latin America and the Caribbean (ECLAC), and is part of a series of studies on “Social Protection Systems in Latin America and the Caribbean”, edited by Simone Cecchini, Social Affairs Officer, and Claudia Robles, consultant with the same Division. Luna Gámez, consultant, provided editorial assistance. Heidi Ullmann provided valuable comments.

The document was produced as part of the activities of the projects “Strengthening social protection” (ROA/149-7) and “Strengthening regional knowledge networks to promote the effective implementation of the United Nations development agenda and to assess progress” (ROA 161-7), financed by the United Nations Development Account.

The views expressed in this document, which has been reproduced without formal editing, are those of the author and do not necessarily reflect the views of the Organization.

Contents

Foreword.....	5
I. Introduction: historical context for social protection policies.....	7
II. Main economic and social indicators	9
A. Economic indicators	10
B. Employment	12
C. Salaries and purchasing power.....	14
1. Salaries.....	14
2. Rationing, prices and purchasing power	15
D. Poverty	16
E. Inequality	17
1. Income	17
2. Taxes.....	17
3. Gender.....	18
4. Ethnic groups.....	19
F. Population ageing.....	20
G. Social spending and its evolution.....	20
III. Basic structure of the system of social protection and promotion	23
A. Contributory social protection (social security pensions).....	23
1. Funding and the cost of pensions	24
2. Measures taken: the 2008 reform	25
B. Non contributory social protection.....	25
1. Measures taken.....	26
C. Education system	27
1. The increase in higher education enrolment rate and its effects	27
2. Measures taken.....	29
D. The health system	30
1. Problems of efficiency and measures taken	32
E. Housing policies	33
1. Measures taken.....	34
F. Employment policies	35
1. Dismissal and compensation plan.....	35
2. Expansion and barriers to non-State employment.....	37
3. Measures taken and effects	38

IV. Evaluation and prospects.....	41
Bibliography	45

Tables

Table 1	Gender differences by workforce, 2010	18
Table 2	Population ageing, 1953-2025	20
Table 3	Current social spending, 2007, 2009, 2010	21
Table 4	Deficit and cost of social security pensions, 1989 and 2008-2010	24
Table 5	Social assistance indicators, 2050-2010	26
Table 6	Gross estimate of the poor who receive social assistance, 2009 and 2010	26
Table 7	University enrolment rate by discipline, 1989-1990, 2007-2008 and 2011-2012	28
Table 8	Health indicators, 1989 and 2005-2010	31
Table 9	Evolution of houses built, 1989 and 2005-2011	33
Table 10	Distribution of the economically active population by sector, 2006-2010	36
Table 11	Current non-state employment growth and goals, 2009-2015	39

Figures

Figure 1	Evolution of GDP and inflation, 1989-2011	10
Figure 2	Gross capital formation and fiscal balance, 1989-2011	11
Figure 3	Foreign trade indicators, 1989-2010	12
Figure 4	Evolution of open, hidden, and total unemployment, 1989-2010	13
Figure 5	Real average salary and pension, 1989-2010	15

Foreword

Simone Cecchini
Claudia Robles

This report is part of a series of national case studies aimed at disseminating knowledge on the current status of social protection systems in Latin American and Caribbean countries, and at discussing their main challenges in terms of realizing of the economic and social rights of the population and achieving key development goals, such as combating poverty and hunger.

Given that, in 2011, 174 million Latin Americans were living in poverty —73 million of which in extreme poverty— and that the region continues being characterized by an extremely unequal income distribution (ECLAC, 2012), the case studies place particular emphasis on the inclusion of the poor and vulnerable population into social protection systems, as well as on the distributional impact of social protection policies.

Social protection has emerged in recent years as a key concept which seeks to integrate a variety of measures for building fairer and more inclusive societies, and guaranteeing a minimum standard of living for all. While social protection can be geared to meeting the specific needs of certain population groups —including people living in poverty or extreme poverty and highly vulnerable groups such as indigenous peoples—, it must be available to all citizens. In particular, social protection is seen a fundamental mechanism for contributing to the full realization of the economic and social rights of the population, which are laid out in a series of national and international legal instruments, such as the United Nations’ 1948 Universal Declaration of Human Rights or the 1966 International Covenant on Economic, Social and Cultural Rights (ICESCR). These normative instruments recognize the rights to social security, labour, the protection of adequate standards of living for individuals and families, as well as the enjoyment of greater physical and mental health and education.

The responsibility of guaranteeing such rights lies primarily with the State, which has to play a leading role in social protection —for it to be seen as a right and not a privilege—, in collaboration with three other major stakeholders: families, the market and social and community organizations. Albeit with some differences due to their history and degree of economic development, many Latin American and Caribbean countries are at now the forefront of developing countries’ efforts to establish these guarantees, by implementing various types of transfers, including conditional cash transfer programmes

and social pensions, and expanding health protection. One of the key challenges that the countries of the region face, however, is integrating the various initiatives within social protection systems capable of coordinating the different programmes and State institutions responsible for designing, financing, implementing, regulating, monitoring and evaluating programmes, with a view to achieving positive impacts on living conditions (Cecchini and Martínez, 2011).

Social protection is central to social policy but is distinctive in terms of the social problems it addresses. Consequently, it does not cover all the areas of social policy, but rather it is one of its components, together with sectoral policies —such as health, education or housing— and social promotion policies —such as training, labour intermediation, promotion of production, financing and technical assistance to micro— and small enterprises. While sectoral policies are concerned with the delivery of social services that aim at enhancing human development, and promotion policies with capacity building for the improvement of people’s autonomous income generation, social protection aims at providing a basic level of economic and social welfare to all members of society. In particular, social protection should ensure a level of welfare sufficient to maintain a minimum quality of life for people’s development; facilitate access to social services; and secure decent work (Cecchini and Martínez, 2011).

Accordingly, the national case studies characterize two major components of social protection systems –non-contributory (traditionally known as “social assistance”, which can include both universal and targeted measures) and contributory social protection (or “social security”). The case studies also discuss employment policies as well as social sectors such as education, health and housing, as their comprehension is needed to understand the challenges for people’s access to those sectors in each country.

Furthermore, the case studies include a brief overview of socio-economic and development trends, with a particular focus on poverty and inequality. At this regard, we wish to note that the statistics presented in the case studies —be they on poverty, inequality, employment or social expenditure— do not necessarily correspond to official data validated by the Economic Commission for Latin America and the Caribbean (ECLAC).

I. Introduction: historical context for social protection policies¹

Between 1902 —when the Cuban Republic was founded— and 1958, the State implemented free public education and health systems. The education system was complemented with private schools and the health system with a network of cooperatives, mutual aid associations and private clinics, all of them being of better quality than the public system, whose access and quality were lower in rural areas than in the capital and other cities. The Constitution of 1940, as well as the labour and social security legislation, were among the most advanced in Latin America. However, in contrast with the rest of the region (except Uruguay), Cuba did not establish a national health insurance, even though this void was alleviated in part in urban areas by the unusual development of cooperatives, mutual aid associations and clinics. In 1957, open unemployment averaged 16% plus 14% of under employment (30% in total); this figure decreased during the sugar harvest that provided 25% of total employment, whereas it doubled during the rest of the year. Unemployment insurance was not created either, as it was usual in the rest of the region. A social security pension system was gradually implemented, covering around 62% of the economically active population (EAP), but it was segmented into 54 separated schemes, with wide and unfair differences between them. There were no nationally integrated social assistance programmes or State-funded or subsidised housing. As in the rest of the region, there were no poverty or income inequality statistics, but the scarce information available indicated that both were high. Nevertheless, in 1958 social indicators ranked Cuba between the first and fifth positions in the region, albeit with important inequalities, especially between urban and rural areas. For example, the national illiteracy rate was 23%, yet in the cities it shrank to 11.6% and in rural areas jumped to 41.7% (this section is based on Mesa-Lago and Pérez-López, 2005; Mesa-Lago, 2009, 2010a).

In 1959-1989, the revolution achieved very important progress in social protection. The State gave priority and provided substantial fiscal resources in order to: (1) promote full employment; (2) reduce income inequalities through assets expropriation and the reduction of wage differences in employment, which was essentially public; (3) universalize free education and health services, significantly reducing rural-urban gaps in social services' access and quality; (4) launch an illiteracy campaign, graduate thousands of teachers and doctors, and build schools and health facilities; (5) speed up women's incorporation into the labour force through education policies and

¹ This document is partially based on Mesa-Lago (2012a).

day-care centres; (6) expand the coverage and the amount of social security pensions, funded by State enterprises and the Treasury, without contributions from employees; (7) create a national and municipal social assistance programme; and (8) convert the great majority of the population into owners of the houses they were renting. The government expropriated all private education and health facilities, as well as health cooperatives; furthermore it incorporated, unified and standardized the 54 pension schemes. Housing construction and maintenance —basically the responsibility of the State— was not sufficient and the housing shortage increased. Social development was indirectly supported by aid from the Union of Soviet Socialist Republics (USSR), tantamount to US\$ 65,000 million in 1960-1990 (excluding aid from other socialist countries), out of which 60.5% was in grants and price subsidies, and 39.5% in loans that virtually were never been paid. Even if that aid was not directed to the social sector, it freed up internal resources to fund government policies in this field. In 1989, Cuba ranked at the top among Latin American countries in the great majority of social indicators. The disappearance of the USSR caused a harsh economic crisis in 1990-1994, provoking a 35% decrease in GDP, industrial and agriculture paralysis because of the lack of fuel, inputs and spare parts, and the drastic decrease of exports and imports (including supplies for social services). Elements that contributed to the crisis were the “Rectification Process” (*Proceso de Rectificación de Errores*)² and the inability of the development model to solve structural problems, promote sustainable economic growth, expand exports, and substitute imports. Furthermore, social policy had its faults: full employment was achieved through the creation of unnecessary State employment which affected labour productivity; excessive egalitarianism and cyclical emphasis on “moral” incentives (instead of economic motivation) led to a decrease in labour effort and to high absenteeism; and the high cost of social programmes was made worse by population ageing. Despite government efforts to protect social programmes, almost all social indicators worsened, and in 1993 Cuba declined in the regional social ranking.

Modest market-oriented reforms in 1993-1996 achieved a partial economic recuperation since 1995, but in 2001-2003 the country experimented a decline, mainly due to a virtual reform paralysis and the “Battle of Ideas” (*Batalla de Ideas*). This programme, —assisted by Venezuelan economic aid and focused on the ideological struggle— included various policies aimed at reverting the reforms implemented in the 1990s; emphasizing centralism; creating a single account in foreign currency and CUC at the Central Bank of Cuba (*Banco Central de Cuba* -BCC); stressing again egalitarianism and labour mobilization; reducing self-employment; trying to universalize higher education; continuing to unnecessary expand State employment, and increasing social spending thus making it unsustainable.

Beginning in 2004, GDP rapidly grew and peaked in 2006, due to the economic aid of the Bolivarian Republic of Venezuela, the expansion of social services, and a change in the international methodology to calculate GDP.³ The 2007-2009 global crisis and the problems that the Cuban development model was dragging on led to another decline of GDP. The 1995-2006 recovery —even with fluctuations— helped to improve social indicators, the majority of which exceeded the pre-crisis levels of 1989, even though poverty and inequality increased. Since 2007, another regression of these indicators happened because of the global crisis and the necessary “structural reforms” of President Raúl Castro —in order to correct the socio-economic problems of the country—, approved by the VI Congress of Cuba’s Communist Party (*Partido Comunista de Cuba* -PCC) in 2011 and extended in 2012. This document focuses on the 2007-2012 period, describing the reforms by social sector and evaluating their effects.

² It was an idealist cycle (1986-1990) that eliminated minor market-oriented reforms, emphasized egalitarianism, moral incentives and voluntarism; also a food self-sufficiency plan was launched but failed, provoking a recession.

³ Cuba added to GDP an estimate of the value of free social services, overestimating it. As social services were expanded, such overestimation also grew (Pérez-López and Mesa-Lago, 2009).

II. Main economic and social indicators

An evaluation of the Cuban socio-economic performance must contend with a scarcity of statistics, especially economic ones, in comparison with the rest of the countries of the region. The availability of social statistics is somewhat greater than that of economic statistics, but still limited. The last ECLAC (2011a) annual report supplies figures for Cuba in 10 out of 24 of its comparable statistical tables.⁴ There are no figures on banking or international reserves; the last financial report of the Central Bank of Cuba (BCC) was published in 2008, with data as of 2007. The country has two currencies (monetary duality): the national peso (CUP) and the convertible peso (CUC), both of them used in different sectors of the economy; the CUC is sold for 24 CUP and it is bought for 25 CUP at the official exchange agencies (CADECA). The CUC is overvalued; since 2011 its exchange rate is at a par with the dollar, but with a discount.

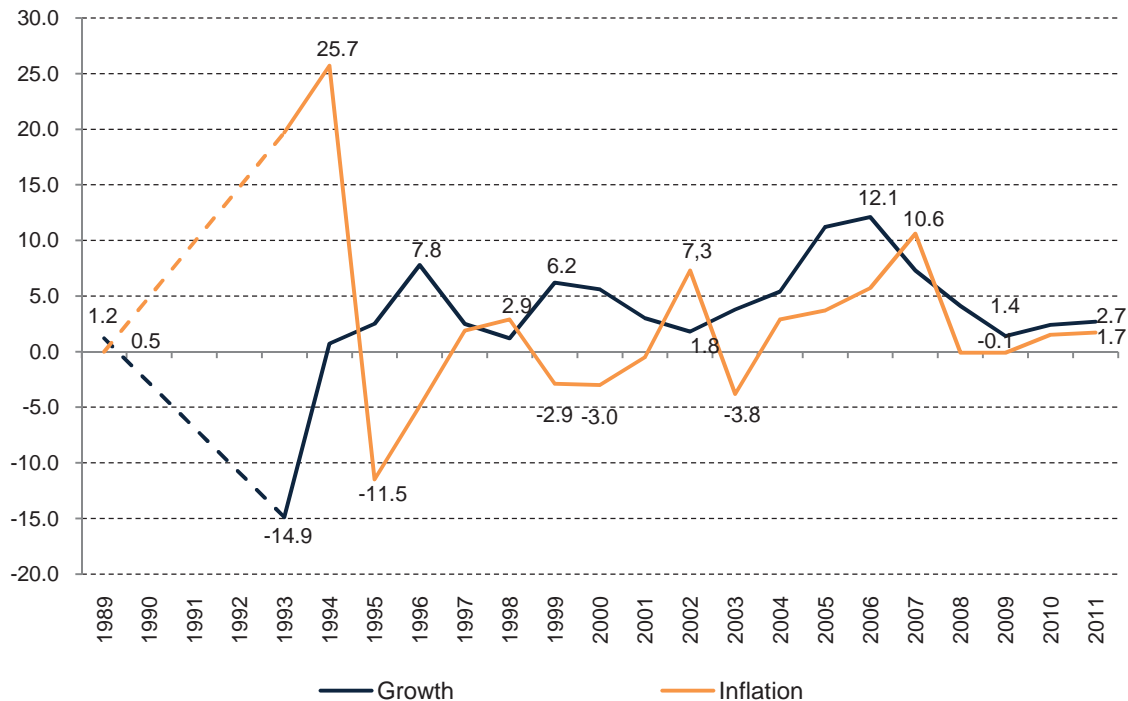
The absolute and relative availability of social statistics is higher, especially on education, health, and social spending. Cuba does not appear in the following sections of ECLAC (2010b) annual social report: poverty, Gini, income, EAP by economic branch and occupation by sector, nor in the social protection chapter (ECLAC, 2011c).⁵ There are no statistics on coverage or access to social services (except in education). Open unemployment was underestimated due to the large surplus in State employment, which started to be reduced in 2010. There is no available information on the family basket, purchasing power, salary by gender, and education drop-out rates; there are very few data on State-sector and non-State sector' income, and the official figure estimating the housing shortage is debatable. In order to compensate such information deficit, this document resorts to speeches and statements by Cuban leaders, government official reports, and a wide coverage of Cuban newspapers and magazines (and the world press only as a supplement).

⁴ Nine out of ten tables show the 2010 figure instead of 2011 data; in five of them it is warned that data is not comparable with previous series or with the series of other countries; the majority of ECLAC' s figures exclude Cuba or have 2007 as the most recent figure.

⁵ A recent study on social protection in the region includes 18 comparative tables and figures, and Cuba appears in only three of them (Cecchini and Martínez, 2012).

A. Economic indicators

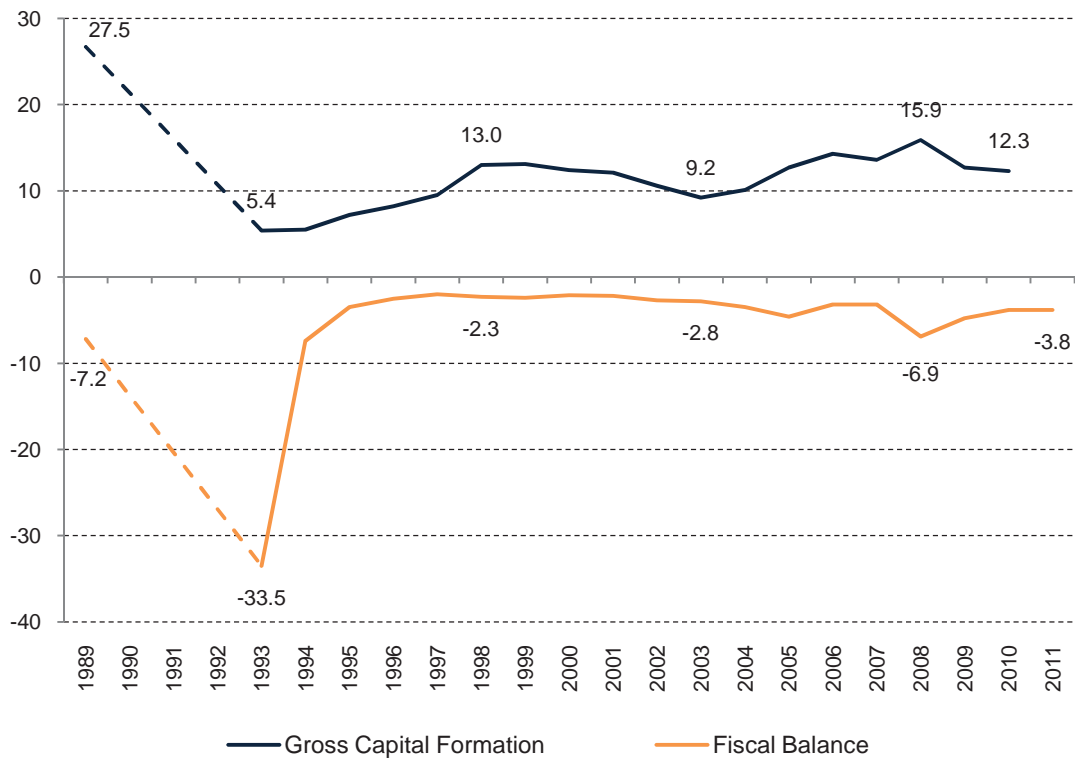
FIGURE 1
EVOLUTION OF GDP AND INFLATION, 1989-2011
(Percentages)



Source: Carmelo Mesa-Lago and Jorge Pérez-López, *Cuba's Aborted Reform*, Gainesville, University Press of Florida, 2005; Oficina Nacional de Estadísticas (ONE), *Anuario Estadístico de Cuba, 2010, 2005, 2000*, Havana, 2011, 2006, 2001; Economic Commission for Latin America and the Caribbean (ECLAC), *Preliminary Overview of the Economies of Latin America and the Caribbean 2011*, Santiago, Chile, 2011, and *Cuba: Evolución económica durante 2002*, México D.F., 2003; Lina Pedraza, "Presentación de la ley de presupuesto para el Estado", *Bohemia*, 2011.

Cuba changed the international methodology to calculate GDP in 2003 and there is no continuous series at constant prices for 1989-2010. Figure 1 shows part of the decrease of GDP because of the crisis in the decade of the 1990s (there is not information for 1990-1992), the partial recuperation and the peak in 2006 with 12% growth, and the subsequent 1.4% fall due to the impact of the global crisis (for more information on that crisis, see Mesa-Lago and Vidal, 2010). Despite a slight recovery, in 2011 Cuba had the second lowest economic growth rate in the region (ECLAC, 2011a). Inflation is controlled because virtually all prices are set by the government and it excludes transactions in CUC; food-basket data used to calculate the consumer price index (CPI) are not published. Inflation reached its height in 1993, with 25.7%, but it turned into an 11.5% deflation in 1995; later it increased to 7.3% in 2002 and to 10.6% in 2007 (when the global crisis started). In 2011, the rate fell to 1.7%, a quarter of the regional average rate of 6.9% (ECLAC, 2011a). Gross capital formation decreased from a peak of 25.6% of GDP in 1989 to 5.4% in 1993. Even if subsequently it recovered, in 2010 that rate was only 12.3%, much lower than the regional average rate (22.9%). The fiscal deficit grew to 33.5% in 1993 and declined to 3.8% in 2011, still twice the regional average rate (ECLAC, 2011a; see figure 2).

FIGURE 2
GROSS CAPITAL FORMATION AND FISCAL BALANCE, 1989-2011
(Percentages of GDP)

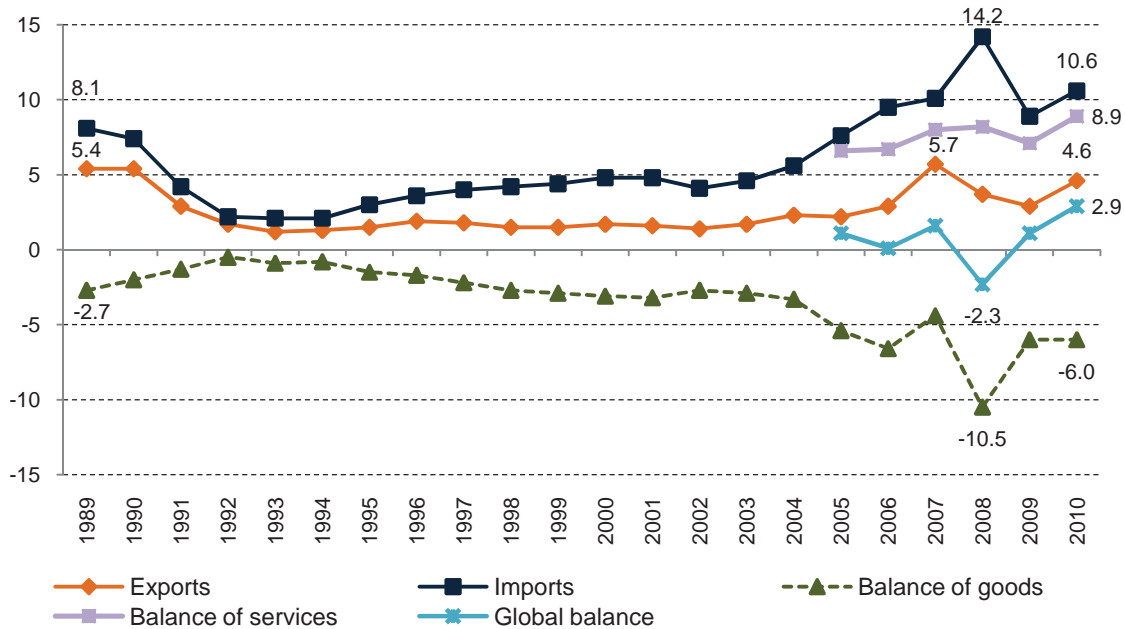


Source: C. Mesa-Lago and Jorge Pérez-López, *Cuba's Aborted Reform*, Gainesville, University Press of Florida, 2005; Oficina Nacional de Estadísticas (ONE), *Anuario Estadístico de Cuba, 2010, 2005, 2000*, Havana, 2011, 2006, 2001; Lina Pedraza, "Presentación de la ley de presupuesto para el Estado", *Bohemia*, 2011.

Foreign trade figures are expressed in "pesos", without clarifying whether it is the national or the convertible peso, but it is interpreted that the exchange rate is on par with the dollar. The deficit in the trade balance of goods increased from US\$ 2,700 million to US\$ 10,500 million in 1989-2008—in the last year of that period the country suffered a severe liquidity crisis. The deficit decreased to US\$ 6,000 million in 2009-2010 because of the reduction of imports (see figure 3). In 2010, the value of exports was 25% lower than in 1989, and the value of imports 31% higher (ONE, 2011a). Since 2005, Cuba generates a surplus in the balance of services (due to the purchase of professional services by the Bolivarian Republic of Venezuela, and tourism) that reached US\$ 8,900 million in 2010 and exceeded the deficit in the balance of goods, with a global positive result of US\$ 2,900 million. Economic dependence on the Bolivarian Republic of Venezuela was estimated at around 21-25% of GDP in 2010 (Mesa-Lago, 2012a). The complete series of the balance of payments was suspended in 2001.⁶ There is no information on cumulative direct foreign investment (stock) and the last annual figure (flow) is from 2006. "Active" external debt (renegotiated) is published and non-renegotiated debt is excluded; the most recent active debt figure is for 2008; it is estimated that the total debt jumped from US\$ 6,165 million to US\$ 21,025 million in 1989-2011 (Mesa-Lago, 2012a).

⁶ Partial data are available for 2004-2008 (capital and global account balances are missing), but not for 2009-2010; the most recent series by ECLAC (2011b) is for 2004-2007, with the same exclusions.

FIGURE 3
FOREIGN TRADE INDICATORS, 1989-2010
(Billion of US\$)



Source: Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba, 2010, 2005, 2000*, Havana, 2011, 2006, 2001; Carmelo Mesa-Lago, *Cuba en la era de Raúl Castro: Reformas económico-sociales y sus efectos*, Madrid, Editorial Colibrí, 2012.

The United States embargo against Cuba (“the blockade”) has been repeatedly repudiated by the United Nations in an almost unanimous way, and causes serious damage.⁷ However, now it is not the obstacle that it used to be, because Cuba has commercial relations and access to financial resources from many countries around the world, including food imports from the United States. As Raúl Castro has said repeatedly, the key problem is the nation’s economic policy.

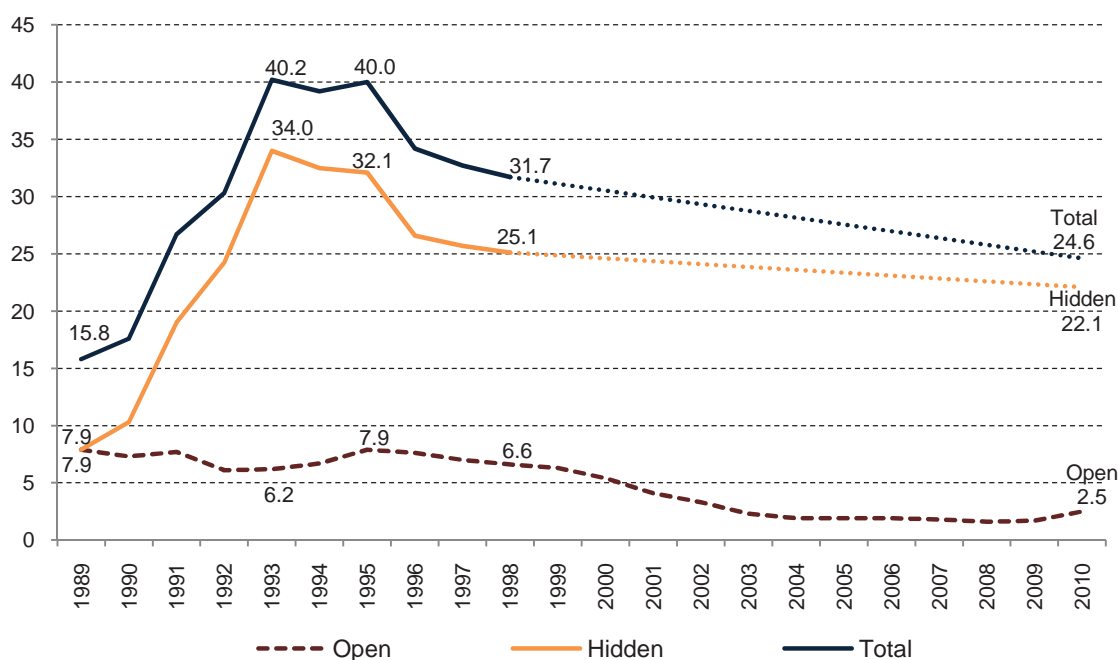
B. Employment

The revolution achieved full employment, but the reduction of open unemployment was obtained mainly by creating unnecessary State employment. In 1992-1993, the worst years of the domestic crisis, the rate of open unemployment decreased (see figure 4). According to Vidal and Pérez Villanueva (2010), the adjustment was unavoidable at that moment, but instead of reducing State employment and fiscal spending to match the fall of fiscal income and non-profitable State enterprises, the government kept wage expenditures at the same level and increased subsidies to such enterprises. Consequently, the fiscal deficit reached 34% of GDP, and it was funded with a currency issue that multiplied prices nine times. Inflated salaries lost all connection with productivity and thus was born the vicious circle of low salaries and low productivity, which is very difficult to break.

⁷ Some of the problems are: it blocks imports from third countries if they have some Cuban inputs; it sanctions international banks if they accept dollar deposits from the Cuban government without notifying the United States; it imposes higher costs on goods imported from the United States through other countries, as well as a bigger distance and transport costs.

ECLAC (2000) estimated that “equivalent unemployment” (underutilization of the work force or hidden unemployment) climbed from 7.9% to 34% in 1989-1993, then decreased to 25% in 1998 —when the ECLAC published the last series—. The open unemployment rate grew from 6.2% to 7.9% in 1993-1995 and it declined to 6.6% in 1998. Combining both figures, total unemployment increased from 15.8% to 40.2% in 1989-1993 and it later shrank to 31.7% in 1998, but it remained higher than the rate of approximately 30% that existed before the revolution. In the context of the post-1995 recovery, 435.000 jobs were created, and “available” workers (surplus of workers because of the closing of workplaces) were subsidized: “the labour force potentially underemployed could achieve 800.000 people of productive age, excluding commerce [and] has generated unaffordable expenditures for the social budget” (Togores, 1999).

FIGURE 4
EVOLUTION OF OPEN, HIDDEN, AND TOTAL UNEMPLOYMENT, 1989-2010^a
(Percentages of the economically active population)



Source: Carmelo Mesa-Lago, “El desempleo en Cuba: de oculto a visible”, *Espacio Laical*, vol. 6, No. 4, 2010; Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba 2010*, Havana, 2011.

^a There is no data available for hidden and total unemployment between 1999 and 2009; the 2010 figures were estimated by the author.

In 2002, under the Battle of Ideas, it was predicted that unemployment would disappear and that all young people would have a guaranteed job. Universal access to higher education was promoted —putting off the incorporation of young people into the labour market— and, in order to absorb the unemployed population, “study as employment” programmes, social worker training for youth, and occupations in urban agriculture were created. Open unemployment decreased from 4.1% in 2001 to 1.7% in 2009 (see figure 4), when Cuba was still suffering from the global crisis.

This was achieved through another rise in hidden unemployment and an unusual statistical calculation. The open unemployment rate counted as employed: dismissed workers in training programmes, students receiving payments, part-time farmers cultivating for self-supply in their backyards or urban gardens, among others. Furthermore, many unemployed did not request jobs in municipal employment offices because they did not want to work in agriculture (Mesa-Lago, 2005).

The newspaper of the Communist Youth stated that the official unemployment figures were “not real.”⁸ In 2008 it was estimated that there were 300,000 “people disconnected from the labour market” (6% of the EAP, versus an official rate of 1.6%); 20% of the population of working age was not working in Havana, 45% of them were searching for a job although they did not accept State jobs due to low salaries; 17% of graduates in technical schools in 2007 rejected the jobs they were offered (ONE, 2008d; *Granma*, 3-9-2008, 3-21-2008).

According to Pérez Villanueva (2008), the full employment policy often provoked underemployment and low productivity; new jobs were concentrated in the tertiary sector, especially in the social programmes of the Battle of Ideas, at the same time that occupation in productive sectors such as agriculture or industry was reduced. Garcia and others (2011) estimated that employment in the service sector grew from 35% to 43% of the total in 2003-2009, while it decreased in the other sectors, making this policy unsustainable. They calculated that between 30% and 50% of the EAP were unnecessary. As part of the “structural reforms”, the government is planning to dismiss more than one third of the EAP in the State sector, who are expected to find jobs in the expanding non-State sector (see section III.F).

C. Salaries and purchasing power

1. Salaries

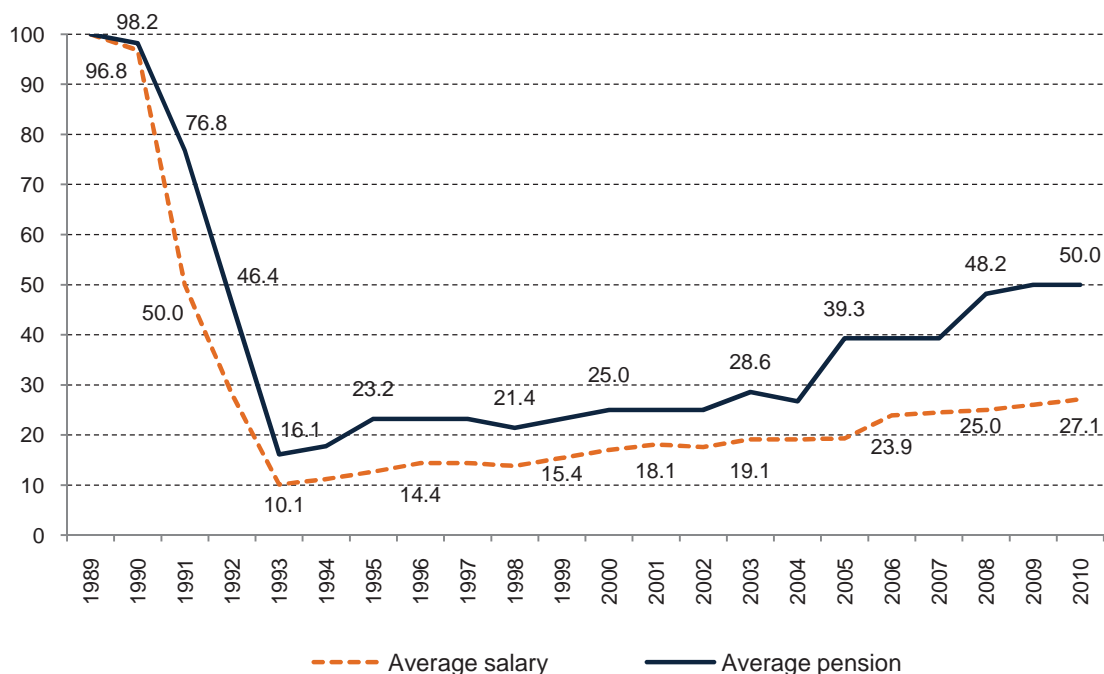
Until 1989, the average salary was low but it fulfilled basic needs, combining price subsidies to rationed goods with low rates for public utilities, free education and health, and housing ownership for the majority of the population. However, because of the crisis, the real salary (adjusted to inflation) in 1993 fell to 10% of its 1989 level (see figure 5). Since 2005, the nominal salary rose progressively but in 2010 the real salary was still 27% of the 1989 level (Mesa-Lago, 2012a).

President Castro (2007) said “the salary is clearly insufficient to satisfy needs” and “it has virtually stopped playing its role of assuring the socialist principle that each should contribute according to their capacity and receive according to their work”, and pleaded for a better adjustment of salaries in accordance with prices. He added: “we all would like to go fast, but we have to act with realism”. If salaries increase very fast —without previous raises in production— inflation will shoot up affecting purchasing power (Castro, 2008). The Minister of Economy in that moment, Rodriguez (2007), explained that despite the meagre salaries, they had nominally grown faster than labour productivity, a negative trend that should be reverted. The relation between the average salary and labour productivity remained negative until 2009; in 2010 the decline stopped and in 2011 productivity grew by 2.8%, slightly more than the nominal salary, which rose by 2.7% (Yzquierdo, 2011).

In 2007-2009 various measures were implemented in order to improve salaries: (i) the legalization of paying one part of the salary in CUC or in foreign currency to employees in foreign or mixed enterprises; (ii) permission to have more than one job, which was forbidden before, in order to allow workers to earn extra money through various jobs, after fulfilling their main work contract; (iii) the elimination of the upper limit to the salaries of production workers, in order to promote “the more you work, the more you earn” policy; and (iv) the creation of payments for results (piecework) to relate the amount of the salary with the labour effort (Resolution 9/2008; Decree-Law 268/2009). These programmes were obstructed by the bureaucracy and, in mid-2012, there was no information on their progress and effects.

⁸ The Granma Province alleged “having achieved full employment, [then] why can we see a lot of people in the street who are not working?” A survey showed that the unemployment rate was 18 times higher than the official one, which “increased the unemployment rate” to 9% and, “if Granma was one of the examples of low unemployment, how would other provinces whose official data are higher be doing?” (*Juventud Rebelde*, 11-27-2007).

FIGURE 5
REAL AVERAGE SALARY AND PENSION, 1989-2010
 (1989=100)



Source: Carmelo Mesa-Lago, Cuba en la era de Raúl Castro: Reformas económico-sociales y sus efectos, Madrid, Editorial Colibrí, 2012.

2. Rationing, prices and purchasing power

The rationing system established in 1961 persists today because of the egalitarian desire to guarantee a basic minimum for everyone and due to the poor production of consumption goods. However, quotas have been progressively reduced and some goods that were taken out of rationing are sold at higher prices in the parallel market.⁹ In 2005-2008 beef, tubers and lard were taken out of the rationing system; in 2009 potatoes, peas, chocolate powder, and cigarettes were excluded, and the quota of salt was halved and that of black beans was reduced to one-fifth; in 2010 soap, toothpaste, and washing powder were eliminated, and the sugar quota was cut from five to four pounds per month. In 2012, out of a total of 60 products with available information, 17% were offered through rationing (*Libreta de Racionamiento*) (covering ten days per month) and the remaining 83% through free agricultural markets and TDRs (*Tiendas de Recuperación de Divisas*) (Mesa-Lago, 2012a).

According to an official estimate, in 2010 the subsidies through rationing prices cost US\$ 900 million, and in 2011 the State subsidised 88% of the rationed goods prices (*La Vanguardia*, 12-30-2010; *IPS*, 11-1-2011). People who have non-labour incomes such as remittances benefit from rationing, an expensive and regressive policy. Raúl Castro (2010a) said: “I am sure that several problems that we confront today have their origin in this distribution policy, which constitutes an evident expression of egalitarianism benefiting, in the same way, those who work and those who don’t as well as those who do not need the rationing subsidy; furthermore such policy generates bartering

⁹ There are six markets with different prices: rationing; parallel (sale of the same products by the State at higher prices); free agricultural market (at market prices); State agricultural market (with price ceilings); TDR (in foreign currency, the highest prices); and black illegal market (market prices).

and resale practices in the black market.” In the future, subsidies “will not be for products but for people who really need them”, through social assistance (see section III.B).

The Consumer Price Index (CPI) grew at an annual average rate of 2.2% in 2005-2011, but it excludes transactions in CUC, and available data show that the increase was greater. Prices of goods marketed in CUP rose 8.6 times in 1989-2006; in the last year electricity rates increased between 50% and 333% (Espinosa, 2007). According to ECLAC (2011b), out of 19 products sold in the agriculture markets in 2006-2010, 13 of them rose in price and only six decreased; the author estimated that the unweighted average increase of these products for that period was 3.6%. The prices of all the products sold in the agriculture markets grew by 19.8% in 2011 over 2010 (ONE, 2012c).¹⁰ In 2007-2010 the price of gasoline augmented substantially and residential electricity rates jumped up to 284%, Havana and inter-regional bus rates doubled and quadrupled, respectively (air fares jumped by 300%); a taxi charging in foreign currency, receives two CUC for a short journey, 10% of the average salary (Resolución 32/2007; *Reuters*, 9-8-2008; *Granma*, 9-27-2010; Información de Cuba, 2-24-2012).

The average number of working days that a worker needs to buy one pound of food was estimated as follows: powdered milk 14 days; butter 5.3; pork 2.6; chicken 2; cheese 1.6; potato 1.1; black beans 0.7; rice 0.4; and a dozen eggs 0.8 (González Corzo and Pérez, 2009). Based on the average monthly salary of 448 CUP, purchasing the following goods in the TRD takes: 11 months of work to buy a microwave, 13 for a gas stove, 13-19 for a television and 27 for a small fridge. For a gallon of gasoline it takes one third of the average monthly salary (Mesa-Lago, 2012a).

Despite low and declining salaries, cuts in rationing and price increases, part of the population manages to cover basic needs because they have other sources of income: foreign remittances received by 65% of the population; payments in foreign currency to employees of enterprises with foreign investment; legal or illegal income of the self employed; lunches provided in work and school canteens (although the former have been eliminated and the latter reduced); and theft of State goods for sale or personal use. In addition, most people have their own housing, and education and health continue to be free.

D. Poverty

There are no official statistics on poverty incidence, but a survey estimated that in Havana the poverty rate expanded from 6% to 20% in 1988-2002, and characterized it as an insufficient of monetary income that limits the consumption of food and other essential goods and services, as well as housing deprivation or deterioration thereof. According to a survey of poverty perceptions in the capital, 23% of the population classified themselves as poor and 23% as “almost poor”, for a total of 46% of the population. Respondents identified five main problems: 76% low salaries; 70% insufficient food and deteriorating housing, clothing and shoes, and 70% lack of or difficulty in transportation (Ferriol, 2004; Añé, 2007). Poverty is higher among retirees, female heads of household and single mothers, Afro-Cubans, migrants from the less-developed eastern provinces, residents of slums, and those who lack access to foreign currency (Espina, 2008, 2010). In 2007, a survey of 5,439 people in 1,157 households in Santiago de Cuba and Guantanamo provinces measured rural poverty: the monthly family salary was 192 CUP (15% of the average national family salary); 4.5% of households received remittances (versus 65% of national average); and 26% were homeowners (versus 85% of national average) (Sánchez, 2007).

Although recent poverty figures have not been published, González-Corzo and Pérez (2009) argue that poverty will expand because of the elimination of the rationing system, layoffs, and other structural reforms. Salaries will increase at a slower rate than liberalized prices and this will reduce purchasing power, which will disproportionately affect lower income households, particularly those that do not receive remittances. The most vulnerable to layoffs will be those who have no qualifications,

¹⁰ Blanca Pampín, consultant of the National Association of Cuban Economists, reported that basic food prices increased 47% in 2011 (*IPS*, 11-1-2011).

savings, market knowledge or ability to face the risks involved in being self-employed, and the elderly who have not yet reached retirement age. These groups will not find employment or will fail in private enterprise, and then they will fall into poverty, unless there is retraining and a social safety net.

E. Inequality

The revolution reduced the marked inequalities that previously existed in income, access to education and health services, as well as racial and rural-urban inequalities. Egalitarianism was promoted in idealist cycles (anti-market), during which the salary gap was reduced to a minimum, while it was attenuated in pragmatic cycles (with modest pro-market reforms). In 1989 Cuba was probably the most egalitarian country in Latin America, but this policy reduced individual incentives, effort and labour productivity, and increased absenteeism, all of which affected production and the provision of services. Raúl Castro (2008) urged Cubans to prepare for a “realistic” socialism, one that is economically viable and removes excessive subsidies to promote equality: “Socialism means social justice... equality of rights and opportunities, not of income... Equality is not egalitarianism”. This section examines various types of inequalities that persist and have been exacerbated by the reforms: income, taxes, gender, and ethnicity.

1. Income

There are several sources of income: State-sector salaries, pensions and social assistance, partial payments in foreign currency, non-State-sector income from cooperatives and private farmers, self-employed income, speculators in the black market, and remittances from abroad. The National Statistics Office (Oficina Nacional de Estadísticas -ONE) does not publish figures for each sector, only the average salary and average pension, but this information allows for some calculations. In 2010, 52.6% of the population’s total monetary income came from salaries, 12.5% from private-farmers earnings, 4.5% from the non-agricultural private sector (the self-employed, etc.), 3.5% from cooperatives revenues, and 26.9% from other income. The latter is an unspecified high percentage that likely includes remittances from abroad. The monthly average pension in 2010 was 245 CUP, 54% of the State average salary. The salary scale was very narrow: the highest pay (550 CUP in mining) and the lowest pay (366 CUP in commerce, restaurants, and hotels) for a ratio of 1:1.5, but they excluded private activities with very high income. For example, the average income of private farmers was 1.56 times higher than the State average salary, whereas the average income of the self-employed was 2.28 times the State average salary (based on ONE, 2011a, 2011c). García and others (2011) estimate that the monthly average income in 1993-2009, at 1997 prices, almost stagnated in the State sector, while it increased in the cooperative and private sectors, reaching 2.5 times the State average salary. In 2004, 15% of the highest income group received income in foreign currency, another 21% earned tips in foreign currency, and 39% received remittances from abroad (De la Fuente, 2011). According to Pérez Villanueva, 13% of bank accounts in 2011 concentrated 90% of the deposits and some of them had between 160,000 and 200,000 CUP (US\$ 6,667-8,333), which is a fortune in Cuba (AP, 11-10-2011).

Cuba does not publish statistics on income distribution. The Gini coefficient estimated by foreign academics, rose by 63% in 1989-1999 (from 0.250 to 0.407), and only based on CUP, excluding CUC and remittances; if these were included, the Gini coefficient would be greater (Espina, 2008). There are no recent figures, but there is consensus that inequality has worsened and that it will increase due to the structural reforms.

2. Taxes

The tax system resulting from the 1994 tax reform is regressive, although there has been a recent improvement. In 2006, 63.8% of the total fiscal income came from indirect taxes (20-25% on the sale of food and manufactured goods), that have regressive effects, and 36.2% was generated from direct taxes (income and profits), that are progressive. In 2010, the proportion of indirect taxes fell to 50.8% and direct taxes increased to 49.2%, a positive change; still only 2.3% of collected tax revenue was from personal income and 12.6% from profits (based on ONE, 2011a).

3. Gender

Women have advanced in access to education, contraceptives, and abortion, as well as to State day-care centres for their children. However, in 2010 women lagged behind men in workforce indicators: women represented half of total population but only 38% of the total workforce, in the State sector this gap was reduced but it was still 43%. In the non-State sector the gap was much greater because women only made up 14% of the workforce. In employment by sector, women participated between 17% and 31% in most industries, but between 42% to 52% in the service sector. Their unemployment rate was slightly higher than that of men. Although working women had more education than men (53% of the total in higher education), they held 34% of leadership positions versus 65% of men (see table 1). Women were also a small minority in the National Assembly and State Council (Espina, 2010).

There are no figures on women's average salary compared to men's, but it should be lower due to their concentration in State-sector jobs that pay less than the private sector, in the service sector where salaries are lower than in other occupations (ONE, 2011a), and in administrative occupations instead of managerial jobs. Another reason is that women exit the workforce in order to care for children, the elderly, and the sick. With the layoff policy in the State sector, female unemployment will grow, and if they do not manage to insert themselves into the emerging private sector, the salary gender gap will expand. Espina (2010) examines the re-emergence of the gender gap and notes that women are more affected by poverty than men, particularly single mothers, female heads of household, and women who did not complete their education.

TABLE 1
GENDER DIFFERENCES BY WORKFORCE, 2010
(Percentage distribution, except unemployment rate)

Categories	Men	Women
Total population	50.1	49.9
Total employment rate	61.9	38.1
State sector	57.2	42.8
Non State sector	86.0	14.0
Cooperatives	83.5	16.5
Self employed	86.9	13.1
Employment by sectors:		
Agriculture	82.6	17.4
Mining	80.1	19.9
Manufactured products	69.3	30.7
Electricity, gas and water	77.3	22.6
Construction	82.7	17.3
Transport	76.2	23.8
Trade, restaurants, and hotels	57.8	42.2
Finance and insurance	49.2	50.8
Community, social, and personal services	48.0	52.0
Education level:		
Secondary	57.7	42.3
Higher	41.2	52.8
Type of job:		
Leadership	65.6	34.4
Unemployment rate (% of EAP)	2.4	2.7

Source: Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba 2010*, Havana, 2011.

4. Ethnic groups

The revolution benefited the Afro-Cuban population because of State support and financing for universal and free education and health, full employment, housing ownership, and access to beaches, hotels and clubs —that were previously segregated. At the beginning of the 1960's the government declared that discrimination had been eliminated, assuming that the remaining traces would decline over time and discouraged an open discussion on the issue. However, socioeconomic differences persisted between Afro-Cubans and whites: 36% of the working population versus 64%; 3.3% versus 2.9% unemployment; 4-5 percentage points below average versus 4-5 above average in leadership positions, office employment, and professional-scientist-intellectual positions; under-representation in college completion and self-employment, and worse housing. These inequalities are reproduced across generations (Espina, 2010). Espina Prieto and Rodríguez (2006), and De la Fuente (2011) have shown that the reforms implemented since the 1990s have expanded racial inequality. Remittances from abroad mainly benefit white households: in 2000, 44% of white households received them, but only 23% of Afro-Cuban households did. Even though Afro-Cubans have similar education levels as whites (except at the university level), they are under-represented in tourism jobs, especially in managerial and technical positions, as well as in mixed enterprises with foreign capital (fewer than 2%). Both sectors pay higher wages (and some in foreign currency) than other jobs. Between 81% and 84% of Afro-Cubans depend on State employment and they are mainly occupied in jobs which pay the lowest salaries; in contrast, only one third of them are self-employed, a group that earns much more.¹¹ In 2000, 34% of blacks (excluding mulattos) were in the lowest income group (94% of whom were employed by the State) vis-à-vis 27% of whites, while only 6% compared with 11% was in the highest income bracket. The income gap increases as State employment contracts and private employment expands. In 2005, 58% of whites in three provinces lived in neighbourhoods with precarious housing, in contrast with 69% of mulattos and 96% of blacks; only 9% of latter group lived in “residential” (high level) neighbourhoods.

There has been some progress: the organization of Afro-Cubans in ethnic associations, the recognition of inequalities by the Union of Writers and Artists of Cuba,; (*Unión de Escritores y Artistas de Cuba*); a higher degree of representation in the Central Committee of the PCC (from 28% to 31%), in the National Assembly (35%) and among the delegates in the First National Congress of the PCC (37.5%), as well as an official opening to discuss the issue; and a growing number of Cuban intellectuals —including Afro-Cubans— who study discrimination (De la Fuente, 2011; *Granma*, 1-29-2012).

Regarding ethnic and gender discrimination, Raúl Castro (2010b) warned that 35 years ago, the First Congress of the PCC approved an agreement “whose subsequent fulfilment ... we did not enforce as we should have; [now] we cannot allow setbacks.” At the Sixth Congress of the PCC in 2011, Castro called for a greater representation of Afro-Cubans, women, and young people in managerial and leadership positions: “not having resolved this problem in more than half a century is a real shame” (Castro, 2011b). The First National Congress of the PCC stipulated the outlawing of discrimination based on race, sex, religion, and other forms, as well as promoting the membership of these groups and of young people (PCC, 2012). The participation of women in the Central Committee increased from 13.3% to 41.7%, and in the PCC Conference it was 43% (Castro 2011a; *Granma*, 1-29-2012).

¹¹ In 2011, surveys among the self-employed found that 67% were white and 33% were Afro-Cuban; 78% were men and 22% were women (*Granma*, 5-21-2011, 12-22-2011; *Juventud Rebelde*, 7-29-2011; Orozco and Hansing, 2011).

F. Population ageing

Cuba is at a very advanced stage of the demographic transition: it has the oldest population in Latin America after Uruguay. Between 1953 and 2010, the birth rate fell from 2.5% to 1.1%, the emigration rate increased from -0.06% to -0.34%, and the population growth rate decreased from 2% to -0.02%; the population declined in absolute terms. The proportion of the population in the 0-14 age group peaked at 36.9% in 1970, then it decreased to 17.3% in 2010 and it is projected to be 14.3% in 2025; the working-age population (15-59) peaked at 71.6% in 2008, declined to 64.0% in 2010 and it is projected to drop to 59.6% in 2025, while the population 60 and above grew steadily from 6.9% in 1953 to 17.8% in 2010 and it is projected to reach 26% in 2025 (see table 2). The projections for these three groups for 2035 are: the young 13.9%, the working-age population 52.2% and the elderly 33.9% (*Granma Internacional*, 9-35-2011).

Since 1978, the Cuban fertility rate has been the lowest in the continent for various reasons: urbanization (75% of total population in 2010); the incorporation of women into the labour market; early knowledge about reproduction and access to contraceptives (78% of married women between 15-40 use contraception, the second highest rate in the region); universal and free access to abortion (the highest rate in Latin America); and difficult conditions, such as inadequate wages, housing and food shortages, because of which women choose to have fewer children (71% of women in unions do not want to have children) (ONE, 2011a; UNDP, 2011).

TABLE 2
POPULATION AGEING, 1953-2025
(Percentages)

Indicators	1953	1970	1981	2002	2006	2008	2010	2025
Birth rate	2.50	2.20	1.40	1.26	0.99	1.09	1.14	
Emigration rate		-0.06	-0.15	-0.13	-0.31	-0.33	-0.34	
Population growth rate	2.11	2.16	1.14	0.28	-0.04	-0.01	-0.02	-0.03
Population groups by age :	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0-14 years old	36.2	36.9	30.3	20.1	18.4	11.4	17.3	14.3
15-59 years old	56.9	54.0	58.8	64.9	65.7	71.6	64.9	59.6
60 and more years old	6.9	9.1	10.9	15.0	15.9	17.0	17.8	26.1

Source: Carmelo Mesa-Lago, "Estructura demográfica y envejecimiento poblacional: implicaciones sociales y económicas para el sistema de seguridad social en Cuba", *Espacio Laical*, vol. 6, No. 3, 2010; Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba, 2010*, Havana, 2011.

In 2025, the Cuban population will be the oldest in the region, and the working age segment, representing 59.6% of the population, will have to finance the remaining 40.4% of the population, who are not productive. Financing the elderly population is much more expensive than the young, because health care becomes more expensive due to a greater incidence of terminal illness, while pensions are paid for increasingly longer periods of time as a result of expanding life expectancy. Cuba faces a similar ageing process than European countries, but they have more resources and productivity to assist the elderly (ECLAC, 2009b).

G. Social spending and its evolution

Social spending includes education, health care, pensions, social assistance, and housing; there is no data on price subsidies to rationed goods (it was estimated at US\$900 million in 2010) or on unemployment compensation. Social spending grew steadily through the revolution; during the crisis

of the 1990's the budget protected spending on education and health, even though tax revenues declined. According to Vidal (2008), that cost was paid by the majority of the population, because the fiscal deficit and inflation reduced real wages and pensions.¹² Espina (2008) pointed out several problems: inefficient spending allocation, financial unsustainability, excessive administrative centralization, and free universal social services regardless of personal income. Raúl Castro (2009) warned: “Social expenditures must be consistent with our real possibilities and [we have to] eliminate those that are not essential; expenditures on health and education are unsustainable and need to be cut.” The structural reforms that Castro implemented in 2007 have reduced social spending and sought to improve efficiency (see section III).

Social spending as a percentage of the State budget peaked at 55.3% in 2007 and it decreased to 53.1% in 2010; as a percentage of GDP it reached 36.4% in 2009 and it fell to 34% in 2010 (see table 3). In 2008-2009 (before the cutbacks started), Cuban social spending as a percentage of GDP was the highest in the region and in dollars per capita it was the second highest, but as a percentage of total public expenditure it was the tenth. Cuba was one of three countries in the region that had to reduce non-social public spending in order to increase social spending (ECLAC, 2010b).

TABLE 3
CURRENT SOCIAL SPENDING, 2007, 2009, 2010
(Percentage of State budget and of GDP)

Current expenses	Percentage of State budget			Percentage of GDP		
	2007	2009	2010	2007	2009	2010
Education	20.2	19.5	20.1	12.1	13.2	12.9
Health	16.5	16.8	15.2	9.9	11.3	9.7
Social security pensions	10.6	11.4	11.9	6.4	7.6	7.6
Housing	4.6	4.1	4.2	2.8	2.8	2.7
Social assistance	3.4	2.2	1.7	2.0	1.5	1.1
Total	55.3	54.0	53.1	33.2	36.4	34.0

Source: Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba 2010*, Havana, 2011.

The distribution of spending by sector and its evolution varies: in 2010 education received 20% of the total budget and 13% of GDP, both stagnant; health 15% and 10%, respectively, both in decline since 2009; social security pensions 12% and 7.6%, with an upward trend but spending as a percentage of GDP stagnated in 2010; housing 4.2% and 2.7%, with a slight decrease; and social assistance 1.7% and 1.1% showing a clear fall (see table 3). In view of population ageing, the sectors that are most likely to expand are pensions and health, and as a consequence of the structural reforms, social assistance should grow.

¹² The Minister of Finance stated: “In order to maintain high levels of social justice, the country needs an increase of goods and services, with better efficiency and quality, including social services... To achieve this, measures should be implemented to eliminate waste and increase control” (Barreiro, 2007).

III. Basic structure of the system of social protection and promotion

The system of social protection and promotion comprises: (1) social security limited to contributory social insurance pensions (see section III.A); (2) social assistance for vulnerable groups that lack social insurance coverage (see section III.B) and universal price subsidies to rationed goods (there are no conditional cash transfer programmes); (3) an education system that is public, universal, free and fully financed by the Treasury (see section III.C); (4) a health system that is also public, universal, free and fully financed by the State (see section III.D), there is no national health insurance; (5) a housing policy concentrated in the State building dwellings and the population constructing them with their own resources (see section III.E); and (6) there is no unemployment insurance, the government is promoting non-State employment and it pays a compensation to unnecessary employees who are laid off (see section III.F). Each section summarizes progress since 1989, explains current coverage and access, financing means and status, the challenges that are faced and the measures taken to cope with them.

A. Contributory social protection (social security pensions)

The only contributory social protection programme is the social security pension scheme managed by the National Social Security Institute (*Instituto Nacional de Seguridad Social -INASS*), which is State run. At the end of 2008, Cuba had the most generous pension system in the region: (a) mandatory coverage of the EAP for those with a State salary (83% of the total), plus cooperative members (5%), and voluntary coverage of private farmers and the self-employed —so that Cuba likely had the highest coverage in Latin America—; (b) retirement age was among the three lowest (55 years for women and 60 for men); (c) the second highest life expectancy and the longest average retirement period in the region; (d) on average, five fewer years of service to be eligible to receive a pension; (e) replacement rates on the minimum and maximum base salary that are higher than the regional average; (f) the vast majority of workers did not contribute and enterprises paid a relatively low payroll contribution; and (g) a supplementary social protection network: free health care, price subsidies to rationed goods and for public utilities (Mesa-Lago, 2010a).

The armed forces and internal security personnel have separate pension programmes that are more generous and costly than the general system. A man entering the military at age 17, can retire after 25 years of service, at 42, with a pension equivalent to his last year's salary (versus an average of the last five years in the general system). In 1995, the cost of this programme amounted to the total

deficit accumulated by the general system; a salary contribution of 118% would have been needed to fund it; currently the State finances the entire programme (Mesa-Lago and Pérez-López, 2005).

Cuba does not annually adjust pensions to the CPI or salaries, as 12 countries in the region do (Mesa-Lago, 2012b). The average nominal pension rose four times in 1989-2010, especially with the increases in 2005-2008, but in real terms, in 2010 it was still half of what its level in 1989 (see table 5) and it was insufficient to meet basic needs. According to a survey conducted in Havana in 2000, 78% of the elderly judged their incomes to be insufficient to cover their living expenses, and the average pension had to be supplemented with other sources: 76% of the total income came from pensions, 26% from family support, 20% from work, and 15% from foreign remittances (ONE, 2008c). The supplementary social protection network deteriorated due to a decline in health service access and quality as well as a reduction in subsidized rationed goods, and a raise in the rates for public utilities.

1. Funding and the cost of pensions

Population ageing has adverse effects on the long-term financial sustainability of pensions. As the population ages and the pension programme matures, the ratio of economically active workers per one pensioner declines. This requires either a gradual increase in the contribution or in the retirement age, cutting pension benefits, or a combination of all three measures.

Revenue from contributions, primarily paid by enterprises, are insufficient to finance pensions and, the resulting deficit subsidized by the State expanded from 38% to 42% in 1989-2009, although it diminished to 39% in 2010 (relative to GDP it rose from 2.2% to 3%). Because of generous entitlement conditions and maturity of the pension system, population ageing, and insufficient financing, the cost of pensions jumped by 65% in that period, from 5.8% to 7.6% of GDP.¹³ To fully finance the expenditure, the current contribution should have increased from 12% to 20% in 2010; however, in order to achieve long-term actuarial equilibrium, the contribution should have been four times higher. Unadjusted pensions to the CPI help to reduce the cost but do not resolve the financial imbalance (Mesa-Lago, 2010c). The ratio of economically active workers to one pensioner fell from 3.6 to 3.1 in 1989-2010, and it will decline to 1.5 in 2025 (see table 4). In 2015 the EAP will be smaller than the retired population.

TABLE 4
DEFICIT AND COST OF SOCIAL SECURITY PENSIONS, 1989 AND 2008-2010
(Million of CUP and percentages)

Indicators	1989	2008	2009	2010	2010/1989 (percentage)
Income (million of CUP)	676	2 580	2 774	2 974	348
Expenditure (million of CUP)	1 094	4 342	4 747	4 885	444
Deficit (million of CUP)	418	1 762	1 973	1 911	720
Deficit financed by the State (Percentage of expenditure)	38.2	40.5	41.5	39.1	50
Deficit (Percentage of GDP)	2.2	2.9	3.2	3.0	130
Cost of pensions (Percentage of GDP)	5.8	7.1	7.6	7.6	65
Current contribution (Percentage of payroll)	10.0	10.0	12.0	12.0	20
Contribution to eliminate the deficit (Percentage of payroll) ^a	16.2	20.2	20.5	19.7	46
Ratio of workers to one pensioner	3.6	3.1	3.1	3.1	-14

Source: State Committee of Statistics (CEE) *Anuario estadístico de Cuba 1989*, Havana, 1991; Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba 2010*, Havana, 2011.

^aThis contribution would have financially balanced the system in 2010; in order to put it in long-term actuarial balance, a contribution between 29% and 86% would be required.

¹³ According to ECLAC (2010b), spending on social security and social assistance in Cuba was the fourth highest in the region in 2008-2009, but the two components are not disaggregated and the relative cost of social assistance is probably low.

2. Measures taken: the 2008 reform

To address the problems that have been discussed- in particular the impact of ageing on pensions costs- Law 24 was promulgated in 2008, which: (i) rose the retirement age by five years for both sexes (to 60 for women and 65 for men) gradually over a period of seven years (those under 60/65 who retire during this period will receive a lower pension); (ii) established that the pension calculation be based on the average monthly salary for the last five years and a replacement rate of 60% (instead of 50%) be applied to that average, and expanded the years of service required from 25 to 30; (iii) increased the amount of the pension for each year that retirement is postponed; (iv) rose nominal pensions: 22% for the minimum and between 10% and 20% for the remainder (the higher the amount of the pension the lower the increase); (v) allowed retirees to work without losing their right to a pension; and (vi) fixed the contribution to 5% of salaries but gradually, depending on increases in salaries. Decree-Laws 278 and 284/2011, stipulated mandatory coverage of the self-employed (previously it was voluntary), placing Cuba among the six countries in the region where it is mandated.¹⁴ A group of cooperative workers continues to be without coverage, they only receive a pension if they hand over their land to the State when they retire (Decree-Law 125/1991).

The reform should modestly contain costs and modestly raise income. Table 4 showed that the deficit financed by the State decreased from 41.5% to 39.1% in 2009-2010 and that the cost of pensions stagnated at 7.6% of GDP. In 2011, the State contribution declined while income from workers' contributions increased, especially from the self-employed. In the first quarter of that year the number of retirees was 41,025 less than if the 2008 reform had not been carried out, whereas the raise in the retirement age postponed from 2015 to 2020, the year in which pensioners would outnumber the EAP (*Granma Internacional*, 5-5-2011; *Juventud Rebelde*, 7-29-2011; *Granma*, 7-30-2011). Nevertheless, preliminary figures for the 2011 budget generate doubts: revenue dropped 6% relative to 2010, while expenditures rose by 7%, so that the deficit financed by the State expanded from 39.1% to 46.6%, higher than 41.2% in 2009 (based on Pedraza, 2011; figure 4). Furthermore, the number of pensioners, which had stagnated in 2008-2009, increased by 0.9% in 2010 (ONE, 2011a). In any case, the reform is insufficient to ensure the financial sustainability of the pension system in the long run. For example, the 5% contribution from workers is imposed gradually according to increases in salary, but even if we assume that in 2010 the entire EAP contributed 5%, then the total contribution would have been 17%, instead of the 20.4% that is needed to financially balance the system in 2010, but not in the long term.

B. Non contributory social protection

Social assistance provides cash benefits to vulnerable population groups: the elderly, disabled people, single mothers, dependant parents of deceased workers, pensioners with low income, and workers who are not eligible to receive pensions. Social assistance pension coverage places Cuba among the ten countries of the region that offer this benefit. There are also nursing homes and home care. In 2010, expenditures were distributed as follows: 62% in direct cash assistance, 28% in homes for the elderly and the disabled, and 10% in others (Martínez, 2011). The poor who rent State housing are exempt from paying 10% of their income, and in 2012 a subsidy was provided to buy building materials. Universal subsidies for rationed food prices are gradually being eliminated, while those granted to public utilities such as water, electricity, gas, and transportation have been reduced and their rates have increased. There are neither nutritional supplements nor conditional cash transfer programmes.

Social assistance indicators reached their peaks in 2005-2008, but declined in 2009-2010 (see table 5). Between their peaks and 2010: the number of beneficiaries fell by 61% and as a percentage of the total population it fell from 5.3% to 2.1%; the elderly who receive assistance

¹⁴ In 2011 the requirement to join and contribute to social security was eliminated for self-employed women over the age of 60 and self-employed men over the age of 65.

decreased by 51%, the disabled by 57%, mothers with disabled children by 19% and home care by 67%; and budget expenditures allocated to social assistance fell by 47%, as a percentage of the budget by 60% and as a percentage of GDP by 52%.

TABLE 5
SOCIAL ASSISTANCE INDICATORS, 2050-2010

Indicators	2005	2006	2007	2008	2009	2010	2010/peak ^a (percentage)
Beneficiaries	535 000	600 000	595 000	582 000	426 000	235 000	-61
Percentage of total population	4.8	5.3	5.3	5.2	3.8	2.1	-60
Groups of beneficiaries:							
Elderly	117 000	143 000	145 000	145 000	118 000	71 000	-51
Disabled	85 000	97 000	99 000	110 000	71 000	47 000	-57
Mothers with disabled children	6 700	6 700	7 800	7 600	7 600	6 300	-19
Home care	9 800	13 500	16 100	17 300	13 100	5 700	-67
Expenditures (million of CUP)	996	1 188	1 190	1 297	924	688	-47
Percentage of State budget	4.1	4.2	3.4	3.0	2.2	1.7	-60
Percentage of GDP	2.3	2.2	2.0	2.1	1.5	1.1	-52

Source: Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba 2010*, Havana, 2011.

^aPercentage change in 2010 regarding to the year (2005-2008) when the zenith was achieved, it is marked in bold.

A rough estimate of the population living in poverty covered by social assistance nationally and in Havana suggests that in 2010 approximately 11% of the poor in both areas received assistance, a decrease from 2009 when these figures were 19% and 15.4%, respectively (see table 6). The incidence of poverty dates from 2002, but no later figures are available, and it has been argued that poverty should have increased since then. In order to design appropriate social assistance programmes, a technical method for targeting that can reliably determine the number of poor, their characteristics, and the cost over GDP is needed.

TABLE 6
GROSS ESTIMATE OF THE POOR WHO RECEIVE SOCIAL ASSISTANCE, 2009 AND 2010

Estimations	2009		2010	
	Cuba	Havana	Cuba	Havana
Total population	11 242 628	2 141 993	11 241 161	2 135 498
20% living in poverty (on the basis of 2002)	2 248 525	428 399	2 248 232	427 100
Social assistance beneficiaries	426 390	66 007	235 482	46 981
Percentage of people living in poverty who are covered	19.0	15.4	10.5	11.0

Source: Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba 2010*, Havana, 2011, and 2002 poverty estimates cited in the text.

1. Measures taken

The Sixth Congress stipulated that “social assistance be received by those who really need it” and proposed to “eliminate benefits that can be undertaken by individuals or families” (PCC, 2011). In 2010, 237 million CUP in benefits were cut “based on the real needs and possibilities” (Martínez, 2011). Even though these purges could remove the non-needy, statistics that have been analyzed indicate deep cuts at a time when vulnerable groups have expanded.

The former Minister of Economy Marino Murillo (2010) announced the elimination of price subsidies to building materials sold to the population to build their homes, due to their illegal sale with lucrative profits by speculators (the subsidized price of a cement block was 10% of the official price). This measure, which is fiscally correct, would hurt the poor and low income populations who cannot afford these materials as their price is ten times higher. This was reason that prompted the granting of a direct subsidy to those in need rather than subsidizing the materials, with the aim of facilitating home repairs and the construction of modest homes. In 2012 the programme began with a budget of 806 million CUP (Pedraza, 2011). There are 122 items with reduced prices; subsidies fluctuate between 5,000 CUP for a minor repair, 10,000 for a complex one and a maximum of 80,000 to build a home. In conjunction with municipal labour boards, provincial councils evaluate the cases and select beneficiaries according to an established priority order (people affected by cyclones or critical cases, among others). The parties sign a contract and the beneficiaries receive a check for the authorized amount, with which they buy materials at subsidized prices in special stores (*Gaceta Oficial*, 1-5-2012; *Granma*, 1-14-2012). There has yet to be an evaluation on whether targeting is effective to prevent the subsidy from going to the non-poor.¹⁵

C. Education system

In 1959-1989 there was notable progress in education: the literacy campaign reduced the illiteracy rate from 23% to 12% in 1953-1981; access to primary education became universal; secondary school enrolment expanded (from 20% to 88%) as it did in higher education (from 3% to 23%); and urban-rural disparities were reduced (Mesa-Lago, 2010a). The educational system is fully integrated and public; the government finances and manages it, as well as hires and pays all of its personnel; services are free and access is one of the highest in the region. Private education is prohibited but, recently, the Catholic Church opened modest training and graduate programmes in economics and business administration.

In 2008-2009, social spending on education was the highest in Latin America (ECLAC, 2011c). The illiteracy rate was 2.7% in 2010, the second lowest in the region (ECLAC, 2011d). The net enrolment rate in primary education stood at 99.3% in 2005-2010, in secondary education it increased from 85.6% to 90.2%, and in higher education it decreased from 65.4% to 52.1%. In 2009 Cuba was fifth in gross primary level enrolment, fourth in secondary, and first in higher education (ONE, 2011a; ECLAC, 2010d, 2011c; UNESCO, 2011). Due to the fall in the birth rate and population ageing, there was a decline in primary enrolment starting in the 2000-2001 academic year, the 2004-2005 year in secondary education, and the 2007-2008 year in higher education, after the big jump in 2005-2007 (ONE, 2008a, 2011a). It is projected that by 2025, primary education enrolment will decrease by 20-69%, secondary by 59-76%, and higher by 34-65% (ONE, 2008b).

1. The increase in higher education enrolment rate and its effects

As part of the Battle of Ideas, an exceptional jump occurred in higher education enrolment: in the 2003-2004 academic year, the number of universities quadrupled, from 17 national universities to 732 municipals ones (later increased to 3,150), 44,000 professors were appointed (an increase of 83%) and 300,000 graduates were projected. Half of the new students were distance learners in socio-cultural studies or social work, and pensioners studying in popular universities. Mesa-Lago (2005) discussed the rapid increase in municipal universities, the qualifications of new professors and students, and the possibility of employing such a high number of graduates.

¹⁵ The Catholic Church plays an increasing role in social assistance, providing daily meals, administering nursing homes, the largest leprosy centre, and programmes for children with Down's syndrome, and AIDS. Cuban Caritas, with external funding of US\$ 1.8 million per year, has helped 304,398 people affected by hurricanes and it also provides food and other services to 35,000 people (Sánchez, 2012).

University enrolment increased 207% between 1989-1990 and 2007-2008, but it was concentrated in the humanities and social sciences (27% of the total in 2007-2008 and growing 3,343% in that period), medicine (25.2% and 403%), economics (12.5% and 396%) and physical education (9.1% and 381%); on the other hand pedagogy had an enrolment of 16.8%, but it only rose 8% (see table 7). These five disciplines accounted for 92% of the total enrolment and grew by 256%. The increase in medicine is explained by the lucrative exportation of Cuban medical professionals to the Bolivarian Republic of Venezuela since 2002. In contrast, enrolment in agronomy grew by 38% and by 43% for the technical sciences, whereas the natural sciences and math dropped by 39%.¹⁶ The large investment in the five disciplines mentioned (especially in the humanities, physical education, and social sciences) compared with the deficit in disciplines crucial for development (such as the natural sciences, math, technical sciences, and agronomy), was an inefficient allocation of scarce resources. In addition, the number of workers in 2008-2009 that were enrolled in technical-vocational disciplines was 65% lower than in 1988-1989, especially in energy, transportation, and construction (García and others, 2011).

TABLE 7
UNIVERSITY ENROLMENT RATE BY DISCIPLINE, 1989-1990, 2007-2008 AND 2011-2012

Disciplines ^a	1989-90	2007-08	2011-12	Percentage of total		2007-08/1989-90 (percentage)	2011-12/2007-08 (percentage)
				2007-08	2011-12		
Humanities and social sciences	5 095	205 992	77 243	27.7	22.0	3 943	-62
Medicine	37 305	187 690	118 914	25.2	33.9	403	-37
Pedagogy	115 529	125 095	43 700	16.8	12.4	8	-65
Economy	18 789	93 162	36 121	12.5	10.3	396	-61
Physical education	14 052	67 578	23 792	9.1	6.8	381	-65
Technical sciences	29 819	42 741	36 100	5.8	10.3	43	-16
Agronomy	11 606	16 034	9 378	2.2	2.6	38	-42
Natural sciences and math	6 399	3 922	4 500	0.5	1.3	-39	15
Art and others	2 863	1 765	1 368	0.2	0.4	-38	-22
Total	242 366	743 979	351 116	100.0	100.0	207	-53

Source: Comité Estatal de Estadísticas(CEE), Anuario estadístico de Cuba 1989, Havana, 1991; Oficina Nacional de Estadísticas (ONE), Anuario estadístico de Cuba 2010, Havana, 2011, and Educación resumen del curso escolar 2010/2011 e inicio del curso 2011/2012, Havana, 2012.

^a Ordered highest to lowest in enrolment rates in 2007-2008.

Although there were 125,095 people enrolled in pedagogy in 2007-2008, a deficit of 8,192 teachers was reported in Havana, because many of them had left the profession due to low salaries (ONE, 2007; *EFE*, 7-8-2007). To overcome this deficit a programme of “emergent” primary teachers was created: 4,500 young people were brought in from rural areas and were trained in eight months (*Juventud Rebelde*, 6-5-2007; *Granma*, 10-24-2007). The Minister of Higher Education Miguel Díaz-Canel reported that a high percentage of students from municipal universities who took exams in 2009 endured serious spelling deficiencies (*Granma*, 7-22-2009). The surplus of graduates in social work were difficult to employ, so they were unsuccessfully assigned to other tasks. Instead of the 300,000 graduates that were initially anticipated in 2007-2008, 71,475 graduated in 2007-2008 (ONE, 2009a). In 1959-2008, 31,000 agronomists graduated but only 20% of them worked in agriculture and there was a deficit of 3,000 professionals in this area, because many of them rejected agricultural jobs due

¹⁶ The ratio between enrolled students and graduates varied: only 1.4 in humanities and social sciences (the majority of them did not graduate), but 9.7 in technical studies and 14.9 in natural sciences and math(based on ONE, 2007).

to low salaries, contributing to a fall in production. Díaz-Canel warned that there were some disciplines with very low enrolment that are necessary for the scientific development of the country (*EFE*, 7-17-2008). He urged quick action because the deficit of graduates with technical expertise could not be reversed in the short term (*Trabajadores*, 11-10-2008; *Bohemia*, 12-12-2008).

Cuba enjoys one of the best trained labour forces in the region: in 2010, 54% of all workers had middle-high technical studies and 16% had a university degree (ONE, 2011a). But part of this labour-force did not work in their area of expertise due to low salaries and instead they became involved in more lucrative jobs where they do not use their training (waiters in hotels and tourist restaurants or taxi drivers, among other occupations) or they emigrate, which wastes the investment made in their education. The Battle of Ideas attempt to enrol as many people as possible in the university was not successful, because it sacrificed quality for quantity, graduates lack employment with adequate salaries, and part of the investment was lost.

2. Measures taken

In 2008, the flaws in the education system and the emergent teachers' programme were acknowledged. Retired teachers were urged to return to schools, paying them a salary in addition to a pension; 9,900 of them joined in 2010 (Law-Decree 260/2008; *EFE*, 9-17-2010). In 2009, teacher salaries were raised; in 2011-2012 an improvement in primary and secondary teachers' training was announced, and they were encouraged to study for master's and doctoral degrees (*Granma Internacional*, 2-12-2011). Several Battle of Ideas' programmes were closed: Student Work Brigades (*Brigadas Estudiantiles del Trabajo*), University Work Brigades (*Brigadas Universitarias de Trabajo Social*) and Pioneer Action Forces (*Fuerzas de Acción Pionera*), as well as non-paid voluntary work.

These measures have improved the balance between academic disciplines. Total enrolment fell by 52% between 2007-2008 and 2011-2012, but with important differences between disciplines (see table 7): -61% to -65% in the humanities and social sciences, pedagogy, economics and physical education; -42% in agronomy; -37% in medicine; and -22% in art; but -16% in technical sciences and an increase of 15% in the natural sciences and math (the only discipline that experienced a raise). The percent distribution of enrolment in 2011-2012 presented certain anomalies: 40% was in medicine, whose enrolment rate rose to first place (due to the revenue generated by physicians abroad); 22% in humanities and social sciences (decreasing but still very high); 10.3% in economics and technical sciences (in second place and growing); 7% in physical education; and only 2.6% in agronomy and 1.3% in natural sciences and math (the last two disciplines combined were proportionally half that of physical education).

In 2011, Díaz-Canel reported that even these results were not satisfactory because high school students were ill-prepared and they entered the university without the required knowledge; only 30% of those who started the university graduated and 70% of the budget was wasted (*Juventud Rebelde*, 7-29-2011). A deficit of 110,000 technicians, mathematicians, natural scientists, and agronomists was reported; more than 75% of agricultural entities still did not have agricultural engineers last year, while about half of the cooperatives lacked technicians and only 20% had veterinarians (*Bohemia*, 1-29-2011).

In 2008-2010, the education budget was cut by 4%; in 2010-2011 municipal universities were reduced by 96% (from 3,150 to 119), rural pre-university courses decreased by 77%, and rural secondary education by 45%; work-farm secondary education for adults closed, as well as social work schools, rural secondary schools (the cost per student was three times higher than in urban areas), and programmes for pensioners in popular universities (ONE, 2011a). Also entry quotas were set for university disciplines whereas university entrance exams are stricter, taking away points for spelling mistakes (*Granma*, 7-22-2009). In university entrance exams in 2011, 54% of applicants passed in math, an improvement over 2010 when only 41% passed (Mesa-Lago 2012a).

D. The health system

A national public health system was established in 1961, virtually integrated,¹⁷ with complete fiscal financing and universal access and free care, which considerably reduced the gap in access, facilities, personnel, and quality of services between urban and rural areas. In 1984, the family doctor programme was created, offering better local access to primary health care and more personalized attention. These policies improved health indicators that were among the best in Latin America in 1989. The number of doctors increased from 9.2 to 33 per 10,000 inhabitants and hospital beds grew from 4.2 to 5.3 per 1,000 inhabitants; infant mortality decreased from 33.4 to 11.1 per 1,000 live births, and maternal mortality from 125.3 to 26.1 per 100,000 live births; and the majority of infectious diseases was eradicated (Mesa-Lago, 2010a).

The crisis of the 1990s affected health indicators, except for infant mortality which fell from 11.1 to 4.5 in 1989-2010 (see table 8), the lowest rate in the hemisphere after Canada. As the infant mortality rate decreases, it becomes increasingly expensive to achieve further reductions, therefore monthly pregnancy checks are done to determine whether the foetus is healthy and if congenital abnormalities are detected, an abortion is recommended, which helps to reduce the infant mortality rate (Hirschfeld, 2007). The induced abortion rate (the highest in the region) grew in 2005-2010: from 19.1 to 22.3 per 1,000 women 12-49 years of age; from 51.5 to 55.7 per 100,000 deliveries, and from 33.8 to 35.6 per 100 pregnant women (MINSAP, 2011). In contrast, the maternal mortality rate climbed from 29 to 49.4 in 1989-2006, it fell to 31.1 in 2007, and grew to 43.1 in 2010, 47% higher than the rate in 1989.¹⁸ And yet, in 2008, the maternal mortality rate was the fourth lowest in the region (ECLAC, 2010b). Most of the deaths that occur during childbirth or within the subsequent 48 hours, are caused by uterine haemorrhage or post-partum infection (Garrett, 2010). Complications with or following abortions also increase the maternal mortality rate, which partially explains the discrepancy between the rising maternal mortality rate and the decreasing infant mortality rate.

Life expectancy expanded from 74.5 years in 1989 to 79.1 in 2005-2010, the third highest in Latin America (ECLAC, 2011c). The overall mortality rate grew by 26% in 1989-2010, from 6.4 to 8.1 per 1,000 inhabitants, due to population ageing (see table 2). Cuba's mortality rate is the second highest in the region (ECLAC, 2011d) and it will continue to grow. This phenomenon, together with the rise in life expectancy, pushed up health care costs due to the treatment of complex terminal diseases. As in developed countries, the two leading causes of death in 2010 were 31% cardiovascular diseases and 29% malignant tumours; in 2006-2010 deaths from these two causes augmented 12-17% (MINSAP, 2011; ONE, 2011a).

The ratio of physicians per 10,000 inhabitants continued to grow during the crisis, it doubled from 33 to 68 physicians per 10,000 inhabitants in 1990-2010, and it is the highest rate in the region (ECLAC, 2010b). From 18,000 to 37,000 doctors (24-49% of 76,506 doctors in 2010, according to some estimates) work abroad, primarily in the Bolivarian Republic of Venezuela, in addition to an unknown number in Cuba who are involved in other types of jobs because of the low State salary —a hospital director earns 550-700 CUP per month, US\$ 23-29 (Rodríguez, 2007; *Granma*, 11-3-2008; Garrett, 2010). Excluding physicians who work abroad, the proportion of physicians per 10,000 population decreased in 2010, although the estimate varies between 35 and 52 (if we also exclude physicians who changed their job, this ratio is even lower), and yet it is still the highest in the region. However, the emigration of physicians has reduced access to primary care in Cuba and there are long waiting lists for specialist and surgical consultations. In 2008 half of the family physician offices closed; those that remained open had to see double the number of patients as before (*Reuters*, 4-8-2008). The

¹⁷ In addition to the general public health system, there are two separate programs with better care and quality: one for government leaders, PCC members, and the armed forces, and another for foreigners who pay in foreign currency.

¹⁸ In 1996 began a series that deleted maternal mortality due to "other causes" thus reducing the maternal mortality rate by 10.6 annual average points in 1996-2000 (Mesa-Lago, 2005); correcting for underestimation, that rate in 2007 increased to 41.7.

number of dentist doubled in 1989-2010 and the ratio per 10,000 inhabitants was 10.8 in 2010, the highest in the region (ONE, 2011a; OMS, 2012). A team that visited 22 dental clinics in 2007 found that the majority did not have trained professionals, 50% of them lacked dentist chairs and equipment to fill cavities. The Vice Minister of Public Health, Joaquín García, said that the production of dental prosthesis that existed 18 years ago had not been recovered (*Juventud Rebelde*, 10-28-2007; *AFP*, 12-6-2007).

TABLE 8
HEALTH INDICATORS, 1989 AND 2005-2010

Indicators	1989	2005	2006	2007	2008	2009	2010	2010/1989 (percentage)
Infant mortality ^a	11.1	6.2	5.3	5.3	4.7	4.8	4.5	-59
Maternal mortality ^b	29.2	51.4	49.4	31.1 ^c	46.5	46.9	43.1	47
Overall mortality ^d	6.4	7.5	7.2	7.3	7.7	7.7	8.1	26
Life expectancy ^e	74.5	77.0		78.0			78.3	5
Physicians ^f	33.1	62.8	63.6	64.0	66.3	66.6	68.0	105
Hospital beds ^d	6.0	4.9	4.9	4.8	4.6	4.6	4.6	-23
Morbidity: ^g								
Acute respiratory	36 804	42 081	45 152	43 222	43 407	54 685	53 340	45
Acute diarrhoea	8 842	7 794	6 468	6 159	6 124	7 213	6 680	-24
Chickenpox	365	225	314	133	173	291	288	-21
Food poisoning	87 ^h	124	173	196	209	207	197	126
Gonorrhoea	381	64	53	42	36	36	38	-90
Syphilis	82	17	18	16	14	13	13	-84
Viral hepatitis	106	207	263	84	43	21	11	-89
Tuberculosis	5	6	6	6	7	6	7	40

Source: Comité Estatal de Estadísticas (CEE), *Anuario estadístico de Cuba 1989*, Havana, 1991; Oficina Nacional de Estadísticas (ONE), *Anuario estadístico de Cuba, 2010*, Havana, 2011; Ministerio de Salud Pública (MINSAP), *Anuario de estadísticas de salud 2010*, Havana, 2011; Economic Commission for Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America 2010*, Santiago, Chile, 2010.

^a Per 1,000 live births.

^b Per 100,000 live births.

^c It is a new series which is not comparable with the previous one (see text).

^d Per 1,000 inhabitants.

^e Year at birth: 1989, 2000-2005, 2005-2007, 2005-2010.

^f Per 10,000 inhabitants.

^g Declared illness per 100,000 inhabitants; ordered from highest to lowest in 2010.

^h 2002.

The number of hospital beds per 10,000 inhabitants dwindled by 23% in 1989, from 6 to 4.6, whereas "real" beds (the average in use) fell from 5.4 to 3.7, but it is still the highest ratio in the region (Table 8; CEE, 1991; ONE, 2011a; ECLAC, 2011d). Some health facilities have been repaired, but the majority are damaged, several equipments are outdated or do not work, there is a shortage of medical tools, materials for tests and essential supplies. Cuban doctors are well trained but they have few resources to treat the sick; there is a shortage of medications, and almost all of them are sold in CUC in the TRD (Garrett, 2010).

Most infectious diseases have been eradicated, such as diphtheria, paratyphoid, poliomyelitis, measles, and whooping cough. Among morbidity rates for eight diseases, four of them decreased in 1989-2010 (viral hepatitis, gonorrhoea, syphilis, and acute diarrhoeas) and four increased (acute respiratory, chickenpox, tuberculosis, and food poisoning (see table 8). But even the morbidity rates which increased are among the lowest in the region. Population immunization declined in 1989-2010, especially the triple and tuberculosis vaccines (Mesa-Lago, 2012a). In 2010, only 563 AIDS cases were reported, a rate of 50 per 100,000 inhabitants — the lowest rate in the region although it was

18 times higher than in 2005 (ONE, 2011a). There are 11,200 people infected with HIV, 4,500 of whom are sick, 55% of them reside in Havana (*El País*, 1-31-2011; *EFE*, 7-11-2011). The suicide rate was 13.1 per 100,000 inhabitants in 2009, the second highest in the region (PAHO, 2010). Dengue morbidity is not reported, but annual outbreaks arose between 2006-2011 (MINSAP, 10-10-2008; *Granma*, 7-17-2009, 1-4-2012). In June of 2012 a cholera outbreak occurred (the first since the end of the 19th century) in Manzanillo, in the east of the island (*Granma*, 7-3-2012).

In 2010, 94.5% of the population had potable water supply, the fifth highest rate in the region and tied with three other countries (MINSAP, 2011; ECLAC, 2011d). The water and sanitation infrastructure is between 50 and 100 years old; 80% of the drinking water network is in “bad or mediocre” state, because investments have not been made in aqueducts, pumping stations, and treatment plants for decades (*Bohemia*, 9-11-2007). About 50% of the water is lost due to broken pipes and waste in the homes. Closing a leak does not resolve the problem because water pressure will break the pipe in another section, the entire network needs to be repaired (in Havana city it will be necessary to rebuild 2,500 km of pipes), which would take between 10 and 15 years (*Granma*, 1-9-2010).¹⁹ Before the crisis of the 1990s, there was adequate sewage treatment, now there are only two plants in Havana operating with difficulty, the rest of the country only has local plants in tourist areas (*Opciones*, 1-2008).

1. Problems of efficiency and measures taken

In 2008-2009, Cuban health social spending was the highest in the region (ECLAC, 2011c). However, the allocation of this expenditure is not always efficient; for example, there is still investment to reduce the infant mortality rate that is the second lowest in the hemisphere, while the potable water and sanitation infrastructure have been badly neglected. The average occupancy rate of hospital beds fell from 83.9% to 66.4% in 1989-2010, and in gynaecology and paediatrics hospitals that index was near 50% in 2010 (CEE, 1991; MINSAP, 2011).²⁰ Vice President Machado Ventura spoke about the purchase of inadequate equipment, investment in defective construction, expensive ophthalmology equipment that was stored and not in use, the sale of construction materials by hospitals, and a new operating room in the Calixto García Hospital whose roof leaks when it rains. He also urged the reduction of excessive medical tests and unnecessary prescriptions (*BBC Mundo*, 5-6-2010; *La Jornada*, 10-6-2010).

Cuba has a worthy history of international solidarity support to other countries. In 2010-2011, there were 27,229 foreign recipients of fellowships studying health disciplines in Cuban universities and this figure grew by 28% since 2006-2007 (ONE, 2011a). Health personnel from Cuba are sent free of charge to poor countries that have suffered disasters but, additionally, 45,174 Venezuelans received free medical care in 2003-2010, and more than 24,000 studied medicine in Cuba. In 2004, Cuba and the Bolivarian Republic of Venezuela founded “*Misión Milagro*,” a programme that provides free ophthalmologic services for needy Venezuelans; in 2008 the programme had expanded to 28 nations, with shared costs between the two countries; 1.5 million patients were treated up until 2009 (Free Society Project, 2010). These programmes are praiseworthy but there is a waiting list of several months for cataract surgery in Cuba. Machado Ventura spoke about the need to efficiently use health resources, citing as an example expenditures in foreign aid whereas the first priority should be to care for Cubans (*BBC Mundo*, 9-25-2007, 5-6-2010).

The problems described have prompted people to seek connections or to bribe health workers and administrative staff in order to obtain faster access to hospitals, surgery, specialists, and tests. It has also caused the theft of medicines and supplies, as well as the clandestine private practice of medicine by doctors who charge in CUC or foreign currency and use public equipment (Hirschfeld, 2007).

¹⁹ Droughts made the problem worse: in 2011, water supply was the worst in 50 years, with a deficit of 519,307 m³ per day in Havana (*Granma*, 1-21-2011, 4-12-2011).

²⁰ Average stay in hospitals decreased from 9.9 to 8.5 days in 1989-2010, but it is still very high on the world level.

Facilities, services, and health personnel are being downsized and regionalized in order to control losses, increase efficiency, and reduce wasteful spending: the health budget decreased by 11% in 2010 and another 7% in 2011; the number of hospitals declined by 17% in 2005-2010, with major cuts in rural areas, as well as paediatric and maternity hospitals, the last two cuts are justified by the decline in pregnancy and birth rates; family physician offices decreased by integrating them into regional facilities; 1,760 hospital beds with low levels of use were reassigned to centres with greater demand; MINSAP staff was reduced by 16% in 2008-2010; the unnecessary use of high technology diagnostic and laboratory tests is being replaced by “a good clinical examination”; more emphasis is placed on natural and traditional medicine, as well as on acupuncture, in order to reduce expenditures in the most expensive curative and hospital medicine (MINSAP, 2010; *Granma*, 2-18-2011; *Juventud Rebelde*, 7-29-2011; ECLAC, 2011a; ONE, 2011a).

The aqueduct in Santiago de Cuba was repaired in 2011. There have not been reductions in the foreign scholarship programme or in international cooperation.

E. Housing policies

The Urban Reform Law of 1960 expropriated all rental housing units and those that were not occupied by their owners, banned buying and selling of dwellings, as well as mortgages. It also enabled renters to become homeowners of the homes in which they lived after paying rent to the state for 20 years, therefore, 85% of population owns their home (*Juventud Rebelde*, 11-3-2011), the highest percentage in the region, but they lack building materials to repair or maintain their houses. Said Law allowed “swaps”, which until 2011 were the only legal way to exchange homes, but subjected to restrictions and involving a very bureaucratic process, which led to fraud and bribery. The population doubled in 1959-2010 but the number of housing units built was lower than the number destroyed due to lack of repair and maintenance, as well as hurricanes. There is consensus in Cuba that housing is the worst social problem (Mesa-Lago, 2010a, 2012a).

The housing units built per 1,000 inhabitants decreased from 6.1 to 3.6 in 1989-2005. In 2006, a historical record was achieved with the construction of 111,000 dwellings, a ratio of 9.9 per 1,000 inhabitants. Subsequently, a sharp decline occurred: from 52.660 units in 2007 to 32.540 in 2011, with a ratio of 2.8 per 1,000 inhabitants, 53% less than those in 1989 (see table 9). In the last four years, 146,340 homes were built, 28% of the 530,758 that were destroyed or damaged by hurricanes in 2008. The direct construction of houses by the population (“own effort”) increased from 37% of the total in 2000 to 70% in 2006, and then declined to 28% in 2011 (ECLAC, 2011b; ONE, 2012b).

TABLE 9
EVOLUTION OF HOUSES BUILT, 1989 AND 2005-2011
(In thousands and rate per 1,000 inhabitants)

Houses	1989	2005	2006	2007	2008	2009	2010	2011	2010/89 (Percentage)
Units	63.0 ^a	39.9	111.4	52.6	44.8	35.1	33.9	32.5	-48
Rate ^b	6.1 ^a	3.6	9.9	4.6	4.0	3.1	3.0	2.8	-53

Source: Comité Estatal de Estadísticas (CEE), *Anuario estadístico de Cuba 1989*, Havana, 1991; Oficina Nacional de Estadísticas(ONE), *Anuario estadístico de Cuba, 2010*, Havana, 2011; and ONE [online] “Construcción de viviendas,” www.one.cu/publicaciones/04industria/construccion/sudesarrollo/semestral/t4.pdf [22 March 2012].

^a Annual average rate in 1981-1989.

^b Number of houses built per 1,000 inhabitants.

Several reasons explain the decline in housing construction by the State: (a) despite the growing housing shortage, in 2007-2010 the budget allocation for housing shrank from 4.6% to 4.2% of the budget and from 2.8% to 2.7% of GDP (see table 3);²¹ (b) the acute shortage of building materials (cement production fell by 57% in 1989-2010); (c) the lack of construction workers due to inadequate training; (d) the State agency that is responsible for housing repair has a meagre budget and it is inefficient, which contributed to the deterioration and collapse of housing; (e) delays of up to 11 years to finish one building, construction that was started but never finished, not meeting deadlines for completion and costs that are much higher than planned; and (f) the inefficiency of building teams (“*microbrigadas*”) (see paragraph below). The decline in the percentage of houses built by the people was due to bureaucratic obstacles, the low income of the population, and a lack of building materials (*Granma*, 5-21-2010; Castro, 2011a).

For decades, the severe housing shortage was addressed with “*microbrigadas*” that built many houses but at a high price and low efficiency: (a) the majority of brigade workers lacked knowledge and training on construction; (b) workers minimized their effort because they ignored whether the houses they were building would be for them, or if they would have to work on several projects until they were eligible to buy one if it was assigned to them; (c) some of the building materials were sold on the black market; and (d) brigade workers were paid their full salary at the place of employment while doing construction work, some of them remained at home for up to five years collecting their wages for lack of building materials. For all of these reasons, the houses that were built were of poor quality (*Bohemia*, 10-4-2008; Murillo, 2010; *BBC Mundo*, 11-3-2011).

Victor Ramirez, the president of the National Housing Institute (*Instituto Nacional de la Vivienda* - INV), estimated the housing shortage to be of 600,000 houses, but more than a million homes were affected by hurricanes in 2001-2008 (29% of the total stock in 2008), so the deficit should actually be higher; 43% of existing houses were in “poor” or “regular” condition and 85% of 47,000 buildings with more than three floors needed repairs (*Juventud Rebelde*, 7-9-2008; *Granma Internacional*, 9-13-2008). Havana historian Eusebio Leal said that 60% of the housing in the capital was in poor condition and that, on average, three buildings collapsed daily (*Hurón Azul*, 11-2-2009). In 2010, Oris Silva Fernández, the vice president of the INV, said that of 2,779 “*cuarterías*” (a house with many rooms, each occupied by one family) with bathrooms in critical condition, 24% had been repaired, and out of 28,781 houses needing waterproofing 2,3% of them had been repaired (*Juventud Rebelde*, 8-28-2010). It is common to find two or three generations living together in the same house, or that a divorced couple divides a house in two; many houses have a “*barbacoa*” or mezzanine where another family lives.

1. Measures taken

Several measures have been taken to alleviate the housing shortage and deterioration. In 2011, permits began to be issued to land owners to build, renovate or enlarge houses, and the sale of building materials to the public was liberalized. The supply of such materials in 2011 was 15.6% of that planned due to low production, bureaucratic inefficiency, a failure of suppliers to comply with contracts, and delays in sales.²² The cost of building materials is high: the price of a galvanized window is 325-1,390 CUP (72-200% of the average monthly salary) for which only 4% of the plan had been achieved in March 2012; the price of four litres of paint is 280 CUP and 100 pounds of cement cost 112 CUP; unaffordable to the majority of the population (Resolutions 55, 68, 80, 90/2011; *Juventud Rebelde*, 7-29-2011, 5-26-2012; Castro, 2011a). Loans to purchase building materials are granted; in 2011, the total amount was

²¹ Nevertheless, according to ECLAC (2010b) social spending on housing in 2008-2009 was the fourth highest in the region.

²² Speculators—informed by distributors—come with a truck just as the materials arrive, buying and re-selling them for profit, gaining an advantage over those who do not have this information and cannot wait for days for the arrival of the supplies (*BBC Mundo*, 11-3-2011).

US\$ 150,000 for 516 borrowers, representing 17% out of a total of 3,100 applicants (AP, 1-21-2012). Subsidies for poor people to purchase these materials are described in section III.B.

The most important housing measure and one of the key structural reforms, approved at the end of 2011, is the reauthorization to buy and sell at a freely agreed upon price between buyers and sellers, offering an alternative to the swap, although it still exists. Furthermore, it allows the ownership of a second home for leisure or rest, the possibility of donating a house or a vacant lot to third parties (which can legalize prior sales), the right to inherit housing by will and, if there is no a will, inherit it by the family through the established legal order (Law-Decree 288/2011). By March 2012, 2,930 houses had been sold and 11,380 donated (*Granma*, 4-26-2012).

F. Employment policies

1. Dismissal and compensation plan

Minister Murillo (2009) reported a 1% drop in productivity due to “under-employment and excessive payroll hiring in most of the country’s activities”. Raúl Castro (2010a) warned that if the “inflated payrolls” were maintained, the amount of money in circulation would increase and prices would continue to rise: “Some analysts estimate that the number of redundant workers surpasses one million... We cannot continue to spend more than is coming in, which would mortgage our future and jeopardize the survival of the Revolution”. Castro (2010b) also observed: “Without an increase in efficiency and productivity, it is impossible to raise salaries... and sustain the enormous social spending”. The Cuban Workers Federation (*Central de Trabajadores de Cuba* -CTC) announced the layoff of 500,000 State employees between October 2010 and March 2011, one million at the end of 2011, and 1.3 million in 2014 (*Granma*, 9-13-2010).²³ The official rate of unemployment in 2010 was first published as 1.6% and then as 2.5% (ONE, 2011d, 2011a). The author estimated three alternative rates converting hidden unemployment into open unemployment in 2010: 12.3% with a 500,000 surplus, 22.1% with one million, and 27.9% with 1.3 million (Mesa-Lago, 2012a). The official open unemployment rate of 2011 rose to 3%.

Castro (2010a) promised: “The Revolution will not leave anyone helpless, it will strive to create conditions so that all Cubans have decent employment, but the State is not responsible of placing each [unemployed] after several job offers. The first interested in finding a job... should be the people themselves”. In order to provide work to the unemployed State workers, 465,000 private sector jobs would need to be created. Those who are laid off would receive a monthly salary, and if they do not succeed in finding a job after one month, those with 19 years of service would receive 60% of the basic salary for one month, two months for those with 20 and 25 years of service, three months for those with 26-30 years, and a maximum of five months with more than 30 years of service. For those who do not find a job and are the sole breadwinner for the family, social assistance will be provided (Castro, 2010b).

Vidal and Pérez Villanueva (2010) note that much of the State jobs that need to be cut are due to the postponement of the adjustment and the full employment policy, a dilemma similar to that in the 1990s, but with different and adverse conditions: there are no reserves to implement an adjustment, the population cannot finance a high fiscal deficit due to their low salaries and pensions, the economy cannot withstand more under-employment and low productivity, and if the vicious circle is not broken definitively, sustained economic growth will never be possible. Terrero (2010) argued that the speed with which the payroll cut is implemented will depend on where and how the one million excess workers are employed.

²³ Rules established in the Resolution of MINTRAB 35/2010 and *Gacetas Oficiales* No. 11-13, November 2010.

Table 10 shows the composition of those employed in the labour force in 2006-2010: the State sector grew from 81.8% to 83.8%, whereas the non-State sector contracted from 18.2% to 16.2%; in the latter, the agricultural cooperatives declined from 5.4% to 4.4% and the private sector (private farmers, the self employed, and private wage earners) decreased from 12.8% to 11.8%. The 500,000 workers who were laid off represented 12% of State employees in 2010 and the one million workers who were projected to be laid off were equivalent to 24%.²⁴

TABLE 10
DISTRIBUTION OF THE ECONOMICALLY ACTIVE POPULATION BY SECTOR, 2006-2010
(In thousands and percentages)

Sectors	2006		2007		2008		2009		2010	
	Thousands	%	Thousands	%	Thousands	%	Thousands	%	Thousands	%
Total workforce	4 755	100.0	4 868	100.0	4 948	100.0	5 072	100.0	4 984	100.0
State employees	3 889	81.8	4 036	82.9	4 112	83.1	4 249	83.8	4 178	83.8
Non-state employees	866	18.2	832	17.1	836	16.9	823	16.2	806	16.2
Cooperatives	257	5.4	242	5.0	234	4.7	232	4.6	217	4.4
Private sector	609	12.8	590	12.1	602	12.2	591	11.6	589	11.8

Source: Oficina Nacional de Estadísticas (ONE), *Anuario Estadístico de Cuba 2009 and 2010*, Havana, 2010, 2011.

The Secretary General of the CTC said that job offers would not necessarily match the dismissed's qualifications and urged the trade union movement to support the layoff policy (*Granma*, 9-13-2010; *Trabajadores*, 9-19-2010, 9-20-2010). The selection for dismissal should be based on "the strict observance of the principle of suitability" (qualification, productivity, efficiency, and compliance with the rules), avoiding any manifestation of "favouritism [or] gender discrimination or of any other kind" (Castro, 2010b). The suitability is judged by a committee of experts, one of whom is appointed by the administration, one by the union, and from three to five representatives selected in worker assemblies. The head of the entity activates the committee and proposes which workers should be evaluated to determinate who is suitable, the final decision is made by a high-level supervisor. The union must ensure proper enforcement of the rules and process (*Proceso...*, 2010; *Trabajadores*, 6-11-2010).

The implementation of the layoff plan, which should have started in October 2010, was delayed three months and in March 2011 only 10% of the target number had been dismissed (*EFE*, 3-1-2011). Raúl Castro called for caution, as a plan of this complexity could not be submitted to inflexible deadlines, the speed of the process would depend on the capacity of the government to ensure its success and it would require no fewer than five years: 2011-2015 (*Granma*, 3-1-2011). In May 2011, the timetable for implementing the plan was extended, without setting a date, and payrolls were frozen, filling only essential vacancies (*Granma*, 5-17-2011). The 2012 plan projected the dismissal of 170,000 State employees and the creation of 240,000 non-State jobs (Yzquierdo, 2011), 24% and 51% respectively of the original goals from the end of 2011 of one million layoffs and 465,000 private jobs.

The reasons for the postponement of the layoff plan were: a very quick timetable for implementation; the impossibility of creating 465,000 non-State jobs due to obstacles, excessive restrictions and taxes, as well as a lack of credit and supplies; resistance from state enterprise managers worried about insufficient manpower to fulfil the plan and opposition from workers due to the loss of salary; concern that the dismissals would generate discontent and socio-political instability;

²⁴ García and others (2011) give the projection of non-State sector employment as percentage of total employment: 27% in 2011, 31% in 2012, 32% in 2013, 34% in 2014, and 35% in 2015 (the State sector decreasing from 73% to 65%).

and preoccupation that the selection would not be fair and that women, Afro-Cubans, and young people would be the first to be laid off.²⁵

2. Expansion and barriers to non-State employment

Raúl Castro (2011a) asserted that the increase in the non-State sector does not mean the privatization of property, rather it allows the State to divest from activities that are not strategic. The expansion of the non-State sector encompasses three key activities: usufruct, self-employment, and production and service cooperatives. In 2008, unused State lands began to be distributed to farmers, cooperatives, and State entities, but with limitations: (i) a maximum of 13.4 hectares per plot; (ii) the prohibition of building a house or a stable in the parcel to store farming tools or animals (the beneficiary may need to travel a long distance to reach the plot and cannot protect his/her assets); (iii) the State retains ownership of the land and awards a ten year contract to individuals (20 years for cooperatives and State entities), renewable for another ten if the beneficiary fulfils his/her obligations; (iv) half of the land is full of “marabú” (a thorny tree that is difficult to eradicate) and some land is unproductive or lacks water, which are obstacles to cultivate the land in a “rational and sustainable way” as stipulated by law and left to the judgement of the government; (v) mandatory sale of a part of the harvest (*acopio*) to the State at a price set by the government below the market price; (vi) termination of the contract if obligations are not fulfilled or in case of public need or social interest (it was not clear whether the State would retain or reimburse the investment made by the beneficiary); (vii) lack of experience of 80% of the beneficiaries in cultivating lands; (viii) paying taxes on the possession and use of the land, as well as on labour, social security, and personal income; and (ix) need of low interest loans to buy seeds, fertilizers, and tools (Law-Decree 259/2008; Mesa-Lago, 2012a).

Self-employment experienced fluctuations under the revolution: it was initially prohibited, authorized at the beginning of the 1980s and later criticized, expanded during the crises of the 1990s and restricted with the recentralization since 2003. The peak of self-employment was reached 25 years after its initial authorization: 169,400 in 2005 (3.6% of the labour force), but by late 2010 it had fallen to 147,400 (2.9%) (Mesa-Lago, 2010b). The Sixth Congress of the PCC approved some positive measures: the authorization of 178 activities (21 more than before); permission to employ up to five non-family workers in half of those activities; the ability to sell assets and services to State entities and more flexibility to rent plots to the State and third parties; small loans for the self-employed to purchase goods, supplies and equipment; development of wholesale markets that sell them supplies and rent equipment; and an increase from 12 to 20 chairs in small private restaurants —known in Cuba as *paladares*— (PCC, 2011).

Cuban economists suggested that the government reserve strategic areas and allow self-employment in the rest, but the 178 occupations that were approved are very specific. Some are occupations requiring certain skills (electricians, producer and vendor of goods, freight and passenger driver, and repairman) but most are unskilled trades (water carrier, shoeshine, clown, carter, trash collector, fruit peeler, and public restroom or car attendant). People with university degrees are forbidden from being self-employed in their discipline; many of them will be dismissed and their only option will be unskilled occupations.

Another obstacle is the excessive taxes that discourage the creation of formal employment and encourage the continuation of informal employment: (i) payment of a license; (ii) personal income tax with a progressive scale over net annual income (after certain deductions) which increase from 25% (5,000-10,000 CUP or US\$ 208-417) to 50% (more than 50,000 CUP or US\$ 2,080); (iii) 25% for the employed workforce ; (iv) 25% for social security contributions over an income scale chosen by the self-employed (the few State workers who contribute only pay 5%); and (v) 10% for sales plus another

²⁵ According to Terrero, the Ministry of Labour did not treat the dismissals with sufficient transparency and it was not known whether women were more affected than men, neither was known the age of those dismissed (La Habana TV, 4-26-2012).

10% for the use of public utilities. Pedraza (2010), the Minister of Finance, calculated that the average tax burden for the self-employed fluctuated between 30% and 35%, and that the average profit was between 20% and 25%. However, Ritter (2011) estimated that the effective rate can exceed 100% of net income and the tax burden of enterprises with foreign capital. Moreover, Pedraza explained that the tax on hiring workers increases with the number of workers employed, with the goal of discouraging hiring, making business less profitable, and preventing the concentration of wealth, all of which is against the layoff plan and the need to increase non-State employment. In 2009, the taxes on the self-employed generated 247 million CUP and it was projected that they would increase to 1,100 million in 2011 (*Granma*, 10-28-2011; Pedraza, 2011).

The bureaucracy hinders the creation and development of self-employment jobs: they ask for documents that are not required adding unnecessary paper work; expand or make more complex the requirements for granting sanitary licenses to “*paladares*”, coffee shops or food delivery services, and the same for physical and mental health certificates required for those taking care of children; imposes very strict rules on food preparation, the utensils and conditions of work places; inspectors find violations and close the business (*Juventud Rebelde*, 3-19-2011; *Granma*, 5-17-2011; *Bohemia*, 9-21-2011). The motivations of the bureaucrats are: “it is not in their interest that the system of confusion, procrastination, and impunity change”, nor that “kickbacks” disappear; “they embitter anyone who tries to obtain licenses, permits, or authorizations”, prolonging “a parasitic plague in the public administration” (*Granma*, 1-21-2011, 5-21-2011). Castro (2010c, 2011d) urged the PCC and the government to facilitate self-employment, to avoid generating stigmas or prejudices, and to modify the current negative view: “the greatest obstacle we face... is the sociologic barrier of inertia, inaction... I warn that all bureaucratic resistance will be useless”.

Cooperatives, previously restricted to agriculture, have expanded to non-agricultural production and service activities. The pioneers were barbers, hairdressers and manicurists that began in 2010. The state owns the building, gives the cooperative members a renewable lease for ten years, with a limit of three chairs, and at the start sells them certain products and supplies. Cooperative members pay rent monthly; additionally, they have to pay electricity, gas, water, telephone, and advertising, as well as taxes equal to those of the self-employed; and they have to buy supplies, maintain the premises, and offer quality services. Prices are set by supply and demand, and the income of the members are determined by the cooperative (Resolutions 333 and 434/2011). These cooperatives are self-managed and have several advantages. The government saves on salaries, maintenance, utilities, and supplies (which are frequently stolen), at the same time it receives rental income and taxes. The members are responsible for those costs and it is argued that, with the incentive of profit, they repair the locale, buy better products, work longer hours, provide better services, and set higher salaries and work conditions.²⁶

3. Measures taken and effects

In 2011, to alleviate some of the problems outlined above, adjustments were made to promote the non-State sector. In relation with usufruct, Raúl Castro (2010c) promised that the State would compensate for the investment and would pay the value of improvements that were made; 1,000 stores were created to provide usufruct beneficiaries and private farmers with supplies, and prices were lowered; State banks were authorized to grant small loans and to open bank accounts for usufruct beneficiaries and farmers. The latter were permitted to sell agricultural production directly (with exceptions) to tourist hotels and restaurants (as well as to the market) at the price that was agreed on between the two parties. The expansion of the plot size was announced, from 13.4 to 67 hectares for those who show an increase in production; and allowing the construction of a home (Resolución 122/2011; *AP*, 8-5-2011;

²⁶ There are also difficulties: some cooperatives are not financially viable and they go bankrupt; members complain that the three chair limit is low and that rents are high; consumers are critical of the increase in prices (a haircut rose from three CUP to one CUC), even though with competition, the prices should fall (*Reuters*, 10-3-2010; Piñeiro, 2012).

BBC Mundo, 9-27-2011; *Reuters*, 2-2-2011; *La Jornada*, 12-19-2011). The self-employed were authorized to hire non-family employees in all occupations (the number of employees is unlimited, paying the workforce taxes), chairs in “*paladares*” increased from 20 to 50, and the possibility was open for renting State restaurants with low levels of activity. In addition, since 2011 the tax on the employed labour force was suspended for those who hired up to five employees; license quotas and taxes were reduced for some activities; 120 million CUP was allocated for the sale of goods, importing was made easier as was the sale of supplies, and prices were reduced between 15% and 20% (Law-Decrees 278, 284 and 285/2011; *Granma*, 5-17-2011, 5-27-2011; *Trabajadores*, 7-18-2011). The production and service cooperatives were expanded to 24 activities, ranging from electronics repairman to cobblers, with the same regulations as barber shops, and rent was exempted for one year when the premises were repaired (Resolución 516/2011).

In October 2011 it was reported that 1.2 million of hectares had been handed over in usufruct and there were 147,000 beneficiaries (*IPS*, 11-1-2011). The Sixth Congress stipulated that the remaining unused State land be given to usufruct. In late 2010, there were 147,400 registered self-employed, 3,600 more than in 2009, reversing the previous decline that had been experienced since 2003. Between October 2010 and April 2011, 221,839 licenses for self-employment were granted, although 27,000-42,000 returns need to be deducted from this figure. Among the new self-employed: 68% did not have a State job previously, 16% were retired or State workers and only 16% were unemployed due to the layoff plan (*Granma*, 5-21-2011). In 2011, there were 357,000 registered self-employed, more than double in 2010 (see table 11), but by subtracting those already registered in that year, the net difference was of 209,600, only 83% of the goal of 250,000 set for March 2011.

TABLE 11
CURRENT NON-STATE EMPLOYMENT GROWTH AND GOALS, 2009-2015
(In thousands and percentages of economically active population)^a

Year	Self-employed (thousands)	EAP (%)	Usufruct (thousands)	EAP (%)	Cooperatives ^b (thousands)	EAP (%)	Total ^c (thousands)	EAP (%)
2009	143.8	2.8	56.0	1.1	0	0	199.8	3.9
2010	147.4	2.9	147.0	2.8	0	0	294.4	5.7
2011	357.0	7.0	149.0 ^d	2.9	2.0 ^d	0	506.0	9.9
2012 ^e	695.3	13.6	150.0 ^d	2.9	240.0	4.7	1 085.3	21.2
2015 ^e							2 753.0	53.8

Source: Based on Carmelo Mesa-Lago, Cuba en la era de Raúl Castro, Reformas económico-sociales y sus efectos, Madrid, Editorial Colibrí, 2012.

^a Based on an EAP of 5,158,500 in 2009 and 5,112,500 in 2010, and assuming that last figure will stagnate in 2011-2015.

^b Production and services cooperatives, excluding agricultural.

^c Includes agricultural cooperatives and private farmers.

^d Author's estimations.

^e Targets.

Barber, hairdresser, and manicurist cooperatives numbered 1,500 in mid-2011; after that date, no figures have been reported, but they are estimated to be in the thousands, as well as thousands of taxi cooperatives, and there are projected to be 200 gastronomic cooperatives (*Reuters*, 7-30-2011, 1-12-2012). In April 2012, 1,000 State workers from the personal and technical services sector in Havana had moved into 400 rented locales and 60 unused spaces had been rented to the self-employed (*Bohemia*, 4-14-2012).²⁷

²⁷ In May 2012 1,618 “*paladares*” and 5,207 rented rooms were reported (*Juventud Rebelde*, 5-10-2012).

Despite its expansion, the current size of the non-State sector is small compared to the government goals and the number of excess State workers that need to be laid off. The total of self-employed, usufruct beneficiaries, and production and services cooperative members rose by 47% in 2010 (see table 11). An increase of 72% is projected for 2011, to 506,000 self-employed, and 9.9% of the EAP; even if it this is achieved, it would only be half of the initial goal of laying off one million that year. In 2012 a total of 1,085,300 are projected for the three groups, or 21.2% of the EAP, a 114% increase in one year, which will be difficult to achieve. Counting these three groups along with agricultural cooperatives, private farmers, and private wage-earners, the Minister of Finance predicted the incorporation of 1.8 million workers in the non-State sector by 2015, for a total of 2.8 million including the 953,000 that already existed in 2010, more than half of the EAP, and the Minister added that they would contribute 44.5% of GDP (Pedraza, 2010; García and others, 2011). The 2012 goal for self-employment involves doubling their number from 2011. Furthermore, growth could slow as the market becomes saturated, competition increases, businesses go bankrupt, and licenses are returned. The number of usufruct beneficiaries cannot grow much further because most available unused State lands have been handed over. Production and service cooperatives would have to expand substantially and the number of agricultural cooperative members has declined steadily. The possibility of reaching the goal of private wage-earners is low, due to the increasing tax on labour as more of these workers are hired. In sum, in order to achieve the goals of both the layoff plan and the expansion of non-State employment, reforms should be accelerated and many of the barriers still remaining be eliminated.

IV. Evaluation and prospects

Under the revolution, in three decades Cuba achieved universal access to free social services, full employment, and the significant reduction of inequalities, ranking its social indicators among the first in Latin America and in the socialist camp. But social spending was the highest in the region and growing rapidly, its allocation was not efficient, full employment was achieved with a surplus of State employment, egalitarianism damaged productivity and incentives, and population ageing accentuated these problems. In spite of generous help from the Soviet Union, the centralized planning system failed to solve the structural problems of the economy, and the demise of the socialist camp led to a severe economic crisis in 1990-1994. The government tried to protect the social sector by postponing the adjustment, but indicators deteriorated; the modest reforms introduced led to a partial economic recovery and an improvement in social indicators. Nevertheless, these gains were reversed by the Battle of the Ideas, which emphasized centralization, and rose social spending making it unsustainable. GDP peaked in 2006 but the global financial crisis of 2007-2009 and problems with the Cuban model induced a slowdown, a severe liquidity crisis, and a deterioration of social indicators. President Raúl Castro seeks to resolve the accumulated problems through important structural reforms that are well targeted, although gradual and implemented slowly, and enduring some conflicting objectives.

- (1) In order to eliminate unnecessary State employment, in 2010 the layoff of one million workers (28% of the EAP) and the expansion of the non-State sector to absorb them was decided. However, only 10% of the goal of dismissals was achieved because the expected non-state jobs were not created due to excessive taxes, low unemployment compensation, and bureaucratic barriers. There are also conflicting objectives: progressive taxes on the labour force attempt to prevent excessive hiring in the non-State sector, which work against the goal of expanding that sector in order to give jobs to the unemployed. Later adjustments expanded non-State employment to half million in 2011 and State hiring was frozen. By 2015 it is projected that 1.8 non-State workers will be incorporated (2.7 million total with those who were already self-employed), more than half of the EAP who will generate 54% of GDP, a difficult goal to achieve at the growth rate of 2010-2011, and the challenges that persist, such as banning people with university degrees from being self-employed in their own profession.
- (2) Until 1989, salaries were meagre but they had a supplementary social safety net: price subsidies for rationed goods, low rates for utilities, free education and health, and home ownership for a majority of the population. Although there were nominal increases and several measures were taken to improve salaries, in real terms, in 2010 salaries were 27%

of the 1989 level and the complementary safety net had deteriorated, therefore it is officially recognized that current wages are insufficient to cover basic needs. The average wage-to-productivity ratio was negative until 2009 but it became positive in 2011. Price subsidies for rationed goods covered 88% of these products' cost and universal rationing was criticized for being egalitarian (subsidies are granted for people with high incomes and for those who receive foreign remittances). The new policy will properly grant subsidies to those in need, rather than subsidies to goods. As such, the rationing system is gradually being reduced that now covers food for the first 10 days of the month and the rest must be purchased in free agricultural markets or TRD at high and growing prices. The CPI officially grew by an average of 2.2% per year in 2005-2010, but it excludes transactions in CUC and the real increase was higher.

- (3) There is no data on poverty incidence since 2002, but it should have increased because of reductions in rationing, wages and real pensions, layoffs, and rising prices. Poverty primarily affects retirees, single mothers, female heads of household, Afro-Cubans, the eastern provinces of the country and migrants from there, marginal neighbourhoods, and people who do not receive remittances or payments in foreign currency. The government has promised to protect the vulnerable population through social assistance.
- (4) Inequalities have increased since the 1993-1996 reforms and even it more with the ongoing structural reforms. The average income of self-employed is 2.3 times higher than the average State salary; foreign remittances and payments in foreign currency widen the gap; the Gini coefficient estimated at 0.407 in 1999 has probably increased. The tax system is regressive, although it has improved since 2006, 44% of tax revenues still come from sales tax and 2.3% from personal income tax. Racial inequality has increased because of Afro-Cubans' reduced access —compared with whites— to remittances, jobs in the tourism industry, mixed enterprises, and the private sector -where wages are much higher than the State salaries received by 83% of Afro-Cubans. Discrimination is now officially recognized and there is more study, discussion, and criticism of it. Although women have similar or higher levels of education than men, indicators show a gender gap in occupation, type of employment, and representation in leadership positions; women also likely receive a lower salary than men. Raul Castro has called for the complete eradication of racial and gender discrimination; recently there has been an increase in the representation of both groups (women and Afro-Cubans) in political positions.
- (5) Cuba has the second oldest population in the region and declining due to a falling birth rate, the lowest fertility rate in the continent, and increased emigration. The youth segment decreases, the productive segment has begun to shrink, and the elderly population is growing rapidly: in 2035 the composition will be 14%, 52% and 34%, respectively. As the population ages, social spending on health and pensions increases, although it declines on education.
- (6) Social spending reached 55% of budget and 36% of GDP; it has been officially acknowledged to be unsustainable and it should be subject to the economic and financial capacity of the country. The adjustment policy consists of cuts in social spending and greater efficiency in its allocation; in 2010 it had been reduced to 52% of the budget and 34% of GDP, still the highest in the region.
- (7) Population ageing progressively increases the cost of social security pensions, aggravated by the fact that the system was one of the most generous in the region. Contribution revenue (primarily paid by enterprises) is insufficient to finance expenditures and the State defrays 42% of the deficit. Despite rising costs, the real average pension was reduced by half in 1989-2010. The 2008 reform increased the retirement age and pensions (especially the minimum pension), as well as the years of service required; set a contribution of 5% for workers (tied to gradual salary increases), postponing by five

years the juncture at which the number of retired people will exceed the number of active workers, and reducing the deficit financed by the Treasury to 39% of expenditures. But it will not solve the long-term imbalance: in 2010, contributions should have increased from 12% to 20% to cover that year deficit; to achieve long-term actuarial balance, a much higher increase is needed.

- (8) The indicators of social assistance declined between 2007-2008 and 2010: the budget allocation fell from 4% to 1.7% —the lowest in the Cuban state budget— and beneficiaries decreased from 5% to 2% of the population, as a result of a system purge based on the real needs of beneficiaries and the potential help from family. It was grossly estimated that only 11% of the poor received social assistance in 2010. A purge is appropriate to remove the non-poor, but these figures reveal a sharp cut opposed to the short-term adverse effects of the reforms and the expansion of the vulnerable population. It is necessary to design appropriate social assistance programmes using a technical method of targeting to reliably determine the number of people living in poverty, their characteristics, and their cost over GDP. A positive measure is the grating of housing subsidies for the poor.
- (9) In 2009, Cuba had the highest education spending in the region, the second highest literacy rate, the fifth highest gross primary enrolment rate, the fourth in secondary enrolment, and the first in higher education. In 1989-2008, the enrolment rate in higher education tripled: it increased 40 times in the humanities and social sciences, but it fell by 39% in natural sciences and math. There was a shortage of teachers due to low State salaries and an unsuccessful attempt to resolve this shortage with “emerging” teachers; a waste in investment occurred because of the relatively low proportion that graduated, emigration, and graduates not practicing in their trained profession. The new policy achieved the following: (i) a return to the classroom by some retired teachers; (ii) an increase in teachers’ salaries; (iii) the closing of inefficient and expensive programmes (municipal universities, social work, and rural secondary education and pre-university courses); (iv) a cut in university enrolment by 36% (45% decrease in the humanities and social sciences but a 16% raise in natural sciences and math); (v) the set of university entry quotas of students by discipline; and (vi) making entrance exams more rigorous.
- (10) Infant mortality has fallen steadily and is the second lowest in the hemisphere, but at an increasing cost; maternal mortality rose (albeit it is still the lowest in the region), due in part to abortion, which has the highest rate in the region; overall mortality augmented as a result of population ageing; the ratio of physicians continued to rise and it is the highest in the region, but some doctors emigrate and others have moved to more lucrative occupations, reducing access to the health system and extending the waiting list. Installations and equipment are in disrepair, there is a severe shortage of medicines, and a deterioration of the potable water and sanitation infrastructure because of lack of maintenance. The majority of infectious diseases were eradicated, another four illness decreased whereas four increased (see section III.D) (nevertheless, their rates are among the lowest in the region). The hospital-bed occupancy rate declined, especially in gynaecology and paediatrics. Cuba allocates substantial resources to provide health assistance to other countries. Inefficiencies in health spending (the highest rate in the region) have been identified and the cost of foreign assistance is questioned in view of existing domestic problems; facilities are being downsized, reducing the budget by cutting administrative staff and maternal and child health facilities- and the Santiago de Cuba aqueduct was renovated.
- (11) While 85% of Cubans are homeowners, houses have seriously deteriorated because of the lack of maintenance due to bureaucratic constraints, inefficiency of the State agency in charge of repairs, and a shortage of building materials over the last 50 years. The number of houses that have been built is less than the number destroyed as a result of

deterioration and hurricanes; the housing shortage is officially estimated to be of 600,000 units, but it can exceed one million; 43% of houses are in “poor” or “fair” condition. The rate of houses built per 1,000 inhabitants fell from 6 to 2.8 in 1989-2011; the budget allocated to housing—the second lowest of the budget— decreased from 4.6% to 4.2% in 2007-2010. The “swap” was the only way to change the house until 2011, but it was full of obstacles, bureaucratic inefficiency, and bribes to speed up the process and obtain better houses. The inefficient building teams, “*microbrigadas*”, ended; the sale of building materials to the population was liberalized (including subsidies for the needy); and buying and selling, which had been banned since 1960, was authorized.

Social protection policy under the revolution achieved virtually unique advances in the region, but it leaves the lesson that social spending must be sustainable and efficiently allocated. The accumulation of problems over half a century, inefficiencies, and rising costs in social spending is difficult to resolve in the short-term. Structural reforms are on the right track (except social assistance), but deeper and faster changes are necessary. Moreover, for social policy to be sustainable in the long run it is essential to increase production and productivity, which in turn requires more successful structural reforms.

Bibliography

- Añé, Lía (2007), “Contribución a los estudios de pobreza en Cuba”, *28th Meeting of LASA*, Montreal.
- Barreiro, Georgina (2007), “Presentación a la Asamblea Nacional del proyecto de presupuesto del Estado para 2008”, *Granma*, 28 December.
- Castro, Raúl (2011b), “Discurso de clausura del VI Congreso del PCC,” 19 April.
- _____ (2011a), “Informe central al VI Congreso del PCC,” 16 April.
- _____ (2010c), “Discurso en la clausura de la Asamblea Nacional”, *Granma*, 18 December.
- _____ (2010b), “Discurso en la clausura de la Asamblea Nacional”, *Granma*, 1 August.
- _____ (2010a), “Discurso en la clausura del XI congreso de la UJC”, *Granma*, 4 April.
- _____ (2009), “Discurso en conmemoración del asalto al Cuartel Moncada”, *Granma*, 27 July.
- _____ (2008), “Discurso en las conclusiones de la Asamblea Nacional”, *Granma*, 11 July.
- _____ (2007), “Discurso en el acto central con motivo del aniversario 54 del asalto al Cuartel Moncada...”, *Granma*, 27 July.
- Cecchini, Simone, and Rodrigo Martínez (2011), *Inclusive Social Protection in Latin America: A Comprehensive, Rights-based Approach (LC/G.2488-P)*, ECLAC Book No. 111, Santiago, Chile, Economic Commission for Latin America and the Caribbean. United Nations Publication, Sales No. E.11.II.G.23.
- CEE (Comité Estatal de Estadísticas: State Committee of Statistics) (1991), *Anuario estadístico de Cuba 1989*, La Habana.
- ECLAC (Economic Commission for Latin America and the Caribbean) (2012), *Social Panorama of Latin America 2011 (LC/G.2514-P)*, Santiago, Chile. United Nations Publication, Sales No. S.12.II.G.6.
- _____ (2011a), *Preliminary Overview of the Economies of Latin America and the Caribbean 2011 (LC/G.2512.P)*, Santiago, Chile. United Nations Publication, Sales No. E.12.11.G.2.
- _____ (2011b), *Cuba: Evolución Económica durante 2010 y Perspectivas para 2011 (LC/MEX/L.1027)*, México, D.F.
- _____ (2011c), *Social Panorama of Latin America 2011 (LC/G.2514-P)*, Santiago, Chile. United Nations Publication, Sales No. S.12.II.G.6.
- _____ (2011d), *Anuario estadístico de América Latina y el Caribe 2011*, Santiago de Chile, diciembre.
- _____ (2010a), *Preliminary Overview of the Economies of Latin America and the Caribbean 2010 (LC/G.2480-P)*, Santiago, Chile. United Nations Publication, Sales No. E.11.II.G.2.
- _____ (2010b), *Panorama social de América Latina 2010*, Santiago de Chile.
- _____ (2010d, 2009a, 2003), *Cuba: Evolución económica durante 2009, 2008, 2002*, México, D.F., LC/MEX/L. 921, agosto; 885, octubre; 566, julio.

- _____ (2009b), *Preliminary Overview of the Economies of Latin America and the Caribbean 2011* (LC/G-2424-P), Santiago, Chile. United Nations Publication, Sales No. E.09.II.G.149.
- _____ (2000), *La Economía Cubana, Reformas Estructurales y Desempeño en los Noventa* (LC/G.2020/Rev1), Mexico, D.F.
- Espina, Mayra (2010), *Desarrollo, desigualdad y políticas sociales*, La Habana, Acuario.
- _____ (2008), *Políticas de atención a la pobreza y la desigualdad: Examinando el rol del Estado en la experiencia cubana*, Buenos Aires, CLACSO.
- Espina Prieto, Rodrigo and Pablo Rodríguez (2006), “Raza y desigualdad en la Cuba actual”, *Temas* No. 45.
- Espinosa Chepe, Oscar (2007), “Salarios, pensiones y precios en Cuba actual”, La Habana, 7 November.
- Ferriol, Ángela (2004), “Política social y desarrollo”, *Política social y reformas estructurales: Cuba a principios del siglo XXI*, E. Álvarez y J. Mattar (eds.), Mexico, D.F.
- Free Society Project (2010), *Cuba’s International Medical Missions: Fact sheet*, New Jersey, 19 April.
- García, Anicia and others (2011), “Reestructuración del empleo en Cuba”, *Seminar on Cuban economy and business management*, La Habana, June.
- Garrett, Laurie (2010), “Castrocare in crisis”, *Foreign Affairs*, July-August.
- González-Corzo, Mario and Susel Pérez (2009), *Análisis comparativo del Poder Adquisitivo en Cuba*, Cuba Study Group and University of Miami ICCAS, May.
- Hirschfeld, Katherine (2007), “Re-examining the Cuban health care system: Towards a qualitative critique”, *Cuban Affairs*, vol. 2, No. 3, July.
- Martínez, Osvaldo (2011), “Dictamen sobre la liquidación del presupuesto del Estado de 2010”, *Granma*, 2 August.
- Mesa-Lago, Carmelo (2012a), *Cuba en la Era de Raúl Castro: Reformas Económico-Sociales y sus Efectos*, Madrid, Editorial Colibrí, in print.
- _____ (2012b), *Reassembling Social Security: A Survey of Pension and Health Care Reforms in Latin America*, Oxford, Oxford University Press.
- _____ (2010a), “Cincuenta años de servicios sociales en Cuba”, *Temas*, No. 64, October-December.
- _____ (2010b), “El desempleo en Cuba: De oculto a visible”, *Espacio Laical*, vol. 6, No. 4.
- _____ (2010c), “Estructura demográfica y envejecimiento poblacional: Implicaciones sociales y económicas para el sistema de seguridad social en Cuba”, *Espacio Laical*, vol. 6, No. 3.
- _____ (2009), “Balance económico-social de 50 años de revolución en Cuba”, *América Latina Hoy* (Universidad de Salamanca), No. 52, August.
- _____ (2005), “Problemas sociales y económicos en Cuba durante la crisis y la recuperación”, *ECLAC Review*, No. 86, August.
- Mesa-Lago, Carmelo and Pavel Vidal Alejandro (2010), “The impact of the global crisis in Cuba’s economy and social welfare”, *Journal of Latin American Studies*, vol. 42, No. 4, November.
- Mesa-Lago, Carmelo and Jorge Pérez-López (2005), *Cuba’s Aborted Reform: Socioeconomic Effects, International Comparisons and Transition Policies*, Gainesville, University Press of Florida.
- MINSAP (Ministry of Public Health) (2011), *Anuario de estadísticas de salud 2010*, La Habana.
- _____ (2010), Informe en Internet, consulted December, 3rd.
- Murillo, Marino (2010), “Resultados económicos del año 2010 y el plan de la economía para 2011”, *Granma Internacional*, 23 December.
- _____ (2009), “Resultados económicos del año 2009 y el plan de la economía para 2010”, *Granma*, 20 December.
- ONE (Oficina Nacional de Estadísticas: National Statistical Office) (2012a), *Educación resumen del curso escolar 2010/2011 e inicio del curso escolar 2011/2012*, La Habana.
- _____ (2012b), “Construcción de viviendas” [online] www.one.cu/publicaciones/04industria/construccion/sudesarrollo/semestral/t4.pdf [22 March].
- _____ (2012c), *Ventas al Mercado Agropecuario: Indicadores Seleccionados*, La Habana.
- _____ (2011a, 2010a, 2009a, 2008a, 2007, 2006, 2001). *Anuario estadístico de Cuba 2010, 2009, 2008, 2007, 2006, 2005, 2000*, La Habana.
- _____ (2011b), *El envejecimiento de la población de Cuba y sus territorios 2010*, La Habana.
- _____ (2011c), *Reporte anual sobre empleo y salarios 2010*, La Habana.

- _____ (2011d), *Panorama económico y social Cuba 2010*, La Habana.
- _____ (2010b), *Encuesta nacional de fecundidad*, La Habana, Centro de Estudios de la Población.
- _____ (2008b), *Encuesta nacional de ocupación*, La Habana.
- _____ (2008c), *El estado actual y perspectiva de la población cubana: Un reto para el desarrollo territorial sostenido*, La Habana.
- _____ (2008d), *Sondeo de precios en el mercado informal, febrero 2008*, La Habana.
- Orozco, Manuel and Katrin Hansing (2011), “Remittances recipients and the present and future of microentrepreneurship activities in Cuba”, *Cuba in Transition*, vol. 21, Washington, D.C.
- PAHO (Panamerican Health Organization) (2010), *Proyecto de información y análisis de salud. Iniciativa regional de datos básicos de salud*, Washington, D.C.
- PCC (Partido Comunista de Cuba: Cuban Communist Party) (2011), *Información sobre el resultado del debate de los lineamientos de la política económica y social del partido y la revolución*, La Habana.
- _____ (2012), *Objetivos de trabajo del Partido Comunista de Cuba aprobados por la primera conferencia nacional*, La Habana, January.
- Pedraza, Lina (2011), “Presentación de la Ley de presupuesto del Estado para 2012”, *Bohemia*, 25 December.
- Pérez-López, Jorge and Carmelo Mesa-Lago (2009), “Cuban GDP statistics under the Special Period: discontinuities, obfuscations and puzzles”, *Cuba in Transition*, vol. 19, Washington, D.C.
- Pérez Villanueva, Omar Everleny (2008), “La economía en Cuba: un balance actual y propuestas necesarias”, La Habana, CEEC.
- Piñeiro Harnecker, Camila (2012), “Ahora si van las cooperativas...”, *Temas*, February.
- PNUD (Programa de las Naciones Unidas para el Desarrollo) (2011), *Human development report 2011*, New York, Palgrave Macmillan.
- Ritter, Archibald (2011), “Microenterprise tax reform, 2010”, Ottawa, The Cuban economy, 10 January.
- Rodríguez, José Luis (2007), “Presentación a la Asamblea Nacional del informe sobre los resultados económicos del año 2007 y los Lineamientos del plan económico y social para el 2008,” *Granma*, 28 December.
- Sánchez, Maritza (2012), “Resumen sobre la labor de Cáritas en Cuba”, La Habana, 7 June.
- Sánchez, Víctor (2007), “Encuesta sobre pobreza rural”, Santiago de Cuba, 19 September.
- Terrero, Ariel (2010), “Cuentas claras: Ante el dilema de las planillas infladas” *Bohemia*, 15 June.
- Togores, Viviana (1999), “Cuba: Efectos sociales de la crisis y el ajuste económico en los 90s”, *Balance de la economía cubana a finales de los 90s*, University of La Habana, CEEC.
- UNESCO (United Nations Educational, Scientific and Cultural Organization) (2011), Institute for Statistics Data Centre, Montreal.
- Vidal Alejandro, Pavel (2008), “Los salarios, los precios y la dualidad monetaria”, *Espacio Laical*, La Habana, vol. 4, No. 2.
- Vidal Alejandro, Pavel and Omar Everleny Pérez Villanueva (2010), “Se extiende el cuentapropismo en Cuba”, *Espacio Laical*, La Habana, vol. 6, No. 3.
- WHO (World Health Organization) (2012), Global Health Observatory [online] <http://www.who.int/gho/en> [4 June].
- Yzquierdo Rodríguez, Adel (2011), “Informe sobre los resultados económicos del 2011 y el plan económico y social para 2012”, *Bohemia*, 25 December.