Facing a deep economic crisis of meltdown dimension in the first half of the 1990s, Cuba’s leadership modified its basic development strategy with a variety of institutional and policy innovations. By 1995 the Cuban economy had begun to recover, although by 2003 it still had not achieved the precrisis levels of 1990 or 1985. The economy was also hurt by the impact of the international economic slowdown of 2001–2, which was even further intensified by the aftermath of the 11 September 2001 terrorist attack in New York.

Since 1994 Cuba’s economic performance has been mixed, with some positive results and some continuing problems. Certain policy and institutional innovations seemed to be functioning well at this time, while others did not. Key elements of the crisis have been resolved effectively, notably the fiscal crisis and the suppressed inflation that resulted from the “monetizing” of the fiscal deficit from 1990 to 1993. Sectors of the economy have performed admirably, notably tourism, nickel, petroleum extraction, and electricity generation. Food production and availability and levels of investment have improved somewhat, but further significant improvement is possible and desirable. However, there are important economic problems that have not been handled effectively: the dual monetary and exchange rate system; the failure to diversify and expand merchandise exports; the inability to revive the sugar sector, leading to the shock therapy of August 2002; the mismanagement of the policy environment for the microenterprise sector; the reduction in the real value of budgetary revenues devoted to education, health, and public services, generally leading to major reductions in real income levels for people working in these sectors; and the inability to significantly recover the material standard of living that existed prior to 1985.

Are Cuba’s economic policy initiatives of the 1990s functioning effectively now in the 2000s in order to achieve an enduring recovery while maintaining previous ad-
advances in social areas? Has a solid foundation for sustainable recovery with equity for the coming decade now been established in Cuba? Are further types of policy innovations or changes necessary in Cuba to achieve sustainable growth with equity?

Cuba’s Economic Crisis and Policy Response in the 1990s

The origins and nature of Cuba’s economic crisis and its response to the crisis are well known. The most important cause of the crisis was the decline in foreign exchange receipts—by around 75 percent from 1990 to 1993—resulting from the termination of the hidden subsidization inherent in the special trade and aid relationship with the former Soviet Union and the countries of Eastern Europe. However, the impact of the Soviet Union’s collapse and the end of the special relationship with the Soviet bloc actually followed a five-year period of worsening economic difficulties from about 1985 to 1990.

The generosity of the former Soviet Union toward Cuba in the 1970s and 1980s has seldom been paralleled in history. The assistance was obscured from general public view and was not acknowledged by the Cuban government. Cuban officials and analysts argued that the special arrangements with the Soviet Union constituted not aid but the fair exchange of commodities (Rodriguez 1990). The hidden subsidization of the Cuban economy occurred in part through the pricing of merchandise imports and exports. The USSR paid a ruble price for its sugar and nickel imports from Cuba that was a multiple of the prevailing world price at official exchange rates for many years. At the same time, Cuba paid a price that was well below the prevailing market price for its petroleum imports from the USSR. Furthermore, Cuba engaged in the re-export of both sugar and petroleum in its trade with the USSR, capturing significant middleman profits for some years. (Cuba purchased sugar from other countries at the low world price and resold it to the USSR at a higher price. Cuba also purchased petroleum from the USSR at a lower price and re-exported it to other countries in the region at the prevailing higher world price.) How significant was this type of subsidization? Quantitative estimates place it at 23–36 percent of national income in the 1980–87 period (Ritter 1990).

On top of the subsidization through the pricing of traded goods was the buildup of a bilateral debt to the USSR amounting to about U.S.$23.5 billion by 1990 (Ritter 1990). This debt reflected the recurring trade deficits of Cuba with the USSR as well as the capital account credits provided by the USSR. This debt apparently will never be repaid. There were also additional bilateral debts with some of Cuba’s Eastern European trading partners. Furthermore, there were military credits of an indeterminate magnitude as well as the rental payments for military facilities such as the Lourdes
radar base, plus the expenditures of USSR military procurement and personnel in Cuba.

Cuba’s ostensible prosperity of 1975–85 was therefore due in part to Soviet subsidization and was unsustainable. As soon as the Soviet Union indicated that it was going to move toward a market determination of its exchange rate and market determined prices for its trade, it was clear the subsidization would end. This would be reflected immediately in a large reduction in the purchasing power for Cuba’s exports. The consequent reduction of imports of intermediate products, energy, raw materials, foodstuffs, replacement parts, machinery, and equipment would then produce a major economic contraction. This is in fact what happened from 1989 to 1994.

Four additional factors contributed to the crisis. First was the fragility of Cuba’s economic structure and its lack of export diversification. Cuba’s export structure had evolved little in the years since 1959, but it was still dependent on a few primary commodities, including sugar, nickel, tobacco, and other agricultural products.

Second was Cuba’s lack of access to credits from foreign sources at reasonable cost. In the 1980s Cuba built up a significant convertible currency debt. Cuba’s ratio of debt to exports (of goods and services) was close to double that for Latin America as a whole. The debt service burden (interest as a percentage of exports of goods and services) was 27.1 percent, close to the 28.0 percent level for all of Latin America in 1988 (Ritter 1990, 134). When Cuba declared a moratorium on interest and principal payments, many foreign lenders halted new lending. Nor was Cuba a member of some of the major international institutions such as the International Monetary Fund, World Bank, Inter-American Development Bank, or Caribbean Development Bank that could have provided financial support.

Third was the central planning system, which continued to be problematic. Cuba’s economic management was characterized by general demarketization (though with a very small self-employment sector and larger underground economy), bureaucratization, and excessive centralization. These characteristics resulted in pervasive microirrationalities, the absence of a rational structure of prices such that meaningful cost accounting could exist, general economic paralysis, and the suppression of entrepreneurship. Efforts such as the Rectification Process adopted in 1986 were not successful in improving the planning system. Related to this were a variety of continuing policy pathologies such as the absence of a meaningful and unified exchange rate and extreme trade protectionism through bureaucratic control of imports.

Fourth was a hardening of the U.S. trade embargo with the imposition of the “Toricelli” bill in 1992, which further strengthened obstacles to Cuban exports.

These four factors contributed to a multidimensional set of crises rooted in the re-
duction of the available foreign exchange and the capacity to purchase imports. The economy went into a process of contraction from 1989 to 1993. The asphyxiation from reduced foreign exchange for the purchase of imported energy, raw materials, intermediate products, capital goods, and foodstuffs generated a macroeconomic crisis, with an approximate 40 percent decline in output per person by 1993. It also produced an energy crisis, with petroleum imports declining from 13 million metric tons in 1989 to 5.8 million in 1992 (EIU 1992, 23.) Because imports accounted for 93 percent of total petroleum supplies in 1990, the result was a severe reduction in transportation services and the generation of electricity, with consequent power blackouts and shutdowns of industry. Third was a food crisis, with reduced domestic food production resulting from reduced fertilizer, energy, and replacement part imports, as well as reduced food imports. Limited availability of food led to inadequate nutrition by 1992, as reflected in the incidence of neuropathy leading to blindness—temporary, thankfully—of some twenty-five thousand to forty thousand persons.

There was also a collapse of savings, which reached a low of 2.6 percent of gross domestic product (GDP) in 1993, and gross investment, which also hit a low of 5.2 percent in 1994. The limited replacement investment and postponed maintenance and repairs together with cannibalization of equipment in some sectors all contributed to an accelerated deterioration of the entire capital stock. Levels of net investment were likely negative—that is, the capital stock was likely deteriorating more rapidly than it could be replaced.

The contraction of economic activity led to reduced tax revenues, rising fiscal deficits, accelerated money creation, and an escalation of inflationary pressures. The result was a monetary crisis in which the real purchasing power of the Cuban peso declined precipitously, leading to a burgeoning demand for U.S. dollars (for store-of-value and medium-of-exchange purposes) and a subsequent process of dollarization of the economy. The rapid real inflation resulted in large reductions in the real purchasing power of budgets of the education, public health, and public sector generally as well as in the peso incomes of employees in these activities. In consequence, there was intense pressure on the provision of social services. Citizens responded to the decline in their standard of living by pursuing self-employment activities, most of which were illegal at the time. They resorted to illegal or black-market activities and exchanges and to finding all and any means to acquiring the U.S. dollars vital for survival.

In the face of this crisis and the need for foreign exchange, Cuba’s leadership announced the “Special Period in Time of Peace,” an era that lasted from 1990 to 2003, in which tough policies were necessary to deal with difficult circumstances. The leadership modified the development strategy with a number of innovations designed for
the new international context within which Cuba had to survive. Between 1993 and 1996, the government of Cuba implemented a variety of institutional reforms, including legalizing the holding of U.S. currency; liberalizing remittance payments from relatives abroad; legalizing self-employment in some low-technology areas; reestablishing agricultural markets; liberalizing the foreign investment law; converting state farms to quasi-cooperatives; establishing four export processing zones; reinvigorating small-holder farming; and reorganizing the state enterprise system and ministries as well as some banking reforms.

The policy reforms also included a reestablishment of a reasonable fiscal balance, with consequent reductions in money creation and inflationary pressures, reduced subsidies to enterprises, changes in the structure of the taxation system, and reductions in military expenditures. By 1996 most of the economic reforms were in place. A few additional reforms were introduced after 1998, such as administrative reforms for state enterprises, but the principal priority seemed to be assimilating the changes already in place.

In his challenging essay on long-term reform processes in Cuba (in this volume), Carmelo Mesa-Lago presents evidence supporting the hypothesis that the introduction of reforms slowed down in about 1996. This was in part because the good results of the 1993–95 reforms led the revolutionary leadership to conclude that additional reforms were unnecessary and could in fact be destabilizing for the regime.

Economic Performance during the Special Period: The External Sector

The various reforms adopted in the 1993–96 period arrested Cuba’s economic meltdown. Many of Cuba’s key economic indicators began to improve after 1994. This was true for foreign exchange earnings, output levels, petroleum extraction and energy availability, food production and availability, tax revenues and the fiscal balance, monetary indicators, and labor force utilization. The central constraint on economic performance, however, continued to be the availability of foreign exchange for purchasing imported capital goods, petroleum, intermediate inputs, and consumer products, especially food. Indeed, the acquisition of foreign exchange is of such overriding importance that a redesign of Cuba’s basic development strategy was necessary in the new context of the “Special Period.”

Merchandise exports were basically stagnant in the 1990s. The volume of Cuban exports in 2000 was 68.6 percent of the 1989 level, and the purchasing power of those exports dropped to 34.2 percent of the 1989 level (Naciones Unidas 2001b, 27). The deficit in merchandise trade expanded, reaching U.S.$3.2 billion by 2000 (see table
Sugar exports have been particularly disappointing. The cause seems to be intractable production problems in agricultural and milling processes, as explained by Brian Pollitt in this volume. The harvests of 2001 and 2002 totaled 3.5 and 3.2 million tons, among the lowest yields of the past decade—indeed, of the past fifty years. The policy response of the Cuban government to this situation in mid-2002 was a form of shock therapy applied yet again to the sector, namely the shutdown of 70 of 156 sugar mills, a culmination of the long-term failure to manage the sector effectively. In effect, Cuba’s main cash cow generating the necessary foreign exchange for the country had been starved to death slowly through underinvestment.

On the other hand, exports of nickel have increased, reaching over 27 percent of total exports in 1999. This is due in large part to production-enhancing investments in a joint venture with Canadian enterprise Sherritt International. Cigar exports also expanded prior to 2000, accounting for 11.8 percent of total exports in 1999. On the other hand, despite high initial expectations, biotechnological exports did not perform well and accounted for only 1.8 percent of total merchandise exports in 1999 (Naciones Unidas 2001b, 28).

Cuba’s most noteworthy success in its international economic interaction has been the expansion of international tourism. Recent estimates of gross tourism revenues for 2000 are U.S.$1.9 billion. Family remittances from the Cuban diaspora are also a

<table>
<thead>
<tr>
<th>Table 1.1 Balance of Payments, 1991–2001</th>
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<tr>
<td>(in Millions of U.S. Dollars)</td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Exports</strong></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>3,563</td>
</tr>
<tr>
<td>Goods</td>
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<tr>
<td>2,980</td>
</tr>
<tr>
<td>Services</td>
</tr>
<tr>
<td>584</td>
</tr>
<tr>
<td><strong>Imports</strong></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>4,702</td>
</tr>
<tr>
<td>Goods</td>
</tr>
<tr>
<td>4,234</td>
</tr>
<tr>
<td>Services</td>
</tr>
<tr>
<td>468</td>
</tr>
<tr>
<td><strong>Commercial balance</strong></td>
</tr>
<tr>
<td><strong>Current transfers</strong></td>
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<tr>
<td>Total</td>
</tr>
<tr>
<td>18</td>
</tr>
<tr>
<td>Remittances</td>
</tr>
<tr>
<td>537</td>
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<tr>
<td><strong>Factor services, net</strong></td>
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<tr>
<td><strong>Capital account</strong></td>
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<tr>
<td>Total</td>
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<tr>
<td>1,421</td>
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<td>of which, foreign investment</td>
</tr>
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</table>

Sources: Naciones Unidas (2001b, 27, 35; 2001c).
significant source of foreign exchange. While it is difficult to accurately calculate remittances, they were estimated to be U.S.$720 million in 2000.

Cuba established four export processing zones in 1997 as a mechanism for expanding exports. So far their role has not been particularly prominent and they have almost dropped from view. Larry Willmore’s analysis in this volume of Cuba’s export processing zones concludes that despite generous tax incentives and a well-educated labor force, the zones will likely continue to be of limited significance in expanding exports due to high labor and production costs in real terms relative to other locations.

Foreign Direct Investment (FDI) in the form of joint ventures with state enterprises has been of major importance to Cuba. There is some ambiguity about the value of FDI inflows, and Jorge Pérez-López cites a variety of estimates. One of the more reliable estimates of the FDI inflow is that of the United Nations Economic Commission for Latin America and the Caribbean, which has placed it at U.S.$1.6 billion from 1993 to 1999. The principal sources and sectors for foreign investment include Canada in nickel, petroleum extraction, electricity generation, brewing, and paper; Spain in tourism and cigars; Chile in citric fruit; and Italy in telephone communications.

While foreign investment may not seem large in terms of overall volume, it has been the vehicle for valuable transfers of technology. In some cases, these have been environmentally friendly and energy efficient, particularly in comparison to vintage Soviet technology. For example, new technologies introduced by foreign partners—mainly Sherritt International—have dramatically increased petroleum extraction. Sherritt also introduced technologies for generating electricity using the natural gas previously flared, or wasted, and has invested in a gas pipeline from Varadero to Havana. Foreign enterprises have also introduced the latest management systems, notably in the tourism sector. Finally, foreign enterprises in joint venture arrangements often have the marketing expertise, networks, and muscle to facilitate market access for Cuban products. In the tourism sector, for example, foreign hotel chains and tour operators promote Cuban destinations. Habanos S.A., a cigar marketing joint venture that is 50 percent owned by Altidis, a Spanish-French firm that has a near-monopoly of cigar sales in Europe, is an instance in which Cuba is relying on a foreign firm’s marketing strength to expand revenues from exports.

Unfortunately, outflows of profits and interest payments on debt have reached high levels. These outflows made up a large proportion of the U.S.$670 million deficit in factor service payments in 2000 (table 1.1). Cuba may have entered a situation in which profit remittances by foreign firms continually exceed new direct foreign investment. From 1994 to 1999, for example, the burden of interest payments plus
profit repatriation of U.S.$2,942 million (the major components of the factor service deficit) exceeded the accumulated investment inflow of U.S.$1,504 million (table 1.1).

Due to the moratorium on debt servicing declared in 1985, Cuba has had to endure its economic crisis of the 1990s without significant access to the major sources of international credit. Cuba is not a member of the international financial institutions such as the International Monetary Fund, the World Bank, and the Inter-American Development Bank. However, when it rejoins these it will have significant volumes of credit available at zero conditionality—that is, with no external conditions for its use. Additional credit then would also be available from these institutions, but levels of conditionality would come into operation. Cuba also has had some limited access to other sources of credit, such as commercial banks, suppliers, and official lending agencies. But it has also found it necessary to borrow short term to finance export activities such as sugar as well as to purchase imports with high-interest loans from lenders such as Sherritt International.

The relative lack of access to international credit allowed for only a limited cushioning of the shortage of foreign exchange in the 1992–98 period. There was no possibility of jump-starting the economy with external financial support for the importation of the necessary inputs and capital goods to permit a more rapid macroeconomic turnaround in the style of the Czech Republic, Poland, Slovakia, Slovenia, Estonia, or Hungary. Cuba has had to implement a harsh process of structural adjustment that has led to serious reductions of real living standards, particularly for people in the peso economy, such as pensioners, employees in state enterprises, and workers in education, medicine, and the public service.

These problems are exacerbated by Cuba’s debt service problem. Cuba’s total convertible currency debt (excluding debt to successor states of the former Soviet Union) stood at U.S.$11 billion in 2000 (Naciones Unidas 2001b, 36). Its debt-to-export ratio continued to be higher than the Latin American average. In 1998 this ratio was 289 percent compared to 224 percent for the region (UNECLAC 2000, 107). Unfortunately, despite years of discussions with the Paris Club (an association of its governmental creditors) Cuba has not yet resolved this impasse. The debt to Russia is also significant, amounting perhaps to U.S.$27 billion. However, the estimation of the value of the debt is contentious. Russia is a member of the Ad Hoc Group of Creditor Countries in the Paris Club regarding Cuba’s debt. Russia expects to receive some partial payment from Cuba for its large bilateral debt. On the other hand, it appears that Cuba considers this debt to now be zero.1
Economic Performance: The Domestic Economy

During the 1995–2000 period, the improvement in the foreign exchange earnings and receipts from tourism, family remittances, and direct foreign investment ignited economic growth. As a result, Cuba’s growth was positive in the 1996–2000 period, averaging 3.9 percent in per capita terms (see table 1.2). By 2000, GDP per capita had recovered significantly, although it was still about 17 percent below the 1989 level. To the casual observer, there were a variety of signs of economic recovery by 2001, such as fewer electrical blackouts, increased public and automotive traffic, fewer bicycles on the street, a major expansion of dollar store retailing, and the accelerated restoration of Old Havana.

Real Levels of Income

It is difficult to estimate accurately the real incomes of Cuban citizens during the 1990s. This is because there is no reasonable measure of true inflation—that is, an accurate and transparent consumer price index that allows for the changing mix of consumer purchases from the rationing system, the dollar stores, the agricultural markets, and the self-employment sector, not to mention the pervasive underground economy. The quantity of goods and services available through the low-priced rationing system has declined sharply. Products that were previously rationed are now

Table 1.2 Principal Economic Indicators, 1990–2001

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP per capita (1989 = 100.0)</th>
<th>GDP per capita growth rate (%)</th>
<th>Gross investment as % of GDP</th>
<th>National savings as % of GDP</th>
<th>Unemployment</th>
<th>Underemployment</th>
<th>Sugar harvest (million tons)</th>
<th>Gross external debt</th>
<th>% of total exports</th>
<th>Exchange rate (pesos/U.S. dollars)</th>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Official</td>
</tr>
<tr>
<td>1990</td>
<td>96.0</td>
<td>-4.0</td>
<td>24.8</td>
<td>12.7</td>
<td>7.3</td>
<td>10.3</td>
<td>8.4</td>
<td>7.0</td>
<td>118</td>
<td>1.0</td>
</tr>
<tr>
<td>1991</td>
<td>86.1</td>
<td>-10.3</td>
<td>14.0</td>
<td>5.4</td>
<td>7.7</td>
<td>19.0</td>
<td>7.2</td>
<td>8.0</td>
<td>225</td>
<td>1.0</td>
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<tr>
<td>1992</td>
<td>77.1</td>
<td>-10.5</td>
<td>6.5</td>
<td>2.8</td>
<td>6.1</td>
<td>24.2</td>
<td>7.2</td>
<td>10.0</td>
<td>397</td>
<td>1.0</td>
</tr>
<tr>
<td>1993</td>
<td>66.1</td>
<td>-14.2</td>
<td>6.4</td>
<td>2.6</td>
<td>6.2</td>
<td>34.0</td>
<td>4.2</td>
<td>8.8</td>
<td>492</td>
<td>1.0</td>
</tr>
<tr>
<td>1994</td>
<td>66.4</td>
<td>+0.4</td>
<td>5.2</td>
<td>4.6</td>
<td>6.7</td>
<td>32.5</td>
<td>4.0</td>
<td>9.1</td>
<td>358</td>
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<tr>
<td>1995</td>
<td>67.9</td>
<td>2.2</td>
<td>7.0</td>
<td>5.6</td>
<td>7.9</td>
<td>32.1</td>
<td>3.3</td>
<td>10.5</td>
<td>360</td>
<td>1.0</td>
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<tr>
<td>1996</td>
<td>72.8</td>
<td>7.3</td>
<td>7.1</td>
<td>6.3</td>
<td>7.6</td>
<td>26.6</td>
<td>4.3</td>
<td>10.5</td>
<td>295</td>
<td>1.0</td>
</tr>
<tr>
<td>1997</td>
<td>74.3</td>
<td>2.1</td>
<td>7.7</td>
<td>6.3</td>
<td>7.0</td>
<td>25.7</td>
<td>4.1</td>
<td>10.1</td>
<td>267</td>
<td>1.0</td>
</tr>
<tr>
<td>1998</td>
<td>75.0</td>
<td>0.9</td>
<td>7.9</td>
<td>5.6</td>
<td>6.6</td>
<td>25.1</td>
<td>3.2</td>
<td>11.2</td>
<td>289</td>
<td>1.0</td>
</tr>
<tr>
<td>1999</td>
<td>79.3</td>
<td>5.8</td>
<td>7.9</td>
<td>5.6</td>
<td>6.0</td>
<td>21.0</td>
<td>3.7</td>
<td>11.0</td>
<td>259</td>
<td>1.0</td>
</tr>
<tr>
<td>2000</td>
<td>83.3</td>
<td>5.1</td>
<td>7.9</td>
<td>5.6</td>
<td>5.8</td>
<td>22.0</td>
<td>3.5</td>
<td>11.1</td>
<td>229</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Sources: Naciones Unidas (2000a, 253; 2001a, 288–91; 2001b, 13, 44; 2001c).
often available only for U.S. dollars in dollar stores, where prices are at world levels plus a 140 percent markup (an implicit sales tax). As people spend a growing proportion of their income in dollar stores, the authentic purchasing power of regular incomes has diminished.

Despite the measurement difficulties, ECLAC analysts estimated that the average monthly salary in real terms in 1998 was 54.8 percent of the level in 1989, a decline of over 45 percent. However, this reduction occurred in three stages: first a 75 percent reduction from 1989 to 1993, then a significant recovery in 1995–96, followed by stability from 1996 to 1998. Those without access to U.S. dollars have experienced a drastic decline in real income. For this reason, professionals such as doctors, public officials, state employees, and pensioners are desperate to earn additional income by driving their family cars as taxis, becoming self-employed, or finding income supplements. The broad range of income supplements includes theft and/or the illegal sale of all varieties of products within the state sector but under the control of individuals in strategic positions; gratuities, fees, or income supplements for service providers within the state sector, such as manicurists, estheticians, and doctors; reselling of various products purchased for pesos in order to acquire dollars, such as selling the newspaper Granma for U.S. dollars; selling one's services in the underground economy rather than through official channels—for example, private teachers, plumbers, electricians, carpenters, construction workers, auto mechanics, taxi drivers, etc.; illegal activities such as jineterismo, or quasi-prostitution, such as occurred during the early 1990s. Sharing dollar earnings or remittance receipts regularly occurs within families as well. The multigenerational family undoubtedly plays an important role in ensuring that those with access to dollars share them with others, especially with retired persons receiving pensions of approximately 90 to 120 pesos per month. Without income sharing and extralegal sources of income such as those mentioned above, many people would be destitute.

Education and Social Services

Despite reductions in per capita income, Cuba has done a good job of maintaining the levels of education and social services reached in the relatively prosperous 1970s and 1980s. Most major indicators of health and educational coverage have improved or at least have not deteriorated. The exception is higher education, where enrollment declined from 242,400 in 1990/91 to 102,600 in 1998/99 (Naciones Unidas 2000a, table A62). This was partly because of a decision to adjust for a previous oversupply of some types of professionals and partly because of the reduced incentive for young people to prepare themselves for low-paying peso-sector professional careers.
Official budgetary figures for health and education suggest that spending in pesos has been more or less maintained in these areas. However, these figures do not take into consideration the real level of inflation, which has reduced the actual value of peso budgetary allotments to these sectors. As a result, the real incomes of teachers, professors, doctors, nurses, and other health and education workers, as well as maintenance of schools and hospitals, and the availability of supplies have been seriously reduced. Anecdotal evidence suggests that the quality of education and health services has suffered in consequence.

*Petroleum Extraction and Food Production*

Perhaps the most successful areas of the domestic economy have been petroleum extraction and food production, the latter outlined by William Messina Jr. in this volume. Although there has not been a full recuperation to previous levels of food availability, food production has benefited from institutional changes, particularly the establishment of agricultural markets.

As mentioned, the increase in petroleum production is principally a result of the joint venture with Sherritt International. Domestic petroleum extraction now generates about 70 percent of Cuba’s electricity, assisted by previously flared natural gas in the Varadero area.

*Taxation and Fiscal Policy*

Another successful area of reform has been in taxation, which has restored the fiscal foundation for social programs and the functioning of the state apparatus. The fiscal situation in the early 1990s was in crisis, as the deficit escalated to 36 percent of GDP in 1993. This deficit was largely financed by money creation, leading to rapid though suppressed inflation. The result was a devaluation of the peso in the parallel market to about 150 pesos per U.S. dollar in 1994 and a flight to the U.S. dollar as a haven for savings. A series of difficult tax reforms involving a number of tax increases reduced the deficit to about 2 percent of GDP by 1998 and to a degree restored the value of the peso and confidence in it. The peso has not returned to the parallel market value it maintained during the 1980s, but it remained at 20 to 22 pesos per U.S. dollar until late 2001, when it declined in value to 26 pesos per U.S. dollar.

*Continuing Economic Challenges*

*Increasing Investment and Domestic Savings*

Cuba continues to face a number of ongoing challenges that will require appropriate reforms in order to construct a foundation for an enduring economic recovery.
One of the more pressing challenges is to raise levels of domestic savings and investment. According to the United Nations Economic Commission for Latin America and the Caribbean (UNECLAC), gross investment levels collapsed by 87 percent from 1989 to 1993 (1997, 352). By 1998 Cuba’s gross investment as a percentage of GDP was 7.9 percent, compared with 21.1 percent for Latin America and the Caribbean for the same year (Naciones Unidas 2001b, 130, 291). Taking depreciation into account, the real contraction of the capital stock must have been particularly serious in these years due to lack of maintenance, cannibalization of machinery and equipment, and the accelerated decay that accompanies industrial shutdowns and lack of use. A chief source of low investment levels is a low level of national saving. In 1998 national savings amounted to only 6.4 percent of GDP, compared to 20.2 percent for all of Latin America and the Caribbean (83, 291).

Investment has recovered somewhat since 1994, but the recovery has been slow and is concentrated in certain sectors, notably tourism. The magnitude of the task of renovation, reconstruction, and re-equipment in areas such as housing, urban infrastructure, public buildings, and the stock of vehicles is apparent even to the casual observer. Moreover, much of the old equipment from the Soviet bloc is obsolete, prodigious in its use of resources, environmentally unfriendly, and internationally uncompetitive. Eventually Cuba’s investment effort will have to increase so that economic growth can become sustained, broad-based, and environmentally sound, and so that real incomes and social programs can recover.

Institutional Reform

A second challenge is Cuba’s need to improve the structure and functioning of economic institutions. One part of this is to reform its state enterprise sector to make the institutions more effective and efficient. In a major study of the Cuban economy published in 1997, United Nations analysts concluded that, “Like other socialist countries of Eastern Europe, the Cuban development model was already becoming inoperative prior to the 1989 collapse” (UNECLAC 1997, 120). Cuba is currently trying to overcome weaknesses in its centralized system of economic management by decentralizing enterprise financing, decision making, and responsibility. Whether it will succeed this time, after disappointing results with earlier attempts, remains to be seen.

A further challenge is how to manage micro- and small-scale enterprise. Self-employment in nonprofessional activities was legalized in September 1993. It has been valuable for Cuba, generating employment, raising tax revenues, providing valuable goods and services, utilizing domestic resources, contributing to foreign exchange earnings, and furthering domestic entrepreneurship. However, higher in-
comes in some areas of the self-employment sector and ideological objections to such small-scale “capitalism” have led the government to introduce a tough regulatory environment and an onerous tax regime, both designed to reduce incomes and restrict growth in the microenterprise sector.

Perhaps the simplest but most lethal type of control placed on microenterprise is the refusal to grant permits to enterprises so that the sector is placed in a situation of steady contraction. Moreover, the taxation regime for microenterprise can lead to marginal tax rates in excess of 100 percent in some circumstances. It also is a good deal more burdensome than the tax regime for foreign enterprises operating in Cuba as joint ventures with state enterprises, as argued by Archibald Ritter in this volume. Many of the self-employed view these policy measures as an attempt to not contain but asphyxiate them.

The tax and regulatory measures have had negative consequences for Cuba, such as the promotion of the underground economy and theft from the state sector. An appropriate regulatory environment for small enterprise could increase the benefits and reduce the negative effects in this sector. Opening self-employment to all who wish to enter would increase competition and increase supplies of goods and services, thereby lowering prices and normalizing incomes.

Perhaps the most serious weakness of the existing microenterprise regulatory and tax regimen arises from the prohibition of professional self-employment in micro-, small-, and medium-scale enterprises. The absence of small-scale enterprise in professional areas, business services, scientific and engineering services, computer services, management and consulting services, and some more innovative high-tech manufacturing areas is a severe liability for the Cuban economy. These activities have expanded rapidly in other countries. They employ large numbers of productive and highly remunerated employers and workers. They provide vital specialized services mainly to other private and public enterprises in the economy and to public, non-governmental and private institutions of all types. They operate efficiently in that they provide their specialized services to many clients in contrast to comparable in-house specialists who provide services only to their specific employers. Expanding networks of specialist professional firms and larger enterprises also facilitate the diffusion of new technologies and have contributed to general productivity improvement. They permit rapid and flexible responses to new production possibilities and dislocations, as anyone with a perception of a problem and a business opportunity can move immediately into a new area without painful and time-consuming bureaucratic authorizations.

The absence of small- and medium-scale professional enterprises in Cuba means...
that many of the above-mentioned advantages they can impart to the economy are lost. While there has been an attempt in Cuba to establish state enterprises in some of these professional service areas, such state enterprises are generally bureaucratic, cumbersome, excessively large, and subject to uninformed external authority. All of this damages their agility, their motivation to take risks and to strive mightily, and their capability to move innovatively.

A further challenge of an institutional and macroeconomic or financial character is the maintenance of Cuba’s social security system, as analyzed by María Cristina Sabourin Jovel in this volume. In view of the general aging of the population of Cuba—similar to many high-income countries—novel approaches may be necessary in order to ensure the long-term financial viability of the system.

“Dollarization” and “De-Dollarization”

A third challenge for Cuba is addressing the semi-official dollarization and the monetary/institutional dualism that currently shape Cuban society and the economy. The place of the U.S. dollar has steadily strengthened and expanded since its legalization in 1993. The Cuban economy relies heavily on inflows of U.S. dollars from family remittances (mainly from the United States), tourism, and tourist spending. The government acquires U.S. currency through the dollar stores, often called “stores for the collection of foreign exchange.” It also requires citizens to pay taxes and fees for some public services, such as passports, exit visas, and airfares for Cubana de Aviación, in U.S. dollars, thereby granting the U.S. dollar an official status. There are two exchange rates for the Cuban peso. The first is the official parity rate of 1 U.S. dollar = 1 peso, used for much international trade and internal public accounts. The second is a quasi-official rate that has varied from twenty-one to twenty-six pesos per dollar from 1998 to 2003. This latter rate is the relevant exchange rate for citizens when they are buying or selling pesos and dollars for everyday use.

The coexistence of peso and dollar currencies and economies in Cuba, together with the dual exchange rate system, generate a variety of problems. The basic reason for this is that the average wage and income are somewhere between U.S.$9 and U.S.$17 per month at the quasi-official exchange rate. (The average wage in Cuba was estimated at 232 pesos and the average income from all sources at 359 pesos in 2000 [CEEC 2001, 8].) This means that those Cubans with access to U.S. dollars from remittances, foreign travel, or tips and gratuities from tourism, for example, generally have higher real incomes than those without such access. Moreover, as noted earlier, ever-increasing proportions of goods and services are available for dollars in dollar stores and not for pesos. The result is that everyone has been chasing dollars since the early
1990s. In other words, there has been a strong incentive for people to leave or reduce those economic activities that earn pesos and enter or expand those that earn dollars. The result is that the general structure of material rewards in Cuban society bears little relationship to the true social value of the employment generating the incomes.

The Cuban government also loses seigniorage from the use of the U.S. dollar. U.S. dollars in circulation in Cuba must be earned (except for those received as remittances), so that the seigniorage is captured in large part by the U.S. Federal Reserve and ultimately the U.S. government.

From an economic perspective, it would be desirable to unify the exchange rates and the peso and dollar economies within Cuba, as analyzed in this volume by Nicholas Rowe and Ana Julia Yanes. It would also be of major benefit to restore the peso as a strong convertible currency that citizens and others would be anxious to utilize for normal monetary purposes. A possible switch from the U.S. dollar to the euro of the European Union makes little sense for Cuba, especially in the longer term when normalization with the United States is bound to occur. (However, permitting the use of the euro in tourist areas dominated by European tourists is reasonable.)

The probable types of policies necessary for monetary unification will involve a devaluation of the current official peso/dollar parity exchange rate and a realignment of the general structure of prices and salary/wages. This will not be easy, of course, and Cuba does not yet seem ready to deal with this issue head-on.

*Expanding and Diversifying Exports*

A fourth challenge is to expand and diversify merchandise exports. With the exception of nickel and tobacco, Cuba’s exports have not been dynamic. Indeed, the structure of Cuba’s merchandise exports as of 2002 was surprisingly similar to what it was in 1960, but with sugar eclipsed while some other traditional exports have expanded.

Ultimately, Cuba will need to diversify as well as expand its exports if it is to achieve a sustainable economic recovery. This will require a variety of policy changes. Unification of the exchange rate and the peso and dollar economies is particularly important. At present, enterprises in the peso economy such as those in the sugar sector receive only one peso for every dollar of foreign exchange earned through exports. Obviously this reduces or destroys both the incentive and the real capability to export. Export diversification is also hindered by the inability of state enterprises to adapt quickly to the character of foreign demand. Liberalizing the rules of operation for small- and medium-scale enterprise would therefore be especially helpful. Finally, normalizing relations with the United States would open a vast and geo-economically sensible export market, not to mention a new source of tourists.
One sector of the economy that could have significant export potential in the long term is the informatics software industry. This activity has evolved encouragingly so far under difficult circumstances, as argued by Luis Casacó in this volume. Within an appropriate policy environment, this sector could utilize Cuba’s highly skilled labor force for an activity of increasing significance. However, there are still a number of obstacles facing this sector, including lack of public access to personal computers, which poses a major obstacle to rapid and broad-based popular learning in this area.

Shock Therapy for the Sugar Economy

Cuba’s sugar agro-industrial complex has been the foundation of Cuba’s economy since early colonial times. However, shortly after 1959 the Castro government viewed it as one medium through which Cuba was made dependent on the United States. As a result, the first development strategy of the Castro regime called for a de-emphasis on sugar, its replacement in part with other crops, and a process of instant industrialization. The dismal and rapid failure of this strategy then induced the government to reverse the strategy in 1964. The new strategy re-emphasized sugar, establishing a production target of ten million tons to be produced in 1970, triple the harvest of 1963. This larger crop was to be sold at a subsidized price to the Soviet Union. Under this strategy, the economy was turned upside down as investment, labor, transport, and national attention all turned to the sugar sector, leaving the rest of the economy bereft of resources and in crisis. Not surprisingly, this strategy was also abandoned in 1970.

A more balanced approach to sugar and the rest of the economy commenced in 1971. With this approach, the sector functioned reasonably well into the 1980s. However, it came to be characterized by steady disinvestment as maintenance and replacement investment were postponed and ignored. Then with the end of the special relationship with the Soviet Union around 1990, Cuba had to sell sugar at lower prevailing world prices. With reduced revenues and new priorities in tourism and biotechnology, investment in the sugar sector continued to be postponed. As a result, most sugar mills resemble technological museums, with machinery and equipment often dating back to the turn of the previous century and the 1920s.

The sugar sector continued to perform poorly through the 1990s despite efforts to improve it. With sugar prices declining to around U.S.$0.08 per pound in 2002, the government decided to restructure the industry, permanently shutting down some 70 of 156 sugar mills around the island, with another fourteen producing molasses and a few becoming museums. This restructuring constituted major shock therapy reminiscent of the on-again, off-again approaches of the 1960s. As Brian Pollitt points out, however, some mills had not operated in the 2000/2001 and 2001/2002 harvests,
however, although this was in the expectation that in time they would be improved and reopened. The main activities to replace cane in agriculture will be forestry and pasture for cattle as well as some food products.

The implications of mill shutdowns for regional and local development will be severe. The closing of a mill involves the shutting of the economic engine of the sugar town in which it is located. It also implies a shutdown of numerous related economic activities servicing the needs of the mills and the sugar agro-industrial workers. Moreover, the mills provide electricity for the mill towns, so that the production of electricity will be decreased as well. To deal with the displacement of perhaps one hundred thousand workers from the cane fields, the mills, the transportation of the cane, etc., the Cuban government will provide education programs in new agricultural and industrial skills. It will try to switch a proportion of the cane lands to fruit such as mangoes and citrus, and it will try to develop new industrial activities.

Although the sugar sector restructuring is to occur within a two-year period, this is a rapid pace for such a complex process. Indeed, it represents one of the problems with the old style of central planning where decisions affecting large parts of the economy are taken rather than gradual, decentralized, trial-and-error, and piece-meal changes that normally occur under a market mechanism. Indeed, the massive changes forced on the sugar economy during the “sucro-phobic” and “sucro-philiac” phases of the development strategies of the 1960s led to exceedingly negative results. The principal lesson from this earlier era would be to proceed cautiously and gradually instead of adopting an extremist shock therapy approach.

There are a number of doubts that can be raised concerning the wisdom of the new sugar strategy. First, is the sugar sector inherently inefficient or is its ostensible inefficiency due to other factors? For example, the sector has served as a cash cow that has been steadily milked to death, with insufficient reinvestment back into the sector. Second, has the exchange rate regime under which the sector operates systematically penalized it? Third, has the central planning system effectively blocked a normal process of gradual and decentralized diversification in those areas where sugar is least appropriate? Fourth, to what extent will forestry and cattle operations as well as food cultivation absorb much of the labor displaced from cane cultivation, milling transportation, and all the ancillary activities? Fifth, by how much will the total volume of the sugar harvest decline over a transitional period due to cane transportation disruption and coordination problems and to a reduction in cane acreage—even if the ostensibly lower yielding lands are taken out of cane? Sixth, by what criteria are mills being shut down and lands shifted out of sugar cane absolute advantage or comparative advantage? Presumably some of the best cane lands in terms of soil fertility and
location should be shifted to food production, not the worst lands. Will this be the
case? And, finally, will the sugar town communities affected by the shutdowns and
the switch to forestry and cattle rearing (which use relatively little labor) be sustain-
able when their current major labor intensive activity disappears?

Allowing for Independent Analysis and the Diffusion of Information

Another challenge for the economy concerns the quantity and quality of informa-
tion and independent analysis. The transfer of knowledge and the ability to commu-
nicate freely are indispensable in any economy and society. Open analysis and criti-
cism provide a mechanism for self-correction, exposing flawed policies and errors,
bringing illicit actions to light, and suggesting alternate courses of action. These inter-
actions can occur through the media, specialized and professional publications, pro-
fessional associations, educational institutions and programs, nongovernmental or-
ganizations, and informal communication. This happens to some degree in Cuba.
However, official secrecy limits the availability of information on many aspects of the
economy. Moreover, information diffusion operates with a good-news-only bias or on
a public’s-need-to-know basis.

Equally damaging, economic analysts or writers are required to play a public rela-
tions role for official public policy decisions rather than to be independent critics.2
From the perspective of society, this is a serious disadvantage, first, because every-
body makes mistakes; second, because people, managers, enterprises, and govern-
ments are imperfect; and, third, because policies are often ill-designed or badly imple-
mented. The early exposure of such imperfection, flaw, and error is obviously
preferable to long delay and cover-up by public relations personnel and cheerleaders
posing as analysts.

Controlling Corruption

An additional challenge is corruption, analyzed in this volume by Jorge Pérez-
López. Corruption of some sort has long existed in Cuba, but it has emerged in the
2000s as an area of significant government concern. Corruption manifests itself in a
number of different ways. First, supplies such as agricultural products often “leak”
from the state sector at the production, transportation, or wholesale-retail levels for
illegal exchange on the black market and even for house-to-house delivery. For in-
stance, tobacco and cigars leak from the state sector to supply the ubiquitous market
for counterfeit cigars of varying quality in the dollar market. Second, some people
who have access to public goods use public property, such as cars and their drivers,
for private purposes. Third, those who control access to scarce consumer goods and
services—such as retailers or store clerks—often provide the scarce rationed products outside the rationing system or under the counter for higher prices that include a cut for the perpetrator. The importance of this issue for Cuba’s leadership is apparent from the large police presence on the streets of Havana, which is oriented partly to stopping the illegal circulation of products as well as theft. The establishment in June 2001 of the Ministerio de Auditoria y Control, aimed at curbing corruption, particularly within the state sector of the economy, is a further indicator of the significance of this issue.

A further dimension of corruption is the pervasive party patronage phenomenon. It should be noted that this phenomenon is viewed as being normal and proper in Cuba and few question its validity or ethics. However, outside of Cuba it is considered to be a serious form of corruption. The acquisition of preferred employment positions, especially at higher levels (including economic institutions), and various types of material reward (such as housing, foreign travel, television sets, and automobiles) are normally based more on party linkages and certification and less on relevant qualifications. This cannot help but impair the effective functioning of the economy.

Immediate Economic Challenges

The policy and institutional challenges described above will have to be addressed in the context of recent world and local events that have had important impacts on central features of the Cuban economy. First and foremost is the international economic contraction, which was already under way in early 2001 and intensified after the 11 September terrorist attacks. Air travel to many destinations, including tourist destinations, diminished. Employment cuts then spread through the airline industry and tourist destinations throughout the world. Levels of business investment in general have also declined significantly. However, it is also possible that an upturn in both the tourist economy and the international macroeconomy may occur rather quickly.

The Cuban economy could not avoid the effect of the international economic slowdown. Tourism is the most vulnerable sector. According to a speech by Fidel Castro on 2 November 2001, tourist arrivals to Cuba declined by about 10 percent in September and 14 percent in October. However, this may be short-lived if confidence in the security of air travel is quickly reestablished. It is of interest to note that President Castro spoke strongly against terrorism from any source following 11 September. Even more significant, Cuba finally agreed to sign all twelve United Nations accords against terrorism. These actions were aimed at maintaining a reputation for security, one of Cuba’s key tourism assets.

The cigar industry is another vulnerable sector. In view of their high price, cigars
are considered luxury items and an international economic downturn may reduce their market significantly. Nickel export volumes and earnings have also declined. In addition, damage to export sugar and citrus crops as well as sugar mills in the Matanzas area from Hurricane Michelle, which struck 4 November 2001, will likely contribute to a short-term reduction in exports. The storm also damaged electrical and communications systems and up to ten thousand homes (Snow 2001).

Cuba’s foreign exchange earnings will be affected by the closure of Russia’s radar facility, or “spy base,” at Lourdes, announced in October 2001 by President Vladimir Putin—without consultation with Cuba. Military rental payments and military procurement from Cuban sources will be lost, as well as consumer purchases and housing rentals by the two thousand Russian citizens who staffed the base. The total reduction of foreign exchange accruing to Cuba from the base has been estimated at U.S.$200 million. Moreover, it can be expected that exports of sugar will also decline significantly in view of the shutdown of much of the sugar production capacity.

These factors have led to a reduction of foreign exchange available to Cuba in the immediate and short term. Even before 11 September 2001, Cuba was facing difficulties in repaying the short-term trade credits it had obtained from Spain, France, and suppliers in Chile, Panama, and South Africa (Cuba Business 2001, 3). The official shortage of foreign exchange led the Cuban government to increase its purchases of dollars in the official exchange houses (casas de cambio or cadecas) within Cuba. The government appears to be purchasing unlimited volumes of U.S. dollars while limiting U.S. dollar sales. By October 2001 this action had pushed the quasi-official exchange rate to twenty-six pesos per dollar from the twenty to twenty-two pesos per dollar rate that had been maintained for some years.

The economic deterioration was so serious that on 2 November 2001 President Castro made a number of assurances to the Cuban people in a speech meant to maintain public confidence. He stated that the cadecas would not close, that all bank accounts in pesos, dollars, and convertible pesos would be honored, that state dollar stores and agricultural markets would be maintained, and that prices in state peso and dollar stores would not be raised.

A further result of the reduction in foreign exchange earnings has been that Cuba is now in arrears in its payments to a number of major creditor countries, including Mexico, Japan, Spain, Canada, and apparently Argentina and France (Frank 2002). But Cuba has been able to make increasingly large cash purchases from the United States for foodstuffs. The purchase of needed products for popular consumption at the best price takes precedence over servicing past debts. Purchases from the United States also strengthen the anti-embargo forces in that country.
Cuba’s Economic Prospects

Cuba has been gradually emerging from its crisis of the 1990s. Policy modifications and institutional reforms made in the 1993 to 1996 period yielded important positive results, although their effects are incomplete. At the 4.2 percent average rate of per capita economic growth for 1996 to 2000, Cuba should recover its 1990 level of income by about 2005. However, some of the current sources of economic growth, namely family remittances and tourism, are vulnerable. Sugar exports will likely continue to shrink. But, on the other hand, improvements in oil extraction and nickel mining appear to be sustainable and may be strengthened further.

Although in the short term the Cuban economy cannot avoid being affected by the international slowdown and the effects of 11 September, in the long term Cuba’s economic performance will also depend on a variety of other factors. Among the positive factors are basic levels of human development, well-developed institutions in parts of society, a backlog of innovations in the outside world awaiting implementation in Cuba, tourism potential, and a large U.S. market.

Improved economic performance will require that Cuba address a number of daunting challenges, such as expanding and diversifying exports, increasing investment levels, terminating monetary and institutional dualism, creating an appropriate environment for self-employment and small- and medium-scale enterprise, and addressing other institutional and policy problems and information control. Cuba’s relationship with the United States, which appears to be frozen at least until the end of the presidency of George W. Bush, will also have an important bearing on Cuba’s economy. Interestingly enough, even without full normalization, the actual liberalization of trade in food and medicines is a significant benefit to Cuba, as would be the possible liberalization of travel by U.S. citizens to the country.

In some senses it might be said that Cuba is in a pretransition phase, similar to the situation in Hungary and Poland prior to their departure from central planning and one-party rule in the late 1980s. Cuba still has its major process of economic reform, not to mention political reform, ahead of it. Castro will die at some time. Cuban economic policy as well as the institutional structure will likely remain paralyzed until then.

In response to the current economic slowdown and reduction in foreign exchange earnings, President Castro has assured Cuban citizens that some specific liberalizing reforms of the 1993–95 period will not be reversed. But does this mean that the reforms he did not mention could be reversed? It also seems improbable that new liberalizing reforms could be introduced, although conceivably economic realities might
force some such changes. More likely, Cuba will proceed on its current course. It will probably continue to go it alone and ride out the current economic difficulties, awaiting a balmier international macroeconomic environment.

Notes

1. The official documents of the Central Bank of Cuba, such as the Economic Report for 1999, make no mention whatsoever of the debt to the former Soviet Union or Russia in any context.

2. The blocked access in Cuba to the Instituto Cubano de Economistas Independientes’s Web site was a recent example of the imperative of the Cuban government to control access to information and analysis. An example of the Cuban government’s reluctance to permit analyses it is unable to control is its withdrawal from participation in the Human Development Report 2001 of the United Nations Development Program (UNDP). One suspects that the reason for this is official dissatisfaction with the Human Development Report 2000, in which Cuba ranked thirteenth in Latin America and the Caribbean for the human development index and third for the human poverty index.

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