

CUBA'S ECONOMY IN TIMES OF CRISIS:

2020-2022 AND PROSPECTS FOR 2023

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Illustration by Yasiel Scull, "Cuban Flag Jigsaw Puzzle"

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About the Author

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Cuba is facing the worst economic crisis since the Special Period – the extended economic decline on the island primarily due to the collapse of the Soviet Union in 1991 (particularly the worst stage in 1991–1993) – and the situation resembles that of those terrible years.¹ This paper analyzes the causes of the crisis; measures its magnitude with economic statistical series, especially in 2020–2022; briefly describes the citizens’ reaction to it; offers some perspectives for 2023; and gives guidelines for the necessary reforms.

1. The Causes of the Crisis

It is common for the two ideological extremes to point to a single cause of the current Cuban crisis: the pole of the right blames the communist regime and that of the left accuses the “blockade” (embargo) of the United States. In reality, both visions are simplistic, partial, and biased. In my opinion, the crisis does not have a single cause, but multiple and concatenated ones that are summarized below:

1) The inefficient economic system of central planning and vast dominance of state ownership over the market and nonstate property, which has failed all over the world, including Cuba. In his decade as head of the Cuban government (2008–2018), Raúl Castro tried market-oriented structural reforms, but very slow ones, plagued by obstacles, disincentives, and swings, so they had no tangible effects on the economy. Cuban leaders have ruled out following the guidelines of the model of “market socialism” that has had notable economic-social success in China and Vietnam, alleging differences between these countries and Cuba (Mesa-Lago, 2022). President Miguel Díaz-Canel has supported “continuity,” although he has promoted some reforms that are analyzed here, including monetary and exchange rate unification, and the legalization of micro, small, and medium enterprises (MSMEs).²

2) Venezuela’s serious economic and humanitarian crisis has forced it to substantially reduce its economic ties with Cuba: the purchase of professional health services (the primary source of the island’s foreign exchange earnings), the supply of oil on favorable terms (which covers about half of Cuban needs), and direct investment. Such ties peaked in 2012–2013 with US\$16 billion, which halved by 2018; in relation to the island’s Gross Domestic Product (GDP), it contracted from 22% to 8%. The three components of the relationship were reduced: the purchase of professional services by 24%, the shipment of oil by 62%, and the investment of US\$8 billion vanished (Mesa-Lago and Vidal, 2019). This decline has continued in 2019–2022; for example, the commercial exchange of goods (imports plus exports) between Cuba and Venezuela contracted by 69% in the period 2015–2021, Cuban exports fell by 92%, and Venezuelan imports by 55%, while the deficit against Venezuela (exports minus imports) decreased from US\$1.4 billion to US\$1.1 billion. Venezuela has fallen from being Cuba’s first trading partner (28% of total exchange) to second, with only 12.9% of total exchange (ONEI, 2016, 2022); there are no statistical series on the purchase of Cuban professional services by Venezuela and the supply of Venezuelan oil (see below), but Venezuelan investment continues to be paralyzed.

¹ The author is the sole responsible for this paper but appreciates the helpful comments from Alejandro de la Fuente, Javier Figueroa, Omar Everleny Pérez Villanueva, Jorge Pérez-López (who also revised the text grammatically), and Bye Vegard. Translated by Jorge Duany (revised by the author), who also made useful suggestions.

² Another problem is the oligopoly of GAESA (Grupo de Administración Empresarial, S.A.), the Cuban state conglomerate, run by the military, which controls vast sectors of the economy, with minimum transparency, which prevents any competition with the rest of the state and nonstate sector.

3) The inability of the Cuban economy to finance its imports of goods with its own exports due to the fall in domestic production. As will be demonstrated below, the drastic reduction in agricultural and manufacturing production, and the subsequent contraction of Cuban exports, generated a deficit in the trade balance with the island's main trading partners. For example, the economic relationship with China reached a zenith in 2015 and 2016, when this country became Cuba's first trading partner (surpassing Venezuela); its commercial exchange represented 17% and 20%, respectively, but decreased by 46% between 2015 and 2021 to 13% of commercial exchange. The reason was a deficit against China in the trade balance of goods (Cuban exports are much lower in value than Chinese imports), which amounted to a peak of US\$2 billion in 2015, for which China reduced its exports to Cuba by 58% between 2015 and 2021 (ONEI, 2016, 2022). During Díaz-Canel's official visit to China in November 2022, where twelve agreements were signed (see section 2),³ he recalled President Xi Jinping's warning of the need for the Cuban side to fulfill its obligations: "now our commitment has to be fulfilled well, of how we do things well, of how we take advantage of opportunities, how we are efficient, how we do not waste resources, and how we achieve that investments have an adequate return, and how we are becoming more serious and more effective also in the projects we propose, to continue expanding cooperation" (cited by Martínez, 2022).

4) The strong sanctions imposed by President Donald Trump, which reversed the process of rapprochement initiated by President Barack Obama and reinforced the embargo: the application of Title III of the Helms-Burton Act, which had been suspended every six months by previous presidents (including Trump) and which allows U.S. citizens to sue foreign companies that have "trafficked" with assets confiscated by the Cuban government; the drastic reduction of flights to Cuba that decreased tourism; the imposition of a limit on remittances and a ban on Western Union sending such remittances to the Cuban agency Fincimex, administered by the military; and the tightening of sanctions on international banks that do business with Cuba. These measures froze foreign investment and led to the departure of some international companies from Cuba. President Joe Biden has relaxed restrictions on remittances and flights to Cuba and is having talks with Havana about emigration, but the other sanctions remain. Note that Obama's policy of rapprochement with Cuba resulted in numerous concessions from the former, without Cuba yielding an iota in return; on the contrary, the Cuban leadership continued to criticize the U.S. government for maintaining the embargo that Obama could not eliminate because Republicans had a majority in both chambers of Congress (Mesa-Lago, 2020).⁴

5) The Covid-19 pandemic that severely affected international tourism and also reduced the travel of "mules," who previously carried remittances, food, and other consumer goods for relatives or for informal sale in Cuba. The combination of Trumpist measures and Covid-19 caused the departure of Spanish companies such as Bankia and three Meliá hotels. The estimation of the average excess mortality by the World Health Organization (OMS, 2022) shows that Cuba's average was higher than that of eleven Latin American countries, an indication that it did not manage the pandemic well.

³ Even so, in 2021 China was once again Cuba's first trading partner due to the strong contraction of total commercial exchange.

⁴ The Cuban government estimates that the embargo caused losses of US\$147.8 billion over six decades (Rodríguez, 2022a). I have been against the embargo since 1970, but have demonstrated certain compensatory effects (see Mesa-Lago, 2022).

6) The implementation at the beginning of 2021 of the *Tarea Ordenamiento* (“Task of Ordering,” an euphemism for monetary and exchange-rate unification), which, although in the long term should give positive results, in the short term has aggravated many of the previous problems, such as a huge increase in inflation, the pressure for the closure of unprofitable companies (which would generate an increase in open unemployment), the spiraling price of goods, and severe shortages of food and medicine (Mesa-Lago, 2021).

7) The invasion of Ukraine by Russia in February 2022 and the unexpected extension of the war, which have skyrocketed the price of food, such as wheat, as well as oil (Rodríguez, 2022a, 2022b); both hurt Cuba, which has recently supported Russia, contributing to further isolation from the European Union and possibly damaging ongoing talks with the Biden administration.⁵

2. Economic Indicators of the Magnitude of the Crisis⁶

The most recent official macroeconomic and foreign-trade statistics of Cuba available are those of the *Statistical Yearbook* of 2021 (ONEI, 2022); those of 2022 will not be posted on the Internet until October or November 2023, although Cuban authorities or experts have released some figures. For 2023 there are only a few goals and projections. The sources of the statistics in this essay, unless specifically given, are ONEI statistical yearbooks.

Macroeconomic Indicators. GDP at constant prices, which was virtually stagnant since 2016, declined by 0.2% in 2019 and fell by 10.9% in 2020; the annual average for the period 2019–2021 was -3.3% (Chart 1). The fall of 10.9% in 2020 is the largest after -14.9% in 1993, the worst year of the crisis of the 1990s,⁷ the so-called Special Period (Marrero, 2021). According to ECLAC (2021a), the Cuban decline in 2020 was the strongest after the Venezuelan (-30%) and higher than the regional average of -6.8%. For 2021, the Cuban government set a goal of 6%; first it gave a growth of 2% and then reduced it to 1.3%, while ECLAC (2021b) estimated it at 0.5%. The official target for 2022 was 4%; the Ministry of Economy and Planning (MEP, 2022) estimated an increase of 10.3% in the first quarter and 1.7% in the second quarter, but the annual figure was 2% and some judge it optimistic or predict a fall (Frank, 2022d).⁸

⁵ Cuba abstained in the United Nations vote on March 2, 2022, which condemned Russia’s invasion of Ukraine, but during Díaz-Canel’s visit to Moscow in 2022, where he met with President Vladimir Putin, Díaz-Canel supported the war and blamed the U.S. of being its cause.

⁶ For social indicators of the crisis, see the author’s article, “Los efectos sociales de la crisis económica en Cuba,” forthcoming in *El Toque*, January 2023.

⁷ Note also that the average annual GDP growth in 2009–2018 (under Raúl Castro) was 2.1%, which left Díaz-Canel a battered economy.

⁸ ECLAC (2022b) gave the same figure previously reported by Cuba; it was the third lowest among the 33 countries of Latin America and the Caribbean, and lower than the regional average of 3.7%.

Chart 1. Evolution of GDP in 2006–2021 (in Constant Prices)



Source: Author’s elaboration based on ONEI, 2010, 2016, 2022.

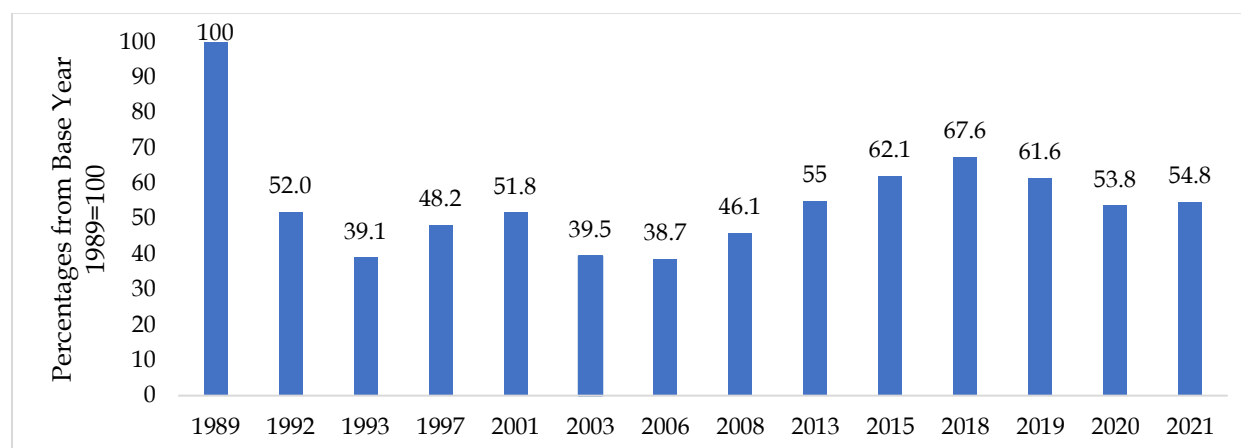
Gross capital formation, at constant prices, declined from 25% of GDP in 1989 to 16.5% in 2020 and 16.3% in 2021.⁹ The official target for gross capital formation to maintain adequate growth has been set at 25%, but has not been reached since 1989. Investment at constant prices declined -1% in 2019 and -5.9% in 2020 (Cuba Standard, 2022). The fiscal deficit in 2021 was 17.7% of GDP, the highest since the 1990s, but fell to 12% in 2021, although it is affected by inflation. Several figures have been given for inflation in 2021: the government initially estimated an inflation rate of 60% for consumer retail, but Murillo (2021) stated that “that 60% does not stick with what people are living [with] prices seven, ten times larger.” On the other hand, the GDP deflator is 401% (ONEI, 2022, Table 5.6). An expert estimates inflation between 270% and 470% (Luis, 2021) and a British report calculates it at 740% (EIR, 2022), the last three higher than that of the 1990s. According to Gil (2023c), between January and October 2022, inflation was “around 29%,” a substantial reduction, although the minister affirms that the measures taken to “stop the excessive and irrational growth of prices” have not worked. Monetary liquidity in the hands of the population (M2) exceeded the value of GDP in 2019 and in 2020 grew to 120.4% of GDP, something that had not happened since the 1990s. According to Murillo, the state has to collect 92% of the surplus through sales, but only collects 67% and that feeds inflation (cited by Figueredo et al., 2021); the year 2021 is distorted by inflation. With this surplus measured in national pesos (CUP), there is virtually nothing to buy, for dollars are needed whenever they are deposited in banks, which issue a magnetic card to buy in stores in foreign currency, for people who have euros or other foreign currency. The vast majority of Cubans do not have access to such currency. On June 10, 2021, the government prohibited the deposit in dollars in banks, giving a period of eleven days to do so with the dollars hoarded by the population (Mesa-Lago, 2021b). The value of the dollar in the informal market has depreciated: in 2021, the official rate fell from 24 to 100; in 2022, the government increased the exchange rate from 24 to 110 and in the informal market it rose to 175 on December 8 (*El Toque*, 2022a).¹⁰

⁹ At current prices, the respective figures were 9.9% in 2020 and 23.8% in 2021, the latter reflecting the inflationary impact.

¹⁰ Before the monetary unification in January 2021, Cuba had two currencies: the CUP and the CUC (“convertible peso,” which was not traded in the international market); one CUC was equivalent to 24 CUP and was similar to the US dollar. The unification eliminated the CUC and devalued the CUP by 2,300% (Vidal, 2021).

Physical Production. The industrial output index, which recovered partially between 2013 and 2018, declined to 54.8% in 2021, 45.2% lower than the 1989 level (Chart 2). In 1989–2021, the processing of food products halved, the sugar industry fell by 89%, textile production by 96%, and fertilizers by 98%.

Chart 2. Industrial Output Index between 1989 and 2021 (1989=100)



Source: Author’s elaboration, based on CCE, 1991; ONEI 1995 to 2022.

The GDP rates by type of economic activity (agriculture, sugar, and fisheries) in 2016–2021 are shown in Table 1: the average annual growth rate of the agricultural sector decreased by -7.7%, that of the sugar sector by -9.1%, and that of fishing and seafood by -5.4%.

Table 1. Annual Rates and Average GDP in the Agriculture-Cattle, Sugar, and Fish-Sea Food Sectors, 2016–2021 (in Percentages)

Years	Agriculture sector	Sugar sector	Fishing and seafood sector
2016	0.5	-19.4	-1.6
2017	-1.5	19.7	0.3
2018	2.6	-43.7	3.8
2019	-10.9	31.5	-11.7
2020	-23.5	-11.0	-3.5
2021	-13.3	-31.8	-8.3
Average	- 7.7	-9.1	-5.4

Source: Author’s elaboration based on ONEI, 2019 and 2022.

Of a total of thirteen key agricultural and fishing and seafood products in 2021, eight were below the 1989 level and all were below previous production peaks (Table 2). In 2022, the food production plan, such as rice, beans, root vegetables, beef, and eggs, was not fulfilled (Gil,

2022c). In 2021–2022, the sugar harvest was only 474,000 tons (compared to around eight million in the 1980s), the lowest in recent history (Álvarez Quiñones, 2022). Of that sum, 600,000 tons must go to domestic consumption and 400,000 must be exported to China, so Cuba had to import sugar from Brazil to comply with China’s demand and cover domestic consumption. The goal for the 2022–2023 harvest is 455,000 tons, 4% less than the previous one due to the closure of sugar mills, oil shortages, and lack of inputs and personnel, so it will be dedicated only to consumption (Frank, 2022c); exports of only 90,000 tons are planned, so the obligation with China would not be fulfilled (Gil, 2022b).

Table 2. Agriculture, Cattle, and Fish-Seafood Production in Cuba, 1989, 2009 to 2021 (Thousands of Metric Tons)

Products	1989	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Tubers	681	1,565	1,515	1,445	1,452	1,580	1,671	1,743	1,843	1,828	1,801	1,702	1,269	1,250
Bananas	291	670	735	835	885	658	836	890	1,016	1,015	961	1,036	859	860
Vegetables	610	2,540	2,141	2,200	2,112	2,406	2,499	2,424	2,285	2,483	2,454	2,183	1,698	1,713
Rice	536	564	454	566	644	673	585	418	514	404	461	426	266	227 ^a
Corn	471	327	324	354	360	426	429	363	404	373	346	276	257	238 ^a
Beans	14	111	80	133	127	129	135	117	136	132	162	128	66	57
Citrus	825	418	345	264	204	167	97	115	119	98	71	70	43	37 ^a
Other fruits	219	748	762	817	964	925	884	943	944	926	861	1094	863	770
Leaf tobacco	42 ^d	25	20	20	19	24	19	24	19	31	30	28	26	22 ^a
Cow’s milk	924	600	630	600	604	589	588	495	613	536	577	512	453	374 ^a
Eggs ^b	2,523	2,427	2,430	2,620	2,512	2,656	2,572	2,321	2,419	2,535	2,778	2,528	2,356	2,158 ^a
Cattle ^c	4,919	3,893	3,992	4,059	4,084	4,092	4,134	4,045	4,014	3,866	3,808	3,817	3,752	3,657 ^a
Seafood	192 ^e	65	55	49	48	51	56	57	52	52	51	45	46	40 ^a

Note: The production peak is marked in bold. ^aLevel in 2021 below the 1989 level. ^bBillions. ^cThousands of heads; the peak was 6.8 million in 1967. ^dThe peak was 55,000 tons in 1981. ^eThe peak was 244,000 tons in 1986.

Source: Author’s elaboration based on CEE, 1991, ONEI, 2010–2022; Mesa-Lago, 2000 for pre-1989 figures.

Out of a total of eleven key manufactured products in 2020–2021, four were below the 1989 level and all levels were below previous production peaks (Table 3). Oil production declined by 23%

in 2010–2020 and natural gas fell by 47% in 2015–2021. The huge fire at the fuel storage plant in Matanzas in August 2022 destroyed 40% of the main storage tank, damaged the only port for super-tankers, and burned 75,000 m² of gas, a loss of US\$10 billion, which increased Cuba’s dependence on imported energy (60% of its needs, before it was 50%). Venezuelan fuel imports, which peaked at 115,000 barrels per day in 2015, declined to 56,610 barrels in the first half¹¹ of 2022 (Rodríguez, 2022b), while the price of oil soared to a peak of \$110 per barrel in March 2022 (Statista, 2022). Electricity generation decreased by 16.4% in 2016–2021, which forced the contracting of five Turkish floating plants anchored in the bays of Havana, Mariel, and Santiago to increase electricity generation capacity. In addition, breakdowns and stoppages of the main generating plants (Rodríguez, 2022b) caused electricity production in 2022 to be only 2,420 GWh, 86% lower than in 2021 and 12% of the plan of 20,168 GWh (Gil, 2022a). These factors have led to the return of blackouts of seven to eighteen hours a day (Frank, 2022b), as happened in the crisis of the 1990s. The most modern thermoelectric plant, in Cienfuegos, which consists of a group of coordinated generators, with just four years of operation, works at less than half of its installed capacity and to reach 50% its engines have been sent to Germany for maintenance; spare parts are also needed in other plants, but even in the most favorable scenario, the recovery of the National Electrical System will be limited and gradual (Martínez Molina, 2022). According to estimates by Piñón (2022), the cost of rebuilding electricity generation capacity will be US\$1.7 billion.

Table 3. Mining and Manufacturing Production in Cuba, 1989 and 2007–2021 (Thousands of Metric Tons)

Products	1989	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Petroleum	718	2,905	3,003	2,731	3,025	3,012	2,998	2,897	2,905	2,822	2,619	2,522	2,462	2,372	2,320	
Natural gas ^a	34	1,218	1,161	1,155	1,072	1,019	1,034	1,066	1,200	1,245	1,185	1,051	970	951	895	652
Nickel	47	73	70	70	70	72	68	55	52	54	53	53	52	49	50	
Sugar	8,121	1,193	1,445	1,388	1,164	1,242	1,454	1,568	1,633	1,924	1,501	1,581	1,233	1,211	1,110 ^f	
Steel	314	262	274	266	277	282	277	267	258	221	205	210	188	126	66	42 ^f
Cement	3,579	1,805	1,707	1,626	1,631	1,731	1,824	1,659	1,579	1,517	1,493	1,430	1,590	1,335	1,015	817 ^f
Electricity ^b	15.4	17.6	17.7	17.7	17.4	17.8	18.4	19.1	19.4	20.3	20.4	20.6	20.8	20.7	19.0	17.9
Textiles ^c	220	24	29	28	25	25	28	34	45	55	55	39	17	24	30	16 ^f
Fertilizers	898	22	40	9	22	39	30	21	32	44	57	72	43	34	2	8 ^f
Cigars ^d	308	412	386	375	376	392	392	411	423	412	426	417	280	435	376	332
Medications ^e	78	397	607	639	770	712	713	868	1,338	1,435	1,219	1,240	1,192	1,244		

NOTE: Figures in bold indicate the peak in production. ^aMillions of cubic meters. ^bThousands of gigawatt hours. ^cMillions of square meters. ^dMillions of units. ^eBillions of pesos. ^fLevel of production lower than in 1989.

¹¹ In October 2022, an export of 57,000 barrels was reported, a figure similar to the average (Piñón, 2022).

Source: Author's elaboration based on CCE, 1991; ONEI, 2008, 2012, 2017, 2022.

Between 1989 and 2020–2021, manufacturing production declined as follows: fertilizers -99%, steel -87%, raw sugar and textile -86%, and cement -77%. Nickel production peaked in 2007 and declined 32% in 2020 (2021 figures have not been published). The production of electricity, cigars, and medicines also grew to a peak and then declined respectively by 14%, 22%, and 17%. ONEI (2022) interrupted publishing the production figures of medicines in 2019 (that year the export of these products fell by 35%) and stopped publishing them altogether in 2021, which probably implies larger decreases. Declines in sugar and nickel prevented Cuba from taking advantage of considerable increases in their prices on the world market.

An important point is that agricultural and manufacturing production fell, in virtually all products, at least since 2016 (by about half since 1989 or before 2016), so this cannot be attributed to the tightening of the embargo or Covid-19; it has been due to structural factors, mainly the inefficient economic system.

Foreign Trade. The value of exports in 2021 was 67% lower than in 1989 and 63% lower than in 2013, while imports were 5% more than in 1989 but 43% lower than in 2013; therefore, the deficit in the trade balance of goods grew 218% in 1989–2021. Due to the decline in agricultural production, the share of food imports grew from 17% of total imports in 2018 to 23% in 2021, increasing external food dependence (Nova, 2022). All of the above confirms the assertion in section 1 that Cuba has been unable to finance its imports of goods with its own exports. The commercial exchange of goods with Venezuela contracted by 84% between 2012 and 2021 from US\$8.5 billion to US\$1.3 billion: Cuban exports decreased 96%, while Venezuela's imports (mostly oil) decreased 80%; the period registered a deficit in trade with Venezuela because Cuban exports were a minimal fragment of Venezuelan imports (Spadoni, 2022; ONEI, 2013 and 2022). The commercial exchange of goods with Russia increased 14% between 2019 and 2021 (with a fall in 2020), but showed an unfavorable deficit for the island (Russia's imports were 99.2% of total exchange and Cuba's exports only 0.8%); between 2016 and 2021, Russia rose from fourteenth to fifth trading partner of Cuba, mainly due to the fall in Cuba's commercial exchange with other countries (ONEI, 2022).¹²

Table 4 is an estimate of Cuba's trade balance in goods and services in 2007–2021, based on ONEI statistics from various tables. In two cases, the figures for the balance of goods and services do not add up (although the difference is a small amount), due to the use of various sources. Note that in 2021 all the figures increase significantly, due to the high global inflation in that year. The table shows a negative balance of goods throughout the period, whereas a surplus of the positive balance of services not only compensated for the deficit of goods but exceeded it, but with a decreasing trend since 2014 (a fall to a fifth between 2014 and 2020). In 2021, the surplus became a substantial deficit (54.2 billion pesos equivalent to US\$2.2 billion at the official exchange rate), for the first time in the entire period. This was due to the fall in the purchase of Cuban professional services, and similarly with respect to foreign revenue from tourism and remittances. The aforementioned deficit in 2021 explains why Cuba had to suspend the payment of the external debt at the end of 2020 and the difficulties in paying supplier creditors and banks.

¹² In 2016, Cuba's trade with the U.S. was greater than trade with Russia.

Table 4. Balance of Goods and Services in Cuba, 2007 to 2021 (Millions of Pesos at Current Prices)

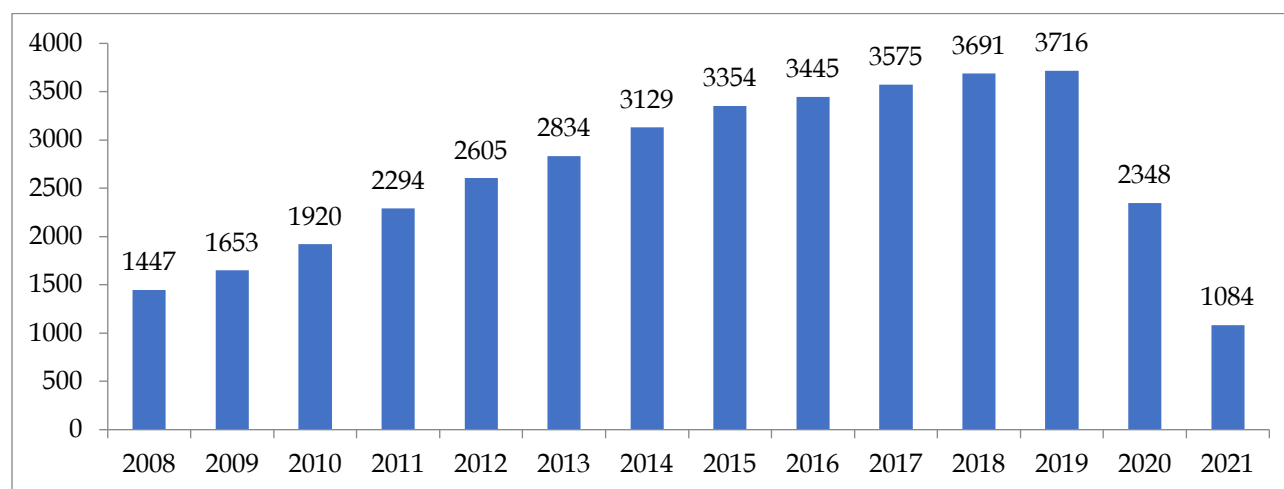
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Goods															
Exports	3,966	3,940	3,020	4,754	6,170	5,899	5,566	5,149	3,572	2,546	2,704	2,742	2,392	1,783	49,389
Imports	10,118	14,312	8,938	10,689	14,019	13,869	14,773	13,101	11,745	10,302	10,212	11,527	9,937	7,256	228,331
Balance of goods	-6,152	-10,372	-5,918	-5,935	-7,849	-7,970	-9,207	-7,952	-8,173	-7,756	-7,508	-8,795	-7,497	-5,473	-178,942
Services															
Exports	7,952	8,566	7,819	9,765	11,149	12,760	13,027	12,663	11,369	11,144	11,389	11,789	10,240	6,985	143,061
Imports	215	494	656	711	1,060	1,019	829	764	860	924	1,092	1,040	1,034	812	18,296
Balance services	7,732	8,072	7,163	9,054	10,089	11,741	12,198	11,899	10,510	10,219	10,297	10,749	9,180	6,173	124,766
Total balance	1,585	-2,300	1,901	3,119	2,240	3,771	2,991	3,947	2,337	2,463	2,789	1,954	1,685	700	-54,176

Source: Author's elaboration based on ONEI, 2008 to 2022.

Exports of Cuban Services. This item constitutes the first source of revenue in foreign currency of the country and ONEI published for the first time such statistics in the *Yearbook* of 2018; the total in billions of US dollars was as follows: 11.355 in 2018, 9.867 in 2019, 6.880 in 2020, and 5.845 in 2021, so they decreased by 49% in the period, which is consistent with the deficit already explained in the trade balance of goods and services (Table 4). Of the total services, two components are disaggregated: health and education services (both represent 77% of the total in 2021); the combination of both decreased by 32% in the period. The author has made calculations that indicate a drop in the sale of these professional services by 43% between 2013 and 2020 (Mesa-Lago and Vidal, 2019, updated with ONEI, 2020 to 2022). The cause was the cut in the purchase of services by Venezuela, as well as the departure of Cuban doctors from Bolivia, Brazil, Ecuador, and El Salvador due to changes in their governments.

External Remittances. External remittances in cash (the second source of foreign exchange earnings) peaked in 2019, but decreased by 37% in 2020 and an additional 54% in 2021, for a combined drop of 71% (Chart 3). The causes of the decrease in remittances were the pandemic, which reduced flights and trips of "mules" who took money to relatives or for sale in the informal market; Trump's sanctions, already explained; and the economic crisis of 2020, which reduced the purchasing power of senders, especially Cuban Americans. Biden's measures to restore flights to the island, with the consequent return of mules, as well as allowing remittances to be sent through digital platforms (apparently independent from Fincimex controlled by GAESA) have resulted in an increase in remittances: by 2022, US\$1.2 billion had been received, 11% more than in all of 2021, and the total is projected to be \$2 billion, still below the 2020 level (Morales, 2022a).

Chart 3. External Remittances Sent to Cuba from 2008 to 2021 (Millions of U.S. Dollars)



Source: Author's elaboration based on Morales, 2020, 2022a.

Tourism. This was the third source of foreign exchange until 2019. Table 5 shows that the number of tourists expanded seventeen-fold between 1989 and 2018; the opening under Obama boosted the number of visitors in 2015 (Mesa-Lago, 2020) and this boom continued under Trump in 2016–2019, but declined 75% in 2020 and another 67% in 2021 (a combined total of -92% in 2020–2021) so that in 2021 it was only 31% higher than in 1989 (ONEI, 2021). The causes of this decline include the pandemic, Trump's measures, and the low quality of services (Mesa-Lago and Svejnar, 2020). The distribution of tourists by issuing nation in 2017–2020 was approximately: Canada, Cubans abroad, the U.S., France, Germany, Italy, and Spain. However, Russia, which ranked tenth in 2017, rose to first place in 2021, constituting 41% of the total, mainly due to the decline in all other sending countries. Cuban authorities expressed high hopes that Russian tourism would increase, but the war in Ukraine caused its share to decrease to 3.5% in 2022. The total official goal of tourists in 2022 was 2.5 million, but at the end of November only 1,377,191 tourists had arrived and the government has recognized that such a goal will not be achieved (INTUR, 2022; Perelló, 2022). The peak of gross tourism revenue was US\$3.1 billion in 2017 but dropped 87% to US\$404 million in 2021. In 2019, Cuban authorities reported that for every dollar of income generated by tourism, 60 cents of imports were required (Gil, 2019), that is, net income was only 40% of gross income and in 2018 it was US\$1.1 billion (about 1% of GDP), similar to the combined value of nickel and sugar exports in that year. Assuming that the number of tourists in 2022 will be 1.6 million and that they will spend an average similar to 2021, the gross income would be US\$1.8 billion and the net income US\$726 million. The number of hotel rooms almost doubled in 2007–2021, but the occupancy rate fell from 61% to 12% in the period; however, ten hotels with 3,147 new rooms are planned for 2023 (Gil, 2022c). This figure calls into question the investment of 24% of the total invested in tourism in 2022 (mainly hotel construction), when sectors such as agriculture and energy, which are essential for the well-being of the people, demand large investments (Rodríguez, 2022b).

Table 5. International Tourism Indicators, 1989 and 2007–2021

Indicators	1989	2007	2008	2010	2012	2014	2016	2017	2018	2019	2020	2021
Visitors (thousands)	270	2,152	2,348	2,532	2,841	3,006	4,036	4,654	4,712	4,276	1,085	356
Gross income (US\$ million) ^a	168	2,236	2,347	2,218	2,613	2,367	2,907	3,186	2,703	2,596	1,137	404
Rooms (thousands)	21.4	47.3	49.1	65.0	65.3	66.1	67.0	73.5	84.2	91.7	75.7	81.3
Occupancy rate (%)		60.9	60.1	57.1	58.2	58.6	61.5	56.9	49.5	48.2	23.1	12.7
Average expenditure per tourist US\$	622	1,039	999	876	920	787	720	684	573	607	1,047	1,134

^aWithout subtracting the value of imports for the sector; net income (subtracting such imports) was estimated in 2018 as 40% of gross income, based on the official figure of 60% of imports for tourism.

Source: Author's elaboration based on 1989 from CCE, 1991; 2007 to 2021 from ONEI, 2008, 2019, 2022.

Foreign Direct Investment (FDI). Despite its importance, ONEI does not publish a statistical series of FDI showing its amount and contribution to the economy, a notable gap that does not help foreign investors. The authorities only report sporadically on the new businesses that have been created, but the figures refer to different things and are not always comparable. Thus, they can be in general (the total on the island) or in the Mariel Economic Development Zone (ZDEM) in particular. Official reports also mention three concepts with different degrees of realism: investment intentions, commitments signed in negotiation, and materialized investment (the latter is the most realistic). The official target of annual FDI of US\$2.5 billion to achieve a GDP growth of 5% has never been met. For the period 2014–2017, the author estimated that the materialized investment averaged US\$500 million annually, that is, one fifth of the goal (Mesa-Lago and Svejnar, 2020). Anecdotal evidence suggests that FDI suffered due to Trump's implementation of Title III of the Helms-Burton Act, already explained. A new estimate of FDI (it is unclear under which of the three concepts) in 2014–2021 shows an increase through 2018 and then a decline, for an annual average of US\$680 million or 27% of the target (Economic Intelligence Unit, 2022; Spadoni, 2022). Between 2020 and 2021, 47 new businesses were approved but only 25 had been established (Rodríguez, 2022b).¹³ On a visit to the ZDEM in July 2022, Raúl Castro and other officials announced that of 62 businesses approved between 2013 and 2022, 56 were operating with \$3 billion committed but only \$1 billion materialized, an annual average of \$100 million in the period ("Cuba Has Approved...", 2022). In August 2022, the government adopted measures to stimulate FDI, authorizing foreign capital in microenterprises, wholesale trade (partly or wholly foreign-owned), and retail trade.

During Díaz-Canel's visit to China in November 2022, he signed twelve agreements with President Xi Jinping, but none are for investment financing. Two of the agreements are political:

¹³ In 2022 there were only six investment intentions, of which only five projects are in the negotiation phase (Gil, 2022c).

consultations between the foreign ministries of both countries, and cooperation between their communist parties. Three agreements are economic but do not specify what they consist of: cooperation for the implementation of the China Belt and Road Initiative; strengthening economic and trade cooperation; and cooperation between the Ministry of Foreign Trade and Foreign Investment of Cuba and its Chinese counterpart. Finally, there are seven “donations” but the amount is not specified: one is in emergency cash and another is the shipment of medicines, medical supplies, and food (in that order). The remaining five donations are for small-scale projects, such as raw materials for school uniforms and work clothes; BioCubaFarma’s cloud telepresence system; kitchen utensils; the National Identity System for Natural Persons and Monitoring of Wireless Networks; and a forensic data laboratory (Martínez, 2022). The fact that the total amount of these donations has not been disclosed suggests that the sum is not very substantial.

External Debt and International Reserves. ONEI does not publish data on Cuba’s total external debt, only the “current debt” (“active” or negotiated), which increased by 69% between 2008 and 2019 – the last year published – from US\$11.6 billion to US\$19.6 billion, despite an 81% debt forgiveness (Spadoni, 2022; Table 6). Of the total, US\$10 billion is the renegotiated debt, plus US\$1.5 billion of bank debt and US\$7.4 billion owed to suppliers; the two main ones are companies from China and Spain (the first and third commercial partners of Cuba). China was the main supplier of inputs for the Cuban pharmaceutical industry and suspended those exports, which caused the already explained fall in the production and export of Cuban medicines. This reverberates adversely in the population.

Table 6. Gross Estimates of Cuba’s Total External Debt, 2019–2020 (Millions of U.S. Dollars)

Creditor countries	Total debt	Debt forgiven	%	Remaining debt	%
Restructured debt					
Russia	30,000 ^b	27,000	90.0	3,000	10.0
Paris Club ^a	11,084	8,484	76.5	2,600	23.5
China	6,000	2,830	47.2	3,170	52.8
Japan	1,750	1,400	80.0	350	20.0
Mexico	500	350	70.0	150	30.0
Sub-total	49,334	40,064	81.2	9,270 ^c	18.8
Outstanding debt					
Venezuela	11,367			11,367	100.0
Argentina	8,000			8,000	100.0
Brazil	1,150			1,150	100.0
Subtotal	20,517			20,517	100.0
TOTAL	69,851			29,787	42.6

^aFourteen countries. ^bDepending on the exchange rate used, the range is from \$25 billion to \$35 billion; the midpoint has been used. ^cThis amount is very similar to the negotiated debt figure of US\$10 billion published by ONEI for 2019; the difference may arise from an overestimation of the debt forgiven, or from restructured debts for which information is lacking.

Source: Author's elaboration based on Frank, 2013, 2015; Rapoza, 2019; Mesa-Lago and Svejnar, 2020; Morales, 2022b; Spadoni, 2022.

In 2015, Cuba signed an agreement with fourteen of the twenty members of the Paris Club to restructure the accumulated debt of US\$11.1 billion and 76.5% was forgiven; the rest of the US\$2.6 billion must be paid in eighteen years (until 2033), with an increasing interest rate (the fourteen countries have renegotiated their debt with Cuba bilaterally). Cuba made the payments in 2016–2018 but failed to pay US\$80 million in October 2019, therefore incurring in a 9% interest penalty on the balance. The Cuban government requested postponing payments in 2021 to restart them in 2022, but only managed to postpone the 2020 payments. It also defaulted on the renegotiated debt with Russia and China and both postponed its payment until 2027, but charging interest (Rodríguez, 2022b). China reduced its total exports to Cuba by 58% in 2015–2021, while Russia suspended fifty investment projects in Cuba. In addition, the war in Ukraine has reduced Russia's ability to help Cuba.¹⁴ The Maduro government is not collecting Cuba's debt to Venezuela, similar to the amount it had with the Paris Club. The debt with Argentina originated with two loans in 1973 and 1985 for a total of US\$2.4 billion and it is estimated that, considering interest and sanctions, the total must be about US\$8 billion, but Argentinean leftist governments have not demanded payment. The original debt with Brazil was US\$682 million and has grown with interest; in 2018 Cuba did not make the payment of US\$17 million and requested a restructuring, but the right-wing government of Bolsonaro rejected it; the Lula government will be in a better disposition. It is reported that default has intensified in 2021 and 2022 (Rodríguez, 2022b).

International reserves, although not published, must be at a very low level or virtually exhausted due to the economic crisis. As a result, Cuba has virtually no resources to cope with rising import costs, and this scarcity limits fiscal policy space. Finally, Cuba lacks a lender of last resort that could help it financially in unification, as it does not belong to the International Monetary Fund (IMF), the World Bank, or the Inter-American Development Bank (IDB).

3. Citizens' Reaction

The magnitude of the crisis demonstrated in the previous section describes a situation that is increasingly approaching that of the worst years of the crisis of the 1990s, if it has not already been reached: a second Special Period. Citizens have reacted in three main ways to the crisis and the economic-social deterioration: public protests, mass exodus, and electoral abstention.

Protests. The only major protest that took place in Cuba before 2020 was the *Maleconazo* (from Malecón or waterfront), which occurred in Havana on August 5, 1994. On November 27, 2020, young intellectuals and artists peacefully protested in front of the Ministry of Culture, demanding freedom of expression and a dialogue with the government, which initially seemed to accede but then rejected it outright, wasting an opportunity for the necessary dialogue. On July 11, 2021, mass and spontaneous protests took place in more than fifty cities and towns in Cuba. In October 2022, protests also occurred, although with fewer demonstrators but for

¹⁴ Russia has sent food and humanitarian aid to Cuba, the latest in 2021; in a telephone conversation between Díaz-Canel and Putin in January 2022, Putin promised to bolster strategic cooperation with Cuba, but past promises of Russian investment have taken a long time to materialize. In addition, the Cuban armed forces depend heavily on Russia's aging Soviet equipment and maintenance and technical support, but the war in Ukraine has demonstrated the low quality of these, while the war has weakened Russia (Frank, 2022a).

several days; 1,771 people were reportedly arrested and 963 of them were sentenced to prison or pending trial between July 11, 2021 and December 1, 2022 (Justicia 11J, 2022). A new factor contributing to these protests is the Internet and social media, which did not exist in 1994 and are now widespread among the population. Videos taken at the 2021 protests in San Antonio de los Baños, Palma Soriano, Alquizar, Matanzas, and Havana show a large number of demonstrators holding a cell phone in their hands; in the first city, a man appears urging protesters to spread the videos to other provinces, which happens very quickly.

Mass Exodus. Since the 1960s, the Cuban government, whenever it has faced a serious economic situation, has allowed the mass emigration of citizens, as an escape valve. In the exodus from the port of Camarioca, between September 28 and November 15, 1965, approximately 5,000 Cubans emigrated (Pérez, 1986). In the Mariel exodus, between April 15 and October 31, 1980, the government authorized 1,700 boats to come from the U.S. in order to take family and friends out (in addition, the Cuban government put criminals and mentally ill people on boats brought from the U.S.) for a total of 125,000 émigrés. In the *balseiro* (rafter) crisis of 1994, the authorities allowed some 35,000 Cubans who emigrated in this way to manufacture rafts and rudimentary boats (Mesa-Lago, 1995). A total of 165,000 emigrants from the three exoduses were admitted to the United States. Clinton's presidential resolution, popularly called "wet foot/dry foot," allowed Cubans who manage to make landfall (dry foot) to enter the U.S.; if they did not touch land (wet foot), they were deported. At the end of his administration, President Obama abolished the resolution. Trump tightened restrictions on Cuban immigrants. In 2022, the arrival of Cuban immigrants in the U.S. increased significantly. The U.S. has deported some of those it has captured to Cuba. It is estimated that by the end of 2022, immigrants¹⁵ would exceed 250,000 in the whole year, at least 51% higher than the sum of the three previous exoduses (Pumar, 2022; U.S. Customs and Border Protection, 2022).

Electoral Abstention. In the municipal elections of November 27, 2022, an unprecedented number of people abstained from voting; these elections are the first since the current economic crisis and protests. According to the National Electoral Council, 68.58% of registered citizens voted, that is, 31.42% did not vote. This reinforces the trend towards abstention when compared to the numbers of voters in the most recent elections: those of 2017 (89.0%), the constitutional referendum of 2019 (90.15%), and the referendum of the Family Code in 2021 (74.1% with an abstention of 25.9%, plus 5.7% of annulled or blank votes). In addition, 5.67% of the ballots of the 2022 election were voided and 5.22% were left blank, for a total of 42.31% versus 57.69% who voted, did not leave their ballot blank, and whose vote was not voided. The closing time of the polls was postponed by one hour at the request of the electoral councils ("Abstención y los votos anulados...", 2022; Balseiro, 2022; Sherwood, 2022). The share of nonvoters in the 2022 election was three times higher than in 2019. One interpretation of these results is that they have been due to "inconformity, apathy, or discontent" (*El Toque*, 2022b). President Díaz-Canel had already warned in September 2021 that in the family code elections there could be a "punishment vote" against the government due to the economic crisis (cited by Vicent, 2022).

4. Economic Outlook for 2023

¹⁵ According to Frank (2022a), 100,000 Cubans crossed the border between Mexico and the U.S. in 2022; an updated official figure rose it to nearly 225,000 for the fiscal year starting in October 2021 and ending in September 2022 (U.S. Customs and Border Protection, 2022).

For 2023, ECLAC (2022a) projected a Cuban GDP growth of 1.8%, lower than 2% in 2022 and lower than the growth rate projected for 26 countries in Latin America and the Caribbean; only in five countries was growth lower than that of Cuba. In his economic report to the National Assembly of People's Power, on December 12, 2022, Gil (2022c) estimated that GDP will grow 3% in 2023; this is 1.2 percentage points higher than ECLAC's projection. Until the 2023 *Statistical Yearbook's* macroeconomic and external sector statistics come out in the fall, it is impossible to assess the reliability of the official forecast for 2022, let alone for 2023. This section identifies positive and adverse factors for a potential economic recovery in 2023.

Positive Factors

Talks between the Biden and Maduro administrations, boosted by the latter's reestablishment of dialogue with the opposition, have resulted in a temporary relaxation of sanctions on the export of Venezuelan oil to the US, interrupted by Trump since 2019. In addition, the U.S. Department of the Treasury has licensed Chevron for six months to resume oil production in Venezuela; the profits of this production will be allocated for the payment of the Venezuelan debt with Chevron, amounting to US\$4.2 billion (they cannot go to PDVSA, the Venezuelan state-owned oil and natural gas company). It is estimated that these measures could gradually increase Venezuelan crude production to 1.5 million barrels per day (Wilner and Delgado, 2022). These measures would facilitate some economic recovery in Venezuela, making it easier to supply oil to Cuba and its potential increase, which would contribute to reducing the energy crisis and blackouts on the island. Two cautions are needed: first, if Venezuela resumes oil supplies to the United States this will limit its ability to supply crude to Cuba. Second, Maduro has demanded that all sanctions imposed by Trump be removed before talks begin, while the Biden administration has stated that those sanctions will remain. The U.S. administration can suspend Chevron's license at any time. Moreover, if current talks on Cuban migration to the U.S. are successful, this could open a path, albeit a difficult one, for other sanctions imposed by Trump on Cuba to be suspended by Biden. So these two positive factors will depend largely on how the governments of Venezuela and Cuba act.

Exports of services, mainly medical (Cuba's first foreign exchange earner) fell 49% in 2018–2021 and this was the cause that, for the first time in the twenty-first century, Cuba had a deficit in the trade balance of goods and services. If the talks between the United States and Venezuela are successful and improve the Venezuelan economy, the Maduro government would probably increase the purchase of medical services that has fallen due to the crisis in the Bolivarian Republic but with the aforementioned limitations. In 2022, Mexico signed an agreement with Cuba for the hiring of 500 doctors; based on a previous agreement in 2020, the Mexican government would pay US\$6.2 million for such services to assist in combating the Covid-19 epidemic ("Llegan los primeros médicos...", 2022). Lula's election in Brazil raised hopes that he would reinstate the purchase of Cuban medical services that were eliminated under Bolsonaro, which paid 85% of revenues to the Cuban government, 10% to doctors, and 5% to the Pan American Health Organization (see adverse factors).

External remittances (Cuba's second source of revenue in foreign currency) had their lowest point in 2021 with US\$1.1 billion and were projected to reach US\$2 billion in 2022 due to increased remittances through digital platforms. An increase in travel by Cuban Americans to Cuba would allow a greater number of "mules" carrying remittances.

Barring a strong resurgence of Covid-19 in the world, foreign tourism (the third source of revenue in foreign currency) will continue to grow in Cuba. It is very likely that by the end of 2022 a total of 1.6 million tourists will have visited Cuba, which would increase the gross income of the industry to US\$1.8 billion. If in 2023 the number of tourists grows to 2.7 million, the gross income would amount to about US\$3 billion (or US\$1.2 billion of net income). One of the measures proposed by the government to increase the net income of tourism is to replace part of the imports for this industry with an increase in domestic production (MEP, 2022). However, the latter would require reforms in the agricultural and manufacturing sectors more drastic than those contemplated by the Cuban government and discussed later. In anticipation of the likely increase in tourism, the Cuban government is developing much building activity in Old Havana, to repair hotels, restaurants, and other businesses frequented by tourists. If the migration talks are successful, Biden may further ease restrictions on travel to Cuba.

In order to take advantage of high sugar and nickel prices on the world market, the government would have to invest more in these sectors. Regarding nickel, the Cuban government signed an agreement in October 2022 with the Canadian company Sherritt International (the main nickel extractor) so that within five years, Moa's joint venture in Holguín prioritizes dividend payments in the form of finished cobalt to each partner and the part corresponding to Cuba would be assigned to Sherritt for the payment of the outstanding debt of US\$260 million. The president of the Canadian corporation, Leon Binedell, has declared that if the debt is fully repaid, he will "aggressively" expand the business, that is, he will invest to increase production ("El gobierno cubano pacta con Sherritt...", 2022). At the end of 2021, the requirement of majority Cuban participation in tourism, biotechnology, and wholesale trade businesses was eliminated (Rodríguez, 2022a). Another measure allows foreign investment in micro, small, and medium-sized private enterprises (MSMEs). These are important steps but it is too early to evaluate their results.¹⁶

In September 2021, the government authorized the creation of MSMEs, a measure that had been demanded for many years. A year later, only 5,061 of these private companies had been approved: 20% micro, 56% small, and 24% medium (Pérez-Villanueva, 2022). Gil (2022c) has said that the nonstate sector, including SMEs, is the most affected by the crisis because it cannot benefit from tax subsidies to state-owned enterprises. The economy would benefit if these enterprises were given the necessary support in terms of resources, training, etc., so that they can play an important role as in other hybrid socialist economies such as China and Vietnam.

In 2022, the government approved 75 measures to advance the recovery of the economy. Several of them are general goals that have been mentioned in previous plans and lack concrete policies, for example: increasing foreign exchange earnings and "implementing the necessary actions," executing a program for the gradual reduction of the budget deficit and achieving internal financial balance, and incorporating the results of science and promoting innovation. Other measures are important and concrete but not yet in force: establishing a regulatory framework for foreign investment with the private sector; achieving progress in the constitution of state-private joint ventures; and creating wholesale and retail markets for foreign investors (MEP, 2022; Pérez Villanueva, 2022). Among the measures is to "especially encourage the emergence of export-oriented state MSMEs," which could have been done by private MSMEs.

¹⁶ Two companies, one Brazilian and one Mexican, are reported to be in the process of investing in Cuban private companies.

Some measures will be discussed in the remainder of this section. It is impossible to judge these policies until they have been implemented and an assessment of their performance and impact on the economy can be made.

In 2022, the foreign exchange market was restored through the purchase and sale of foreign currency to the population, including the dollar in cash, with an “economically based” exchange rate; this will allow the state to capture the foreign currency that is circulating and direct it to the state market.

After several years in which the government imposed strict limits on travelers who brought food, medicine, and other consumer goods, penalizing the surplus with heavy taxes, the crisis and severe shortages forced it to partially lift those restrictions, so that the population can import certain goods and travelers will not be charged tariffs for food, medicine, and personal hygiene items (also electric appliances for a given period). However, this measure was preceded by a debate in which important authorities such as the Minister of Economy and Planning Alejandro Gil expressed their opposition to imports with a commercial character because they would generate a demand for foreign currency that would go abroad without any effect on national industry (cited by Viera Cañive, 2022). As a compromise, importation by natural persons is now accepted as long as it is not commercial; this will be defined by its value, weight, and diversity and not by its physical quantities. However, the import limit for shipments was increased from 10 kg to 20 kg, the value of the kg of import was reduced from US\$20 to US\$10, and the duty-free import was increased from 1.6 kg to 3 kg for items that are applied the value-weight. The payment of the customs tax was reduced from 100% to 30%, and the importation of certain items such as cell phones, computers, tablets, and tires was increased (MEP, 2022). These regulations are complex and create uncertainty about the nature of the import and the government can penalize what it considers to be for commercial purposes.

Adverse Factors

For more than a decade, including 2020–2021 (also in many cases in 2022 when figures are available), virtually all economic indicators deteriorated and in most cases were worse than in 1989: average annual GDP growth, gross capital formation, inflation, monetary liquidity, the industrial output index, average annual rates of the agricultural, sugar, and fishing-seafood sectors, the agricultural and manufacturing physical production, the extraction of oil and natural gas, the generation of electricity (causing blackouts), the extraction of nickel, the commercial exchange of goods, the commercial balance of goods and services (generating the first deficit in the twenty-first century), the commercial relationship with Venezuela and China (also in some aspects with Russia), the export of professional services, the external remittances received, the number of tourists and gross income from tourism (remittances and tourism grew in 2022), FDI, and the payment of external debt. All this shows that the magnitude of the current crisis is similar or very close to that of the worst years of the severe crisis of the nineties; that is, this is, at best, the second worst crisis since the Great Depression.

The former Minister of Economy and Planning of Cuba, José Luis Rodríguez (2022b), predicted in 2022 that until 2024–2025 the level of GDP of 2019 (which was already very low) would not be recovered, that is, a loss of between six and seven years of growth, but this was before it was reported that the GDP grew 2% in 2022. Assuming that the projection of 3% growth in 2023 is met, according to Gil (2022c), the economy in 2023 would be eight percentage points below the GDP level of 2019. Note that the GDP in 2019 was at a very low level because in 2009–2018 it

only grew – according to ONEI – at an annual average of 2% compared to a target of 5% to 6%, that is, about a third. Adverse factors are discussed below.

A recent econometric study by Pavel Vidal (2022) has assessed the impact of US sanctions on Cuba's economy in 2014–2020 (especially in the Trump period), showing that, on the one hand, the tightening of sanctions reduces Cuban GDP growth; on the other hand, remittances and tourism significantly improve household consumption, as well as employment and private sector sales, without having a significant result in the indicators of the state economy. There is a displacement effect in favor of the private sector and most of the profits from remittances and tourism do not seem to go to the state. These results should not be taken as a justification for not making changes and continuing to blame the embargo for most economic problems (Vidal, 2022).

The increase in the export of medical services confronts the problem of the denunciation in the United Nations of human trafficking in Cuban medical missions. Lula announced in November 2022 that, starting January 1, 2023, he would reinstate the “Mais Médicos” program in Brazil, but without hiring new Cuban doctors; he said he will do so with those who stayed in Brazil after Bolsonaro's suspension of the program, as well as with Brazilian professionals whose numbers have increased in recent years (“Lula reanuda...,” 2022). It should also be borne in mind that the Brazilian economy is deteriorating, contrary to the boom period Lula enjoyed in his previous presidential term. Mexico could hire more doctors, but it faces opposition from the domestic medical union and the value it pays Cuba is very small. Other countries where the left has won elections face a severe economic crisis (Argentina), lack a majority in congress and have much higher priorities (Chile), have lost power (Peru), or face serious political problems (Colombia, deadly guerrilla attacks), making it difficult for them to substantially buy Cuban medical services. During his visit to Algeria in 2022, Díaz-Canel failed to get that country to hire more Cuban doctors.

The monetary unification was done at a very difficult economic time and was not applied in an adequate way; for example, the exchange rate of the CUP was first set at 24 to a U.S. dollar, despite the fact that economists considered it to be very low; when the exchange rate in the informal market skyrocketed it was increased to 110 CUP for one dollar. But even so, the change in the informal market fully exceeded it. It is advisable to set a floating or much more realistic and periodically adjustable exchange rate. In addition, a one-year transition period was set for companies enduring losses (31% of the total in 2021 and 24% in 2022) to continue receiving state subsidies so that they would not close and avoid an increase in open unemployment. Apparently, the subsidies continued in 2022 because Gil (2023c) admitted that the solution to the problems could not be the closure of state companies even if they had losses. Subsidies must be eliminated and temporary unemployment assistance established in order to achieve the beneficial results of unification.

Prime Minister Manuel Marrero has acknowledged that Cuba urgently needs foreign investment but pointed out the barriers that exist against it, and declared: “We have to eliminate all unnecessary bureaucracy and generate new opportunities that are attractive for foreign business” (quoted by Frank and Acosta, 2022). A couple of measures taken to attract foreign investment have been cited, but they are insufficient in view of the serious obstacles Cuba faces: Cuba's high indebtedness and default on the restructured external debt that has resulted in its rating as a “high-risk country”; the CUP's lack of international convertibility and the fixing of a very low exchange rate against the dollar and other currencies; the impediment

for foreign partners to regularly expatriate their profits; restrictions on foreign investment to certain priority areas and the maintenance of the state with a majority of shares, except in a few sectors; and the obligation for foreign businesses to hire, promote/dismiss, and pay the salary of personnel through a state agency (Pérez-López, 2015; Rodríguez 2022a). All this urgently requires the issuance of a new investment law with a regulatory framework that does not discourage but attracts foreign capital with due guarantees.

The fact that China granted Cuba in November 2022 an undisclosed sum of donations (if they had been substantial they would have been published) and all at once, instead of guaranteeing aid for several years, coupled with Xi's warning that resources should not be wasted as a condition for further expanding cooperation with Cuba, is a clear indication that China wants to prove that Havana is making the necessary reforms to avoid investing in a "bottomless barrel." It would have been much better for Cuba if China forgave the outstanding debt postponed to 2027 and/or eliminated the interest it is charging, or had restored exports of inputs for Cuban pharmaceutical production¹⁷ instead of giving it medicines for once, or had invested in agriculture or manufacturing, including sugar. Keep in mind that China is the main investor in many Latin American countries, including some that had or have conservative governments.

The commercial exchange with Russia has improved and this country has risen to fifth commercial partner of Cuba, but the first consideration is that it results in a deficit against Russia of 99% of total exchange and the second that the jump of Russia among commercial partners is illusory due to the drastic fall in the commercial exchange with the rest of the countries. Russia has postponed until 2027 the payment of the debt of US\$3 billion that Cuba defaulted, but charging interest (it could have forgiven or reduced said debt, which would have been more favorable to Cuba). During his recent visit to Moscow, Díaz-Canel did not get new credits from Russia. The war with Ukraine has sharply weakened the Russian economy and reduced from 60% to 3.5% the proportion of Russians in the total number of tourists traveling to Cuba. Financial organizations and experts estimate that the Russian economy fell 4% in both the second and third quarters of 2022, technically a recession, which will continue or worsen in 2023, so it is virtually impossible that it can substantially help Cuba to get out of the severe economic crisis; it will only be able to make sporadic shipments of oil and send some food.

The commercial exchange with the European Union, which had diminished in 2020 and 2021, except with Spain (ONEI, 2022), due to persistent deficits, worsened by the European reaction to the arrest of more than a thousand Cuban demonstrators in July 2021 and with Cuba's support for Russia in the war in Ukraine. This means that trade will probably fall further in 2022 and 2023; it is not feasible for European investment to occur, except perhaps from Spain.

For the ongoing negotiations with the U.S. to bear fruit, Cuba would have to adopt a more flexible attitude and, contrary to what it did under the opening with Obama (Mesa-Lago, 2020), give in on aspects that do not threaten national sovereignty; otherwise a second chance might be missed. Republicans now control the House of Representatives and in the Senate Democrats have a one-vote majority, not to mention that influential conservative Democratic senators

¹⁷ It is estimated that Cuba needs US\$500 million annually to buy raw materials to produce medicines and another US\$500 million to buy those not produced domestically.

would oppose a normalization of relations between the two countries.¹⁸ An intransigent Cuban attitude would give ammunition to hardliners in Congress and close the way. A successful negotiation demands that both parties give in a little, that they do not take the all-or-nothing position or a zero-sum game.¹⁹ Biden has just called on Cuba to release the prisoners for the protests; doing so would be a positive, intelligent, and sensitive gesture of openness.

5. What to Do?

The economic measures taken by the Díaz-Canel government are mostly positive but insufficient to get Cuba out of the severe economic crisis it suffers and promote sustainable economic development in the future. In his report to the V Plenary of the Central Committee in December 2022, Minister Gil (2022a) admitted: “although there is a slight recovery in economic activity... The measures still do not reach the necessary impact.”

In August 2022, *Temas* magazine asked seven leading economists, all residents of Cuba, to identify the main challenges/reforms required to face the crisis with the following scores: 3 control/reduce current hyperinflation; 3 increase domestic production, particularly food; 3 renegotiate foreign debt; 2 end central planning; and one each: eliminate the state monopoly of foreign trade, increase foreign investment, end restrictions on the private sector, abolish state monopolies and oligopolies and increase competition, recover the purchasing power of wages, restore electricity production, and reduce emigration (“¿Cuáles son los principales nudos...?” 2022). For his part, former Minister Rodríguez (2022a:16) pointed out the following priorities: flexible renegotiation of external (and public) debt, urgent anti-inflationary plan, changes in state enterprises (especially in their profitability), prioritization of foreign investment in food and energy, and a “greater discussion of the country’s economic situation with economic actors and the population to achieve a consensus of indispensable support to measures to rectify deficiencies and errors...”²⁰

This is a “menu” of actions to be taken in the right direction, but lacking systematic coherence and requiring a concrete strategy. Many Cuban academic economists believe that, instead of adopting a free market model, Cuba could follow the Sino-Vietnamese model of “market socialism,” adapting it to Cuban peculiarities, a model that has been rejected by the country’s highest authorities. In a book that I have just concluded, based on a hundred statistical indicators and more than 300 bibliographic sources, I compare the economic and social performance of this model with the Cuban one of central planning with some modest and hitherto ineffective reforms. The result of the assessment is that not only have China and Vietnam far surpassed Cuba in their economic performance, but they have also done so in most social indicators. The latter is all the more surprising because at the time of the revolution, the two Asian countries were far below Cuba from a social point of view (Mesa-Lago, 2022). For many years I have recommended that Cuba follow this model, and this new book ratifies my previous recommendations, as an adequate way out of the current crisis and place the country

¹⁸ However, the State of Florida has become strongly Republican (most voters support De Santis or Trump) and the Democrats know that they have lost that state for the 2024 elections, so the lobbying to maintain the status quo has weakened.

¹⁹ In game theory, when the gain of one party results in an equal loss of the opposing party, that is, there is no net gain, which in fact is usually the case.

²⁰ Nova (2022) states that agriculture demands urgent and important structural changes and offers a series of concrete recommendations, including the recognition of the real and objective existence of the market.

on the path of economic and social development for the good of its people.²¹ That is why I urge an open, respectful, and democratic national dialogue so that the population can discuss the change to the model of market socialism²² or other hybrid but democratic models such as the welfare states in Scandinavian countries.

²¹ A chapter of the book analyzes the reasons why, despite the socioeconomic success of market socialism, Cuba has not followed this model.

²² See the proposals by Bye (2022).

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