CUBA'S "STRUCTURAL" REFORMS: MISSED OPPORTUNITIES AND LOWER LIVING STANDARDS

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In this paper, I focus on what Cuban scholars have classified as "structural" reforms (Mesa-Lago and Pérez-López 2013: Table 6.1). Evaluation and interpretation of these reforms is timely for two reasons: first, there has been plenty of time for their implementation since their announcement in 2011; and, second, this year marks the sixth decade or 60th year of the "Revolution" achieving power. It is convenient to group the reforms labeled as "structural" into three types. Before discussing these three types and their evolution since 2011, however, I discuss briefly background issues that enhance understanding of the context for adoption and evolution to the topic in the next section.

The second section discusses the type of reforms with greatest potential to change the system onto a new higher growth equilibrium, due to their expansion of economic opportunities at the individual level. These opportunities are associated with what the political economy literature labels second-generation human rights (e.g., Kaufman 2004) and the subcategory of civil liberties described as personal autonomy and individual rights (e.g., Benyishay and Betancourt 2014) in the unbundling of political rights and civil liberties. More specifically, these refer to the ability to own, buy and sell assets such as houses, to migrate, and to operate land in usufruct. Thus, they also qualify as "market liberalization reforms."

In the next section, I discuss aspects of what the regime has called "updating of the model", essentially improving the planning process through a coupling of private sector initiatives with the state sector. In practice, these actions also rearrange broad implicit relational contracts between the state and its citizens due to an ineffective rationing system and the need to dismiss unproductive state workers. That is, the creation of private jobs through self-employment and cooperatives as well as direct foreign investment, and participation in Mariel's special economic zone (ZEDM), while potentially capable of improving the economic performance of state enterprises, also facilitates this rearrangement of relational contracts. These type of reforms interact with the previous ones by making them more or less effective with respect to increasing opportunities for economic growth.

Finally, a fourth substantive section discusses the last type of "structural" reforms, macroeconomic reforms widely agreed upon as necessary for the improved functioning of the economic system even in socialist or command economies in transition: specifically, exchange rate unification and tax reform. These two reforms have important dimensions connected to foreign exchange generation. The latter may explain

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why they have never really gotten off the ground. Hence, this section views reforms considered but not undertaken. They also have an effect on growth possibilities and, thus, on the realization of the economic potential of the previous two types. A brief conclusion puts our main points in perspective.

BACKGROUND TO THE STRUCTURAL REFORMS

A recent paper on Cuba's living standard (Devereux 2019, Table 3) compares Cuba's GDP per capita and Cuba's consumption per capita between 1955 and 2011—the latter being the year the reforms were approved by the Sixth Congress of the Cuban Communist Party-with those of 28 other countries (35 in the case of consumption per capita) using the US as a base (100). The countries are advanced countries (16 European plus the US) and Latin American developing countries (20 countries, treating Puerto Rico as a country). In 1955, Cuba's GDP per capita was 27% of the US and, in 2011, it was 14% of the US; in contrast, El Salvador's was 10% and 15%, respectively, and Italy's 29% and 68%, respectively. Cuba's consumption per capita was 35% of the US in 1955 and 14% in 2011; El Salvador's was 11% and 19%, respectively, and Italy's 29% and 64%. Succinctly put, Devereux shows that, over these 56 years, Cuba went from being comparable to a middle-income country to a poor country on the economic dimension.

While Devereux goes on to include education and health as well as personal freedoms in his explicit comparisons, it would take us too far afield from our main purpose to pursue those issues here. From the perspective of this paper, I simply stress the main result of the economic comparison: namely, there was little doubt of the need to improve economic performance in 2011 at the time of the reforms' approval during the Sixth Party Congress.

A relevant issue for discussion is what would be the mechanisms to improve performance as perceived by Cuban government officials. Subsidies from the Soviet Union were substantial between 1960 and 1990 (\$65 billion, Mesa-Lago 2019) but stopped after 1989, leading to a dramatic fall in output between 1990 and 1993 and the so-called "Special Period." The expansion of subsidies from Venezuela, which took off after a failed coup d'etat against Chávez in 2002, had begun to look increasingly uncertain by 2007 and it peaked at 13% of GDP in 2012 (Mesa-Lago 2019). When Chávez publicly recognized Fidel as a mentor in 2005, Raúl probably recognized that his relationship with the Venezuelan leader was not nearly as intimate as his brother's and therefore his ability to continue to receive subsidies from that country was uncertain once he took over the reins of Cuba.

In any event, Raúl succeeded Fidel as Cuba's leader temporarily in 2006 and permanently in 2008. Soon thereafter, in 2009, Raúl purged two of the highest Cuban government leaders under Fidel (Carlos Lage, Deputy Prime Minister, and Felipe Pérez Roque, Foreign Minister) on the official grounds that they were plotting against him while trying to convince Chávez to go along with their schemes (Castañeda 2009). Given the early signs of decline in productive capacity of Venezuela's oil industry² and Cuba's failures to date in finding oil through deep-sea exploration in the Gulf of Mexico, the adoption of substantial economic reforms in view of the examples of China and Vietnam would appeal to Cuban policy makers.

Indeed, early in Cuba's reform process (July 2012), Raúl Castro took a rare foreign trip to visit both Vietnam and China (Miroff 2012), accompanied by the Minister responsible for implementing the reforms (Marino Murillo), among others. In June of 2011, Chávez went to Cuba where he was diagnosed with pelvic cancer and subsequently operated and treated for this disease several times until his announced death on March 5, 2013 (see Associated Press 2013 for a timeline). Thus, the uncertainty about Venezuela's support and the potential need for other sources increased: thereby highlighting the

^{2.} An overview of the decline in Petróleos de Venezuela SA (PDVSA) is available (Rapier 2019). It singles out production problems in PVDSA, accelerated by conflicts with foreign oil companies in 2007 as the initial stage of a severe decline in productive capacity.

need for improved domestic economic performance. Cuban leaders, for example Murillo and Castro, insisted during their foreign trip to Asia that Cuba needed to develop its own economic development model while learning from the experiences of China and Vietnam.

Negotiations on a rapprochement with the Obama administration began in the summer of 2013 and led to the announcement of a new policy re-establishing diplomatic relations on December 17, 2014. Obama abolished the wet-foot/dry-foot policy-that granted admission to the United States to any Cuban that entered the country-just before leaving office on January 2017. Trump's policy toward Cuba leaves most of Obama's policies untouched, except for re-imposing restrictions on travel by Americans, while exempting Cuban-Americans, and on doing business with military controlled enterprises (Betancourt 2019). The recent Venezuelan crisis started by Guaidó's claim to the Venezuelan Presidency in January of 2019, however, has led to more substantial restrictive changes in U.S. policy towards Cuba. For instance, remittances were limited to a \$1,000 per quarter by any one sender, including Cuban-Americans, and application of Helms-Burton Act Titles III and IV. Suspension of application of these two Titles had been the norm prior to this year by all U.S. Presidents irrespective of political party. Summing up, adoption and implementation of these "structural" reforms has taken place in a setting of serious need to address long-term economic performance problems within the context of volatile and dynamically-evolving international relations, especially with the U.S.

MARKET LIBERALIZATION REFORMS

An interpretation of this type of "structural" reforms as market-liberalizing stems from the fact that all three reforms—home ownership, migration and operating land in usufruct—can expand property rights significantly relative to a situation where they are absent. Indeed, all three fall under the category of Personal Autonomy and Individual Rights within the characterization of civil liberties by Freedom House. Moreover, this civil liberty is the one usually associated with economic growth (Benyishay and Betancourt 2010; Alfonso-Gil, Lacalle-Calderón and SánchezMangas 2014; Czeglédi 2014). Since these market liberalizations involve property rights in a fundamental way, they can provide a potentially significant break from extreme versions of socialist models as typically conceived. Thus, they could move the system closer to the experiences of China and Vietnam and greater opportunities for economic growth.

Here, I identify in detail the main structural reforms considered under market liberalization and their connection to what we know from the economic development literature about their possibilities for enhancing economic growth. First, they include the ability to sell, purchase and own assets such as houses and cars. While the housing market has emerged in Cuba, perhaps even thrived, due to the reform, the automobile market has floundered since the initial purchase prices on newly available cars were set by the state at very high levels. The ability to purchase and own durables such as air conditioners, computers and cell phones has been liberalized to some extent, but the right to sell or transfer these items remains somewhat circumscribed in principle. I will focus on the housing market due to its relative success, the importance of its potential economic impact on individual and social welfare, and the availability of information on its operations thanks to a recent study (Mesa-Lago 2018).

Second, the right to migrate internationally expands in substantially meaningful ways even though some restrictions remain. I will emphasize this aspect rather than the right to migrate internally due to its being a civil liberty with a profound impact on individual Cubans' welfare and the relative availability of information on the topic. Finally, liberalization of the usufruct of land takes place together with the ability to sell items to non-governmental entities in a variety of settings. I focus on usufruct since it is an interesting, often ignored, aspect of property rights and there is information, although limited, on the topic.

It is fair to say that in general these liberalizations have improved the economic well-being of a substantial number of Cubans relative to the old "model" restrictions. While the distribution of these improvements has been uneven, it is hard to believe that these new spaces for individual economic activity, whatever one calls them, would have decreased anyone's welfare in absolute terms unless envy plays a substantial role in the welfare function. Perhaps devout believers on the moral superiority of a command economy or equally devout haters of all things associated with the regime would be willing to make that argument, but it makes little economic sense in the absence of envy or fairness considerations.

From a human rights perspective, as noted earlier, these three liberalizations fall in the subcategory of civil liberties that Freedom House labels Personal Autonomy and Individual Rights (G) (e.g., Piano and Puddington 2006). The latter includes all decisions most directly related to economic activity and has a maximum score of 16 in the Freedom House methodology. From a score of 4 in 2012, Cuba improved to 6 by 2018. Just for the sake of comparison, the scores in this category for China and Vietnam were 6 and 8, respectively, in 2012 and remained at these levels in 2018. Thus, Cuba's reforms with respect to items affecting property rights directly during this period were associated with improved outcomes at the end of the period comparable to the level enjoyed by China (6) but well below Vietnam's (8) at the beginning of the period. Thus, the aggregate data available is consistent with our preliminary evaluation that these reforms have improved the economic well-being of Cuban citizens.³

Consider now in more detail the economic effects of allowing Cubans in 2011 to sell and buy houses for the first time since 1960.⁴ They represent a substantial expansion of civil liberties by allowing Cuban citizens to consume the services of their dwellings and/ or use parts of them to generate income, which already existed, but also to sell or transfer these dwellings. These economic effects are potentially quite important and affect every person who can claim his/ her home as the person's dwelling (85% of the population in 1960 according to Mesa-Lago 2018) by creating an asset that can have a value determined by the market. Implementation through the initial decrees in principle allowed this asset's use for a variety of purposes directly or as collateral.

From the point of view of the property rights literature, these actions have a sort of "titling" effect. A powerful advocate of the benefits of titling for the poor in developing countries views it as an immense potential source of effective wealth creation by allowing its use as collateral to finance investments (de Soto 2000). An extremely thorough review (Woodruff 2001), however, points out that these wealth effects require three transformations: titled property needs transformation into collateral; collateral needs transformation into credit: and credit needs transformation into income. Cuba's housing reform, which formalizes titling, by legalizing the property transfer in exchange for money (which requires notarization at the time of the sale) and through inheritance, legalizes the first transformation while facilitating the second through public statements that obtaining credit is available from government banks.

Nonetheless, Woodruff points out, based on existing academic literature, that titling alone does not necessarily leads to the creation of a well-functioning capital market when enforcement of penalties for nonpayment of loans based on the collateral is poor. In developing countries, these issues often lead to collaterals exceeding the value of the loan by as much as 9 times. In Cuba, it has led to hardly any attempts to borrow from the government banks and to undervaluation of housing properties sold. Moreover, the transformation of credit into income depends on the existence of a favorable environment to undertake the investment opportunities available, which in Cuba's case is mainly limited to the self-employment activities discussed in the next section.

Not surprisingly, implementation problems abound. For instance, there is an incentive to undervalue

^{3.} For comparisons with other countries, the original source has scores available for over 200 countries or territories at https://freedomhouse.org/content/freedom-world-data-and-resources.

^{4.} A detailed description of the antecedents and the evolution of legal and informal possibilities and obstacles for the buying and selling of dwellings in Cuba since 2011 is available (Mesa –Lago 2018: Ch. 5). This discussion also includes legal and practical issues with respect to construction improvements required to put properties on the market.

houses since there is a 4% sales tax payable to the state at the time of sale. Interviews with ten buyers and ten sellers conducted in Havana municipalities during September of 2015, reported by Mesa-Lago (Ch.5), established that all the interviewees owned their dwellings and had bought or sold them since 2011. Six features of the responses are worth noting explicitly: (1) 60% of interviewees built the dwelling they were selling; (2) 65% reported that it took at least 7 months to buy or sell a house; (3) the seller had to register the house and notarize the sale; (4) prices of houses in convertible Cuban pesos (CUCs) ranged from 5,000-10,000 (30%), to 11,000-20,000 (60%) to 21,000-30,000 (10%); and (6) 75% of interviewees view the 4% sales tax as adequate, mainly because it applies to the assessed value and not to the real value of the house.

Interviewees indicated use of the proceeds from the sale of the house for a variety of purposes (Mesa-Lago 2018: Figure 23). Improvement and purchase of another dwelling (25%) is the one most directly associated with the "titling" effect advocated by de Soto, as it does not require that the three transformations stressed by Woodruff take place. Savings for current or future investing in a business (31.3%, of which 12.5% was for current investment and 18.8% for future investment) is another use that is related to the "titling" effect indirectly if undertaken as collateral or directly if not. Travelling abroad is yet another use (25%), which I will call a house "liquidity" effect for reasons indicated below when discussing migration. Finally, use of the proceeds of the sale of the asset to finance current consumption is a motive for 31.2% of the interviewees. Interestingly, no interviewees had applied for micro credit from the state (although 8% wanted better access to bank credit to finance their dwellings). Houses play little formal role as collateral despite its newly acquired legal status.

Finally, the housing market has developed enough that there are real estate brokers, which is an approved self-employment occupation. Unfortunately, Mesa-Lago and his colleagues were only able to interview five of them. For what is worth, these brokers reported: (1) earnings that exceeded costs; (2) their assessment that sales taxes of 4% were "exorbitant"; and (3) that the main problem in their business was the high price of housing relative to the very low level of salaries and the inability of most Cubans to pay the prices of houses offered for sale. Interestingly, only 10% of the buyers and sellers in Mesa-Lago's sample reported using a broker. While these results are encouraging from an economic perspective, a lot more would be required for further expansion of the market and a substantial impact on economic growth. For instance, eliminating ownership restrictions that prevent non-residents from participating in the market as buyers would have an expansionary impact on the market.

Consider next the right to migrate (temporarily or permanently depending on your definition of the terms, see Dustmann and Görlach 2016 for a discussion) which also falls under the category of personal autonomy and individual rights and allows citizens expanded choices with respect to where to live and where to work. This expanded right was officially granted to Cuban citizens in January 2013. Cuban official statistics capture the actual migration affected by the law literally in the following way. Before and after Cuba's migration law, a person is an emigrant if he or she stays out of the country continuously longer than a year. What the law changed dramatically, however, were the costs of migrating, including the loss of citizenship rights. Before the reform, emigrants lost their rights to property and to return, and the need to have a rather difficult to obtain and expensive exit permit in order to be allowed to leave in the first place.

After the law, a Cuban citizens who wished to travel abroad only needed a passport, which cost about \$100 to obtain, and a visa from a foreign country, which in the case of the US cost \$160. A Cuban citizen who wanted to become an official emigrant, could stay abroad for two years, renewing such status twice, without any loss of property or citizenship privileges. A person who wanted to come and go for shorter periods, only needed a passport and the foreign visas. Restrictions to go abroad remained for workers in sensitive categories, such as medical personnel and other officials in job categories perceived as sensitive for a variety of reasons, ranging from national security to sports. Nonetheless, the demand for visas was high enough that the US, for example, switched to issue visas on a five-year multi-entry basis rather than the customary six months to deal with the abundance of requests shortly after the normalization process started.

One useful perspective on the impact of this law arises from what is called in the literature the land "liquidity" effect (Chernina, Dower and Markevich 2014), created by a land "titling" reform in Russia during the early 20th century. There was a substantial migration after this reform and the authors found, using a difference-in-differences analysis, that about 18% of the migration was attributable to a land "liquidity" effect of the titling reform. The latter removed financial constraints and lowered the opportunity costs of migration. Cuba's housing reform has generated a similar house "liquidity" effect on migration. Furthermore, and perhaps more importantly, the migration reform has increased migration for it allows Cuban citizens to enjoy earning opportunities outside of Cuba.

I will call this direct impact of migration the "emancipation" effect, i.e., emancipation from political control effect, since, to my knowledge, it was identified first in the literature as a result of the impact of "land" titling in Mexico (Dower and Pfutze 2014). The authors show that land titling led the beneficiaries to increase their vote for opposition parties, which they interpret as an emancipation from political control effect due to the increased security of voters' property rights. In Cuba's case, the migration law allows migrants, temporary and permanent, to generate income outside of direct government control. It also helps understand why migration restrictions on some categories, e.g., baseball players, remain in place.

Undoubtedly, the empirical impact of the migration law associated with person flows out of Cuba and into the U.S. have been substantial (Betancourt 2019). For instance, the increase in Cuban permanent migrants and Cuban tourist visitors to the U.S. between 2012 and 2016 was at least twofold; the increase in visa-less aliens admitted to the U.S. during this period was at least fourfold. Fluctuations in person flows out of Cuba have been dramatic. Indeed, in 2013 and 2014 emigration out of Cuba turned from substantially positive in previously recorded figures to slightly negative or net immigration. It reverted to substantially positive figures in 2015 and 2016. Among the more plausible interpretation of these unusual flows of citizens into and out of Cuba is that emigrants and potential emigrants gave the reforms a chance in 2013 and 2014, but more recently have voted with their feet on their expectations about the reforms.

This reform considerably enhanced the ability of Cuban citizens, in general not just the political elites, to generate income from their human capital and accumulate assets both in Cuba and abroad. It also interacted with the housing reform to translate this income into a "titling" effect, as the foreign earnings directly generated CUCs with which to purchase a house. Moreover, the "titling" effect also generated a "liquidity" effect supporting additional temporary migration. An anecdote illustrates the point with respect to tourism or temporary migration. Recently I met a young Cuban artist abroad who claimed he could not work in Cuba directly. Nonetheless, he was able to make enough money as an artist working temporarily outside of Cuba to live comfortably residing in Cuba most of the year and even to be able to open up spaces for other artists to work there.

Migration enabled this artist to generate income (the "emancipation" effect). Eventually, he could purchase a house with its subsequent "titling liquidity" and "emancipation" effects (if he were to rent a room). The only flaw in this scheme was what would happen when his five- year visa expired or possible uncertainty if he had to renew his passport. Ironically, in the case of this particular anecdote the Cuban government also benefits. For this migrant is generating foreign exchange that can be captured in Cuba when the artist returns to live there a substantial part of the year. If he purchases a house, he would be paying a 4% sales tax on its value directly to the government. A win-win situation for both parties without a doubt, at least in the short-run.

Last among these market liberalizations is the expansion of usufruct. The latter allowed private farmers to cultivate land owned by the government for ten-year periods extendable for another ten years provided the farmers fulfilled all their obligations to the state. A discussion of the background of the usufruct reform, provisions, potential impacts, and the views of 25 usufruct interviewees gathered between April and June 2015 is available (Mesa-Lago 2018: Ch.3). Part of the law's importance, according to Mesa-Lago, arises because usufruct is key to agricultural sector reform and reflects a move to the market during Raúl's term. Improvements to the 2012 law have included substantial increases in the maximum size of the parcel of land granted to individual farmers, ability to construct dwellings and plant orchards, tax advantages, access to credit and the ability to hire contracted workers. Some restrictions remained in place and later on some of the advantages embodied in the new law were eliminated, e.g., an experimental wholesale market.

It is difficult to provide empirical evidence on actual outcomes because separate statistics on usufruct farmers are usually not available from official sources. One interesting result derived from the 25 interviews, however, is that 88% of usufruct farmers are sufficiently satisfied with what they do and earn to answer in the 7-10 range on a 10 level scale to this question. Several salient facts emerge from the interviews: (1) the average size of parcel of the interviewees (34 acres) is substantially below the new maximum (67 acres); (2) the majority (56%) had to clear their parcels of marabú (a difficult to clear weed); (3) none of the interviewees had constructed a house or a barn; (4) almost all had net profits (92%); and (5) all but one had ties to credit and service cooperatives (CCS). Other less salient facts were that 32% raised cattle for milk, 68% planted different crops, 20% had planted trees, 32% received remittances, 44% had employees and over 50% purchased inputs from CCS.

For comparison purposes, note that the usufruct contracts in China and Vietnam are either indefinite or for 50 years and the farmers decide what to plant, whom to sell to and the sale prices. Not surprisingly, the most thorough analysis of Cuba's agricultural transformations, including the recent reforms governing usufruct farming, view as necessary three types of enhancements relevant to all farmers: (1) their ability to make their own farming decisions e.g., choice of what to produce; (2) complementarity of their interactions with the market system; and (3) a systemic focus on the overall production cycle that affects farmers (Nova and González-Corzo 2015).

The academic literature on property rights describes agricultural markets as spontaneous or irrepressible markets. Usually, it contrasts them to some types of modern markets characterized as "socially contrived" markets (Clague, Keefer, Knack and Olson 1999). Examples of socially contrived markets are insurance markets and financial markets, including mortgage markets. Since the benefits of transactions in agricultural markets tend to be simultaneous in space and time, if governments provide a minimum of law and order, they can function at a relatively high level of transactions regardless of the prevalence of the rule of law. One implication is that from a property rights perspective, eliminating many of the restrictions on usufruct (and on farmers in general) could generate a substantial expansion in agricultural output. Hence, both Cuban economists in the island and those outside the island seem to agree on what needs to happen. Economically, usufruct farmers would benefit considerably from an expansion of the possibilities to generate income under usufruct and so would the rest of Cuban society, including the government. Thus, it is difficult to avoid the conclusion that fear of the "emancipation" of political control effect is a main reason for this self-inflicted wound.

UPDATING OF THE ECONOMIC "MODEL" OR RE-ALIGNMENT OF RELATIONAL CONTRACTS

The reforms under the rubric of market liberalizations, especially as currently implemented, are simply an updating of the economic "model." This may very well be a fundamental reason for their lack of success in spurring rapid economic growth. The multiplier effects of liberalizations on growth opportunities diminish or disappear due to the remnants of the old "model" still going strong at the core of the Cuban economy. In this section, we look at this issue explicitly in the context of the policies selected by the Cuban government to update the model. For this purpose, it is useful to look at these policies as an explicit modification or replacement of existing relational contracts. Indeed, this approach to analyzing changes in an economic system is also useful, for example, to understand other changes in an economic system such as those due to macroeconomic policy dynamics.⁵

For instance, changes induced by any policy (1) lead to a new but continuing relationship between the policy makers and economic agents, (2) outcomes that depend on unstated expectations and assumptions about the behavior of both parties, and (3) no formal possibilities of enforcement by an impartial third party of these implicit behavioral contracts. Whether or not a new equilibrium arises due to the policy changes is uncertain. These three conditions apply to the standard definition of a relational contract at the micro level (Baker, Gibbons and Murphy 2002). In an earlier paper (Betancourt 2015), I argued that they could be applied in these broader settings and noted that the main difference was the almost impossibility of establishing that a new equilibrium would exist or emerge in these broader settings.

Cuba's evolving economic "model" is conceptualized by the Seventh Party Congress in the following terms: "We recognize the objective existence of market relations," but "socialist planning is the principal way for the direction of the economy," and "socialist [state] ownership of the means of production is the foremost form of the national economy" (Mesa-Lago 2018: fn. 4, p.143). What does that mean in practice? The Cuban state will allow several forms of non-state sector organizations to operate in the economy, but they do so under the guidance of socialist planning, which reserves for state ownership the foremost form of organization. Engaging in a description of Cuba's economic model as a coherent adaptation of a socialist model seems an exercise in futility given the above description. Instead, I characterize the system before the reforms as a set of relational contracts and the proposed new system through reforms as entailing a new set of relational contracts, which can include, exclude or modify previous ones. Cuba's reforms are far less perplexing from this viewpoint.

Interesting features of relational contracts are that they can improve or lower welfare of the participating parties and that their self-enforcement feature suggests breakdowns in the conditions for their sustainability over time are possible and even likely. From this perspective, a logical starting point is to examine two important relational contracts between the state and its citizens that need modification in any updating of the Cuban model, namely the rationing system and the dismissal of state workers.

Journalists often report on how the state fails to provide the monthly amounts set out in the ration book. For instance, a look at this issue early in the reform process (Rios 2014) concluded that the ration book provides only one to two weeks of the allotted monthly amount consumed by an average consumer. A more recent article (Archuleta 2017) quotes a merchant in a well to do neighborhood food market in Havana with respect to the monthly ration as follows: "It gives us only about 10 days' worth of food for the whole month." This system is part of a relational contract between Cuban citizens and the Cuban state that has survived since 1962, at least in name. In practice, it has been in the process of unilateral renegotiation or realignment for a number of years, and the process has accelerated since the start of the reforms. In simple terms, the Cuban state cannot meet this obligation and is, therefore, publicly renouncing the obligation to its citizens in this relational contract through policy changes that, for example, allow them to purchase food in Cuban pesos (CUPs) at free market prices in some stores or with CUC's or foreign exchange at other stores.

Similarly, the Cuban state is unable to afford, for fiscal reasons, employing everyone regardless of their productivity levels. Hence, the dismissal of state workers is a unilateral renegotiation of a relational contract between the Cuban state and its citizens, publicly announced as a reform, which renounces a

^{5.} I owe this point to a question raised by Luis R. Luis on an earlier paper.

standard obligation to its citizens—full employment —embedded in any typical communist state. Because citizens are supposed to have access to means for attaining a minimum standard of living in any state and especially in a socialist one, these two reforms require new or modifications of existing relational contracts to fulfill needs previously provided by adequate rations and assured state employment.

Part of the updating of the model is through changes in relational contracts that make jobs more widely available to the population. An extended review on alternative sources of non-state sector employment notes that the four most dynamic non-state subsectors contributed the following number of jobs by the end of 2015: private self-employment, 507,342; usufruct farmers, 312,342; and nonagricultural and service cooperatives, 7,700. That is, they provided jobs for 17% of the labor force but less than 50% of the number of jobs necessary to employ the potential 1.8 million dismissed state workers contemplated in the 2011 reform (Mesa-Lago 2017). Other non-state sector actors are small farmers, who own their land and have existed since 1959; and two types of agricultural cooperatives that existed before the reform process. The small farmers were 99,500 in 2014 and the cooperatives would account for almost all of the remainder of the non-state sector labor force (Mesa-Lago 2018: Table 2, p.6). Nonetheless, these estimates entail sufficient reliability issues that the table includes two alternative estimates of the total percentage of labor force in the non-state sector: 22.8% and 35.8%!

Since the Cuban state wants to preserve benefits from other existing relational contracts, it imposes new limits on some self-employment occupations when the need arises due to conflicting objectives. For example, while seamstress is on the list of approved selfemployment occupations, a prohibition on resale of clothing that became law in October 2013 sharply limits seamstress' economic activities. The ability of Cubans to engage in resale on a substantial scale became feasible due to the new migration law of January 2013, which made it possible for individuals to travel abroad (to the U.S. or other countries) to purchase and carry to the island products for resale. Typically, those taking advantage of these arbitrage opportunities sold goods at prices below those of stateoperated dollar stores which marked up prices by 240%. Thus, this aspect of the broad relational contract between the state and this segment of its selfemployed citizens needed modification, ex-post, to maintain or restore the Cuban state benefits of taxation derived through the government-operated dollar stores. The beneficiaries capturing the mark-ups were associated with current or former segments of the armed forces, according to popular rumors. The extent of compliance with or enforcement of the new decree is difficult to ascertain.

More generally, the private self-employment sector has been around in very visible form and subjected to varying restrictions since the 1990s. Nonetheless, it experienced significant growth as a result of the 2011 structural reforms, growing from about 147,000 in 2010 to 505,342 in 2015 (Mesa Lago 2018: pp. 12– 13). A detailed analysis of its current role in the context of these reforms and recent changes announced by the government from the perspective of those operating in the sector is available (Mesa-Lago 2018: Ch.2). It provides a variety of insights into this sector and what the participants view as essential needs for their operations.

Recent Cuban state policy towards this important non-state sector segment is volatile. In the latter part of 2017, there was an announcement that new measures for this segment were in preparation. In July of 2018, an announcement of restrictive measures took place, but their enactment was put off until December 7, 2018. A term used by an analyst sympathetic to this segment aptly summarizes the view of participants in the segment trying to be heard by government officials on how these restrictive changes to their relational contracts would affect them: namely, "the revenge of a jealous bureaucrat" (Henken 2018). Just two days before these restrictive changes were to become effective, the government announced a reversal of some of the measures identified as most damaging to their survival by the self-employed, e.g., limitation to only one self-employed license per approved occupation per person.⁶ Updating of the model or the modification of relational contracts between the state and its citizens in this most successful area from an economics perspective changes dramatically. Not surprisingly, the number of jobs created, as reported here, follows a similar path. For instance, for the five- year period between 2010 and 2015 jobs grew at 28.01% per year; for the three-year period between 2015 and 2018, they grew at 5.89% per year.

Other important relational contracts modified through the reforms to increase employment were attraction of foreign direct investment and establishment of cooperatives outside of agriculture. In the former case, there were expectations that a new foreign investment law announced in March of 2014 would increase foreign direct investment contracts. Due to limitations in the new law (Luis 2014), however, most of the additional jobs were associated with the ZEDM. The relational contracts in the ZEDM are complex because they involve a wide variety of economic agents. For instance, the conditions associated with Brazilian investments in the ZEDM involved agents ranging from Cuban citizens to the Cuban and Brazilian governments and a well-connected Brazilian conglomerate, Odebrecht. A recent evaluation of investment flowing into the ZEDM from 2013 to 2018 describes it as a lemon, e.g., while \$12.5 billion in investments were expected, only \$1.191 billion have materialized (Morales 2018). Of course Odebrecht's investments have been limited by the company's association with the Lava Jato scandal, which has led to indictment and convictions of two former Brazilian Presidents (Lula and Roussef) and the resignation of a Peruvian (Kuczynski).

Allowing the creation of cooperatives outside agriculture is a reform that provides a new broad relational contract between Cuban citizens. It can create jobs needed due to the renegotiated relational contracts resulting from the dismissal of workers and inability of meeting citizens' needs through the rationing system. An irony of this reform is that in arguments in its favor, one of its ardent proponents (Piñeiro Harneker 2011: Prólogo, pp. 8–9) stresses their democratic features to promote solidarity and defend socialism. Implementation by the Cuban government, however, eliminated some of these features. Consequently, Pińeiro Harneker became a critic of the implementation (Bye 2014). The lack of these features may also explain the small number of jobs created, thus far (as reported above). A chapter in Mesa-Lago's recent book is devoted to a detailed description of the characteristics of non-agricultural cooperatives, environment and evolution in this early and obviously experimental phase (Mesa-Lago 2018: Ch. 4).

More generally, the reforms discussed in this section, and others not classified as structural such as those associated with perfeccionamiento empresarial (enterprise optimization program), which are directed to increase productivity in state-owned enterprises, can be viewed as updating the model through changes in the nature of relational contracts underlying the old system. This re-alignment is consistent with the survival needs of the regime under new circumstances, including a substantial lowering of subsidies from foreign sources associated with the Venezuelan economic collapse. At the same time, this re-alignment of relational contracts could maintain support from the population and acceptance of the regime and of the socialist system given that the old nexus of relational contracts can no longer do so. It provides mechanisms for an accommodation to the logic of survival under a new and continuously evolving set of circumstances.

Incidentally, it is worth noting that relational contracts are not unique to Cuba, but exist everywhere. Indeed, one could argue that these contracts are increasing in importance due to globalization, since the latter reduces the effectiveness of impartial third party enforcement mechanisms in any one country. Meanwhile supranational bodies have not become as effective as the best impartial within-country third party enforcers among developed countries. Ironically, the current populist wave across the world seems to be undermining the operation of impartial third

^{6.} A thorough and insightful discussion of this process is available (Henken 2019) in a forthcoming review of Mesa-Lago's 2018 book. This review also gives an estimate of the number of self-employed as close to 600,000 in 2019.

party enforcement mechanisms within countries everywhere, including advanced countries. One interesting source of differences between countries is in the effectiveness of impartial third party enforcement mechanisms associated with the rule of law.

Where the rule of law is less effective, more relational contracts are necessary to fill the gap. In those settings, the set of corruption opportunities expands since there are more possibilities and incentives to break formal rules without consequences. One definition of corruption in the organizational setting suggests a positive association between the extent of relational contracts and corruption. Namely, corruption can be viewed as "... the breaking of a rule by a bureaucrat (agent in an organization) for private (personal) gain."7 Under this definition, the extent of the need for relational contracts provides a guide to the extent of incentives and opportunities for corruption in a society. Whether or not these opportunities and incentives lead economic agents in a society to act corruptly depends on a variety of other factors, including culture, that are beyond the scope of this paper.

MACRO REFORMS: A POLITICAL ECONOMY VIEW OF EXCHANGE RATES AND TAXES

Exchange rate unification is one of the essential reforms needed by Cuba. The need for this policy is somewhat obvious from an efficiency point of view. Economists with a wide variety of ideological perspectives share this assessment. For instance, from the perspective of the Cuban government, a former Minister of the Economy and Planning deems it a critical challenge (Rodríguez 2013). At the technical level, Cuban economists associated with the current government have been concerned about this issue for a long time, e.g., an impressive thorough analysis of the issue from a technical perspective has been available from economists in the island for at least ten years (Vidal 2008). Some have offered recent views on the subject, e.g., Monreal 2018. From the perspective of economists outside the island, a similar agreement emerges. A recent panel at the 2018 annual meeting of the Association for the Study of the Cuban Economy (ASCE) had the title "Monetary Duality and Currency Unification." Three papers presented by economists with extensive experience in international finance in both the private and public sector (Linde 2018; Luis 2018; Di Bella, Grigoli and Romeu 2018) emphasized technical issues that would arise in the process. There was no disagreement on the need for exchange rate unification and an abundance of professional advice on the issue, which is not limited to the above references as can be seen from their own list of references. Their analyses view monetary duality and exchange rate unification as related but conceptually distinct issues. Their discussion incorporates this distinction in analyzing a variety of difficulties that can arise during a process of exchange rate unification and how to approach them.

External factors as well as internal political ones, such as distributional impacts on poorer sectors of the population, operate as limits to the feasible alternatives in particular settings in all of the above analyses. Perhaps the most general area of agreement on the details of the process of exchange rate unification is an outcome that eliminates the CUC from existence. Ironically, a widely held popular view is also that it is the convertible peso (CUC), and not the Cuban peso (CUP) widely used by the population, which needs to be eliminated (e.g., Echevarría 2014). The simple economic logic for eliminating the CUC rather than the CUP is the following. Cuba's economic activities fail to generate enough dollars (or foreign exchange more generally) for a unified currency at the CUC's rate of about 1:1 but might be able to do so at much lower rates such as the CUP's rate of 1:24 or 25. Since popular logic as well as sophisticated ones leads to the same place, we ask. Is this outcome so unattractive to important and powerful players in the current system that they want to prevent it from becoming a reality?

^{7.} The bold face indicates our adaptation or simple generalization of the definition adopted in the essay for the *Handbook of Organizational Economics* (Banerjee, Hanna and Mullainathan 2013).

The latter question is a relevant political economy question worth addressing here. When dollarization took place in 1993, there was a redistribution of wealth in Cuba. The beneficiaries were people who had direct access to dollars for whatever reason, including friends and relatives abroad or strategic placements in the Cuban government hierarchy that generated this direct access. This redistribution process eliminated many loyal supporters of the regime from being economic elites even though they remained politically elite. The CUC was a mechanism under the sole control of the Cuban government. It initially provided access to dollars on a 1 to 1 basis for these suddenly marginalized political elites.8 Given the passage of time since its introduction, however, the set of beneficiaries of the CUC's and the set of those who must live by the CUP have experienced a variety of dramatic changes due to policy changes and exogenous shocks.

Anyone with direct access to dollars or other foreign currencies manages a lot better having to live by the CUP than those without direct access, especially relative to citizens without access to CUC's. At any point in time, we have four sets of citizens. Group I: those with only access to CUP's; Group II: those with only access to CUP's and CUC's; Group III: those with only access to CUP's and foreign exchange; and Group IV: those with access to all three means of exchange. Policy changes and exogenous shocks to the system redistribute citizens among the four groups and change the welfare of being in any one group. The politically powerful but economically marginalized elites are primarily among those in Group II but some may exist among those in Group IV if their access to foreign exchange is very limited. Policy changes that allow increased migration and increased remittances or the opening up of relations with the US and its reversal are dramatic changes that generate positive and negative shocks for how the citizenry redistributes itself among the four groups and their levels of welfare.

For instance, one Trump reversal of Obama's policy opening led to a lowering of the welfare of Group IV, who were also former Communist Party members or retired military, by limiting their ability to receive foreign exchange. If the limitations were complete in eliminating direct access to foreign exchange for this subset of Group IV (a seemingly unlikely event), they would unhappily become members of Group II. The latter would have a strong incentive to resist currency unification and there would be more of them in the set. A different impact on welfare of these policy changes affects Group I. Its members would always have an economic incentive to favor currency unification as well as to migrate. Thus, Obama's policy opening in 2014 and the consequent increase in migration via the wet-foot/dry-foot policy (Betancourt 2019) lowered their numbers and, thus, the weight of one set of citizens supporting unification. Elimination of the latter policy by Obama in January 2017 had the opposite effect.

Elimination of the CUC, however it is accomplished, is going to generate winners and losers. If experience is any guide, the former will never compensate the latter. Thus far, those with the most to lose, we will call them Group II, have been successful, through luck or effort, in preventing implementation of the reform at the expense of those with the most to win, Group I. The positions of the other two groups are harder to characterize because of the fluidity of their composition as different external foreign policy events impact the Cuban economy. It is interesting that one of the discussions of unification in ASCE's panel (Linde 2018) notes that the CUC should be viewed as initially backed by dollars, as in a currency board system, but that by 2016 it had become a fiat currency for all practical purposes. The latter condition creates a hospitable setting for members of group II to oppose exchange rate unification and succeed.

Political economy considerations are also insightful on tax reform issues. Discussion of tax reform as implemented by Law no.113 at the start of 2013 is

^{8.} A brief account of the evolution of the CUC is available in the context of a history of recent monetary policy in Cuba (Hernández-Catá 2014).

most telling (Mesa-Lago and Pérez- López 2013, pp. 213–14.). It aims to shift the burden of taxation from indirect taxes to income taxes, which is a meritorious objective in the view of most economists. Unfortunately, it fails to consider the most important indirect and direct taxes that generate foreign exchange for the government. Hence, these two omissions suggest that serious tax reform is unlikely or why certain aspects of tax reform will not happen.

Since the Cuban state is known to be in desperate need of foreign currencies, elementary self-interest considerations suggest it is unlikely to relinquish voluntarily (in the absence of extreme shocks) basic distortionary and inequitable taxing mechanisms by which it has been acquiring foreign currencies. One specific valuable source to them is the system for taxing earnings of Cuban workers employed by foreign companies investing in Cuba or working abroad. The lack of plans to change this system as part of the tax reform provides a compelling illustration of a lack of serious interest in tax reform. The system for taxing foreign earnings of Cuban workers is essentially a mechanism to collect income taxes from workers' foreign earnings at confiscatory rates. Below I describe its operation.

One anchor of the system for foreign enterprises investing in Cuba is requiring them to hire Cuban workers through the state agency Empleadora Nacional. The investor pays Empleadora Nacional in foreign currency for the work of Cuban workers at a rate of1\$:25CUP and the Cuban workers are paid by Empleadora Nacional in CUPs at, for example, 1\$:1CUP rate rather than at a rate of1\$:25CUP. This amounts to a tax rate of over 95%. Other variations of this example can improve on this rate for the Cuban worker and still keep it at a confiscatory level. Ironically, even at these confiscatory rates, workers in this system are considered as elite relative to other Cuban workers due to their potential access to dollars or CUCs, formally or informally. Indeed, their selection by the Empleadora Nacional to hold jobs with access to foreign exchange depends on their being part of the regime's loyal elites, e.g., membership in the Communist party.

This confiscatory income tax system also applies to the dozens of thousands of Cuban government workers sent abroad pursuant to agreements between Cuba and other countries, including those serving in Venezuela. These implicit income tax rates are confiscatory even from the perspective of governments sympathetic to Cuba. For instance, at the insistence of the Brazilian government, an agreement with Brazil in 2013 lowered the rate the Cuban government receives in dollars directly for its doctors to 70%, while leaving 30% paid in dollars directly to the Cuban doctors in Brazil.

While this was an improvement over the Venezuelan arrangement, it is still a confiscatory rate. Indeed, an opposition candidate in the 2014 election in Brazil challenged this aspect of the agreement while supporting the program of bringing foreign doctors to the country. Most recently, the new not-so-sympathetic-to-Cuba Brazilian government elected in 2018 insisted that Cuban doctors should be paid 100% of their salary, and the Cuban government cancelled the program. Similarly, the 240% mark-up in the dollar stores operated by the government, which was discussed in the previous section, acts as a highly distortionary indirect tax or sales tax that captures foreign earnings from the citizenry.9 Incidentally, on the expenditure side, the government operated with relative efficiency from 1994 until 2012 when government expenditures moved toward an expansionary policy (Hernández-Catá 2018).

CONCLUDING REMARKS

In sum, time has told on Cuba's "structural" reforms. Hopes of profound transformations along the lines of those of China and Vietnam have perished over eight years of hesitant and halting expansions accompanied by serious backtracking or even complete lack of action on aspects of the reforms related to foreign exchange generation. This conclusion describes the situation between 2011 and 2019. Ironically, the

^{9.} While normally sales taxes are regressive, it is not clear that this would be the case in Cuba as in Cuba, the economic elites usually are the ones with access to foreign currencies.

external environment in which Cuba's leaders vacillated during this period also oscillated as much as the vigorous pursuit of internal reforms, and not necessarily in a synchronous fashion. Obama's policies since 2009 provided substantial new economic opportunities. Trump's policies since 2017 closed a few of these opportunities until January of 2019 when, due to the Venezuelan crisis and Cuba's role in it, the Trump administration imposed a substantially enhanced set of restrictions. Limiting remittances by Cuban-Americans to \$1,000 per quarter is one that could have a substantial impact on foreign exchange availability if successfully enforced.

Cuba's political leaders, both old and young, have exhibited an exaggerated fear of success in the reforms described above under market liberalizations and updating the model by failing to take advantage of many—if not most—of the follow-up opportunities they offer to stimulate growth. Attempts to control irreducible uncertainties have stifled policy innovations even in the presence of well-known paths, followed by other economies, including some with similar political systems. The latter have reformed far more profoundly and more substantially improved the standard of living of their populations in economic and other dimensions. After 60 years of "Revolution" the argument that Cuba is different is far closer to an excuse than to a reason for its failure on the material or economic dimension of well-being.

A hopeful message from this analysis is the potential for success of the reforms of the non-state sector if they are ever undertaken enthusiastically and exploited as growth mechanisms. They were not so promoted during these eight years. One consequence of these missed opportunities is a continued lowering of living standards in the economic dimension. A second consequence stems from the nature of the missed opportunities. They are not static objects waiting for the Cuban government to wake up to its responsibility for material living standards. Many opportunities are processes that emerge in dynamically changing windows. These processes acquire permanence when exploited, and disappear when they are not, as time moves on with the evolution of the external and internal environments. Meanwhile the Cuban government acts as if ossified. It repeatedly exploits its monopoly power internally to satisfy its own material needs and those of an increasingly smaller group of supporters at the expense of the suppressed rest of the population.

Until the political will to change penetrates the operations of principals as well as of agents in the Cuban system, Cuban citizens will continue to suffer lower living standards. Enrichment possibilities for a selected few at the expense of most of their fellow citizens, however, will always be there. Unfortunately, the reality is that affording education and health benefits for the majority require substantial improvements in the productive capacity of the population. After sixty years, it is impossible to generate the material resources for the continued existence of these benefits without rapid economic growth. The "Revolution" is dead.

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