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The Cuban Economy at the Crossroads: Fidel Castro's Legacy, Debate over Change and Raúl Castro's Options

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Summary

This Working Paper evaluates the current status of the Cuban economy (Fidel Castro's legacy), analyses the debate that emerged after a speech Raúl delivered on 26 July 2007 and explores the course of possible reforms

Introduction

At the end of 2008, the Cuban revolution will turn 50, the so-called Special Period will turn 19 and Raúl Castro will have been in power for two and a half years, 10 months of that as President of the Council of State. This Working Paper evaluates the current status of the Cuban economy (Fidel Castro's legacy), analyses the debate that emerged after a speech Raúl delivered on 26 July 2007 and explores the course of possible reforms. The official statistics are only from recent years, making a long-term perspective impossible. In order to evaluate economic and social performance, the author has devised statistical series that allow to compare the situation in 1989, the year before the crisis triggered by the collapse of the Soviet Union, with the later economic recovery, particularly in the period 2000-07, through macroeconomic indicators and figures on physical production, the external sector and social indices. The analysis of the debate on change identifies the key issues and draws on numerous studies by Cuban economists who live on the island. The paper is also based on articles in official newspapers, dissident writings seen on the Internet, the 'Reflexions' of Fidel Castro and speeches by Raúl Castro, publications by ECLAC and articles in the international press. A summary is provided of the economic measures Raúl has taken since April 2008 and the reforms he has announced are outlined, with commentary on their viability and possible impact. The paper is rounded off with conclusions and prospects.

One good thing is that since 2006, Cuban statistics are published more quickly and easier to access on the Internet (*www.one.cu*), but there two problems discussed in the paper:

- (1) The absence of many Cuban figures from publications by international organisations. One illustration of this is the fact that Cuba is excluded from 87% of the ECLAC series (2007b) that the organisation published in its last year report; of 23 graphs that compare Latin American countries, Cuba appears in only three –absolute and per capita rates of GDP growth, and open urban unemployment–. There are only blanks for figures on gross capital formation, net external transfers, gross foreign debt and consumer prices; these had been published in previous years. Debt as a percentage of exports has not been published since 2004.
- (2) The diminished credibility of Cuban statistics in recent years, especially macroeconomic indicators and some social statistics like unemployment; with regard to GDP and capital formation, ECLAC has introduced an exceptional measure: it publishes the official Cuban data (with a clarifying note) and adds its own estimates, but omits any figures for 2005-07 (the figures from the ECLAC office in Mexico often differ from the official Cuban numbers).

I. Evaluation of Economic and Social Statistics

A. Macroeconomic Indicators

1. GDP Growth

Due to a 35% fall in GDP after the collapse of communism, Cuba's average growth rate was -1.4% in the period 1990-2000, the worst in all of Latin America (ECLAC, 2000). This happened despite a partial recovery since 1995 as a result of modest economic reforms in the first half of the decade.

Cuban economists blame the negative growth figure on an economic deceleration from 1997-2002 (except in 2000) that stemmed from a stagnation of the reforms. In 2003 Fidel Castro launched what he called the 'Battle of Ideas' (one of his frequent ideological campaigns against free market economics) and did away with the reforms: he once against centralised all economic decision-making, unlinked the economy from the US dollar, created a single account at the Cuban Central Bank for depositing all foreign currencies and trimmed the country's small private sector (Mesa-Lago & Pérez-López, 2005). Unlike Cuba's track record of economic decline in times of anti-market re-centralisation of decision-making, official data suggest strong economic expansion since 2004, with an average annual growth rate of 10.6% in the period 2005-07 (Table 1), the largest in the region and comparable with that of China. But the numbers are the result of a statistical manipulation (Mesa-Lago, 2005a).

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Indicators (1)	1989	2000	2001	2002	2003	2004	2005	2006	2007
GDP growth (Cuba)	1.2	6.1	3.0	1.8	3.8	5.4	11.8	12.5	7.5
GDP growth (ECLAC)	1.5	5.6	3.0	1.5	2.9	3.0 (4)	(5)	(5)	(5)
GDP per capita (pesos	1,585	1,478	NA	NA	NA	NA.	ŇÁ	NA	NA
1981)									
GDP per capita (pesos	NA	2,752	2,826	2,869	2,971	3,123	3,484	3,920	4,213
1997)									
Gross capital	25.6	12.4	12.1	10.6	9.2	10.1	12.0	13.5	n.app.
formation/GDP (2)									••
Inflation (ECLAC)	0.5	-3.0	-0.5	7.0	-1.0	2.9	4.2	5.7	n.a.
Liquidity-M2/GDP (3)	21,6	33,2	39,2	42,5	40,6	41,5	42,7	37,9	n.d.
Fiscal bal./GDP (Cuba)	-7,2	-2,1	-2,2	-2,7	-2,8	-3,5	-4,2	-3,1	-3,2

(1) 1989 and GDP p/c 2000 based on 1981 prices, the rest on 1997 prices.

(2) Cuban prices; ECLAC and Cuba have published sets of numbers with major differences.

(3) Cuban series until 2004, later discontinued; 2005-2006 preliminary figures from ECLAC (2007a) which in previous editions (2005a, 2006a) gives a different series for 2000-2004: 34.4%, 36.6%, 37.8%, 35% and 35.4%.

(4) ECLAC (2006b) raised it to 4.5%.

(5) Starting in 2005 ECLAC published two series: that of Cuba and its own estimate, leaving this section blank in 2005-07.

Sources: Cuba CCE 1991 and ONE 2001 to 2008; ECLAC 2001 to 2007a, 2006b, 2007b.

Simply changing the base year for calculating GDP at constant prices (from 1981 to 1997 since 2001) yielded a rise of 86% in per capita GDP (see Table 1) and an average annual increase of 56% in the annual value of GDP in 1989-2000, the period for which the old and new statistical series are available. Based on the old series, per capita GDP in 2000 was 7% below the 1989 level. But according to the new series it was 73% above the 1989 level. Neither the Cuban authorities nor ECLAC have explained this increase, even though they have been warned repeatedly about the problem (Mesa-Lago, 2005b).

The methodology of the UN, used internationally to measure GDP for more than 60 years and reintroduced in Cub a in the early 1990s, has been criticised in Havana on the grounds that it underestimates the country's social achievements. In 2003 Cuba created a new methodology which added to the GDP figure the value of free social services and subsidies paid out for rationed goods.¹ That year Cuba published two GDP growth rates: 2.6% based on the conventional methodology, and 3.8%, using the new one. ECLAC's growth rate was 2.9% (24% lower than Cuba's inflated, official rate). In 2004 Cuba provided only a figure using the new statistical method (5.4%) while ECLAC published a rate of 3%, which was presumed to be based on the conventional methodology and was 44% lower than the official Cuban number. In 2005, Cuba's official, inflated rate of GDP growth jumped to 11.8%, but in its report ECLAC left this space blank, with a footnote that read: 'According to information supplied by the Cuban government, the economy grew 11.8%... calculated with a new methodology that is being analysed by ECLAC and the government of Cuba'. In 2006 Cuba reported an economic growth rate of 12.5% and for the first time ECLAC introduced two series of numbers: the Cuban figure, but only since 2001 and the figure based on the traditional

¹ Free services are measured through the value they would have if they were sold at market prices: if they were applied retroactively, they would increase GDP an average of 15.7 % in 2000-03 and the value of social services by 81.9% (Miranda, 2008).

method, although leaving blank the spaces for 2005 and 2006, with another footnote ('Data supplied by the National Office of Statistics in Cuba, which are being evaluated by ECLAC'). In 2007 Cuba reported an increase of 7.5% and again ECLAC gave no figure, with a similar footnote (ECLAC, 2003b and 2007b; Table 1).² The GDP growth rate of 7.5% was lower than the stated goal of 10%. This disappointing performance was blamed on heavy rains that damaged construction and agriculture, high prices for imported foodstuffs and oil, and a delay in importing consumer goods. A growth rate of 8% is forecast for 2008 (Rodríguez, 2007b).

The two over-estimates we have discussed make it impossible to compare the new series of Cuban GDP data with figures from the rest of the world. If the ECLAC has been trying in vain for four years to reach agreement with Cuba to calculate the real rate of growth, it is obvious that it is impossible to resolve the problem here. But let us make a speculative exercise in correction: if the average over-estimate of GDP of 56% observed from 1989 to 2000 (resulting from changing the base year for prices from 1981 to 1997) is applied to the figure of 7.5% in 2007, this would be reduced to 4.8%. And we adjust the over-estimate stemming from the new methodology based on the ECLAC estimates in 2003-04, the growth rate goes down to 2.7% or 3.6%, both far below the regional average of 5.6% in 2007.

Whatever the figure might be, the Cuban people say their living standards³ have not improved, and Raul referred to this in a speech to the National Assembly in late 2007: 'it is of special interest that [GDP growth] be reflected as much as possible in the domestic economy, where there are daily shortages' (R. Castro, 2007b). But in that same assembly, the Finance and Planning Minister said: 'Today Cuba's GDP is perfectly comparable with that of any country in the world... and our country reiterates its right to see its achievements reflected without obstacles or ill-intended challenges, as is sought in international publications' (Rodríguez, 2007b). Cuba has the right to calculate its GDP however it sees fit, but it cannot expect its estimates, which do not meet the accepted international standards, to be comparable to those of the rest of the world. What is more, the figures released since 2004 in Cuba are not comparable with the earlier data, which have not been recalculated with the new method (Miranda, 2008).

In 2007, 17% of GDP was generated through physical production (agriculture, livestock, fisheries, mining and manufacturing), 15% through basic services (electricity, gas, water, construction, transport, communications) and 68% through other services (trade, gastronomy, finance, administration and social services). This makes for a total of 83% in services (ONE, 2008), a major, positive transformation, especially in light of Cuba's human capital. But a fall in physical production and food self-sufficiency, and a process of de-industrialisation, has prevented a recovery of exports, encouraged imports and generated a huge and growing trade deficit, although this is offset somewhat by exports of services. Cuban economist Monreal (2007) is worried that this might cause a 'dysfunctional tertiarisation of the economic structure', in other words inordinate growth of the tertiary, or service, sector.

2. Capital Formation and Internal Investment

Evaluating gross capital formation and investment as percentages of GDP in 1989-2007 is very difficult due to contradictions in the multiple statistics published by Cuba and ECLAC. These were complicated by changing the base year from 1981 to 1997. Gross capital formation fell from 25% to 9.2% of GDP in the period 1989-2003 and grew to 13.5% in 2006, half of what it was in 1989 (Table 1). Other data show similar declines with respect to GDP (Mesa-Lago, 2005a). According to the Cuban economist Pérez Villanueva (2006), investment has been insufficient for sustained growth, and long-term economic recovery requires rates of accumulation of capital equivalent to

² Pérez Villanueva (2006) says that GDP had not recovered in 2005 the level of 1989 based on the conventional method, but had surpassed it with the new method.

³ Rafael Hernández, director of the magazine *Temas*, says: 'the Cuban people may believe the economy is growing statistically, but not in their households' (quoted by Davies, 2007).

25% of GDP as in the period 1975-89. The rate in Cuba in 2005 was 9.7%, the lowest in the region, which posted an average of 19.6% (ECLAC, 2007b).

3. Fiscal Deficit

The fiscal deficit as a percentage of GDP fell from 7.2% in 1989 to 2.1% in 2000 but it rose to 3.2% in 2007 (32 times the regional average of 0.1%), and it is forecast to grow to 3.8% in 2008. For this year it is estimated that fiscal revenue will rise 1% while expenditure will increase 2.7%; of this, 45% will go towards education, health and pensions, while 19% will be earmarked for transfers to companies and agricultural producers, including subsidies to companies that do not make a profit and products sold to the population, but only 6.6% will go towards investment. The Minister of Finance and Prices warned that 'in order to sustain higher levels of social justice, the country must increase production of goods and services with greater efficiency and quality, including social services.... what is even more serious is for [resources] to be diverted or used to the benefit of just a few' (Barreiro, 2007). Rodríguez (2007b) appealed for fiscal discipline in order to avert 'deficit plans [which] conspire against an economic efficiency'.

4. Inflation and the Money Supply

Based on the Consumer Price Index, Cuba experienced deflation in three years in the period 2000-03, but then prices rose and inflation reached 5.7% in 2006 (there are still no figures for 2007), 11 times the figure corresponding to 1989 and higher than the regional average of 5% in 2006 (Table 1; ECLAC, 2006b). The Cuban CPI figures are dubious because the government has never released figures on the basket of goods and services used to calculate them.⁴ The increase in inflation in 2006 was caused by an expansion in budgetary spending, as well as a rise in prices in free agriculture markets, public services (inter-provincial bus services, railways and domestic flights)⁵ and in stores that use foreign currency (ECLAC, 2006b; Mesa-Lago, 2006). The economic adviser of the National Assembly, Osvaldo Martínez (2007), reports that food prices jumped 23.7% in 2007 and will continue to rise in 2008. The money supply (M2) in relation to GDP has grown since 2001 and reached 42.7% in 2005, the highest level since 1994 and twice the figure corresponding to 1989 (Table 1). In absolute terms, the M2 supply hit a record in 2006, with 20.874 billion pesos, 4.5 times the amount in 1989 (Pérez Villanueva, 2007a); according to ECLAC (2007a) the M2 fell to 37.9% of GDP in 2006, but it warns the figure is under-estimated because it includes only 'national' pesos and excludes 'convertible' pesos or CUC (see I-C-3).⁶

B. Indicators of Physical Production

Figures on physical production of 20 products that are key to the Cuban economy (both for export and domestic consumption) are shown in Table 2. In 14 of the categories, production levels in 2007 were far below those of 1989.

1. Industry

During the Special Period, Cuba has suffered through undercapitalisation, a failure to keep up to date on technologies, a severe decline in production and high dependency on imports of manufactured goods. The country has failed to regain the level of installed industrial capacity it had in 1989 (Pérez Villanueva, 2004 and 2006). The contribution of industry (mining and manufacturing) to GDP fell from 26% to 13% in the period 1989-2007 (Mesa-Lago, 2002; ONE, 2008). Mining is the sector that did best, and agriculture the worst, followed by manufacturing.

⁴ 40% of the CPI is based on state goods and services, 30% on the agriculture and livestock market and 30% on selfemployed people and the black market; it excludes prices in convertible pesos and hard currency (Vidal, 2006).

⁵ Bus fares rose between 230% and 424%; a return ticket from Havana to Santiago costs 249 pesos and by plane it costs 440 pesos; the average monthly salary is 408 pesos.

⁶ Cuba stopped publishing the accumulated money supply in 2004, but it can be estimated using figures on people's income and expenditure for 2005-06 (ONE, 2007). In the last year there was a small extraction of the money supply and a rise in GDP, which seems to confirm a fall in the ratio of M2 money supply to GDP.

Oil and natural gas. Oil extraction totalled a million tons in 1986, declined by 44% in the period 1987-91, later expanded –setting a record of 3.6 million tons in 2003– but fell to 3.2 million tons in 2004 and 2.9 million in 2005 and stagnated in 2006-07. Still, it was four times the level in 1989 and three times that of 1986. Extraction of natural gas (associated in part with extraction of oil and with a plant built by Sherritt International of Canada) increased by 35 times in the period 1989-2007 with 1.215 billion cubic metres, but extraction in 1989 was tiny and in 2006 it contributed only a fourth of the combined production of oil and gas. Despite the increase in oil production, this satisfies only 35% of Cuba's domestic needs (although this is up from 12% in 1989) and the remaining 65% is imported, mainly from Venezuela. Sugar-cane *bagasse* is a more important source of energy than oil, even though the former fell 67% in the period 1989-2006 because of the drop in sugar cane production; hydroelectric power makes a minimal contribution (Mesa-Lago, 2002; ONE, 2007; ECLAC, 2007a).

Indicators	1989	2000	2001	2002	2003	2004	2005	2006	2007	2007/ 1989
Mining										
Oil	718 (9)	2.621	2.773	3.533	3.609	3.184	2.878	2.900	2.900	303
Natural gas (1)	34	574	595	584	658	704	743	1.085	1.215	3.473
Nickel	47	71	77	75	71	76	76	73	76	62
Manufacturing										
Sugar	8.121	4.057	3.748	3.522	2.278	2.530	1.348	1.474	1.100	-86
Steel	314	327	270	264	209	193	245	257	287	-9
Cement	3.759	1.633	1.324	1.327	1.345	1.401	1.567	1.705	1.893	-50
Electricity (2)	15	15	15	16	16	16	15	16	17	13
Textiles (3)	220	47	47	30	28	30	25	27	31	-86
Fertilisers	898 (10)	118	93	92	72	49	43	41	40	-96
Cigars (4)	308	246	339	327	308	355	404	418	427	38
Shoes (5)	12	11	10	9	6	6	5	3	3	-75
Soap	37	23	18	18	15	16	13	14	15	-59
Agriculture										
Citrus fruit (6)	1.016	959	957	478	793	802	555	373	447	-56
Rice (6)	532	553	601	692	716	489	368	434	n.d.	-18
Milk	1.131	614	621	590	607	513	353	415	485	-57
Eggs (4)	2.673	1.722	1.525	1.778	1.785	1.749	2.066	2.341	2.355	-12
Leaf tobacco	42	32	32	34	26	32	26	29	28	-33
Tubers	681	1.231	1.380	1.437	1.844	1.946	1.801	1.330	1.480	117
										(12)
Cattle (7)	4.920	4.110	4.038	3.972	3.970	3.943	3.704	3.737	n.d.	-24
Fish/shellfish (8)	192	101	80	60	67	64	51	55	61	-68

Table 2. Production in Cuba, 1989 and 2000-07 (in thousands of metric tons, unless otherwise specified

(1) Millions of cubic metres.

(2) Billion Kw/h.

(3) Millions of square metres.

(4) Millions of units; the peak in cigars was 657,000 in 1965.

(5) Millions of pairs, the record was 19 million in 1981.

(6) 2000-07 includes an estimate of production in patios and urban gardens, as well as private consumption and private farms.

(7) Thousands of head; the record was 7 million in 1967.

(8) The record was 244,000 in 1986.

(9) I million were produced in 1986.

(10) The record was 1.1 million in 1985.

(11) Per capita production was virtually the same.
(12) A fall of 24% with respect to 2004.

(12) A fall of 24% with respect to 2004.

Sources: CCE (1991), ONE (2001 to 2008); figures prior to 1989 come from Mesa-Lago (2002).

Deposits in northern Cuba could contain between 4.6 and 9.3 billion barrels of oil and 3 trillion cubic feet of natural gas. Despite more than €700 million in foreign investment and widescale drilling by joint-venture companies from Canada, Spain, Norway, India Brazil and others, there is still no confirmation of even one significant deposit, nor a single well operating with production that would be profitable and of adequate commercial quality; if such a site does materialise, it will take at least five years for production to begin (Piñón, 2008). Chávez finished an oil refinery in Cienfuegos that the Soviet Union had started to build but never completed. It came on line in December 2007, refining 65,000 barrels a day of Venezuelan crude. (Venezuela will also invest €1)

billion in 2009 to boost the plant's capacity.). But a former Chairman of the Venezuelan state-run oil company (PDVSA) said studies carried out in 2000-01 showed that this refinery was not profitable and for this reason PETROBAS and PEMEX declined to take part in the project (Sánchez, 2006); to the contrary, Triana (2007) feels that the rise in oil prices does in fact make this facility profitable.

Nickel. Production of nickel peaked at 76,529 tons in 2001 (with a substantial investment by Sherritt), declined to 70,948 in 2003 and jumped back up to 76,000 tons in 2007. This was 24% below the initial goal of 100,000 tons and below the record figure of 2001, but it was also 62% higher than the 1989 level. The goal for 2008 is 80,000 tons. Cuba's three nickel plants are operating at full capacity (33,000 tons at Pedro Sotto, 33,000 tons at the Che Guevara facility and 10,000 at Ramos Latour) so new investment will be needed in order to increase production (Frank 2006, 2007). The newest of the plants is the Che Guevara one (built with Soviet technology), which consumes 18 tons of oil for each ton of nickel it produces, compared to a ratio of 12 to 1 at the Pedro Sotto plant (the most efficient one, built by the US in 1957). The new, promised investments are: (a) €200 million from Cuba itself; (b) €300 million from Sherritt to increase capacity at Pedro Sotto by 16,000 tons between 2008 and 2011; (c) €340 million by China to complete the ferrousnickel plant in Camariocas (which will produce 22,500 tons), which was left unfinished by the Soviet Union, an agreement annulled in 2007 and replaced by one with Venezuela. But this plant also consumes a lot of energy, and would have been profitable only when the Soviet Union subsidised prices for nickel and oil; and (d) €880 million from China to exploit a nickel deposit in San Felipe which will produce 50,000 tons a year but which was also apparently abandoned in the past (Mesa-Lago, 2007).

Sugar. Sugar production averaged 2.5 million tons a year in the period 2000-07, less than a third of the average figure in the 1980s. The industry was restructured in 2002 due to low world prices for sugar, as well as to reduce costs, raise productivity and turn a profit; 45% of Cuba's sugar mills were shut down, 60% of the land that had been used to grow sugarcane was shifted to other crops and 100,000 workers were laid off (Pérez-López & Álvarez, 2005). But production plummeted in the period 2003-07 and the goals set were not achieved. Agricultural output per hectare fell from 64 to 28 in the period 1989-2006, and industrial turnout from 12% to 10% in 1985-2006 (CCE, 1991; ONE, 2007). Sugar production dropped from 4 million tons in 2000 to 1.1 million in 2007 (compared with a goal of 1.6 million), down 86% from the figure in 1989 and the worst performance in 113 years. The reasons given for the failure in 2006 were these: a late start to the harvest, only 42 mills were operating (27% of those which existed in 2002) and they got a late start due to delayed repairs; less land was planted and 30% of it was overgrown with marabú (a thorny bush); there were frequent equipment breakdowns which interrupted the milling process, reduced output and raises costs (time lost was estimated at 40%); fuel shortages caused delays in transport and milling, and there was also a lack of labour incentives. After the harvest of 2006, and with their eyes set on the significant rise in world sugar prices, Fidel Castro and the Sugar Minister, General Ulises Rosales, changed Cuba's strategy again and aimed to triple production in two years (as well as exports and revenues) through greater investment, an additional 120,000 hectares of land being planted, 51 mills in operations, importation of replacement parts, greater use of fertilisers and herbicides, and the creation of a state agency to sign agreements with foreign investors (Granma, 3/VI/2006; AFP, 27/VIII/2006). But disaster struck again in 2007. Officially it was blamed on hurricane Noel, whose torrential rains lashed the eastern provinces, flooding fields and destroying roads, bridges and railway lines. But internal failures were also reported: only 30,000 hectares of land were planted (25% of what had been planned); 47 mills began working on time but four were late. Mills were beset with frequent breakdowns, a lack of imported supplies, and low-quality machetes and gloves. Only 15% of Cuba's provinces and 66% of the mills met the goals set for them. In 2008 the original goal of 3 million tons was scaled back to 'a small increase' on the 2007 figure, by planting 12% more land, using nine more mills and expanding mechanisation. But the harvest was delayed because some lands were not properly prepared, and some roads and bridges

had to be rebuilt; the largest mill operated at only half its capacity as it awaited seven harvesting machines being sent from Brazil, and the third mill was closed for 10 days because of problems with a new boiler; in February, organisational problems were reported and planned imports failed to arrive. So the government announced a programme of '100 days of extraordinary effort and victory' in order to boost the milling process, raise industrial output and make better use of available capacity; in late March Cuba reported an increase in production of 29% compared to 2007 (*Granma*, 5/II/2008 and 19/III/2008).⁷ Domestic demand consumed 700,000 tons and left only 400,000 to export in export in 2007, so Cuba had to import 250,000 tons from Colombia and Brazil (Frank, 2008).

Main Manufactured Goods. In 2007, production of four out of five manufactured goods that played a crucial role in Cuba's process of industrialisation and substituting for imports were considerably below their 1989 levels: the decline was 9% in the case of steel,⁸ 50% for cement, 86% for textiles and 96% for fertilisers. Production of shoes and soap for domestic use was down 75% and 59% respectively compared to the levels from 1989. Only the production of cigars –a traditional Cuban export product– rose, increasing by 38% from the 1989 level. But supplies of cigars and cigarettes for domestic consumption were reportedly 63%-75% lower than usual (*Tribuna de La Habana*, 18/III/2007).

Electricity. Electricity generation fell by 28% in the worst period of the crisis, later recovering and remaining flat until 2006. This contradicts the empirical evidence that GDP grew at a much slower pace than did consumption of electricity. Fidel Castro declared 2006 to be the 'Year of the Energy Revolution' and predicted that Cuba would be an energy model for the entire world: it would churn out an additional million kilowatts, boast four times as much installed capacity; its six thermal electric plants (most of them 65 years old and wasteful) would be gradually replaced with 265 diesel engines, combined with 4,518 grupos electrógenos (small, autonomous electrical plants installed around the country and integrated into and synchronised with the national power grid; if the grid fails, the smaller plants come into action and maintain the power supply) as well as new natural gas plants; energy-inefficient domestic appliances, incandescent light bulbs and kerosene stoves would be replaced with others that save more energy; crews would replace 2 million electrical outlets, 1.5 million home-made connections, 12,400 transformers and 16,000 electrical pylons; there would be more than enough electricity, power outages would end as of 1 May and Cuba would save 1 billion pesos. Castro initially estimated the cost of the programme at \pounds .2 billion, but later reduced it drastically (Granma, 24 and 30/XII/2005). In early 2006 he complained that 'the planners at the Ministry of Basic Industries and the electrical syndicate, clinging to mistaken dogmas and criteria, say the synchronisation is impossible and that the way to resolve the energy problem was to buy new thermal-electric plants. What madness!'. He also argued that the cost of just one thermal-electric plant was €350 million and that with that much money Cuba could buy all the grupos electrógenos it needed (Castro, 2006).

Generation of electricity rose and hit a record in 2007, surpassing the 1989 level by 13%, although on a *per capita* basis it remained unchanged. But some serious defects in the new energy

⁷ The Cuban agronomist Nova (2006) says the sugar industry is on the verge of disappearing because of 'a grave strategic error that increases the vulnerability of the economy': (1) workers are paid 5% of the world price for sugar, and less than the average national wage; the workforce is unstable and increasingly unskilled, with saps productivity; (2) financing that is centralised at MINAZ shows down the earmarking of resources and supplies; (3) the varieties of sugar cane planted are not suited to the land that is used, more than 50% of planning is done at the worst time of year for this, widespread weeds cause losses of 2 million tons a year and irrigation is insufficient; (4) 15%-20% of the cane is lost because of insufficient capacity to cut and load it delay transport to mills, where the machinery and tools are in poor condition because of lack of maintenance, and railway service breaks down frequently; and (5) the rapid halving of the number of mills to be used caused serious problems.

⁸ Cuba's largest steel mill (Antillana de Acero) was restructured in 2007, due to aging equipment, overstaffing and interruptions power outages (the plant shut down for six months in 2004); 200 jobs were eliminated, and increased productivity was forecast for 2007 (*Trabajadores*, Havana, 5/III/2007).

programme have been identified: it is a short-term remedy but not a long-term solution because the aging thermal electric plants (damaged by use of heavy crude with a high sulphur content) deteriorate more and more. They will eventually break down, shift more responsibility on the small autonomous units mentioned above. These will turn out to be insufficient and the entire system will collapse. The small autonomous units require frequent maintenance; the diesel fuel needed by these units spread all over the island needs to be transported by a fleet of trucks, and diesel is more expensive than oil. And more and more diesel will be used as the autonomous units operate more and more; new electric stoves and appliances will use more energy, and if the electrical grid fails, food will spoil and cannot be cooked. The government will not be able to recover the cost of a quarter of the new appliances sold to the population for 300 million. Electrical conduits and structures are stolen frequently (2,094 in 2005 alone) and similar robbery can happen with the *grupos electrógenos*, the small autonomous electrical generators (*Trabajadores*, 15/V/2007; Mesa-Lago, 2007).

The Minister for Basic Industry, Yadira García, said Fidel Castro's promise to do away with power outages had been kept and Minister Rodríguez said blackouts in 2007 were down 87.5% in 2007 compared with 2005. But only a third of the smaller units have been installed, voltage at peak hours declines noticeably, transformers have exploded and in mid 2006 and early 2007 power outages were reported in Havana, Matanzas and Pinar del Río (Mesa-Lago, 2007). Evaluating 18 months of 'Energy Revolution', vice president Carlos Lage acknowledged that 1.2 billion tons of diesel fuel are consumed at a very high cost, fuel supplies are still vulnerable, electricity consumption might be cut and savings are insufficient (Juventud Rebelde, 4/VI/2007). A state-approved journalist said it is still premature to evaluate the overall impact of the energy-saving programme, its cost and the quality of service; outages are still frequent (91% of them happen on secondary circuits and in homes where the plan has already been implemented). Crews still have to install intake cables in 2.3 million homes, replace tens of thousands of kilometres of conduits, build 45% of the substations that are planned, 63% of the secondary circuits, 41% of the transformers, 48% of the electrical pylons, 53% of the breakers and 50% of the meters. The number of areas suffering from low voltage has increased recently due to aging and deterioration of the central grid and the installation of new equipment in state agencies and officials' homes. This is a problem because many families now depend on electricity to refrigerate and cook food (Mayoral, 2007).

2. Transport

The number of passengers transported fell 84% in the period 1986-95 (from 3.2 million to 533,800) and even though it rose to 1.6 million in 2007 this was only half the figure corresponding to 1986. Furthermore, only 43% were transported 'by traditional means', with the rest doing so by 'alternative means' such as animals or on their own (Pérez Villanueva, 2007a; ONE, 2008). As of late 2007 Cuba had received 806 of 8,000 buses it planned to get from China; there were only 395 more public buses working than in 2006 and the number of passengers carried rose 5%, while rail passengers declined 4% and airline passengers by 14% (*Granma*, 28/XII/2007; ONE, 2008). The Transport Minister says the accumulated deficit is so great that the situation has not improved with the import of buses, equipment is not maintained properly and workers have not been trained to use it (AFP, Havana, 17/III/2007). There are also frequent attacks of vandalism against vehicles, and junk yards of buses have sprung up with vehicles damaged in accidents or idled because of a lack of spare parts.

3. Agriculture

In 2007, 19.6% of Cuba's workforce was involved in agriculture and fishing but generated only 4.2% of GDP, making their productivity extremely low (ONE, 2008). Production of agriculture,

livestock and fisheries fell 11.6% in 2005 and 6% in 2006 but reportedly increased 23.4% in 2007.⁹ However, the period 2006-07 production of five important items was far below the 1989 level: the decline was 12% for eggs, 18% for rice (75% of it is imported, 33% for leaf tobacco (in contrast with the increase in production of cigars), 56% for citrus fruits (this used to be a major export product) and 57% for cow's milk. The number of head of cattle raised, which in 1967 was 7 million, fell relentlessly to 4.9 million in 1989 and 3.7 million in 2006, a decrease of 24% from the 1989 level and 47% below the level corresponding to 1967; the number of head per capita fell from 0.83 to 0.33 in the period 1989-2006, which explains the drastic decline in production of meat and milk (Mesa-Lago, 2007). The coffee harvest in the period 2007-08 was 4,400 tons, down 85% from 1989 (*Granma*, 12/III/2008). On the other hand, production of tubers rose and peaked in 2004, but it fell in the period 2005-07; in the last year it was 117% higher than the 1989 level but 24% below 2004. Production of vegetables and beans in 2007 was six and four times, respectively, that of 1989. However, this production and that of tubers is over-estimated because since 2000 it has included 'an estimate of production in patios and plots of land and for home consumption... among private cooperatives and farmers' (ECLAC, 2007a).

The government has traditionally blamed poor agricultural production on external factors such as the US trade embargo and the weather: (1) imports of feed for cattle and poultry fell 52% in the period 1989-2000 and hurt production of meat and dairy products, but have risen since 2002 thanks to purchases from the US; (2) three hurricanes in 2005 (Dennis, Katrina and Wilma) caused severe losses, particularly in citrus fruits, tobacco, coffee and poultry. But even though there was no hurricane and rainfall was adequate in 2006, agricultural production fell; (3) severe drought in 2004-05 triggered 1 billion pesos in losses; and (4) copious rains in 2007 damaged the sugarcane harvest. We have already analysed the internal factors that contributed to this problem.

However, a series of articles published in Cuba in 2006-07 identify systemic causes of the fall in agricultural production. First, despite the agricultural reforms of 1993, the structure land use and property is still inefficient and lacking in incentives: 55% of land is still owned by state companies; another 26% are old state-run forms that were transformed into Basic Units of Cooperative Production (UBPC), but they inherited debts and obsolete equipment from the State, their members were not consulted or trained when the transformation took place and they continue to behave like government employees (they do not feel like owners), the government directs production with little input from the members and buys virtually all of their production below market prices, and sales to free agricultural markets have price caps and amount to only 3.5% of total sales in those markets; only 44% of the cooperatives are profitable and the rest need government subsidies;¹⁰ another 6.3% of the land is designated as Agriculture and Livestock Production Cooperatives (CPA), whose numbers have declined under the burden of debts and lack of profits. Another 8.2% of Cuba's land is held by Credit and Service Cooperatives (CCS), these are also under tight state control and lack tractors or have broken equipment. The remaining 4.5% of the land is used by private farmers who produce two-thirds of Cuba's foodstuffs and post higher productivity than the state-held land and the UBPC (overall agricultural output is below the world average, except in two crops). In the second place, the state system of forced purchases (the so-called Acopio) is a monopoly which works as an intermediary that 'buys cheap and sells expensive'¹¹ and suffers from serious problems: (a) it extracts an average gain of 29% and as much as 41% of low-quality bananas are bought from

⁹ Martínez (2007) warns that 'this is still no time to celebrate because the increases [in agricultural production] are with respect to the low level of 2006 and far from meeting the pressing needs... and causing a position turn in public opinion'.

¹⁰ In 2003 the UBPC only accounted for 4% of total tobacco production, 10% of vegetables and 20% of tubers; the rest was produced by private farmers and other cooperatives (Mesa-Lago & Pérez-López, 2005).

¹¹ Leonel Valdivia, Director of *Acopio*, answered a journalist who asked if it would be a good idea to do away with the *acopio* system as a state intermediary: 'No, because marketing would fall into the hands of private intermediaries and prices would shoot up'. The journalist sought to refute this by saying 'producers earn more when they sell to private intermediaries and receive payment immediately' and Valdivia accepted this argument (González, 2006).

producers and sold as top-quality to retailers; (b) it delays payments to producers, running up huge debts; (c) it sets prices in a rigid way through provincial councils, has scant information on inventories and demand, and does not lower prices even when the product is of low quality and does not sell and thus ends up rotting (an expert has to decide whether to lower prices but often there is no telephone with which to call and when the product arrives it has already spoiled); (d) it had inadequate storage facilities and scales, as well as aging transport equipment, part of which is broken down or lacks gasoline, batteries, tires, etc; and (e) provides producers with only small amounts of supplies (fertiliser, seeds, fuel, machetes, boots and gloves) which are totally insufficient for them to meet production goals. Thirdly, substantial losses are sustained because of organisational problems; for instance, millions of litres of milk spoiled in 2007 due to delays in pickup, a shortage of bottles, insufficient controls and an exodus of experienced dairy workers. In the fourth place, 39% of land that had been used to grow sugarcane and was supposed to be transferred to food production is idle and covered with *marabú*; furthermore, irrigation systems became undercapitalised (Borrego, 2006; González, 2006; Nova, 2006, 2007; Pagés & Castaño, 2006; Martín & Pérez, 2007; ONE, 2007).

Fish and Shellfish. Catches totalled 244,000 tons in 1986, fell to 192,000 in 1989 and then to 61,199 in 2007, a decrease of 68% from the 1989 level and 75% compared with 1986 (there was an increase in 2007 due mainly to production at fish farms, but a big drop in prawn catches). The Cuban fishing fleet is decrepit and saddled with a high debt, a lack of liquidity, low credibility among creditors, technological problems, high oil prices, damage from hurricanes and the energy crisis. In late 2006, the European Commission said it found deficiencies and insufficient protection against contaminants in Cuban fishing products and asked the government to improve its sanitary controls (EFE, Brussels, 24/XI/2006).

C. Foreign Sector Indicators

Foreign sector indicators are seen in Table 3 but their availability has declined in recent years; the last complete figures on trade in goods were published in 2004; figures on exports of nickel were no long released starting in 2002; complete figures on the balance of payments were suspended in 2001 and there are only partial data for 2005-06 and nothing for 2007; figures on direct foreign investment stopped being published in 2001 (ONE, 2006, 2007, 2008). The ECLAC figures on the balance of payments are incomplete and contradictory, and there are also problems with figures on terms of trade.

Table 3. Foreign sector	Indicato	ors, 198	9 and 2	000-07	(in biilie	ons or p	besos, l	iniess d	otherwis	se specified)
Indicators	1989	2000	2001	2002	2003	2004	2005	2006	2007	2007/1989
Exports	5.4	1.7	1.6	1.4	1.7	2.2	2.0	2.9	3.7	-31
Imports	8.1	4.8	4.8	4.1	4.6	5.6	7.5	9.5	10.1	25
Trade balance	-2.7	-3.1	-3.2	-2.7	-2.9	-3.4	-5.5	-6.6	-6.4	137
Foreign debt (1)	6.2	11.0	10.9	10.9	11.3	12.0	12.6	15.4	15.8	154
Nº foreign businesses	NA	392	400	403	342	313	258	236	NA	-41(2)

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(1) US\$ billion. (2) Compared with 2002.

Source: Cuba CCE (1991), ONE (2001 to 2008); ECLAC (2000a to 2007a, 2006b, 2007b); number of foreign businesses from Pérez Villanueva (2007b); 2007 debt from ICCAS (2008) (excludes debt owed to Venezuela).

1. Trade Balance in Goods

The value of exports of good plummeted during the crisis and remained flat in the period 2000-03. Later it grew, but in 2007 it was still 31% below the level corresponding to 1989 (as a percentage of GDP, exports fell from 27.5% to 8% in 1989-2007). On the other hand, the value of imports of goods rose much more quickly and in 2007 was at 25% of the 1989 figure.¹² The deficit in trade in goods hit successive records, peaking at US\$6.598 billion in 2006 and although it fell slightly to US\$6.381 billion in 2007 (€4.710 and €4.400 billion) it was still at 137% of the 1989 figure. These

¹² The Anuario dedicates only six pages to list Cuban exports but 21 for imports (ONE, 2007).

figures confirm the traditional weakness of Cuba's foreign sector, which after 18 years of economic transformations has still not achieved equilibrium in its trade balance in goods. Plus, Cuba no longer receives the long-term loans at very low interest rates that the Soviet Union used to provide automatically to cover its annual trade deficit and which Cuba has not paid back. Marquetti (in Pérez Villanueva, 2004) says that in order to regain the 1989 level, Cuban exports would have to grow at an annual rate of 20%-30% in the space of five years, which is unlikely given past economic performance, growth forecasts for 2010 and structural factors that are difficult to correct.¹³

2. Terms of Trade

Taking 1989 as a base year, ECLAC estimates a 55.6% decline in Cuba's terms of trade in 2004; it later changed the base year to 2000 and the decline in terms of trade in 2004 was reduced to 4.7%; in its last report and with the same 2000 base year, the decline turned into an increase of 33% in 2004 and of 60.8% in 2006 (ECLAC, 2000a to 2007a). In 2004, rising prices for oil and imported foodstuffs were not offset by increases in the price of nickel, while sugar prices remained relatively low, so this increase of 33% in questionable. But this situation began to change in 2005 because under economic and trade accords with Chávez, Cuba started to receive substantial subsidies; for instance Venezuela sends Cuba 100,000 barrels of oil a day at a preferential price of US\$27 while the average world price per barrel was US\$65 in 2006 and US\$75 dollars in 2007. So the subsidy Cuba received was worth US\$2.5 billion in 2007 (€1.700 billion).¹⁴ Furthermore, the price of nickel shot up in that period, and sugar prices also rose, although Cuba could not take advantage of this because of its very poor harvests. The main negative factor is the increase in the price of foods that Cuba imported to the tune of €1.2 billion in 2007, an increase of 27% over 2006 due to higher prices rather than volumes (AFP, Havana, 31/XII/2007). Nonetheless, there is no doubt that Cuba's terms of trade have improved.

3. Composition of Cuban Trade

Sugar's contribution to the value of Cuba's total exports fell constantly in the period 1989-2006, from 73% to 8%, due to a drastic fall in the volume exported despite the recent rise in world prices for this commodity. The value of nickel exports is no longer published separately, just total mineral exports (of which nickel is the main component). This contribution rose from 35% to 48% in the period 2003-06, mainly due to the rise in world prices for nickel, since in Cuba its production and exportation remained flat. The contributions from other traditional exports declined in the period 2003-06: tobacco from 12.8% to 8.6%, fish and shellfish from 8.1% to 2.3% and citrus fruits from 0.6% to 0.2%. The share of a non-traditional export product, pharmaceuticals, rose from 3.6% to 5.9% while that of cement fell from 2% to 1.4%¹⁵ (ONE, 2007). Cuba claims substantial growth in biotechnology exports, but the Anuario Estadístico de Cuba does not publish those figures. According to Monreal (2004), in the early 1990s Cuba predicted that the biotechnology industry would become a leader of its export sector, but in recent years expectations to this effect have been toned down considerably. Pérez Villanueva (2006) says exports of chemical pharmaceutical products has fallen since 1995 and are still far from the potential they held in 1989, except in the area of vaccines. Despite changes in the breakdown of Cuba's exports, in 2006 68% of them were traditional raw materials that are typical of developing countries (nickel, sugar, tobacco, fish and fruit), while only a minority were finished or semi-finished products.

¹³ The value of exports rose at an annual rate of 16% in 2000-07, although this shot up to 39% in 2007 because of very high nickel prices, but without an increase in domestic production.

¹⁴ It is not known if Cuba is paying for the oil it receives from Venezuela because it no longer reports, as it used to, the volume and price of the oil it imports, both as a total and a breakdown by country. Nor is it known if Cuba is exporting oil it receives from Venezuela; in 2006 it exported 2.284 billion pesos' worth of 'fuels, lubricants and related products', but a breakdown was provided for only 4% and it was not fuel, while the other 96% was not identified (ONE, 2007).

¹⁵ Cuba committed to exporting 500,000 tons of cement to Venezuela in 2006, equivalent to 29% of its total production, but 17 months later Venezuela's housing minister announced the purchase of only 5,000 tons (*El Universal*, 6/II/2006; *El Nacional*, 11/VII/2007).

There were important changes in the make-up of Cuba's imports in the period 1989-2006. Foodstuffs' share rose from 13% to 14% (due to the fall in domestic production) and that of manufactured goods from 14% to 20% (due to de-industrialisation); on the other hand, the share corresponding to fuels fell from 32% to 24% (thanks to the subsidised Venezuelan oil), that of chemical products from 10% to 7%; that of machinery and transport equipment went from 31% to 24% in the period 1989-2005 but rose to 32% in 2006 through the purchase of diesel generators and buses (CCE, 1991; ONE, 2007). Poor agricultural output has made necessary massive imports of food and fattened the Budget deficit and the trade balance. Cuba imports 84% of the food in its basic consumer basket (the most important sector after oil): 58% of the calories, 62% of proteins, 43% of animal origin and 71% of vegetable origin (*Granma*, 26/II/2007; Nova, 2007). Pérez Villanueva (2004, 2006) says food, fuel and medicines have continued to account for more than 60% of total imports and eat up 80% of the foreign currency Cuba takes in, 'with no possibility of changing this situation over the short term'.

4. Trading Partners

After the fall of the Soviet bloc, Cuba diversified its trade links considerably. In 2006, its main trading partners and their share of Cuba's overseas trade were as follows: Venezuela 26.4% (excluding exports of services), China 14.9%, Spain 8.2%, Canada 7.3%, the Netherlands 6.9%, Germany 5.5%, the US 4%, Brazil and Italy 3% each, Russia 2.4% (compared with 65% with the Soviet Union in 1989) and France 2% (ONE, 2007; figures corresponding to 2007 were not available in March 2008). Venezuela and China together accounted for 41% of Cuba's total overseas trade, while the shares of the rest of the countries declined in 2006.

Venezuela is Cuba's main trading partner (a 30% increase is reported in 2007) and it plays the role of major subsidy-provider that the Soviet Union did in the period 1960-2000. Through numerous trade and economic accords signed with Cuba in the period 2004-07, Venezuela has committed around €3 billion: more than €1 billion to complete 335 projects that include oil exploration and drilling, the laying of an undersea cable between the two countries, the building and repair of ports and ships, three hotels with a total of 2,872 rooms, the supplying of communications and railway equipment; €500 million in the Camariocas ferrous-nickel plant; some €450 million in the Cienfuegos oil refinery; at least €200 million in agriculture, manufacturing and infrastructure; €68 million en housing construction; and unspecified amounts to build a thermal-electric plant in Mariel, as well as a joint venture company with Cuba and China to produce stainless steel, and subsidise trips by 100,000 Venezuelan tourists each year to Cuba (Mesa-Lago, 2007). Before Chávez lost a referendum in December 2007 on broadening his powers, Fidel Castro warned that such a defeat would bring disastrous consequences for Cuba. To avert a repeat of the devastating impact of the collapse of the Soviet Union and a second Special Period, Raúl Castro has sought other trading partners: Angola, Azerbaijan, Equatorial Guinea and Iran as suppliers of oil (and loans from Iran); Brazil granted €70 million in credit and investment in 2008; and Mexico rescheduled €280 million in Cuban debt with Bancomex (15 years with a five-year grace period and 6% interest rate) and granted €16 million in credit to boost trade that had fallen by one half (Reuters, Havana, 14/III/2008). These are positive steps but it will be extremely difficult to replace Venezuela if Chávez falls from power or oil prices drop significantly due to a world recession. On the other hand, if Cuba discovers extensive oil deposits of adequate quality and profitability, it will reduce its dependence on Venezuela significantly.

China is Cuba's second-largest trading partner, as a result of agreements signed in the period 2004-07. These included a 10-year delay in payment of Cuban debt, 150 million in credit to buy Chinese products (buses, refrigerators and foodstuffs) and set up a joint venture biotechnology company. But a $\oiint{400}$ million investment to complete the Camariocas plant was cancelled (Chávez assumed this and added more) and a promise to invest $\oiint{800}$ million to work the huge nickel deposit at San Felipe has not materialised, although China retains rights to it, preventing Cuba from seeking another investor. As of 2007 it is supposed to export 400,000 tons of sugar to China but this is impossible because that is all Cuba has for export and it has many obligations; the main export is nickel. There are other problems in Cuba's trade ties: prices of Chinese goods are higher than in other countries (which would explain the fact that most of the buses have not arrived and Cuba is buying them elsewhere); Cuba has to deal with intermediaries who earn a commission and 60% of Chinese companies are in private hands, which reduces the Chinese government's ability to help Cuba. And interest rates are the same as those applied by China government to its companies and Cuba is asking for a lower rate (Fornés, 2007).

The US trade embargo against Cuba has been criticised almost unanimously by the UN for many years, and its toughening under the Bush Administration has been assailed even by many Cuban-Americans who can only travel to Cuba every three years and suffer restrictions in the remittances they can send. The policy has been ineffective, and the Cuban government has used it to justify its economic policy errors and their harmful effects. The embargo creates difficulties but is no longer the fundamental economic problem for $Cuba^{16}$ because the island trades with and receives investment from many countries. Furthermore, the embargo was eased in 2001 to allow exports of US foodstuffs, and as of 2007 more than l.9 billion worth made their way to Cuba. This made the US Cuba's seventh-largest trading partner and its main food supplier. Cuba's main economic problem is its inability to increase production so as to satisfy its domestic needs and have enough left over for exporting.

Cuba does not have full membership in the main regional trade associations (the Central American Common Market, the North American Free Trade Agreement and MERCOSUR¹⁷) and it has been excluded from the Free Trade Area of the Americas. But along with Venezuela, Bolivia and Ecuador it has launched the Bolivarian Alternative for the Americas (ALBA). Cuba has joined CARICOM but its trade with Caribbean member states amounted to just 0.8% of its total trade in 2006 (ONE, 2007). The conviction of 75 peaceful dissidents in 2003, just as Cuba was negotiating with the EU's Commissioner for Development and Humanitarian Aid, Louis Michel, triggered a crisis that prevented Cuba from joining the Cotonou Agreement and gaining access to its €10 billion aid fund; the EU suspended economic aid to Cuba and imposed political sanctions. In 2005 the EU suspended the last of those sanctions and in 2006 Spain launched a policy of dialogue, rescheduling Cuban debt and increasing trade.¹⁸ Michel returned to Cuba in March 2008 and held talks with senior Cuban leaders (but not with dissidents), who stated that in order to resume dialogue the EU must definitively eliminate the sanctions.¹⁹

5. Foreign Debt

Cuba's foreign debt in hard currency soared 155% between 1989 and 2007 (from US\$6 billion to US\$15.8 billion), mainly due to accrual of interest on unpaid capital and the depreciation of the dollar, in addition to new debt undertaken with Venezuela and China. Cuba has failed to pay off debt owed to South Africa, Belgium, Canada, Chile, Spain, France, Japan, Mexico, the UK and other countries. As of late 2007, Cuba's total foreign debt was estimated at US\$37.905 billion (42% of it in hard currencies and 58% in non-convertible currencies with Russia and other former communist countries²⁰). This is equivalent to US\$3,410 *per capita*, three times the Latin American

¹⁶ In a questionable fashion, Cuba estimates its accumulated losses since 1961 at 65 billion. But even if this figure is accepted, it would have been more than offset by the US\$65 billion Cuba received from the Soviet Union in the period 1960-90, in 2008 prices.

¹⁷ The Iberoamerican Summit of 2006 declared that Cuba would be included in MERCOSUR through bilateral trade accords (EFE, Córdoba, 21/VII/2006).

¹⁸ If the bill under consideration is approved, 3.4 million Cubans would qualify for Spanish citizenship and many would seek aid for paying to travel to Spain, as well as a pension and health care.

¹⁹ Cuba has signed two agreements with the UN: one on economic, social and cultural rights, and another on civil and political rights. Foreign Minister Pérez Roque made their full implementation contingent on the elimination of the US trade embargo and Cuba's interpretation of the accords (EFE, New York, United Nations, 29/II/2008).

²⁰ It was reported that the Russian government presented the Duma with a bill ratifying a debt renegotiation accord signed on 28 September 2007 with Cuba, but this could not be confirmed.

average of US\$1,173 (figures calculated by the author on the basis of Cuba's debt as per estimated by ICCAS, 2008, and population according to ONE, 2008, as well as Latin American debt and population figures from ECLAC, 2007b and 2007c). As a percentage of exports of goods and services in 2004 (the last year for which figures are available), a tool often used by financial institutions to measure a country's ability to pay, Cuba's debt in foreign currency alone yielded the figure of 213%, compared with a regional average of 138% (ECLAC, 2006b). Short-term debt fell by 27% in 2006 while medium- and long-term debt rose 73%, because Cuba's debt with Venezuela is long-term,²¹ and earlier short-term debt has been rescheduled, as have medium-term credits (Soberón, 2005; ECLAC, 2006a). Since 2006 Cuba has separated 'immobilised' debt, which accounts for 56.5% of the total –it has been rescheduled since 1986 and is owed mainly to the Paris Club of creditors– from 'active' debt that can be renegotiated. It accounts for 43.5% of the total (based en ECLAC, 2007a, and ONE, 2007).

5. Foreign Investment

Disbursed foreign investment, accumulated from 1995 to 2002, totalled US\$2.5 billion, although this figure was never published again. Figures on direct foreign investment have not been published since 2001, when it fell by 91% (from US\$448 million to US\$39 million); in 2006 it reportedly jumped to US\$950 million thanks to Venezuelan investment (Pérez-López, 2007). The number of joint venture companies with foreign investors declined 41% in the period 2002-06, from 403 to 236 (Table 3), while the number of cooperative production contracts fell by 87% in the period 2003-06, going from 441 to 57 (Pérez Villanueva, 2007b).²² Direct foreign investment is centred on activities that generate small production lines with the technological sectors, lacks lasting potential for expansion due to a lack of natural resources (except tourism), and has had little direct impact on the use of installed industrial capacity or skilled labour (Pérez Villanueva, 2004). Marta Lomas, Minister of Foreign Investment and International Cooperation, said in 2007: 'We are not interested in having many [joint venture companies]... only in the ones that will have an impact on the economy'. She argued that the number of joint venture companies has fallen because Cuba no longer needs small firms and is living priority to strategic sectors like energy, mining and tourism (quoted by Israel, 2007). On the other hand, Raúl Castro said on 26 July 2007 that he was prepared to boost foreign investment that was serious and within the parameters of socialism. One factor that affects overseas financial operations is that two Swiss banks (UBS and Credit Suisse) have stopped doing business with Cuba, due to the UBS scandal in 2005 and the high cost of executing legal norms on deposits. Also complicating things is the fact that three Canadian banks shut down US dollar-denominated accounts held by people with dual nationality (the banks are the Royal Bank of Canada, Bank of Nova Scotia and Toronto Dominion Bank), and the closure of the banks ING and Barclays (Sontag Zeitung, Geneva, 12/XI/2006; Reuters, Havana, 6/VII/2007).

6. Monetary Duality and Exchange Rates

A system of 'monetary duality' featuring a 'national' peso and a 'convertible' peso, or CUC in Spanish (actually it is not convertible because its value is not determined on the international market but rather unilaterally by the government) was introduced in 1994 due to the severe depreciation of the peso and the dollar being authorised as legal tender. The result is that part of the economy works with CUCs, part of it in regular pesos and part of it in dollars. In 2004 the dollar stopped being legal tender, although Cuban people are still allowed to possess them. But only CUCs are accepted by State entities, including stores that operate in hard currency (TRD in Spanish). Exchanges of dollars for CUCs is taxed at the rate of 10%, but this does not happen with euros, Canadian dollars, pounds sterling or Swiss francs. Since March 2005, the CUC is worth 24 pesos and costs 25 national pesos to purchase, with the extra peso added as a commission. In April

²¹ ICCAS (2008) estimates Cuban debt accrued with Venezuela at US\$8 billion over the period 2001-07, but this figure could not be confirmed and for this reason it is excluded from the debt in foreign currency and total debt, both in the text and in Table 3.

²² But Pérez Villanueva argues that a smaller number of companies have managed to increase sales, exports and direct revenues.

2005 the value of the CUC against the euro, US dollar and other currencies was increased by 8%, and the rate of the CUC against the national peso was left unchanged (Mesa-Lago, 2007). Another 8% increase was carried out in April 2008, changing the CUC's value against all those currencies; furthermore, a commercial margin of 3.5% is charged. The exchange rate between the two kinds of Cuban peso remains unchanged (Agreement 15, 2008). There is currently a heated debate under way in Cuba on whether to do away with 'monetary duality' (see II-E y III-A-4).

7. Tourism

The number of tourists visiting the island grew from 270,000 in 1989 to 1.8 million in 2000; the number was unchanged in 2001, fell in 2002 (due to the September 11 terrorist attacks in the US), rose to 2.3 million in 2005 and declined to 2.1 million in 2007, which was still eight times the level corresponding to 1989 (Table 4). Gross revenues from tourism include the cost of imported supplies (between 28% and 39%) which must be deduced in order to calculate net revenues; gross revenues fluctuated in the period 1989-2007, but in the last year it was US\$2.236 billion (€1.500 billion), 13 times the 1989 level. The goal of receiving 2.5 million tourists was set in 2006, and the goal of taking in US\$2.600 billion in revenue was set in 2002. In 2007 Cuba was 14% shy of meeting these objectives. The number of hotel rooms for tourists doubled in the period 1989-2006 (from 21,400 to 48,700) but the occupancy rate fell from 74.3% to 44.8% in 2000-07 and the average daily expenditure per tourist declined 45% in the period 2003-06. The main source countries for tourism are Canada (31%), the UK (10%), Spain (6%, a fall from 28% in 2007), Italy (6%) and Germany (5%) (ONE, 2008).

Indicators	1989	2000	2001	2002	2003	2004	2005	2006	2007
Thousands of visitors	270	1,774	1,775	1,686	1,905	2,048	2,319	2,221	2,152
Gross revenue (US\$ mn)	168	1,948	1,840	1,769	1,999	2,114	2,340	2,056	2,236
Thousands of rooms	21.4	38.1	40.2	41.3	43.7	45.2	46.6	48.7	NA
Occupancy rate (%) (1)	NA	74.3	64.7	59.7	61.8	63.5	63.6	46.5	44.8
								(3)	
Average daily	NA	168.6	163.6	168.7	175.0	108.4	96.9	NA	NA
expenditure (US\$) (2)									

Table 4	Tourism	Figures	for	Cuba	1989	and 2000-07	
I able 4.	rounsin	Figures	101	Guba,	1303	anu 2000-07	

(1) Cuban figures on 'lodging establishments'; ECLAC (2002, 2003a to 2006a) gives diverse figures in its publications: 60.7% en 2000, 58% en 2001, 53% and 57% in 2002, 55% and 58.5% in 2003, and 55.7% en 2005.

(2) From ECLAC but with diverse figures: ones shows an 18% fall in spending in the period 1997-2002, from US\$184 to US\$151 (ECLAC 2002, 2003a); another shows higher figures since 2001, but virtual stagnation in 1998-2003, from US\$174 to US\$175 (ECLAC 2004a, 2005a).

(3) Cuba first gave the figure of 60.7% but later reduced it (ONE, 2007, 2008).

Sources: Cuba CCE (1991); ONE (2001 to 2008); ECLAC (2005a to 2007a).

Tourism in Cuba was always cheap, but the number of visitors and the occupancy rate are falling and tourists spend less and less. ECLAC (2006b, 2007a) says this is because tourism packages for Cuba are more expensive than in other countries of the Caribbean (Cancún in Mexico and the Dominican Republic offer better service at a lower price); it also blames insufficient hotel services and the appreciation of the CUC;²³ Monreal also blames a drop in investment and low priority given to this sector (García interview, 2007a). Furthermore, between 2005 and 2007 the number of Cuban-Americans visiting the island fell from 100,000 to 30,000 because of restrictions imposed by the Bush Administration. The number of cruise passengers stopping off in Cuba fell from 102,000 to 11,000 because of Fidel Castro's criticism of cruise lines, plus the fact that Royal Caribbean bought a Spanish cruise line and cancelled stops in Cuba (AP, Havana, 23/I/2008). In 2006, the Canadian Association of Travel Agents complained to the Cuban Tourism Ministry over what it called inadequate services, theft at hotels and airports, rising costs and trip cancellations (Encuentro en la Red, 26/IV/2006). Most of the hotels were built in the 1990s and have undergone little repair or upkeep so they are in very poor condition; Cuba has one of the lowest return rates in the tourism industry, and an outbreak of dengue fever 2007 frightened visitors (Reuters, Havana, 25/I/2007; El Economista, 7/VII/2007). To address the fall in tourism the Cuban government has announced an

²³ The second 'appreciation' of the CUC in 2008 will also have an adverse effect on tourism by making it more expensive with respect to the euro, dollar and other currencies.

investment of 185 million pesos to upgrade hotels and airports and a 20% cut in landing fees for airlines.

8. Balance of Payments

Cuba has not released a complete balance of payments report since 2001 (ONE, 2005). The most recent figures from ECLAC (2007a) for 2005 omit exports and imports of services. This have been calculated by the author: the enormous deficit in the balance of goods (5.164 billion pesos) was not offset by the surplus in the balance of services, mainly tourism and professional services rendered overseas (4.240 billion), despite a 56% increase over 2004; the total deficit in the trade balance rose to 924 million pesos and the current account deficit was 154 million; the overall balance declined to 346 million pesos, 62% less than in 2004. The author's partial reconstruction for 2006 (based on ONE, 2007) suggests that, despite another big increase in the surplus in the balance of goods (6.598 billion pesos); the current account deficit rose to 240 million pesos, due to the enormous deficit in goods, the decline in current transfers (mainly remittances from overseas) and an increase in factor service (payment of interest on debt and repatriation of profits); it was impossible to the total balance due to the lack of two components.

Venezuelan aid changed the Cuban balance of payments from a considerable deficit over the course of four decades to a small surplus in 2006 (a small deficit is reported in 2007); the enormous deficit in the balance of goods in 2006 (6.598 billion pesos) was almost offset by professional services sold to Venezuela (4.456 billion pesos) and to a lesser extent by revenue from tourism (2 billion pesos). It is not known how the professional services are measured.²⁴ Under the original agreement between the two countries, Cuba would pay the salaries of doctors and paramedics to finance imports of Venezuelan oil. But the 2005 agreement changes this arrangement and since then Venezuela has been paying an estimated 23,000 doctors and paramedics. The author's calculations indicate the average annual salary of these professionals to be $\leq 44,000$. This is obviously an overestimate if we take into account that a nurse earns much less than a doctor and a Venezuelan one does not make that kind of money. So there is an implicit subsidy in this operation.

Table 5. Estimates of the Cuban Balance of Payments, 2004-06 (in millions of pesos)								
	2004	2005	2006					
Current account balance	116	-154	-240					
Trade balance	-208	-924	101					
Exports of goods and services	5,630	6,999 (2)	9,850 (3)					
Goods	2,180	1,999	2,905					
Services	3,450	5,000 (2)	6,945 (3)					
Imports of goods and services	5,838	7,923 (2)	9,749 (3)					
Goods	5,098	7,163	9,503					
Services	740	760 (2)	489 (3)					
Net balance of goods	-2,918	-5,164	-6,598					
Net balance of services	2,710	4,240	6,456					
Current transfers (net)	974	970	278					
Factor service	-650	-200	-618					
Capital account balance	800	500	NA					
Overall balance	916	346	NA					

Table 5. Estimates of the Cuban Bala	ance of Payments, 2004-0	6 (in millions of pesos ¹)
	21100 01 1 ayinonto, 2004 0	

(1) ECLAC gives the figures in dollars, but at the parity exchange rate with the peso.

(2) ECLAC (2007a) left services blank but reported a positive balance of services of 4.2 billion; services were estimated by the author on the basis of said balance and figures from ECLAC (2006a).

(3) ONE (2007) left services blank but reported a surplus of 6.4 billion in the balance of services, and also gave total exports and imports of goods and services. This allowed the author to estimate the figures that had been omitted. Sources: 2004-05 from ECLAC (2006a, 2007a); 2006 figures ONE (2007).

²⁴ According to Pérez Villanueva (2007b), the lack of agreement between ECLAC and Cuba stems from the fact that the Havana government has not assigned a value to the cost of the medical services or figures that allow for them to be compared retroactively.

D. Social Indicators

This section chooses the most important social indicators for evaluating living standards (Table 6). In 1989 Cuba led Latin America and communist countries in the vast majority of these categories, but the economic crisis triggered big drops in virtually all of them. Economic recovery has allowed Cuba to get back to or even surpass the previous levels in several categories, but in others the numbers remain low and in some there are problems with the reliability of the statistics.

Table 6. Social Indicators		,		-						
Indicators	1989	2000	2001	2002	2003	2004	2005	2006	2007	2007/
										1989
Open unemployment	7.9	5.5	4.5	3.3	2.3	1.9	1.9	1.9	1.8	-77
(%)										
Real wages (pesos)	188	32	34	33	36	36	40	45	45	-76
Real pension (pesos)	56	14	14	14	16	15	22	22	NA	-61
Infant mortality (1)	11.1	7.2	6.2	6.5	6.3	5.8	6.2	5.3	5.3	-52
Maternal mortality (2)	29.2	40.4	33.9	41.1	39.5	38.5	51.4	49.4	(3)	69
Housing/1.000 inhab.	6.1	3.8	3.2	2.4	1.4	1.4	3.6	9.9	4.6	-25

Table 6	Social Indicat	ors in Cuba	, 1989 and 2000-07
			, 1303 and 2000-01

(1) Per 1,000 live births.

(2) Per 100,000 births.

(3) The preliminary figure is 31.1, a drastic fall that must still be confirmed.

Sources: CCE (1991), ONE (2001 to 2008); wages from Vidal (2007), pension figures from Mesa-Lago (2008) and housing figures from Mesa-Lago based on population and housing built, as per CCE (1991), ONE (2001 to 2008).

1. Unemployment

The official rate of unemployment dropped 77%, from 7.9% in 1989 to 1.8% in 2007, the lowest in Latin America, which had an average jobless rate of 8%. But the rate is significantly underestimated because it treats as employed several categories of people who technically are not employed: laidoff workers who are taking courses to learn a new skill, workers who are studying full-time and getting paid, young people enrolled in the so-called 'study with employment' programme, and people who work part-time growing vegetables in patios and urban gardens for their own consumption needs. If we remove these people from those considered to be employed, the jobless rate would rise substantially. Furthermore, many unemployed do not sign up at city unemployment offices because they know they will only be offered jobs in the farming sector (Mesa-Lago, 2005b). The newspaper of Cuba's youth communist league questioned the official unemployment rate: 'The unemployment figures... are not real. Provinces like Granma say they have achieved full employment, but why do you see so many unemployed people out on the streets?'. One study showed there were 18 times as many jobless people as stated in the official rate, which 'shot up the unemployment rate' and 'if Granma was one of the models for low unemployment, what are things like in other provinces that gave higher numbers?... The Labour Ministry says young people are not interested in the jobs on offer at employment centres, but it is hard to relieve that 90% of the jobless people detected in 2006 wanted to work and could not find something acceptable' (Ortiz et al., 2007). The Director of Employment at the Ministry said that at the national level 'there are 210,797 people of working age who have no interest in or motivation for working'. That would be 4.3% of the working population of 4,847,300. ONE estimates that 20% of the working-age population in Havana does not work; 45% of them are trying to find work but do not accept positions with the State because the pay is low and private companies pay more; 17% of graduates from technical schools did not vie for jobs that were on offer (Granma, 9 & 21/III/2008; ONE, 2008).

2. Wages

Despite increases in nominal wages in 2005, real wages (adjusted yearly for inflation) in 2007 were 76% below the 1989 level. Raúl Castro acknowledged in his speech on 26 July that 'wages are clearly insufficient to satisfy needs'. He has all but abandoned his role of defending the socialist principle that people give what they can and receive what they need. Castro said wages should be adjusted to better reflect inflation. (R. Castro, 2007a). Martínez (2007) feels this problem should be resolved gradually and in a sustained way, not through immediate and spectacular solutions 'that are only suited to ignorance and deception, or deliberate efforts to sow confusion'. Rodríguez

(2007b) says that in 2007 wages grew at a faster pace than workplace productivity, 'a negative trend that we must reverse for good', and that there have been no appropriate and concrete responses to workers' demands.

3. Health

Infant mortality was the only indicator that declined during the crisis. It fell 52% from 11.1 to 5.3 per 1,000 live births in the period 1989-2007, the lowest rate in the western hemisphere after Canada. This was achieved by forcing all pregnant women to undergo a monthly sonogram and other tests to determine if the foetus is healthy; if a malformation is detected an abortion is carried out. This has been one of the causes of Cuba's having the highest abortion rate in the region (Dorschner, 2007). The rate of maternal mortality rose 69%, from 29 to 49.4 per 100,000 live births in the period 1989-2006, but is reported to have fallen to 31.1 in 2007. Here, too, Cuba has manipulated the statistics: starting in 1996 a new statistical series replaced the category of maternal death through 'other causes'. Comparing the two series in 1996-2000 shows that the new one reduced the rate by 10.6 points in the annual average. (Mesa-Lago, 2005b); if one corrects this under-estimate, the rate for 2007 goes up to 41.7, which is 43% higher than the rate in 1989. The ratio of inhabitants per doctor declined from 276 to 158 in 1990-2006 (ONE, 2007) and is the lowest in the region, but 37,500 doctors (half the total) work overseas (Rodríguez, 2007b); if you subtract these doctors, the rate goes up to 330 in 2006, 20% higher than in 1989. This exodus has caused a major decrease in access to primary medical care and long waiting lists, especially for surgery. According to the Deputy Minister for Public Health, Joaquín García, in dentistry 'as of the end of 2007 production of false teeth has not reached the level there was 18 years ago' (AFP, Havana, 6/XII/2007). There is a severe shortage of medicines, available only in stores that deal in hard currency; 80% of the drinking water grid is in 'bad or average' condition and treatment of waste water and sewage has deteriorated severely (Bohemia, Havana, 9/XI/2007; Opciones, La Habana, January 2008). The number of hospital beds fell 19% in the period 1995-2006 (ONE, 2007); Rodríguez (2007b) reports that 45 clinics have been repaired and enlarged but 'the quality of services is not commensurate with the recourses the country spends on them'.

4. Social Security Pensions

Despite nominal increases in pensions that were enacted in 2005, average real pensions in 2006 were 61% below the level corresponding to 1989. These slim pensions accounted for 6% of GDP and 13% of the state budget in 2007 and both percentages will continue to grow. Rodríguez (2007b) says more than 16% of Cuba's population is over the age of 60, and for two years in a row the overall population has declined. It is already the second most aged in the region. So measures are needed to raise the birth rate and take care of the elderly. Revenue from money paid by companies is not enough to finance expenditures for pensions. The deficit in this area as a portion of GDP grew from 1.3% to 2.5% in 1986-2006 (Mesa-Lago, 2008).

5. Education

Enrolment at the intermediate level has risen and soared at the higher level. University enrolment shot up 172% in the period 1989-2007, but it was concentrated in humanities and social sciences (3,360%), medicine (1,131%) and teacher training (724%); but it rose only 12% in agriculture and 27% in technical areas, and fell 40% in natural sciences and mathematics (ONE, 2007). The enormous investment in humanities and teacher training, contrasted with a deficit in areas of study that are crucial to Cuba's development, is an inefficient use of funds and will create problems in the future. More to the point, the Higher Education Minister, Luis Ignacio Gómez, says there is a shortage of teachers because many have quit the profession due to low salaries. This forced the government to create a programme of so-called 'emerging' teachers for primary schools (26,000). They are trained in just eight months and then assigned to a 'tutor' who is supposed to oversee four of them although in actual practice the number is usually 10, and in many cases the tutor is also an 'emerging' teacher (*Juventud Rebelde*, 5/VIII/2007; *Granma*, 24/X/2007). Many doctors have also switched to other jobs because their pay was so low, which means hefty investment in their training

is lost. Finally, universities churned out so many graduates in social studies (40,000) that this produced a glut, making it hard to find work for them. So enrolments in this area were cut 86% in the 2007/08 academic year (ONE, 2008). Jorge Mattar, Deputy Director of the ECLAC office in Mexico, said 'Cuba must have the highest rate of underemployment in all of Latin America. It has a highly educated population –technicians, professional-level people– whose skills are wasted [because] they are doing other kinds of work' (AFP, Mexico, 7/IV/2007).

6. Housing

This is widely recognised as Cuba's gravest social problem. The population has doubled in the period 1959-2007, but the number of homes built did not keep pace with those destroyed because of lack of repair and upkeep. The number of units built per 1,000 inhabitants fell from 6 to 1.4 from 1989 to 2003-04, rose to 9.9 in 2006 with the construction of 111,000 units (76% of the goal of 150,000 and to a large extent through completion of houses that were already under construction) but fell to 4.6 in 2007, with 51,790 homes built (74% of the goal of 70,000); in 2007 the rate was 25% below the level corresponding to 1989 (based on CEE, 1991; ONE, 2007, 2008). And construction has not offset the fact that 76,854 homes were destroyed and 91,472 seriously damaged by five hurricanes and tropical storms in recent years. The 2008 budget earmarked only 1% of its money to housing construction, and the goal is 50,000 homes (Barreiro, 2007). In 2005, the National Housing Institute said 43% of Cuban homes were in bad or average condition; officially, Cuba needs 500,000 homes but the real figure is probably twice as much. There is a 10year waiting list for one million families (Petras & Eastman-Abaya, 2007). The permuta system for moving from one home into another of a similar size, quality and location is extremely bureaucratic, violated systematically and plagued with corruption. The Cuban jurist Narciso Cobo says: 'It is illusory to assume that just because (buying and selling of homes) is almost prohibitively regulated it is not going to take place. It has continued, and along the way it has affected an unimaginable number of citisens' ('Sobre la Transición...', 2007).

6. Poverty and Inequality

Poverty in Havana increased 271% in the period 1988-2002. In the past year one poll estimated the poverty rate at 20% (ONE, 2001) and described it as 'the state of possessing insufficient monetary revenue, which limits consumption of food and other essential goods and services (as well as) lack of housing or deterioration of it or its furnishings, and public transport'. In the city of Havana, 23% of the population said they considered themselves poor and another 23% 'almost poor', for a total of 46%; as for nutrition, the proportion was similar, but the five deciles of lowest income surpassed the average with a range of 52% to 62%. Monthly expenditure on food in pesos for people in decile 9 (the tenth, the highest income bracket, was not disclosed) was 659 pesos, 12 times higher than the poorest decile (55 pesos). People over age 60, women who lead households on their own, blacks and *mestizos* predominate in the poorest deciles (whites predominate in decile 9). Those surveyed identified five main problems: 75.5% cited insufficient wages, 70% said lack of transport or difficulty in accessing it, and nearly 70% said they did not have enough food, or decrepit housing, clothes or shoes (Añé, 2007). Poverty is worst in the eastern provinces, from which people have migrated to the Cuban capital.

There are major disparities between Cuba's 15 provinces; in 2003 the Human Development Index found that the city of Havana was 30% above Granma in six combined indicators (Méndez *et al.*, 2007). In 2006, the infant mortality rate oscillated between 2.2 and 7.9, while maternal mortality fluctuated between 16.9 and 96.6; and as for remittances and circulation of the US dollar, Havana received/had 44 times as much as Guantánamo (ONE, 2007; Sánchez-Egozcue, 2007). The Gini coefficient of inequality rose 64% in 1989-99 (from 0.22 to 0.41; recent figures are not available). If it were based only on 'national pesos', excluding the CUC and remittances, if these were included the Gini would be much higher (Mesa-Lago, 2005b). The tax system is regressive because 64.5% of revenue in 2006 came from indirect taxes (on sales and services) while only 35.5% was generated by direct taxes (income, utilities) with a progressive effect (based on ONE, 2007).

II. Economic and Social Debate

Fidel Castro warned in a speech at the University of Havana in 2005 that the Cuban revolution could be reversible, not only because of an external threat from the United Staes but also because of domestic problems. But that warning was not followed up with discussion. In his speech on 26 July 2007 Raúl Castro acknowledged that Cuba had serious socio-economic problems and he promised to introduce 'structural reforms' although he did not define them and warned that 'everything cannot be resolved immediately [and] do not expect spectacular solutions' (R. Castro, 2007a).²⁵ After a decade of silence, this speech triggered broad and deep debate on the economy and the reforms it needed, raising significantly people's expectations for change.

Raúl sent an order to Cuba's 3,000 state-run companies and agencies for them to provide him, in August or September of 2007, with a list of the main problems they faced and proposals for resolving them. In the city of Havana, where most of the companies are based, these firms mainly blamed centralisation, and specifically the Ministry of Economy and Planning and the single account of the Central Bank of Cuba. The following example illustrates the inefficiency and distortion caused by these policies: a company needed to import a vehicle and requested authorisation from the Central Bank for hard currency to buy it. The request was turned down. The company then asked for and received permission and currency to buy spare parts overseas. Through an intermediary, the company bought the vehicle it needed overseas, had it taken apart and the pieces imported, which it put back together in Cuba (information from a Cuban economist who requested anonymity, 2007).

There is a consensus that reforms should fall within 'socialist parameters' but these are not defined and there is a big different between the absolute statism of North Korea and the 'market socialism' of China and Vietnam. Monreal says 'socialism allows variants, different configurations', although he feels there is still no agreement: 'at this time a relatively slow process is under way in search of a political consensus that might establish rules for the details of structural change'. Monreal says the role of economists is to provide data and analysis so that public policies rely on solid information, but decisions are made by leaders (García interview, 2007a). But an economist of the new generation requires a more important role: 'Real dialogue is needed between social scientists and those who make decisions. Does it make sense to create institutions and have people study, and then not rely on them, not even call them to see what they think? Errors have been committed even though there were specialists available ... Nothing can justify that' (Lage Cordoníu, 'On the Transition...', 2007).

The following comments, mainly from economists but also from political scientists, jurists, philosophers, sociologists and students, all of them living in Cuba, show there is a wide range of opinion, although they always rule out a free market system with scant regulation by the state.

A. Official Inertia and a Lack of Participation

The Chairman of the National Assembly's Commission on Constitutional and Legal Affairs, José Luis Toledo, has criticised the impunity with which government employees 'make a mockery of the essential aspiration of our society, and the spirit and letter of the Constitution'. He was referring to the ineffectiveness of the many complaints and requests that Cuban citizens file with government agencies and sloppy management that prevents problems from being resolved. He criticised the indolence and inefficiency of members of the National Assembly and other state agencies, where he said 'there seems to be overwhelming unanimity and very few debates in which positions are contrasted... whereas debate is essential... for making decisions in such complex circumstances as

²⁵ Raúl Castro also said his brother's main projects (Battle for Ideas, the Energy Revolution) had not been frozen, although there were being subjected to necessary adjustments and delays.

those which the country is going through... [to ignore this] would be a lamentable display of ignorance or weakness'. Delegates to the Assembly should stop complaining and exercise their duties to change the members of the board of directors, the bosses of agencies and companies that do not fulfil their obligations' (Ronquillo interview, 2007). The sociologist Aurelio Alonso says participation by Cuban citizens is unsatisfactory. 'The assembly of accountability of the People's Power... does not allow true interaction. To the contrary, rather than encouraging discussion of community problems, it encourages a lack of communication' ('On the Transition...', 2007). The journalist Soledad Cruz (2007) said that 'participation by people is reduced to complying, supporting whatever is decided by those higher up, and that takes away from them a sense of responsibility... [people] need to feel that that they are really participating in decision making... that they are listened to and taken into account'. According to Hernández, people want a socialist society in which citizens participate in a more effective way and the system also works more effectively; in which opinion and participation by the people is not limited just to mobilisation but also extends to decision-making and control over policy; in which the organs of people's power, workers and collective organisations really have the capability to decide on and resolve problems with food, transport, nutrition, etc' (García interview, 2007b).

B. The Chinese and Vietnamese Models

Monreal relieves that 'the Chinese and Vietnamese experiences are very interesting. I am not saying that we should copy them... but there is something to be learned because they had problems similar to those of the Cuban people in agriculture and resolved them quite successfully'. The economy needs a comprehensive transformation to the style of those two Asian countries, a chance that will require much more decentralisation and acceptance of private markets than the government has allowed until now, with the goal of confronting insufficient motivation and innovation, and letting the market determine prices, provide incentives to companies and encourage them to take risks (interviews with Davies, 2007, and García, 2007a). Pérez Villanueva (2008) says 'Vietnam has managed to introduce the market and its economy has high levels of growth, with rising standards of living, and is now a pace-setter in world exports'.

A comparison by Perkins (2004) of the reforms carried out by the three countries and their effects is most revealing. China and Vietnam abandoned collective agriculture and replaced it with family farms and free agricultural markets; Cuba turned part of its state-run farms into UBPCs which lack autonomy and a dependent on the government, it buys their harvests at a below-market price and restricts their participation in agricultural markets. China first transferred most of its state-owned industry to cities and villages, and then to companies with direct foreign investment, while in Vietnam most exports are carried out by companies with such investment; in 2004 less than 25% of Chinese industry was owned by the state, and the figure was only slightly higher in Vietnam. In Cuba, the industrial sector is state property, a situation which has adverse effects for production, except for sectors with direct foreign investment. Thanks to laws which provided direct foreign investment with secure and reliable legal framework, Vietnam attracted US\$2 billion in such investment in 1997; in Cuba it fell 41% in the period 2002-06 due to restrictions imposed by the state and to the revoking of some contracts. In 2002 Cuba could boast only 5% the direct foreign investment that Vietnam did. Rapid growth of imports paid for in hard currency was financed by fast-growing exports (Vietnam went from being a net importer of rice to a net exporter); China ended central, ministerial control of foreign trade and devalued its currency in order to make its exports more competitive, while Vietnam freed up its exchange rat and let its currency float, with similar results. Cuba went in the other direction: in 2003 it reversed the modest decentralisation it had carried out in the foreign trade sector in the 1990s and re-concentrated power in the Ministry of Foreign Trade and the Central Bank. It also continues to set an exchange rate that is not very realistic, and raised the value of the convertible peso in 2005.

During a visit to Cuba in 2003, just as Cuba was rolling back on reforms, Xu Shicheng, a member of the Chinese Academy of Social Sciences, said Cuba 'should establish mechanisms of socialist, market-based economy, and do away with egalitarianism' (quoted by Contreras, 2007). During a trip to China in 1997, Raúl Castro met with Zhu Rongji, the designer of many economic reforms, and with hundreds of managers and businessmen, while in during a trip in 2005 he said: 'What you have done here really inspires hope... there are people who are worried about the evolution of China, but I am content and at ease [with what I have seen]' (*Granma*, 21/IV/2005). Currently in Cuba there is a Study Group examining the collapse of the Soviet Union and Eastern Europe, the experiences of China and Vietnam, and the lessons these events offer for socialism.

C. Overall Strategies

According to Monreal (2007), 'In order to recover, (Cuba) needs to overcome completely the effects of the crisis... above all the major contraction of consumption and living standards, both of which remain depressed, the huge undercapitalisation at the material base, and the insufficient functioning of a considerable number of productive branches and units... The current economic reactivation could be the necessary albeit insufficient launching point for putting the country on a path toward economic development [however] socioeconomic transformation requires much more than favourable conditions... such as the current ones'; this reactivation 'is in no way of an irreversible nature' because it is based on 'the action of exogenous factors' that cannot be controlled. Pérez Villanueva (2004, 2006, 2007a) agrees with this, and adds that the recovery has yet to overcome the major contraction in levels of consumption, individual well-being and transport that existed in 1989. He proposes changing the current productive and technological model with wide-ranging economic and financial reforms; decentralisation of decision-making and a more important role for the market; allowing remittances to be invested in small- and medium-size family-run companies; promoting cooperatives in the service sector, and ones that are complementary to state industries (this would boost competition, efficiency, employment, demand and workers' wages). He also suggests the state limit itself to devising policies and creating proper instruments for non-state players to operate. As initial measures for absorbing the excess in the money supply have run their course, he recommends seeking new mechanisms that provide a greater range of offers to those who have high income and savings. Hernández says 'there is a broad consensus on the importance of transforming the Cuban model, on the social system carrying on with a different model... that it be able to correct itself'; Cuba should resume reforms of 1993-96 that were interrupted, such as economic decentralisation²⁶ (García interview, 2007b).

D. Property

In a study by a group of economists and philosophers who analysed the issue of property under Cuba's communist regime, Luis Marcelo Yera said fundamental decisions for businesses are taken by the government. He said many of these decisions should be transferred to workers and that staterun companies should compete with other forms of property (Orta *et al.*, 2006). In a symposium on the communist transition in Cuba that was published in *Temas*, most participants denied that socialist property is equivalent to state property. The problem with the latter 'is that which belongs to everyone belongs to no one, and therefore no one takes responsibility for it'; 'workers do not feel like owners of the means of production, but rather say they belong to the State, which supposedly represents the people. For this reason it is necessary to seek new way in which companies become the real property of the workers'. The sociologist Aurelio Alonso, whose position was quite typical of the entire group, proposed that the State retain functions in terms of regulations and investment, in addition to ownership of natural resources (oil, minerals) and major utilities (electricity, gas and

²⁶ The jurist Ramón de la Cruz recommends decentralising by giving city governments a budget, with authority to manage it and obtain revenues, thus stimulating their ability to innovate and develop plans that satisfy people's needs ('Sobre la Transición...', 2007).

water), but that it also endorse a mixed economy not just with foreign investment but also national investment; that it accept and nurture a private sector with family-based enterprise in production and service activities in those cases in which it is more efficient in resolving the problems of society (beyond the private activities that are currently allowed), as well as cooperative property ('Sobre la Transición...', 2007). Monreal says 'a socialist state can accommodate a national private sector that is much broader than that which is being considered now... There are areas in which there should be a major [state-run] company, such as nickel, steel, electricity... but the state does not necessarily have to take care of repairing automobiles or shoes or producing food... an endless list of things that today are done inefficiently by state-run companies, and it has been proved that the private and cooperative sector can do it better'. These activities are based on an individual's knowledge and experience, and do not require a lot of capital; a specialised, state-run banking network could amass capital and provide loans (interview by García, 2007a). Hernández supports the idea of setting up cooperatives in non-farm areas (textiles, footwear, etc), and the legalisation of small private companies and not only *paladares*, able to hire people who are not relatives and sell in private markets²⁷ (Davies interview, 2007).

Rafael Campos presented 15 proposals to the Party Central Committee and Cuba's three national newspapers (which did not publish them) and in them he criticised the 'relative stagnation' of the Revolution since 'the processes of socialising property were paralysed' by making socialisation equivalent to state take-over: excessive centralisation in decision-making, planning and the accumulation and distribution of surpluses, which hinder society's advance, the economy and living standards. But he said none of his proposals suggested 'capitalist privatisation of companies, much less surrender to foreign capital'. He said his proposals call for 'cooperativism, self-management and co-management.', which are socialist forms of collective ownership; while handing over land to peasants and self-employment are non-capitalist individual property, and the participation of indirect foreign capital in urban transport does not imply its privatisation (interview by Ravsberg, 2007).

E. Monetary Policy

Since the economy was de-dollarised in 2003, a debate has emerged in Cuba on the negative effects of 'monetary duality' (having a national peso and a convertible one, the CUC). ECLAC supports eliminating this duality, arguing that it creates many distortions in fiscal accounting and monetary policy, and hinders the creation of a real financial market (Jorge Mattar, AFP, Mexico, 7/II/2007). Another damaging effect is the segmentation created by having part of the economy operate with CUCs (for instance, monetary and financial accounting, prices in TRD hard currency stores) and another with the 'national peso' (for example, wages, acopio payments, and prices of rationed goods). Yet another negative effect is that the current, unrealistic exchange rate makes it hard to know accurately how competitive Cuban exports are, as well as the real value of imports. The issue of monetary unification has taken on even more importance in the current debate because there have been few internal analyses of whether this is viable. Marquetti (2006) believes 'monetary duality will continue to play a relatively important role, [so] it cannot be eliminated, at least over the short term'; monetary unification would require: (1) solid recovery of the economy; (2) sustaining a situation of macroeconomic stability and fiscal health; (3) a significant increase in financial reserves; (4) a major reduction in the current account deficit; (5) financial ability to meet external commitments; (6) a sustained increase in gross capital formation and access to external savings in favourable conditions; and (7) attaining international recognition of the Cuban currency. There has been improvement in some of these areas, but most of these goals have not been achieved. Monreal notes that the productivity of the State economy based on the peso is very low and that monetary

²⁷ Hernández says leaders 'no longer have the same credit and margin' as in the 1990s: 'Then the roof was caving in, and people understood that the building could not refurbished, but the situation now [is different] and there is no longer any excuse for delaying reforms' (quoted by García, 2008).

unification with an increase in production and productivity would put pressure on prices, wages and pensions. So it would first be necessary to carry out a structural reform of the economy. He adds that the Chinese resolved the duality issue by increasing production and productivity. This allowed them to revalue the national currency and eventually have a single currency recognised on the world market. (García interview, 2007a). Pérez Villanueva (2008) recommends first getting rid of exchange controls on companies, without touching the controls on rates for the population. Marquetti says the exchange rate for the CUC is over-valued and wonders (without providing an answer) about the impact on exports of goods and on tourism, while Monreal feels the appreciation of the CUC against the dollar was a 'political rather than economic' measure.

F. Agriculture

Armando Nova (2006, 2007), who is rumoured to have been asked by Raúl Castro for a report on the Cuban agricultural sector, says the agricultural reforms of the early 90s went only half-way. The fundamental problem with agriculture is the high concentration of land ownership in state hands and low wages, which alienate workers. For this reason he recommends economic, structural and organisational transformations in order to achieve the necessary reactivation and efficiency. The goal is for workers to act and participate as if they were owners, and have incentives to increase production: granting autonomy to the UBPCs and reducing their size,²⁸ paying adequate wages to their members, encouraging the UBPCs and other cooperatives to participate in free agricultural markets; breaking the state monopoly and eliminating current restrictions in order to boost competition, increase supply and reduce prices; and authorising foreign investment in agriculture (it only exists for Israel in the citrus sector). The State should regulate the framework for supply and demand, assign a million hectares of idle land to families and individuals and arrange for producers, either individually or in a cooperative fashion, sell directly to agricultural markets, while the market should provide production incentives and aid in marketing. It is also essential to boost sugar cane production, which is key for feeding people and animals, besides generating energy, and convert it into a biotech industry and ethanol-producer. Monreal contrasts the current system's inability to produce food with the existence of available land and labourers to do the job. The existing structure and forms of ownership do not create incentives for resolving the problem. So a substantial part of state-owned land should be transferred to private producers, family-run businesses and cooperatives. It is also necessary to provide producers with supplies, create specialised financial institutions and introduce less-centralised mechanisms for land management. Cuba needs to be more daring than it was with the reforms of the 1990s, because changes will not be effective if a substantial part of agricultural production is left to the current system in which the State is the only buyer and sets prices. Under a new reform scenario the State 'would basically play a regulatory role, eliminating mandatory administrative measures for sales and price-setting, which should be left to the market. Taxes on farm production should not be onerous because the idea is to stimulate production and lower prices' (Garcia interview, 2007a). Espinosa (2007c) proposes that farmland be handed over to independent persons and cooperatives through sale, usufruct or lease with an option to buy, depending on what condition the land is in. Owners could buy the supplies they need and grow crops freely, sell their produce and set prices, using intermediaries. These measures would eliminate current subsidies for UBPCs, whose resources could be transferred to small loans for individual and collective farmers.

G. External Sector

For Monreal (2007) the structural deficiency of an export-based economy should be overcome by importing products that diversify the country's productive base, including production of capital

²⁸ Narciso Cobo says Agricultural Production Cooperatives and Credit and Services Cooperatives 'suffer a high degree of interference from [the State]' and should have the right to manage and decide on their goods and resources ('Sobre la Transición...', 2007).

goods, and exporting in a more profitable way, replacing raw materials with goods based on technology and knowledge. Marquetti supports the idea of promoting exports to reduce the trade deficit through measures to make them more competitive in the world market. He suggests reducing interest on loans for new exports, providing incentives to export entities capable of articulating domestic and international strategies, establishing quality standards for export products and sanctioning violations of these standards (in Pérez Villanueva, 2004). There is a consensus on the need to increase foreign investment. Pérez Villanueva (2006) argues that, in order to attract it in large numbers, healthy macroeconomic policies are not enough; what is needed are deep reforms in economic and financial relations. He recommends expanding such investment and stimulating it in other, more dynamic sectors in world trade (including sugar, transport and services), perfecting current rules with cohesive policies and greater integration.

H. Labour and Social Policy

The budget for 2007 dedicated 45% of its spending to education, health, social security and social assistance (ONE, 2008). Togores & García (2006) believe 'the economic crisis and the process of adjustment have shown that the preservation of social benefits should move on to a new phase in which their financial sustainability is associated with development of the economy and [necessary] structural and organisational changes... decisions on social policy should be made taking into account not only social purposes but rather they should respect principles of economic equilibrium'. For instance, social security and assistance seriously damage the fiscal deficit and this burden, which today is carried only by the State, should be shared by other contributors (workers) and the retirement age should be increased. In order to finance social services, Campos suggests that increased production will bring in more revenue through taxes, and these will be administered more efficiently through local handling of part of them and more autonomous management of budgets. He also proposes doing away with rationing cards, granting direct subsidies focusing on people with the lowest incomes, and raising salaries to compensate for the rise in prices that would occur (Ravsberg interview, 2007). Alexis Codina adds that the abundant resources assigned to price subsidies through the rationing cards, which are received by everyone regardless of their income level, should be reserved only for the poorest people and the rest should have to resort to the market ('Sobre la Transición...', 2007).

Pérez Villanueva said it is essential to establish a direct link between work and the profits of staterun companies. 'It is unbelievable that someone does a good job for a salary of 200 pesos but also has to buy... all the supplies they need in order to work' (quoted by Orta et al., 2006). Cuba's low unemployment rate has been achieved through over-employment in social sectors and by not raising it in productive sectors, so emphasis should be placed on the latter. To ease the significant regional disparity, he proposes programmes that improve levels in provinces that are economically and socially underprivileged (Pérez Villanueva, 2007). In order to reduce poverty, Añé (2007) recommends eliminating monetary duality, reducing the segmentation of the market, raising the lowest salaries and consolidating and evaluating the effectiveness of new social programs. A group of Roman Catholic economists (GE, 2006) advocates a fair minimum wage in each sector of the economy in line with basic needs, the state of the economy and business profits; freedom to be selfemployed; incentives for companies to create productive work and mandatory unemployment insurance; adequate pensions, social assistance for vulnerable groups, and adequate financing and efficient use of health-care resources. Triana (2007) proposes investing more in technical branches of study in the educational system and those which contribute knowledge, even though these are more expensive than humanities, teaching and social sciences. Hernández argues that the law originally stipulated that housing belongs to citizens and it is reasonable for them to be able to do with it as they wish, such as sell and also buy. It is also necessary for people to be able to repair their homes and build them with their own means (García interview, 2007b). Espinosa (2007c) recommends privatising all homes (assigning those which are not currently owned to their tenants or those who occupy them through usufruct), allowing them to use the homes as collateral for loans to repair them or invest in small- and medium-sized companies.

I. The Aspirations of Young People

In late 2006 Juventud Rebelde published the results of interviews with 280 young Cubans who were asked to give their vision of Cuba in 2020. They said the economy was their main worry: 'Today we still have many mistakes... there are many things to correct... for this reason we need efficient leaders. [More criticism is necessary] otherwise we will continue to be in a bad state; although today they talk about engaging in it (criticism), in reality it is not done... double standards must disappear completely [because there are leaders who] tend to ask for honesty, savings and sacrifice, when they themselves never do it'. Those interviewed envisioned a country in which wages were commensurate with prices and sufficient to meet basic needs, with just one currency, better transportation, paved streets and adequate water supplies, without blackouts or prostitution (Pérez et al., 2006). In September 2007, students at Oriente University asked the dean, Zaida Valdés, to resolve problems such as bad food, water shortages and poor lighting. But she refused to listen to them and the protest spread to the Julio Antonio Mella Institute of Higher Education, where students waved banners calling for greater openness in Cuba's universities. Professors backed the students by refusing to sign a letter that criticised them (Bravo, 2007). In a meeting with Ricardo Alarcón, President of the National Assembly, students from the Computer Sciences University in Havana asked him about these issues: the weakness of a peso-based wage for buying in a TRD hard currency store ('workers and peasants are paid in a national currency with one-twenty-fifth the buying power of the CUC'), the ban on entering hotels and restaurants that cater to foreign tourists, and the lack of freedom to travel abroad and access the Internet. They also asked that ministers be held accountable to the people and dismissed when they fail to achieve government goals (BBC News, Havana, 6/II/2008). Lage Cordoníu, President of the Federation of University Students, said 'the idea of participation has lost credibility, and students do not identify institutions or their leaders as their means for communicating with the Revolution... People have been pushed aside as nonrevolutionaries just for having different criteria... There are sectors which have warned of the need to incorporate young people, but in others there are still many reservations' ('Sobre la Transición...', 2007).

J. Domestic Criticism of Proposed Reforms

Despite all these recommendations and aspirations, Minister Rodríguez (2007a) has stated that Cuba will not change its economic model to emulate China or Vietnam, due to differences between the countries. He said Raul Castro's taking power has not resulted in significant changes but rather continuity, with some adjustments to make the model more efficient. He also said debate on ownership of property is not because of a group in the government, and that he does not imagine other forms of ownership contributing to Cuba's development the way the current state ownership does, so collectivisation will be maintained and strengthened. Self-employment will gradually vanish as the efficiency of the State increases, and creation of small businesses will not be encouraged because the country's development cannot be based on them.

Fidel Castro criticised two US social scientists, who are left-leaning and have supported Cuba for decades. They had praised the successes of the Cuban revolution but pointed out economic problems and unreasonable ways of allocating resources, and suggested policies to correct these problems: (1) major investment in foreign tourism, which depends on imported supplies, is not a long-term solution; it worsened Cuba's structural problems and diverted resources from agriculture and manufacturing, causing a fall in production and an increase in food imports; (2) a complex and costly university specialising in computer sciences could have built at a lesser cost by integrating existing universities, and should produce a data base and essentials programmes for improving production and services; (3) a €700 million investment in biotechnology, which is a high-risk sector, has led to several important vaccines. But the programme's performance is uneven because for each successful discovery, dozens of costly projects have failed. Priorities must be set, and these scarce resources should be redirected to neglected areas such as nutrition, housing, transport and

other urgent needs; (4) the education system, now geared towards the service sector, should instead train technicians for efficient management of farm and industrial activities so these produce consumer goods; (5) the sugar industry must be rebuilt and part of its production should be set aside for producing ethanol so as to reduce oil imports, and more investment is needed in agriculture in order to achieve self-sufficiency in food production; (6) industry must be diversified, especially that which is oriented towards domestic consumption and exports, as well as products derived from nickel, which is exported in its raw state; (7) Cuba should reconsider its huge expenditure in overseas medical aid because it has no yielded practical benefits (except in Venezuela) but rather has caused shortages, delays and problems for the Cuban people, as well as resentment; and (8) workers and consumers should participate in decision-making; and there should be greater transparency through the publishing, for purposes of public scrutiny, of all Ministry accounts, revenue and spending, as well as expense accounts, transport, gifts, possessions and overseas purchases by all senior officials (Petras & Eastman-Abaya, 2007).

In a Reflexion, Fidel Castro assailed 'the super-revolutionaries of the far left' (albeit without identifying them) whose 'alleged friendship with Cuba allows them to be present in numerous meetings... and to talk to as many people as they want' and obtain information. 'What advice do they give to the Revolution? Pure poison, the typical formulas of neo-liberalism... They acknowledge our progress like those who give hand-outs... they downplay the most colossal task of the revolution, its educational work and its results... they exaggerate spending in scientific investment... what is worse, they ignore the value of the health services that Cuba provides to the world... with modest resources' and, to the contrary, 'recommend investments that are ruinous' such as sugar production for its alleged energy advantage (F. Castro, 2007). Petras (2007) answered by arguing that he made his constructive criticism within the atmosphere of openness undertaken by Raúl and that he had not gone so far as some Cuban economists; he said that 'when neither workers nor farmers are consulted about planning investments and priorities, support for socialism declines and neo-liberalism grows'. He warned that Fidel Castro's criticism 'could be considered a threat to anyone who takes part in the profound debate that is taking place in Cuba today'. In fact, Cubans were disconcerted when they read Castro's Reflexion (they did not know who it was aimed at because the original article was not published in Cuba) and only those few who have access to the Internet found out about it.

III. Raul Castro's Policies and Options

In the National Assembly that was held in December 2007, Raúl Castro said that since his speech of 26 July, a total of 215,687 meetings had been held, with participation by 5 million people who made 1.3 million proposals. But he discussed no reforms in the assembly, 'the briefest in history', and he warned: 'The goal [of the meetings] was not to learn about problems, actually the majority of them were already known... no one here is a magician who can pull resources out of a hat... not all the proposals will be able to be applied entirely... in more than one case they contradict each other, and some opinions reflect a lack of information, especially in the area of economics'. But he also expressed hope that 'pressing problems of education, health, transport and housing... can be resolved or at least improve in reasonable periods of time [although] we will have to establish priorities' (R. Castro, 2007b). Meanwhile, Fidel Castro sent his Reflexions to the news media, in some cases going against the initiatives of his brother Raúl (for instance, on the idea of opening negotiations with the US), which was cited as an explanation for the absence of reforms.

A. Policies Implemented

Raúl Castro has introduced several positive changes, most of them of marginal importance (before being named President of the Council of State) and a few major ones (after being appointed to the post). But all of them are a far cry from the recommendations that have emerged in all this debate.

1. Payment of Debts, Increasing Prices of Government Purchases and Sales of Supplies to Farmers In late 2006, Raúl Castro blamed poor domestic production and costly imports of food on bureaucratic procedures and government delays in paying cooperatives and private farmers who account for 65% of agricultural production, and he warned: 'We are tired of excuses!' (Granma, 24/XII/2006). In March 2007, banks created a fund with fiscal resources for timely payment to producers who can show an invoice indicating the amount they had sold, in May the government raised the prices they pay to private farmers and cooperatives for milk and meat, and in June debt was settled to the tune of 1.413 billion pesos (Granma, 26/III, 25/V and 28/VI/2007). Espinosa (2007a) argues that these are half-measures which do not solve the structural problems weighing down the farm sector and that, despite the increase, the government-paid prices are equivalent to 6% of the retail price for milk and 1%-4% of the price of various cuts of beef. In April 2008, milk prices were raised a second time, by 150%, and increases were also carried out for prices of tubers. vegetables, tobacco, coffee and coconuts. This seemed to suggest price rises for other products were also in store (Orlando Lugo, appearance on TV, Havana, 1/IV/2008). Farmers can now also use CUC pesos to buy supplies and equipment (seeds, fertiliser, herbicides, tools, rope and gloves), which until now was only meagrely distributed by the State (AFP, Havana, 18/III/2008).

2. Usufruct of State Land and Decentralisation

Orlando Lugo, President of the National Association of Small-scale Farmers, announced two important measures (TV, Havana, 1/IV/2008): (a) idle, state-owned land would be turned over in usufruct to 'anyone who wants to produce' (individuals, cooperatives, even some UBPCs) and made specific mention of tobacco and coffee; 51% of the land is idle or insufficiently exploited, and a good part of it is covered with *marabú* bushes that are hard to uproot and will require a lot of work, but this step could increase farm production;²⁹ and (b) formation of agricultural delegations in all municipalities to 'decentralise decision-making, with ability to take responsibility and perfect marketing techniques'. UBPC cooperatives will market their products directly in nearby communities and reduce their participation in intermediary companies (*acopio?*), which will become companies that provide services to the cooperatives; UBPCs will also receive loans to enhance their technical capacity and their productivity with the goal of generating resources to buy supplies (*Granma*, 1/IV/2008; *The Miami Herald*, 2/IV/2008).

3. Renewed Emphasis on 'Business Enhancement'

This system known in Spanish as *perfeccionamiento empresarial* began in 1987 at companies linked to the armed forces as an initiative by Raúl Castro, and starting in 1998 it spread to other state companies. But the programme was frozen under the re-centralisation launched by Fidel Castro in 2003. He did not want them to have autonomy under the system, even though only 7% of them lost money in 2006, compared with a national average of 38%, and contributed a proportionally higher amount to total sales and had a higher rate of productivity. The enhancement system got another boost in 2006-07, but approval for joining the programme is still slow and bureaucratic; 60% of state companies have sloppy accounting and quality-control methods, and these impede their entry into the business enhancement programme. Figures on the number of companies taking part are scant and contradictory: in 2002 only 11% were in the system, even though the system was then 20 years old; no information was provided in 2003-05 when the system was abandoned; estimates in 2006-07 range from 22% to 32% and are questionable; in 2007 only 40 companies out of a total of 3,000 were in an 'experimental phase' before their approval (Espinosa, 2007b; Lee, 2007).

4. *The Fight for Discipline in the Workplace and Against Corruption*

In September 2006, in a speech closing the 19th Congress of the Cuban Labour Federation, Raúl

²⁹ Espinosa (2008) argues that in order to create incentives, it would have been better give land to those who grow crops successfully, or at least grant them use of it for life, and let them pass it on to their heirs in usufruct; he also said farms should be large enough to allow crop rotation.

Castro blamed corruption and lack of discipline in the workplace for most of Cuba's economic problems, inefficiency and shortages of goods. Shortly thereafter, Cuban media ran many stories on theft, waste and lack of administrative control at state entities, with 11 government officials being convicted and sentenced to four to 20 years in prison. Strict labour and disciplinary regulations were approved in August 2006 and they came into force on 1 April 2007 (Resolution 2006); four months later, a decree with even more rigorous norms was passed by the Council of State and came into effect on 1 September (Decree 2007). The disciplinary violations are: tardiness, leaving one's post without permission, taking too long of a meal break, lack of respect for superiors or failure to comply with their instructions; negligence in the use of resources; delays in getting jobs done; releasing information without prior permission; introducing unauthorised files into a computer; loss or theft of goods from the workplace or failure to report such violations by colleagues, and failure to take measures to prevent goods from being used improperly; the hiring or promotion of subordinates who are associates, friends or relatives, and failure to check up on the workplace background of new hires. The immediate superiors of workers who commit these infractions are considered responsible when, through negligence, lack of rigour or control, they allow such violations or, having learned of them, do not confront the workers or report them to superiors. The sanctions are: reprimand, temporary or definitive demotion, (with or without salary), and permanent dismissal from the job or that sector of the job market. Authorities must ensure that a dismissed worker is not hired by another company in the same sector. Those who are punished can appeal to their immediate superiors, and if this is turned down, they can only appeal to the highest authority in the entity, with no right to go to court. Workers criticised these rules. They argued that it is impossible to get to work on time because public transport is so spotty; shops and government offices are closed on weekends, and both before and alter work shifts during the week, so they have to shop and run errands during work hours; a lack of day-care centres makes it hard for women to comply with their work schedules, and low wages hardly compensate for having to put up with all these rules.³⁰

5. Foreign Companies Allowed to Pay Wages in Hard Currency

In late 2007, Cuba started letting foreign companies pay Cuban employees in CUC pesos or hard currency (a practice that was already done under the table). But the workers are taxed for this: at a rate of 10% for those earning up to 2,400 CUC a year, and up to 50% for those who make more than 60,000 CUC (Resolution 2007). In a meeting at the National Theatre that was led by Deputy Finance Minister Nelly Cubillas and attended by 1,200 employees of foreign companies, there were protests and booing when Cubillas explained the measure; Cuban officials lost control of the meeting and suspended it, as well as others held later (BBC News, Havana, 6/II/2008).

6. Authorisation to Buy Merchandise

In May 2007, Cuba eased customs rules to allow imports of electronic equipment, engines, spare parts for cars, video players and spare parts for bicycles, all of which had been banned before. Since 1 April 2008 Cubans have been able to use CUC pesos to buy computers, cell phones, video and DVD equipment, microwave ovens, pressure cookers, large-screen TVs, anti-theft alarms for cars, etc; officials say that in the future, when there is enough electricity, Cubans will be able to buy air conditioning units, water heaters, ovens and electric stoves (Reuters, Havana, 14, 16 and 31/III/2008).

7. Access to Hotels that Cater to Foreign Tourists

Starting 1 April 2008 Cubans with CUC pesos were allowed to stay at hotels and shop at supermarkets that had been reserved for foreigners. Since 1993, hotels for foreign tourists had been off-limits to the Cuban people, even when they had relatives visiting who wanted to invite them to

 $^{^{30}}$ A survey on these rules, held by independent union officials with a sample of 1,552 workers, found that 99% of them said a lack of transport made it hard for them to get to work on time and that their wages were not enough to meet their basic needs (CONIC, Havana, 5/VI/2007).

stay at these facilities. This restriction was heatedly criticised at home and abroad because of its discriminatory nature, so its elimination is important, at least symbolically. But Cubans' actual access to the hotels will be extremely limited because rates range from 30 to 40 a night and the average salary is equivalent to 44 a month. Furthermore, Cubans have to pay the maximum rate at the hotels; in other words, they cannot get the reduced rates offered by travel agencies. However, there will be access for Cubans with overseas relatives who visit the island and want to treat them to a hotel stay.

B. The Institutionalisation of the Transfer of Power to Raúl Castro

On 18 February 2008 Fidel Castro wrote in one of his Reflexions that he would neither seek nor accept re-election to the posts of President of the Council of State and Commander in Chief. The latter does not show up in the constitution but was the usual way of referring to Castro, while the former is linked in the Constitution to the post of President of the Council of Ministers. Although he had promised to take a vacation, the next day Castro published another Reflexion in which he criticised US presidential candidates who were calling for change in Cuba. Castro said, 'I agree! Change. But in the US. Cuba changed some time ago, and will continue along its dialectic course'. He also asked the National Assembly to join together in approving the candidacy that had been approved, and explained how it should be done (F. Castro, 2008).

On 24 February, the National Assembly chose Raúl Castro, aged 76, to be President of the Council of State and of the Council of Ministers; he also became de facto Commander in Chief, although he renounced the post of Minister of the Armed Forces and named as his successor the current Deputy Minister, General Julio Casas, 72 (the Interior Minister, General Abelardo Colomé, is also loyal to Raúl Castro). Despite hopes that the reformist Carlos Lage, 56 and a representative of the new generation of Cuban leaders, would be appointed First Vice-president (although he continues to be Vice-president of the Council), the Assembly assigned both posts³¹ to 77-year-old hardliner José Ramón Machado Ventura, a vehement critic of Soviet perestroika and glasnost, and of modest economic reforms in Cuba. Ricardo Alarcón was re-elected to a fourth term as President of the Assembly and most key posts in the council underwent no changes. They remained in the hands of the old guard or historic figures with an average age of 70: 81-year-old Juan Almeida, and in the 75-76 age bracket, Roberto Fernández Retamar, Ramiro Valdés, José Ramón Balaguer and José Miyar. The latter is the personal assistant of Fidel Castro and he was confirmed in his post as Secretary of the Council of State. The younger generations are still a slim minority: only 6% are between the ages of 23 and 36; commanders and generals now make up 26% of the Council of State. The rest of the make-up of the government³² was left for a future session in 2008. It will determine the changes to be made in the state administration (the assembly usually meets in June, but it could be earlier). Fidel Castro will continue to serve as First Secretary of the Communist Party (Raúl is the Second Secretary) until the next party congress is held, perhaps in October (it was supposed to have been held in 2002; the last congress was in 1997). In his acceptance speech, Raúl Castro mentioned his brother 14 times and five of his Reflexions, the ones 'we must study.' He called his brother 'irreplaceable' and asked the Assembly for permission to consult with Fidel Castro on 'decisions of special importance for the future, including socio-economic development; the 597 deputies gave immediate and unanimous approval, with applause and shouts of viva for Fidel (R. Castro, 2008).

³¹ The Constitution does not require that the First Vice-president of the Council of State also be the first Vice-president of the Council of Ministers. So Raúl Castro could have divided the two posts, but he did not do so.

³² Of the 23 current members of the Cabinet, only six have been appointed by Raúl Castro, who retained the other 17 named by his brother Fidel.

C. Outline of Other Possible Reforms and Options

The second part of Raúl Castro's acceptance speech outlined future changes (without going into detail). Here we summarise them, with comment by the author.

1. Administrative Changes

Raúl Castro announced a more compact and efficient government structure, with fewer agencies of state administration. He said this means 'reducing the enormous number of meetings, coordination, licenses, arbitrations, orders, regulations, circulars, etc... and concentrating some economic activities that are spread over several agencies'. The Ministry of Economy and Planning might merge with the Ministry of Finances and Prices (the former is run by Rodríguez and the latter by Georgina Barreiro, neither of whom is a member of the Council of State). Their coordination with the Central Bank (whose President is Oscar Soberón, member of the Council). Other possible Ministry mergers might be that of Agriculture with that of Sugar, Education with Higher Education, and Basic Industry with Iron and Steel.

2. Being Open to Criticism

Cuba's lone political party, says Raúl Castro, which he calls the 'the highest, directing force of society and the State', must be 'more democratic [so that] everyone has the opportunity to express their opinions... without fear for discrepancies... so long as this is done within the framework of the law... and socialism'. Earlier, he had said: 'Leaders must know how to listen, and create an atmosphere that encourages others to express themselves with total freedom... When done properly, criticism is essential to advancement' (R. Castro, 2007b). The Party and the Government, in a collegial fashion and bound by the resources that are available, [as we cannot spend more than we have], will determine priorities and the pace of solving' the country's domestic difficulties 'after a direct consultation with the citizens... if the issue were one of great importance'. This latter reference could give rise to referenda on approving the most controversial reforms. Starting March 14, *Granma*, which, unlike *Juventud Rebelde* had never published serious criticism, doubled its number of pages and announced that the additional ones would be dedicated to commentary on government inefficiency, crimes and corruption in the economy.³³

3. Increasing Production and Satisfying Basic Needs

Raúl Castro says his main priority is to 'satisfy the population's basic necessities', strengthening the Cuban economy so as to increase production, particularly agricultural and livestock production, as well as 'perfecting the area of marketing'. In late 2007 he said 'land and resources [should] be in the hands of those capable of producing efficiently... and (these people) should receive the pay they deserve' (R. Castro, 2007b). State-run media say that measures taken in 2007 to increase the price of milk that the government buys from peasants and cooperatives boosted production and reduced imports of powdered milk -a precedent for extending these price increases to other agricultural products, as was done in 2008-. Milk production increased 17% in 2007 but it had risen 18% in 2006; in February 2008 it was reported that milk supplies had decreased and milk was selling for 40 to 60 pesos per kilo on the black market, while the price of a kilo of powdered milk had risen 36% and was selling for 156 pesos per kilo in the TRD stores that only use hard currency (Fornés, 2008; AFP, 21/III/2008). The authorisation of sales of agricultural supplies to private farmers and the handing over of idle, state-held land to individuals and cooperatives as of April 2008 will generate more incentives for production. As for 'perfecting the area of marketing', the many public criticisms we have studied of the system of state purchases herald reforms, which seem to have started in 2008. In March, the Ministry of Foreign Trade announced that 160 foreign companies

³³ Hernández says 'the Cuban press suffers from the syndrome of *officialness*' in that everything must be approved by or representative of official institutions, which 'is an aberration' (García interview, 2007b). Soledad Cruz (2007) said that in the newspaper where she worked (*Juventud Rebelde*) she could not tell the truth 'because the Stalinist defects that Cuba has not been able to shake off include the idea of keeping journalism outside the dynamics of life... of conflicts...'.

(64% of the total), with 3,000 employees, which supply merchandise to the TRD stores and tourist facilities will no longer be able to carry out such sales. The goal is for national producers to generate more than 60% of this merchandise; there is speculation that this policy would reduce imports and would be accompanied by more investment in industry to boost production (Cancio, 2008).

4. Ending Monetary Duality

Raúl Castro proposes a 'progressive, gradual and prudent re-evaluation of the peso' but warns that monetary duality is a complex problem that requires 'thorough study' in order to 'avoid traumatic effects' for the Cuban people. Full convertibility of the currency would require a considerable increase in production and productivity, as well as an overall reform of prices that would have immediate adverse effects for the population. For this reason Raúl Castro warns that retail prices. wages, etc, must be taken into account (see the analysis in II-E). In late 2007, a total of 10,800 signatures were collected for a petition to the National Assembly urging monetary unification. In the belief that convertibility was imminent, on 25-26 February 2008 many Cubans rushed to trade their CUCs for regular pesos, clearing out many bureaux de change of the latter; the rumour of convertibility was rapidly denied with an announcement that the measure would be gradual (Ariel Terrero, Havana, TV Buenos Días, 27/II/2008).³⁴ If the government decides to reduce the exchange rate of the 'national' peso against the CUC it would have to do so slowly and over a long period; in March there was speculation the rate would go down from 24 to 22 pesos for a CUC but later this was denied. If the current rate were reduced suddenly, let's say from 24 to 8 pesos for a CUC, without increasing production or carrying out reforms, this would allow people to buy goods in the hard currency stores for a third of their current value. This would unleash a run on those stores, depleting their stocks and forcing massive new imports of goods that would also disappear. In April 2008, the CUC was re-evaluated for a second time against the euro, dollar and other hard currencies but without changing the rate of exchange for CUCs and national pesos.

5. Free Services and Price Subsidies

Raúl Castro says that 'gratuities' (free social services) and 'huge subsidies' (for prices of rationed products that are distributed equally to the whole population) 'are irrational and unsustainable'. This issue was first addressed by Fidel Castro in 2005 and broadened by Soberón. In practice, upper middle-class people and those with even higher incomes benefit from free services and rationed goods at below-market prices, although both should be earmarked for the poor and those with low incomes. But 38% of the population does not receive remittances from abroad, and others who do receive them but in small amounts could not get by without 7-10 day supplies of food sold at subsidised prices. If Cuba tried to eliminate these subsidies and provide social aid to all the people that need it, the cost would be enormous (see Mesa-Lago, 2006). Monreal warns that 'you cannot live off a ration card [but] part of the population cannot live without it'; eliminating this system would take quite a long time and would require a significant increase in production and a drop in prices (García interview, 2007a).

6. Insufficient Wages

Raúl Castro aims 'to make salaries recover their role and that the living standard of each person be in direct relation to the revenue they receive legally'; in other words, the money they receive for their work. As we have shown, real wages declined 76% in the period 1989-2007 due to price rises. But the solution is not to raise nominal wages, but rather to increase production through the necessary incentives. In this way, products will be cheaper and people's buying power will increase.

³⁴ Rumours spread that the exchange rate of the CUC would drop from 24 down to 10 'national' pesos; Cubans sold CUCs for 24 pesos hoping to be able to buy them for just 10 and earn 14 CUCs or 140 pesos; the sale of 200 CUCs would have yielded a profit of 2,800 CUCs or 28,000 pesos.

7. Excessive Prohibitions

Raúl Castro says the gradual elimination of 'excessive prohibitions and regulations' will begin with the simplest ones; the more complex ones will take longer because this requires study and legal changes. In late 2007 Castro acknowledged an 'excess of prohibitions and legal measures, which do more harm than good... behind every incorrect prohibition one can find many illegalities'. But he did not say what they are (R. Castro, 2007b). Among the bans that have already been lifted are sales of computers, cell phones and electrical appliances in exchange for CUC pesos, sales of supplies to farmers and access to hotels and supermarkets that had been reserved exclusively to foreigners. The more complex measures are freedom to leave the country, sales of homes (doing away with the corrupt *permutas* system) and cars, and expanding the right to self-employment,³⁵ privately operated restaurants and other small businesses. Raúl said on 26 July 2007 that he was prepared to increase foreign investment 'without repeating the errors of the past... working with serious businessmen [and preserving] the predominance of socialist ownership' (R. Castro, 2007a). In an article that triggered a heated controversy, the well-known journalist Soledad Cruz (2007) criticised several bans that 'cause people great annoyance': (1) Cuban must seek permission in order to leave the country, receive permission from their place of work (even if they are retired) and show a letter of invitation from relatives or friends abroad, pay a monthly tax to stay outside the country after a certain period and return within 11 months or be declared emigrants and not be able to return home; (2) they cannot sell their own house or car even if 'they are rotting from lack of maintenance'; and (3) they cannot let foreigners ride in their car, and violations of this rule mean a fine of 1,500 pesos.

IV Conclusions and Prospects

Twenty months have gone by since Fidel Castro transferred power to his brother Raúl but 'the Special Period has still not been overcome' (Rodríguez, 2007b). This section summarises the state of economy and social conditions in Cuba in early April 2008, the main points of economic debate, measures taken by Raúl Castro and the prospects for future reforms.

Facing a prolonged and incomplete recovery, and perhaps as a way of showing excellent results from the elimination of modest economic reforms as of 2003, Cuba overstated its GDP through two statistical manipulations: changing the base year for prices, which raised the annual value of GDP by 56% in the period 1989-2000, and adding to the conventional measure of GDP the value of free social services, plus subsidies for prices of rationed goods, which raised GDP growth by one percentage point. If one corrects these two additions, the growth rate of 7.5% in 2007 would fall by one half and be below the regional average of 5.6%. There is no doubt that GDP grew in the period 2005-07 due to sales of professional services to Venezuela and investment and subsidies from this country, as well as high world prices for nickel. But we do not know if it has recovered to the level that was attained prior to the crisis. Capital formation fell from 25.6% in 1989 to 13.5% in 2006, half the regional average that Cuba needs in order to post sustained growth. Inflation rose from 0.5% to 5.7% in 2006, 11 times the level of 1989 and above the regional average of that year; the fiscal deficit rose to 3.2%, half the level of 1989 but 32 times greater than the average regional deficit; and the money supply grew from 21.6% to 37.9% of GDP. Of the GDP generated in 2007, 17% came from physical production and 83% from services (15% of them basic and 68% others). This is positive in terms of human capital but negative in terms of Cuba's inability to produce.

Despite a significant expansion in the mining sector (with foreign investment), there has been a process of de-industrialisation. The sector's share of GDP fell from 26% to 13% in the period 1989-2007. Of 20 products that are key for domestic consumption and exports, in 2007 a total of 14 of them were below the 1989 level. Production of gas rose 35-fold in this period (although the level in 1989 was tiny), that of oil four-fold (although it has dropped 20% since 2003), and that of nickel by

³⁵ Ritter (2007) analyses the drop in the number of people who are self-employed, the restrictions placed on them and obstacles imposed by the State, including a tax system that is very burdensome, and makes recommendations to revitalise the sector.

62% (this is below the peak level of 2001). In the manufacturing sector, sugar production is down 86%, from 8 million to 1 million tons in the period 1989-2007. The last harvest was the smallest in 113 years. Production of cement, textiles, fertiliser, soap and shoes was between 50% and 96% lower than in 1989, while that of electricity in 2007 surpassed the level prior to the crisis and set a record, but in per capita terms it is flat (the 'energy revolution' launched by Fidel Castro is more a remedial measure than a long-term solution) and that of cigars rose 38%. In the farm sector, production of rice, eggs, citrus fruits, cow's milk and tobacco was between 12% and 57% below the level of 1989, the number of head of cattle was down 24% and those of fish and shellfish were 68% lower. Only tubers and vegetables were considerable higher, although they have fallen since 2003. Despite imports of buses from China, public transport remains in chaos.

Although exports have picked up to some extent, their value in 2007 was still 31% lower than in 1989, while the value of imports grew much more and in 2007 surpassed the 1989 level by 24%. The trade deficit rose steadily and in 2007 it was 155% higher than in 1989. Terms of trade had fallen midway through 2004 but later improved, thanks to rising prices for nickel on the world market and subsidised Venezuelan oil exported to Cuba. Sugar's share of total exports fell to 8% in 2006 while that of nickel jumped to 30% due to the high price on world markets; the shares of other products both traditional and non-traditional fell, expect for pharmaceuticals, which increased to 6%. The contributions made by foodstuffs and manufactured goods to total exports rose, while those of chemicals, machinery and fuel declined, in the latter case despite the soaring prices on the world market and thanks to Venezuela's subsidies.

Foreign debt in hard currency increased 155% to around €10.66 billion in 2007, excluding debt with former communist countries and Venezuela; total debt per capita was three times the average for Latin America, while the debt in hard currency was equivalent to 213% of the value of exports and services, 54% higher than the regional average. The number of foreign companies operating in Cuba fell 41% in the period 2002-06, and several were shut down by the government. Venezuela has become Cuba's main trading partner and replaced the Soviet Union as the big source of subsidies for the Cuban economy: it sends 100,000 barrels of oil a day at 27% of the current world price for crude (a €1.7 billion subsidy in 2007), and has granted Cuba €3.0 billion in loans and investment (including the completion of the Cienfuegos oil refinery, which handles 65,000 barrels a day of Venezuelan oil). China is Cuba's second largest trading partner and granted it a €150 million loan, but backed out of a commitment to invest in a ferrous-nickel plant (Chávez assumed this responsibility) and exploit vast deposits of nickel in San Felipe. On one hand the US trade embargo became tougher, but on the other it was eased to allow for US\$1.9 billion in food sales since 2001. This made the US Cuba's seventh-largest trading partner. The election of a Democratic president in the November election, which would presumably be Barack Obama, could facilitate the full restoration of economic ties with the US. John McCain has played the anti-Castro card to win votes in Florida, which drew criticism from Fidel Castro; but if he were elected, he might take such a decision -as Nixon did with China-. Recall that McCain promoted restoring relations with Vietnam and would have the support of liberal Democrats and Republicans who represent states eager to do business with Cuba.

The number of tourists visiting Cuba and the gross revenue from them multiplied 8- and 13-fold in the period 1989-2007; they peaked in 2005 with 2.3 million visitors and \textcircled oblight billion, respectively, but fell 7% and 4% in 2007. While the number of tourist rooms doubled in that period, the occupancy rate fell from 74% to 45% and average expenditure per visitor fell 45%. Estimates for the balance of payments in 2005-06 indicate the enormous deficit in the trade balance in goods is being offset mainly by exports of professional services to Venezuela (71%) and to a lesser extent by tourist services (29%). But even so, the deficit in the current account worsened in 2006-07, even though Cuba reports (without providing figures) a small deficit in 2007. However, the average amount paid for each Cuban professional in Venezuela is estimated at 144,000 a year, which suggests there is a heavy subsidy at work here.

The Cuban economy has survived thanks to Venezuelan investment, trade, loans and subsidies, foreign investment in strategic sectors like oil, gas, nickel and tourism, and to a lesser extent, trade with China. Because of this combination of favourable outside factors, in 2003 Fidel Castro felt secure enough to reverse the modest but successful economic reforms Cuba had implemented in 1991-96. He had enacted them reluctantly, and ultimately did so because of the gravity of Cuba's economic crisis. In doing away with them he re-centralised the taking of economic decisions; opened a single account for hard currency and CUCs in the Central Bank of Cuba, in which all companies had to deposit their revenues in those currencies and pay a fee to seek allotments; he reduced the small private sector, and eliminated the circulation of the dollar. De-centralising decision-making and placing it in the hands of hundreds of thousands of state administrators, private peasants and self-employed people ran the risk that many of them would resist continued of the economy by the regime. So Fidel Castro had the regime take control again, assuring an easier transition for his brother.

Cuba may have overestimated its GDP figures for 2005-07, but the history of Cuban communism shows that re-centralisation and straying from market economics have caused economic recessions and crises.³⁶ Anti-free-market policies in place since 2003 have caused delays in the arrival of necessary imports, creditors who cannot get paid, and a reduction in the number of join venture companies. Evaluations done by 3,000 state-run companies and agencies in 2007 blamed their problems on centralisation and the central bank's single account for hard currency. The dedollarisation generated more greenbacks for the government over the short term, but will not solve the deep-seated structural problems of the Cuban economy, such as meagre physical production and deindustrialisation, the enormous trade deficit in goods and the chronic shortage of hard currency. It has also had adverse effects: a drop in remittances from overseas, a fall in tourism from visitors who spend dollars, a fall in businesses' ability to innovate and identify favourable options on the market, and the re-emergence of a black market for goods and dollars (Mesa-Lago, 2005a; Marquetti, 2006).

Even more so, three decades of Soviet aid, which was more substantial and generous than the Venezuelan assistance, did not manage to offset the adverse effects of Cuba's erroneous and erratic economic policies. The vital assistance provided by the government of Hugo Chávez would be in jeopardy if Venezuela's economic situation worsened: the official rate of inflation was 21% in 2007, the highest in the region and 3.5 times the average (unofficially the rate is believed to twice as high); the rise in the consumer price index has resulted in an 18% drop in average real wages in 1998-2007; government-mandates price caps on food have caused widespread shortages and a growing black market; the net transfer of resources overseas was €18 billion in 2007 (the highest in the region, which had a general positive inflow) and accumulated capital flight in 1998-2007 was €94 billion; direct foreign investment fell €1.9 billion in 2006 and €2.2 billion in 2007, compared with a positive inflow in the 10 previous years, and reserves fell 21% in 2007 (ECLAC, 2007b). Finally, the Venezuelan oil industry suffers from growing problems which have led to a drop in production, exports, profits and financial sustainability (Isbell, 2007; Rosenberg, 2007; Bachelet, 2008; Ocando, 2008). If oil prices go down because of a world recession, Venezuela's reserves would provide a cushion for a while; but if Chávez has to cut spending, he will start with overseas aid and Cuba as the top recipient would be first in line. This dangerous dependence has caused Cuba to seek out new trading and investment partners such as Brazil and possibly Mexico, but it will be very hard for them to take the place of Venezuela.

After a grave deterioration caused by the crisis in Cuba, many social indicators managed to recover

³⁶ An econometric analysis carried out by a Cuban economist for the period 1966-2004 demonstrates the author's theory on cycles of centralisation and de-centralisation. It shows that in the former, GDP and factor productivity fell while in the latter they rose (Yaima, 2006).

and some even surpassed the levels they had in 1989, due to major budgetary allotments for social services (45% in 2007). But there are still indicators that lag behind or are not reliable. Open unemployment fell from 8% to 1.8% in this period, but the figure is understated. The increase in nominal wages in 2005 did not offset the rise in prices and real wages in 2007 were 24% of the 1989 level; infant mortality fell 52% but maternal mortality (with a statistical correction) increased 43%; the ratio of inhabitants per doctor (adjusted to take into account the fact that half of Cuba's doctors are working overseas) was 20% higher in 2007 than in 1989, while the number of beds for patients dropped 19%; real pensions in 2007 were at 39% the level of 1989 but expenditures on these meagre pensions eats up 6% of GDP and 13% of the budget, showing a tendency to grow because the population is getting older; enrolment in secondary education grew and that of higher education shot up 172% but it was concentrated in humanities, social sciences, teaching and medicine, whereas enrolment in technical majors, agronomy, natural sciences and mathematics has fallen or grown very little; there is a shortage of teachers due to low salaries; the rate of homes built per 1,000 inhabitants fell from 6 to 4.6 in this period and the large number built in 2006-07 hardly made up for the homes destroyed or seriously damaged in hurricanes, so the housing shortage worsened; poverty and inequality in income has worsened significantly (in Havana 46% of the people consider themselves poor or nearly poor).

There are a variety of proposals for economic reform but a consensus that these must remain within communist parameters, although they are not well defined and the range is wide. There is no explicit support for the Chinese and Vietnamese models and at times there is talk of an (undefined) Cuban model, although aspects of those models which might be useful are accepted. However, a comparison of Cuba with China and Vietnam showed that the latter achieved economic success while the Party remained in control; Raúl Castro might make a trip similar to that of Den Xiaoping after the death of Mao Zedong.

The economic reactivation of 2005-07 has not translated into improvements in living standards, and most figures have not recovered the levels they had in 1989. So some propose a deep or structural economic transformation, and there is virtual unanimity on the need for decentralisation. One proposal is for a mixed economy with forms of non-state ownership (independent cooperatives outside agriculture, in manufacturing and services, and privately owned small and medium-sized businesses), and for the State to retain a regulatory and investment function and ownership in strategic sectors and large companies. Although there is a strong consensus on the need to eliminate monetary duality, it is thought that this will take time and will first require a substantial increase in production and productivity. In the foreign sector, the suggestion is to replace imports and promote competitive exports, and to lure more foreign investment.

In agriculture there is a consensus on granting autonomy to UBPC cooperatives for them to decide what to plant, who to sell their products to, set prices and have full access to agricultural markets. The goal would be for their members to feel like owners and have an incentive to increase production. There is also agreement on the need to hand over state-owned land to true cooperatives, families and individuals, and on extending the increase in government-paid prices to private farmers and their access to the supplies they need, as well as participation by the market in the marketing process, thus transforming the inefficient state-purchasing system. The State would play a regulatory role. Some propose a revitalisation of the sugar industry and some say part of this production should go toward producing ethanol in order to lower fuel imports. These measures would have a positive impact in increasing production and the quality of products, as well as lowering their prices The 19% of Cubans who now work in agriculture and generate 4% of GDP would boost their productivity and share of GDP, reduce food imports and eventually achieve food self-sufficiency and an increase in farm exports, as has been the case in China and Vietnam.

In order for social policies to be financially sustainable, the idea is to enact rational changes that would not affect their essential function: generate productive employment, achieve a direct link

between work and business profits, invest more in technical areas of study and business administration, programs that reduce poverty and disparities among provinces, adequate pensions, efficient use of healthcare resources, authorisation of sales and purchases of homes and access to materials to repair and build them. Some propose eliminating rationing cards and focusing social aid on the most vulnerable groups. There is unanimity that people should earn enough to live on, but no specific proposal on how to do this, other than to raise production.

There is strong backing for efficient citizen participation; in other words, that which is not limited to support and mobilisation, but rather includes decision-making and control of policies. There is also support for the idea of the National Assembly and other bodies acting to resolve the problems that most affect people's lives, and be held accountable for their efforts. Young people want to be heard, and have a greater role in managing issues and decision-making.

The reforms proposed have caused Fidel Castro to make indirect criticism of two leftist social scientists that he labelled neo-liberals. Criticism also came from the Economy Ministry, one of the architects of the modest changes enacted in 1993-96 but later an advocate of re-centralisation. It has rejected most of the reforms proposed and stressed continuity.

The ratification and expansion of the old guard in the Council of State on 24 February 2008 can be interpreted in two ways. The first is that, with these hard-line allies of Fidel Castro in power they will resist any kind of economic reform. But this scenario does not explain why Raúl Castro has encouraged a debate which has raised people's expectations for change like never before in the history of the Cuban revolution, thus complicating the task of governing the country. For this reason the Cuban historian Campos (2007) says: 'It is impossible to underestimate the trust deposited and the hopes awakened in workers and the people by these discussions. Things of great significance have been said. To not give them due consideration would be very dangerous for the future of Cuba... What would be the point of this consultation... only to keep people content and have them let off steam, as stated by sceptics and the counter-revolution?'. The other interpretation, which is more probable, is that the appointments were a necessary way of paying tribute to Fidel Castro, finally retired but still alive; this argument holds that Raúl has stirred the discussion to justify reforms as the necessary response to a difficult situation and calls from the people. The idea is that with his power institutionalised and the old guard named by and loyal to him, he will undertake the necessary changes, albeit within communist parameters (although the scale is broad), and carefully and gradually. In five years, when the next election is held, Raúl will be 81, Machado 82 and the average age on the Council of State will be 75, making it just the right time to transfer power to a new generation.

The goals and effects of the measures taken by Raúl Castro from August 2006 through April 2008 – undoubtedly positive although the majority were not structural changes- are summarised here: (1) payment of debt to private farmers and cooperatives, a modest rise in prices the government pays to these producers for their goods (milk, tubers, vegetables, tobacco, coffee and coconuts), access to agricultural supplies sold for CUC pesos, and the assigning of idle state land in usufruct to individuals and cooperatives, all of these will raise agricultural production; (2) a return to decentralisation of decision-making, at least in agriculture, granting more power to municipalities seeks greater efficiency, although this should be extended to companies and the single-account system of the Central Bank should be eliminated; (3) sales of electrical appliances, cell phones and other goods in exchange for CUC pesos seeks to satisfy the needs of people with medium to high incomes and absorb excess money that is in circulation; (4) granting Cubans access to hotels that used to be reserved exclusively for foreign tourists, and having them pay the maximum rate in CUC, has a similar goal and will help occupy the half of the hotel room capacity that is now empty, especially in summer; (5) revitalisation of business enhancement, the campaign against corruption and regulations against workplace indiscipline are administrative measures that try to show the population that violators will be punished, but the steps will have limited effect; and (6) the

legalisation of foreign companies paying employees' extra wages in CUC pesos or hard currency, and imposing a tax, seeks to legalise a *de facto* situation, obtain fiscal revenue and make the taxation system less regressive. Most of these measures benefit people with high or upper-middle range incomes (sales of appliances, cell phones and agricultural supplies, and the opening of the hotels) who have buying power through access to remittances or CUC or profits. But they do not affect the 38% of the population that does not receive foreign currency/CUCs, have low or lower-middle incomes and lack the buying power to pay the high prices of such goods or services. Therefore, these measures will not directly improve the lot of this second group, and will trigger resentment among them (the tax on wage payments in CUCs seek to alleviate this anger). Meanwhile, the assigning of idle lands to individuals and cooperatives in the usufruct arrangement can have a beneficial impact for the entire population if, along with the rise in government prices paid to producers, it leads to a substantial rise in food production and a reduction in prices. Finally, the apparent beginning of a return to decentralisation would be an important structural change, if it is confirmed and goes beyond the municipalities and is extended to business and other state entities.

The vagueness of the outlines of other key reforms proposed by Raúl Castro prevents us from reaching solid conclusions in this essay, and one will just have to wait and see what happens. Confirming what everyone expected, the most important reforms started with agriculture. The most essential one (granting autonomy to the UBPC cooperatives) has not yet been decreed, although some improvements have been noted. Raúl Castro began with some small changes but in March and April he was moving toward more important reforms. In the meantime, pressure from the people is increasing, due in large part to the debate that Raúl Castro has unleashed. If in the end he enacts deep reforms, there will be an increase in production and living standards. But if he only goes as far as marginal changes, frustration will grow among a people with high expectations for a better future.

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Bibliography

Acuerdo nº 15 (2008), Banco Central de Cuba, Comité de Política Monetaria, Havana, 24 March.

- Añé, Lía (2007), 'Contribución a los Estudios de Pobreza en Cuba...', Congreso de LASA, Montreal, 6-8 September.
- Bachelet, Pablo, et al. (2008), 'La Burbuja Petrolera Venezolana...', The Miami Herald, 27 January.
- Barreiro, Georgina (2007), 'Presentación a la Asamblea Nacional del Proyecto de Presupuesto del Estado para 2008', *Granma*, 28 December.
- Borrego, Juan (2006), 'Pago Luego Exijo', Granma, 22 February.
- Bravo, Lisette (2007), 'Protestas en la Universidad de Oriente', Santiago de Cuba, Cubanet, 28 September.
- Campos, Pedro (2007), 'Entrevista con Motivo del Discurso de Ramiro Valdés', Kaos en la Red, October.
- Cancio, Wilfredo (2008), 'Disminuyen las Firmas Extranjeras en Cuba', *El Nuevo Herald*, 19 March.
- Castro, Fidel (2006), 'Discurso en el 47 Aniversario de su Entrada en Pinar del Río...', *Granma*, 21 January.
- Castro, Fidel (2007), 'Reflexiones del Comandante en Jefe: Los Superrevolucionarios,' *Granma*, 3 September.
- Castro, Fidel (2008), 'Reflexiones', Granma, 18 & 22 February.
- Castro, Raúl (2007a), 'Discurso en el Acto Central con Motivo del Aniversario 54 del Asalto a los Cuarteles Moncada...', *Granma*, 27 July.

- Castro, Raúl (2007b), 'Intervención ante la Asamblea del Poder Popular...', *Granma*, 29 December.
- Castro, Raúl (2008), 'Discurso en las Conclusiones de la Sesión Constitutiva de la VII Legislatura de la Asamblea Nacional...', *Granma*, 24 February.
- Comisión Económica para América Latina y el Caribe (CEPAL) (2001, 2002, 2003a, 2004a, 2005a, 2006a, 2007a), *Cuba: Evolución Económica Durante 2000, 2001, 2002, 2003, 2004, 2005, 2006*, LC/MEX/L.465, 525, 566, 622, 664, 748, 822, Mexico DF, 21 May, 6 June, 24 July, 13 August, 20 June, 13 September and 14 November.
- Comisión Económica para América Latina y el Caribe (CEPAL) (2000, 2003b, 2004b, 2005b, 2006b, 2007b), *Balanza Preliminar de las Economías de América Latina y el Caribe*, Santiago, December.
- Comisión Económica para América Latina y el Caribe (CEPAL) (2007c), Anuario Estadístico de América Latina y el Caribe 2006, Santiago.
- Comité Central de Estadísticas (CCE) (1991), Anuario Estadístico de Cuba 1989, Havana.
- Contreras, Joseph (2007), 'Cuba's New Guiding Star: Beijing', Newsweek International, 12 February.
- Cruz, Soledad (2007), 'El Revolucionario Riesgo de la Verdad...', Kaos en la Red, August.
- Davies, Bob (2007), 'Cuban Economists Envision Role for Markets in Post-Castro Era', *The Wall Street Journal*, 10 January.
- Decreto del Consejo de Estado (2007), nr 251, Modificaciones al Sistema de Trabajo, Gaceta Oficial, 22 August.
- Dorschner, John (2007), 'Cuban vs U.S. Healthcare', The Miami Herald, 28 January.
- Espinosa Chepe, Oscar (2007a), Cuba: Revolución o Involución, Aduana Vieja Editorial, Valencia.
- Espinosa Chepe, Oscar (2007b), '¿Regresa el Perfeccionamiento Empresarial?', La Habana, Cubanet, 7 February.
- Espinosa Chepe, Oscar (2007c), 'Cuba, Opciones para un Futuro Digno' en *Cuba in Transition*, ASCE & ICCAS, vol. 17, p. 21-27.
- Espinosa Chepe, Oscar (2008), 'Propiedad Privada y Desarrollo', Havana, 6 April.
- Fornés, Federico (2007), 'La Luna de Miel entre Pekín y La Habana...', *Encuentro en la Red*, Havana, 27 December.
- Fornés, Federico (2008), 'La Leche que Prometió Raúl...', *Encuentro en la Red*, Havana, 26 February.
- Frank, Marc (2006, 2007), 'Cuba May Reduce Flow of Nickel....' and 'Shroud of Secrecy Falls over Cuba's Nickel Industry', Reuters, Havana, 8 November and 10 January.
- Frank, Marc 2008. 'Cuban Sugar Harvest Moves into High Gear', Reuters, Havana, 21 January.
- García, Edmundo (2007a), 'Entrevista a Pedro Monreal', La Noche se Mueve, Montreal, September.
- García, Edmundo (2007b), 'Entrevista a Rafael Hernández Director de la revista *Temas*', *La Noche se Mueve*, Montreal, September
- García, Fernando (2008), 'Un Año Decisivo para Cuba', La Vanguardia, 1 January.
- González, Ortelio (2006), 'Los Golpes de la Comercialización', Granma, 21 February.
- Grupo de Economistas del Centro de Formación Cívica y Religiosa (GE) (2006), *Itinerario de Reflexión Económica para Cuba*, Diócesis de Pinar del Río. See Symposium in *Cuba in Transition*, vol. 17, p. 164-194.
- Institute of Cuban and Cuban American Studies (ICCAS) (2008), Cuba Facts, nr 37, March.
- Isbell, Paul (2007), Hugo Chávez y el Futuro del Petróleo Venezolano, Real Instituto Elcano.
- Israel, Esteban (2007), 'Number of Foreign Firms in Cuba Fell in 2006', Reuters, Havana, 29 January.
- Lee, Sara (2007), 'Perfeccionamiento Empresarial,' Granma, 23 January.
- Marquetti, Hiram (2006), 'El Proceso de Des-dolarización de la Economía: Impacto y Perspectivas', CEEC, Universidad de La Habana.
- Martín, Marianela, & Dora Pérez (2007), 'Agricultura Cubana...', Juventud Rebelde, 16 December.
- Martínez, Osvaldo (2007), 'Intervención sobre los Temas del Plan y Presupuesto de la Economía Nacional', *Granma*, 28 December.

Mayoral, María Julia (2007), 'Avances en las Redes y Mucho por Hacer', Granma, 18 August.

- Méndez, Elier et al. (2007), 'Análisis Territorial del Desarrollo Humano en Cuba, 1985-2004', *Comercio Exterior*, nr 57, 8 (August), p. 643-656.
- Mesa-Lago, Carmelo (2002), Buscando un Modelo Económico en América Latina ¿Mercado, Socialista o Mixto?—Chile, Cuba y Costa Rica, Nueva Sociedad, Caracas.
- Mesa-Lago, Carmelo (2005a), 'The Cuban Economy in 2004-2005', en *Cuba in Transition*, ASCE & ICCAS, vol. 15, Miami, p. 1-18.
- Mesa-Lago, Carmelo (2005b), 'Problema Sociales y Económicos en Cuba Durante la Crisis y la Recuperación', *Revista de la CEPAL*, nr 86 (August), p. 183-205.
- Mesa-Lago, Carmelo (2006), '¿Es Viable Terminar con Medio Siglo de Racionamiento en Cuba?', *Vitral*, Pinar del Río, August.
- Mesa-Lago, Carmelo (2007), 'The Cuban Economy in 2006-2007', in *Cuba in Transition*, ASCE & ICCAS, vol. 17, Miami, p. 1-25.
- Mesa-Lago, Carmelo (2008), 'Envejecimiento y Pensiones de Seguridad Social en Cuba', *Nueva Sociedad*.
- Mesa-Lago, Carmelo, & Jorge Pérez-López (2005), *Cuba's Aborted Reform: Socioeconomic Effects, International Comparisons and Transition Policies*, University Press of Florida, Gainesville.
- Miranda, Mauricio de (2008), 'Los Problemas de la inserción Internacional de Cuba y su Relación con el Desarrollo Económico', Doctoral Thesis, Department of Economics, Universidad Complutense, Madrid.
- Monreal, Pedro (2004), 'Globalization and the Dilemmas of Cuba's Economic Trajectories', in Domínguez *et al.*, p. 91-118.
- Monreal, Pedro (2007), 'Industrial Policy and Clusters in Cuba' in 'The Cuban Economy...'.
- Nova, Armando (2006), *La Agricultura en Cuba: Evolución y Trayectoria (1959-2005)*, Editorial de Ciencias Sociales, Havana.
- Nova, Armando (2007), 'La Agricultura en Cuba 2000-2006', in 'The Cuban Economy...'.
- Ocando, Casto (2008), 'Las Deudas y el Derroche...' and 'Escasez Trae Descontento...', *El Nuevo Herald*, 23 & 24 February.
- ONE, Oficina Nacional de Estadísticas (2001, 2002, 2003, 2004, 2005, 2006, 2007), Anuario Estadístico de Cuba 2000, 2001, 2002, 2003, 2004, 2005, 2006, Havana.
- ONE (2001a), Encuesta sobre la Situación Económica de los Hogares, Havana, cited by Añé (2006).
- ONE (2008), Panorama Económico y Social 2007, Havana.
- Orta, Yailin et al. (2006), 'Iniciarán Proyecto Investigativo sobre Propiedad en Cuba,' Juventud Rebelde, 22 October.
- Ortiz, Gusel et al. (2007), 'Empleo Juvenil en Cuba', Juventud Rebelde, 27 November.
- Pagés, Raisa, & René Castaño (2006), 'Orden para la Comercialización', Granma, 14/II.
- Pérez, Dora, et al. (2006), 'Dibujo de la Cuba Futura', Juventud Rebelde, 31 December.
- Pérez-López, Jorge (2007), 'The Rise and Fall of Foreign Investment in Cuba', in 'The Cuban Economy...'.
- Pérez-López, Jorge, & José Álvarez (Eds.) (2005), *Reinventing the Cuban Sugar Agroindustry*, Lexington Books, Lanham.
- Pérez Villanueva, Omar Everleny (Ed.) (2004, 2006), *Reflexiones sobre Economía Cubana*, Editorial Ciencias Sociales, Havana.
- Pérez Villanueva, Omar Everleny (2007a), 'La Economía Cubana: Balanza Actual y Retos Futuros' in 'The Cuban Economy...'
- Pérez Villanueva, Omar Everleny (2007b), 'La Inversión Extranjera Directa en Cuba: ¿En que Momento se Encuentra?' in 'The Cuban Economy...'
- Pérez Villanueva, Omar Everleny (2008), 'Entrevista a Omar Everleny', La Jornada, 15 March.
- Perkins, Dwight H. (2004), 'Economic Reforms in China and Vietnam: Are the Lessons for Cuba?', in Jorge Domínguez, Omar E. Pérez Villanueva & Lorena Barberia (Eds.), *The Cuban Economy at the Start of the Twenty-First Century*, Harvard University, Center for Latin

American Studies, p. 199-206.

- Petras, James (2007), 'Defendiendo la Revolución Cubana: ¿Con Amor o con Veneno?', *Rebelión*, 17 September.
- Petras, James, & Robin Eastman-Abaya (2007), 'Cuba: Revolución Permanente y Contradicciones Contemporáneas', *Rebelión* (August).
- Piñón, Jorge (2008), paper presented at the conference 'Cuba 2008: Opportunities and Challenges', Brookings Institution, Washington DC, 6 February.
- Ravsberg, Fernando (2007), 'La Revolución sufre un Estancamiento', interview with Pedro Campos, BBC Mundo, 25 September.
- Resolución sobre Reglamentos Disciplinarios Laborales (2006), nr 187 and 188, Ministerio del Trabajo y Seguridad Social, 21 August.
- Resolución sobre Pagos en Divisas (2007), nr 277, Ministerio de Finanzas y Precios, 13 December.
- Ritter, Archibald (2007), 'Public Policy and Small Enterprise in Cuba', in 'The Cuban Economy...'
- Robles, Frances (2008), 'Cubans Can Stay at Hotels...', The Miami Herald, 1 April.
- Rodríguez, José Luís (2007a), cited in 'Ministro de Economía Niega Modelo Chino', EFE, Havana, 30 April.
- Rodríguez, José Luís (2007b), '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.
- Ronquillo, Ricardo (2007), 'Marañas de la Fábula', Juventud Rebelde, 25 November.
- Rosenberg, Tina (2007), 'Can Hugo Chávez's Oil Socialism...?', *The New York Times Magazine*, 4 November.
- Sánchez, Fabiola (2006), 'Objetan la Inversión de PDVSA en Cuba', AP, Caracas, 19 April.
- Sánchez-Egozcue, Jorge Mario (2007), 'Economic Relations Cuba-US, Bilateralism or Geopolitics?', in Congreso de LASA, Montreal, 6-8 September.
- Soberón, Francisco (2005), 'Intervención en el Congreso de la Asociación Nacional de Economistas de Cuba', *Granma*, 27 November.
- 'Sobre la Transición Socialista en Cuba: Un Simposio' (2007), *Temas*, 51-52 (April-September), p. 126-162.
- 'The Cuban Economy: Challenges and Options' (2007), Carleton University International Policy Forum, Ottawa, 10-11 September.
- Togores, Viviana, & Anicia García (2006), 'Algunas Consideraciones Acerca del Acceso al Consumo...', in Pérez Villanueva (Ed.), p. 281-282.
- Triana, Juan (2007), 'Crecimiento Económico, Conocimiento y Cambio Estructural' in 'The Cuban Economy...'.
- Vidal Alejandro, Pavel (2006), 'Estabilidad, Desdolarización y Política Monetaria en Cuba', in Pérez Villanueva (Ed.), p. 45.
- Vidal Alejandro, Pavel (2007), 'La Inflación y el Salario Real', *Economic Press Service*, Havana, 20: 5 (March), p. 18-20.
- Yaima, Doimeadios (2006), 'Un Modelo de Crecimiento Económico para Cuba: Análisis de Productividad de Factores', Universidad de La Habana, FEC (cited by Triana, 2007).