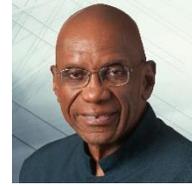


# China in the Caribbean's Economic Future

The image shows a large, modern architectural structure with a prominent glass and steel dome. The dome is composed of many rectangular glass panels held together by a metal framework. The structure is set against a clear blue sky. In the foreground, there is a concrete wall with a metal railing. The overall scene is bright and clear, suggesting a sunny day.

*DeLisle Worrell*



## Working Paper

# China in the Caribbean's Economic Future

DeLisle Worrell

*info@DeLisleWorrell.com*

August 2020

### Abstract

*The remarkable surge in Chinese economic productivity, especially since the turn of the century, has been of material benefit to every economy in the world trading system, and the Caribbean has shared in those benefits. The most substantial benefit to the Caribbean from the relationship with China has been via the purchase of more affordable products made in China or made with Chinese inputs. The Caribbean has secured additional imports that may be of the order of five to ten per cent, compared with what the same money would have bought from alternative sources. This benefit may not increase in the future, and may well decline, if the anti-globalisation sentiment now sweeping across many Western nations is not reversed in the near future, and the region's access to Chinese products is reduced. By comparison, the benefits from Chinese investment in the Caribbean, and from exports to China and Chinese tourism to the Caribbean, while not insignificant, are much less substantial. Caribbean strategies for transportation upgrades and investment, renewable energy adoption, use of digital currencies and universal use of the US dollar, offer promise of reaping benefits for the Caribbean from the China connection in the medium to long term, even in the face of Western isolationism.*

JEL classification: F13, F21

Keywords: China, Caribbean, China-Caribbean trade, Chinese investment, Chinese products, globalization.

*This Working Paper is circulated for comment. Please send your views and observations to the author at the email address above.*

## **Introduction**

The remarkable surge in Chinese economic productivity, especially since the turn of the century, has been of material benefit to every economy in the world trading system, and the Caribbean has shared in those benefits. The universality of the label "Made in China" on consumer products in daily use in the Caribbean and around the world is evidence of that benefit. Chinese productivity has made their products more affordable, and we have all been able to raise our consumption above what it might have been, had we been obliged to buy more expensive items from other sources. That is not the full measure of the benefit, because Chinese inputs are used in many products that are made in other parts of the world. These producers would have had to charge higher prices, had they not had the benefit of Chinese inputs.

In this paper we develop a way to arrive at a plausible estimate of the benefit that the Caribbean has derived directly (via "Made in China" products) and indirectly (through purchase of products with Chinese inputs) from Chinese productivity. We will continue to reap these benefits whatever the future of the world trading system, but whether they will increase and the rate of increase depend crucially on an improvement in global trade cooperation.

The Caribbean has also benefitted from its economic links to China as a result of initiatives specific to this region, including investment in the region. There has also been some export of high value-added items to China and a trickle of Chinese tourists was beginning to reach levels of significance before Covid-19 struck.

Our paper imagines possible futures for China-Caribbean economic relationships, and discusses the potential benefit for the Caribbean in various circumstances. We explore what happens if the current tide of anti-globalisation persists, and what may be the outcome if systems of global cooperation improve. We consider the options for the Caribbean under either of these alternatives.

### **How large have been Caribbean benefits from Chinese productivity?**

The great majority of "Made in China" products in use in the Caribbean are not imported directly from China. Imports recorded as coming from China form a very small proportion of total imports, and give us little information about the Chinese-made imports flooding in every year. I am unable to find data or studies on yearly imports from all sources of "Made in China" products, but we can make reasonable inferences from the proportion of such products in daily use. In Appendix I make three alternative calculations of the proportion of Chinese-made consumer imports for the Dominican Republic, Trinidad and Tobago, Jamaica, The Bahamas, Guyana and Barbados. (The countries are listed in order of the size of their economies, from the largest to the smallest). I make calculations under three alternative scenarios, assuming that Chinese-made products are equal to 50, 65 and 80 per cent of consumer goods imports.

We need to know how much is the benefit from importing Chinese-made products, compared to what one would have needed to pay, if the products had been sourced elsewhere. Here again, in the absence of studies and hard data, we have measured potential benefits under different scenarios, using three different price advantages for the Chinese products: 10, 30 and 50 per cent. That provides us a range of probable benefits that Caribbean countries would have secured from Chinese productivity in the most recent year for which we have consumer import data.

To this we must add the benefit that the Caribbean countries received by buying products with Chinese components and other inputs. We might have made calculations based on alternative scenarios, as we did for final Chinese-made products above, but to simplify matters we did this calculation only for what

would have been our low estimate of Chinese price advantage (five per cent) and our mid-range estimate of the items with Chinese materials (50 per cent).

Table 1.

Estimated Economic Impact of "Made in China," Selected Caribbean Countries, US\$ Billion

Year	DR	T&T	Jamaica	Bahamas	Guyana	Barbados
	2017	2015	2017	2015	2018	2017
Imports	17.70	8.60	5.15	2.95	2.01	1.83
Assumed "Made in China"	3.32	1.01	0.96	0.72	0.25	0.38
Assumed with Chinese inputs	8.85	4.30	2.58	1.48	1.01	0.92
Assumed price benefit	1.44	0.52	0.42	0.29	0.13	0.16
As a % of imports	8.1	6.0	8.1	9.8	6.3	8.8

Sources: UN ECLAC Statistical Yearbook 2019 and author's estimates

Finally, we combine the estimates of the indirect and direct benefits, using the mid-range estimates for direct benefits (65 per cent of consumer imports with a 30 per cent price advantage; See Table 1 and the Appendix). The benefits of buying Chinese-made products and products made with Chinese inputs are significant. Trinidad-Tobagonians were able to buy an additional six per cent of imports (US\$520 million) over and above what they could have afforded without the benefit of Chinese productivity. The other countries benefitted to an even greater extent, in the case of The Bahamas, the highest, by almost ten per cent of imports that they might not otherwise have afforded. Because we do not have hard data on the proportions of Chinese products and the extent of their price advantage, the estimated benefit should be considered no more than a measure of the probable order of magnitude. The point to be made is that this is by far the most important material benefit that the Caribbean has derived from the Chinese connection, and it results, not from any direct policy initiatives between China and the Caribbean, but is a consequence of the worldwide diffusion of the benefits of Chinese productivity.

Beyond the benefit from Chinese products and inputs that were sold at prices lower than the competition, the Caribbean and the world at large benefitted from products that were previously unaffordable to consumers, and which became affordable thanks to Chinese productivity. A prime example is solar photovoltaic panels (PV) for household use. A solar panel module which carried a price of about US\$3.50 at the turn of the century (US Department of Energy, 2012) was listed at about US23 cents in April 2019 (*PV-magazine*, 2019); that is only seven per cent of the price in 2000. The most influential factor in this dramatic reduction in prices has been access to Chinese production. At today's prices, middle income households are able to afford home installation, and there has been a significant increase in the use of solar PV in private businesses and residences. Not only has this been of material benefit to the companies and households concerned, it has also made a positive contribution to energy independence and the green economy. The contribution of small distributed generation to the national grid in Barbados is about 20 per cent of the overall electric supply.<sup>1</sup> Since none of these installations would have been feasible before

<sup>1</sup> Small solar PV suppliers distributed on the national grid have a capacity of about 25MW, and the national company, Barbados Light & Power, operates a 10MW solar PV plant, of a total system peak demand of about 160MW (Information from BL&P sources).

Chinese producers entered the international market, this is an additional measure of the benefits Barbados has derived from China's engagement with the world economy. China's proficiency in solar and wind energy and its considerable lead in electric transportation offers the Caribbean considerable potential benefit going forward, provided the Caribbean countries pursue strategies which take advantage of the availability of Chinese products.

### **Investment, tourism and exports**

Chinese investment in the Caribbean is not inconsiderable, amounting to US\$239.8 million in 2018, or 12.5 per cent of foreign direct investment in the region for that year.<sup>2</sup> Jamaica was the largest recipient, with US\$156.2 million, followed by Cuba (\$33.2 million), Guyana (\$28.6 million) and Trinidad and Tobago (\$15.2 million). Barbados and The Bahamas each attracted somewhat less than \$3 million of Chinese FDI.<sup>3</sup>

China does not feature as an important source market for tourists in any Caribbean resort destination. Several governments and organisations have commented on the potential for the Caribbean to increase the diversity of source markets by accessing the vast market of Chinese middle-class travellers, but that potential remains untapped to date.

Exports from the Caribbean to China also form an insignificant proportion of total exports. However, a handful of companies specialising in high-value products have shown a way for the Caribbean to successfully penetrate the Chinese market. Their experiences need to be widely shared and imitated.

In contrast to the pervasive, impactful but hard-to-measure benefits the Caribbean has already derived from Chinese productivity, the benefits that may be derived from investment, tourism from China and exports are yet to be fully realised. While the region aspires to devise and implement strategies for tapping into the unrealised potential, we need to recognise that Chinese productivity has already contributed a substantial improvement in the material well-being of all Caribbean countries. The region's preferred strategy going forward would be to continue and intensify the use of Chinese-made products and services, a strategy which maximizes the immediate benefit, while at the same time promoting investment, tourism and exports.

### **Global isolationism limits the Caribbean's benefit from Chinese productivity**

For reasons which are beyond the scope of this essay, many leading Western nations are in retreat from the cross-border network of trade, travel, services, information, knowledge and culture which we refer to as "globalisation". To the extent that isolationist policies are put in place, whatever their motivation, they limit the sharing of resources that yields the greatest material gain for each and every country, without exception. The fact that exchange improves the wellbeing of all parties to the exchange is a fundamental insight that is at the heart of all economics. Tariffs, sanctions, and non-tariff barriers of all kinds create losses to all parties to the exchange. Some barriers are justified, nonetheless, in the interests of health and the protection of human rights, for example. However, restrictions which are imposed purely to limit access of competitive producers to local markets are always harmful to the local population. Locals may find jobs with protected local producers, but because the local firms cannot supply products of comparable quality at competitive prices (if they could, there would be no need to restrict imports or

---

<sup>2</sup> Bernal (2013) provides an analysis of the growth of Chinese investment in the Caribbean.

<sup>3</sup> Government of the PRC, *Statistical Bulletin of China's Outward Foreign Direct Investment 2018*.

apply tariffs), protection results in an increase in prices to the consumer. The more competitive international firm loses sales which it has earned through its greater productivity, and local consumers' purchasing power is less, because they have to pay more for the protected items. Protection is always a lose-lose proposition, justified only where it acts as a catalyst for infant industry, and then only when protective measures are time-bound and performance-based. Over time, protection may also lead to declining product quality and lower worker productivity, because the local firms have no incentive to keep up with new technology and modern processes.

The leaders of the anti-globalisation movements that are sweeping through the societies of the Western world are unwittingly stifling their countries' productivity growth, and imposing an inflation tax on their own populations. Sadly, because Caribbean countries earn most of their foreign exchange through exports to and tourism from these countries, do almost all their financial transactions in US dollars, transport people and goods through Western channels and communicate on Western platforms, the Caribbean will share in the losses resulting from anti-globalisation. Because China provides the greatest benefit to the world as a whole from Chinese workers' productivity, restrictions on Chinese commerce are especially self-destructive, wherever they are to be found.

### **China is the foremost champion of globalisation**

Globalisation creates the best environment for the Caribbean to share in the benefits of Chinese productivity, and China is the world's foremost champion for globalisation, climate sensitivity and the international rule of law. Chinese enthusiasm for globalisation is not surprising: it was the country's policy of opening up to trade with the world, and agreeing to the discipline of the international rule of law by joining the World Trade Organisation, that laid the foundation of China's remarkable economic development in the past 40 years.

Globalisation offers great opportunities, but it poses equally formidable challenges. While China modified its economic strategy continuously over the past 40 years, expanding elements that produced results and abandoning or modifying policies that ran into difficulty, the West was much less successful in meeting the challenges they faced as a result of new technologies with a global reach. In particular, the largest Western nations witnessed widening income inequality, job insecurity, a shrinking middle class and a sense among large sections of the population that their life chances were limited. By and large, their governments' economic policies have not exhibited the pragmatic flexibility shown by the Chinese, and unfortunately their populations have come to blame their economic difficulties on the fact of globalisation, rather than on domestic policy failure, which is where the root of the malaise properly lies. This leaves China as the world's foremost champion of globalisation, in word and deed.

In a widely-reported speech at the World Economic Forum at Davos on January 17, 2017, Chinese President Xi emerged as the champion of the global economic system, to the surprise of many. The evidence which gives credence to this claim includes, most recently, China's close collaboration with the World Health Organisation in the fight against the Covid-19 pandemic. Other evidence of China's sense of global responsibility includes:

- China's active membership and support for the IMF and World Bank, despite Western leaders' reluctance to afford China a voice in either institution that accords with its weight in the world economy;
- China's support for the World Trade Organisation and its preference for the use of WTO mechanisms to settle trade disputes;

- China's participation in the Group of 20 leading global nations cooperation forum, and the Financial Stability Board and associated bodies;
- China's continuing support of the Paris Climate Accord, the Iran Nuclear Agreement and other multinational agreements; and
- China's support of the UN and its agencies, and its substantial contributions to UN peacekeeping in Africa and elsewhere.

In addition, China is setting an example for other countries in the following areas:

- The country is a world leader in the use of renewable sources of energy;
- It leads the world in establishing a high-speed rail system, the most eco-friendly form of long range transport; and
- It is the world leader in electric vehicles.

Chinese companies have shared their expertise in the development of transport systems and infrastructure in many countries. The ports of Duisberg in Germany and Piraeus in Greece, and the Single Gauge Railway in Kenya have already stimulated new activity in the cities and regions in their neighbourhood. Other large infrastructure projects, such as the port of Colombo in Sri Lanka, may lack immediate profitability, but carry the prospect of substantial economic expansion in the longer term.

Looked at from a strictly economic and developmental point of view, China's Belt and Road Initiative,<sup>4</sup> and the finance provided by the Asian Infrastructure Investment Bank, are unambiguously beneficial initiatives. The projects they have financed and that are in prospect have the potential to create new spheres of economic activity to the mutual benefit of China and its partners in both those initiatives. Like many transformative infrastructure projects throughout history, some of the more ambitious Belt and Road projects will not yield a competitive rate of return for many years, but the same was true of the Panama Canal, the 18th century US Transcontinental rail system, the Japanese and European high-speed rail systems, the Dutch sea defences and many more. The BRI's east-west orientation provides a stronger lateral transportation network on land and sea to complement what is still largely a north-south orientation, the product of infrastructure founded during the colonial era. To the extent that this lowers transportation costs of south-south trade, it could prove transformative for the countries of the global south, particularly Latin America, Sub-Saharan Africa and South and Southeast Asia.

**The Caribbean strategy for engagement with China is being formulated in a world that rejects globalisation, to its own detriment**

We consider the prospects for the Caribbean in alternate states of the world: an optimistic scenario, in which the Western torrent of anti-globalisation proves to be a flash flood, very damaging but limited in its duration; and perhaps the more likely scenario, that the ultimately doomed strategies of nationalism and isolation slow the pace of globalisation for years to come. In each of these circumstances, the Caribbean has a choice of continuing with the current loosely-coordinated national strategies, or the pursuit of a generic Caribbean strategy, which is flexible and multilayered, and executed through regional agencies, including private sector associations and institutions, as well as the Caribbean Development Bank, the

---

<sup>4</sup> There is a comprehensive discussion of the Belt and Road Initiative in Ren (2019).

Caricom Secretariat, the Committee of Central Bank Governors, Caribbean Export, the University of the West Indies, and others. The matrix of possible outcomes is shown in Table 2.

Table 2. Matrix of Possible Outcomes

	Current Caribbean Strategy	Suggested Caribbean Strategy
Renewed enthusiasm for globalisation	A1	B1
Persistence of the tide of isolationism	A2	B2

It is not a foregone conclusion the the forces of anti-globalisation will persist beyond the Covid-19 crisis. It is already evident that the pandemic requires a truly global response, coordinated by the World Health Organisation. The protocols required for a resumption of global travel and commerce are the same for all socialising, and have to be similar, to an internationally agreed standard, all over the world. The countries of the world, international and national organisations, and even leading intellectuals and commentators, still do not show full appreciation of this reality. What we see reported daily in the news are measures taken by individual countries, individual hotel companies, individual airlines, individual airports, the International Air Transportation Association, the World Tourism Organisation, and many more. They are all of little or no benefit. Except for emergencies, travellers are staying at home for the most part. In the absence of global leadership through the agency of the WHO, the world is stumbling towards the needed global protocols in an inefficient, ineffective way that will stifle all economic activity, and not just travel and tourism, perhaps for years to come.

International finance will also fuel globalisation, particularly if digital currencies challenge the global hegemony of the US dollar. The US has done damage to its own currency, which is the only *de facto* world currency, with the US Federal Reserve's massive credit expansion in the past decade, and by the use of financial sanctions against Iran, and other similar nationalist policies. Credible digital alternatives to the US dollar which may be used in international payments and finance, would be an important catalyst for globalisation.

The reasons to expect that global awareness, interaction, commerce, finance, travel, immigration and cultural encounters are our future are social, economic and political. We will all be happier if we know and trust other humans, we will all prosper from trade and exchange, and we will have stronger responses to climate change, global pandemics, poverty and injustice if the world develops and strengthens interconnections of all kinds, across all countries and regions. It is to be hoped the leaders of thought, society, economy and politics will lead us in the direction of globalisation sooner rather than later.

However, the reality is that almost all globalisation initiatives are on pause, and many international institutions have been weakened in one way or another. The countries that founded the main institutions

of global cooperation have neglected and, in some cases, abandoned their progeny and nationalist sentiment is rife in much of the West. For the near future, therefore, we should limit our expectations of the benefit accruing to the world economy from Chinese productivity, because of this standstill in globalisation.

It is nonetheless possible that the Caribbean may increase its benefits from the relationship with China, but it will require the development of a multifaceted Caribbean strategy and the institutions to implement it. At present the individual nations of the region are each pursuing national economic strategies, with no effective coordination of financial, trade, monetary or exchange rate policies. If no change is made, the Caribbean will find itself in the worst of all worlds, with a world in retreat from globalisation and Caribbean national policies which cannot cope with the diminished opportunities to access Chinese products and services.

### **China in the Caribbean's future**

We can imagine the future benefits to the Caribbean from the region's relationship with China under alternative circumstances, depending on how long the Western tide of anti-globalisation lasts, and depending on the Caribbean's ability to act strategically as a region. If isolationist sentiment persists, and the Caribbean continues with its current approach of loosely coordinated national policies (Table 2, cell A2), the region's benefit from its relationship with China will not significantly increase, and may well decline. With current policies in place, the Caribbean will register significant increased gains from its relationship with China only if the tide of Western anti-globalisation turns (Table 2, cell A1). That, it has to be said, does not seem to be a near-term prospect. However, the Caribbean may improve on prospective gains from the China relationship if it develops truly effective development strategies at a regional level. In the next section of this paper we suggest what Caribbean-wide strategies might move the region in this direction (Table 2, cell B2). The best outcome, renewed enthusiasm for globalisation and the benefits it offers, together with desirable Caribbean-wide development strategies (Table 2, Cell B1), appears to be beyond reach.

### **Strategies to improve Caribbean gains from the China relationship**

The Caribbean needs to develop institutions with the capacity to devise and implement regional strategies for development, if the region is to escape what, by global comparison, is an upper middle-income trap. In the UNDP's Human Development Index, the most comprehensive global measure of levels of living, the great majority of Caribbean people are listed in the "High Human Development" group, the second of four groups. (The top level "Very High Human Development" includes two Caribbean countries, Barbados and The Bahamas; Guyana is in the "Medium" group and Haiti is in the "Low" group.) The "High" group may be considered the upper middle development category. The Caribbean has made gains over the past 30 years that the Human Development Report has been published, but in no case have these gains been sufficient to improve our countries' standing in the rankings. The reasons are many, but among them is a failure to devise and implement strategies that are truly Caribbean in scope and execution.

For better or worse, the world sees the Caribbean as a single entity. Those who know our region well are aware of the rich variety of culture, skin colour, faiths, geographies, languages and endowments of the Caribbean and its peoples. But these differences are invisible to the world outside the Caribbean. Tourists the world over know the Caribbean as a premier tropical leisure destination, too many governments identify the region as a tax haven, music lovers identify the Caribbean with reggae and calypso and their derivatives, and Caribbean Carnivals (which are Trinidadian in origin) have defined the region's image around the world. The Caribbean economies thrive through international commerce, as has always been

the case, and the truth of the matter is that the vast majority of people with whom we do business think of this region as a single space. In the face of this reality of the international markets with which we interact, the region must build capacities for the actuation of inherently regional strategies, in order to attain the next level of the Caribbean's economic development.

This essay does not afford the space to fully articulate the list of strategies that should be put in place; suffice it to say that the use of the plural "strategies" is deliberate. There must be a strategy for tourism, executed by a powerful regional institution; whoever leads on the tourism strategy will do so with the Director General of the tourism institution at their side, and they will speak for the Caribbean. The members of this group will be the countries for whom tourism is a major source of foreign earnings. A different institution with different membership would be needed for a regional strategy for international business, yet another for trade and services, etc.

In this essay we are concerned with those strategies that might enhance the Caribbean's benefits from the China connection, in any state of the world. Crucial areas where a regional strategy might significantly improve the benefits from the China-Caribbean connection include transportation - air, sea, ports and airports; renewable energy; and digital commerce and payments.

The underlying structure of transportation links in the Caribbean remains unchanged from the region's colonial past. All the major links run northwards from the Caribbean to the US, Europe and Canada, and all traffic is forced through those channels. Trinidadians are used to accessing most capitals in Latin America via Miami; a flight to Miami is the most convenient way of travelling from Belize in the far West of the Caribbean to Suriname, the easternmost country in the Caribbean Community, Caricom; and when you go from Barbados to Nassau, the capital of The Bahamas, you overfly Nassau to Miami, to take a second flight from there to Nassau. The reason for these anomalies is what economists refer to as "sunk costs". The infrastructure of a large international airport like Miami, catering to 44 million passengers a year, was built over decades and its costs are recouped from thousands of customers, from airlines to retailers of all kinds. Because everyone in the Caribbean flies north, even if their destination is south, east or west, northbound routes enjoy a volume of traffic which allows them to offer lower fares and more frequent flights, thereby strengthening their hold on travel patterns.

Major investments, well beyond the capacity of most if not all countries of the Caribbean, are needed to make a lasting change in this northward flowing pattern. Investments of this magnitude are within the capability of global port and airport managers who need to take a long view of global transportation prospects, because of the long lifespan of their investment in planes, ships and facilities. There is a possibility of initiating east-west routes and frequent southern connections from the Caribbean, with a regional strategy for leasing out ports and airports to large operators with a global reach and the financial muscle to expand the facilities to become hubs in their worldwide network. The search for suitable investors would not be limited to any particular country, but Chinese companies are known to be major investors in transport infrastructure, and they could seek support of the Asia Infrastructure Investment Bank, AIIB. The potential contribution to Caribbean growth of more efficient and upscaled transportation hubs is very large, provided that negotiations are conducted by a regional authority with a mandate to ensure that the benefits are shared, and to avoid overcapacity.

A second area where the Caribbean could mount a regional strategy to increase benefits from the China connection is in renewable energy. China is the world leader in the production and use of solar photovoltaics (PV) and wind generation, and in the production and use of electric vehicles. The immense scale of China's production capacity makes it the most affordable source of supply of equipment and

expertise. Deliberate strategies to provide incentives and finance where necessary in order to accelerate the adoption of renewable sources of energy would increase the benefit of buying from China. Such policies might be pursued at the national level to good advantage, and although regional cooperation would likely bring synergies and enhance the benefits, a regional strategy for renewables is not essential. What is clear, however, is that no country has in place a credible, actionable long-term strategy for renewables. As a result, the Caribbean is failing to realise potential gains in this area.

The Caribbean is among the regions hardest hit by the global phenomenon known as "de-risking," the withdrawal of correspondent banking facilities for the conversion of other currencies into US dollars. This business, which was at one time a lucrative source of income for international banks, has become a potential threat to the capital value of an entire bank, out of all proportion to the returns that might be had on what, for the international banks involved, was an insignificant share of the business (Brei, Cato and Worrell, 2020). Digital currency and payment arrangements for international transactions in a variety of currencies would seem to offer a feasible alternative for countries and companies who find it difficult to complete international transactions because of the loss of suitable arrangements for the transfer of funds. Although no digital facility of international stature is currently available, the international financial community is awaiting the announcement of official digital currencies by several leading central banks, foremost among them the People's Bank of China. The provision of a digital RMB, for payments worldwide, might well offer universal access to a means of payment for affordable Chinese products, a major benefit to consumers everywhere.

The benefit to the Caribbean from the Chinese connection would also be enhanced by the complete replacement of the local Caribbean currencies by US dollars for all transactions. I have shown (Worrell, 2019) that the countries with local currencies that have lost value against the US dollar will have seen an increase in income inequality, because residents in the higher income brackets typically have access to US dollars, and can therefore preserve the value of their savings and maintain their purchasing power. This option is not open to the lower income groups, and as a consequence, the gap between the income groups widens. Full dollarisation would arrest the deterioration of income distribution, something which would, in and of itself, improve the material wellbeing of Caribbean societies, and enhance the benefit the region receives from all international transactions, including with China.

## **Conclusion**

The most substantial benefit to the Caribbean from the relationship with China has been via the diffusion of Chinese products throughout world markets, including this region. The purchase of more affordable products from China has afforded the Caribbean additional imports that may be of the order of five to ten per cent, compared with what the same money would have bought from alternative sources. This benefit may not increase in the future, and may well decline, if the anti-globalisation sentiment now sweeping across many Western nations is not reversed in the near future, and the region's access to Chinese products is reduced. By comparison, the benefits from Chinese investment in the Caribbean, and from exports to China and Chinese tourism, while not insignificant, are much less substantial.

Going forward there are strategies the Caribbean may put in place to ensure the region continues to gain greater benefit from the Chinese connection, even in the face of Western anti-globalisation sentiment. This essay offers four suggestions. Firstly, the Caribbean should consider a regional strategy for sea and air transportation and for the development of large international ports and airports throughout the region, to be operated by leading international companies as part of their global network. This would not only

bring substantial new business to the Caribbean, it might in time also contribute to the development of east-west transportation links, and to direct links with Latin America.

Secondly, Caribbean nations should put in place fully articulated strategies for a switch to renewable sources of energy, with specific targets, action plans and monitoring. The renewable energy strategies would gain by sourcing materials and expertise from China, the world leader in solar PV, wind turbines and electric vehicle production and use. A third area of promise has opened up with the growing worldwide interest in digital currencies, most importantly for use in international payments. The development of central bank digital currencies could be crucial in maintaining and improving the access of Caribbean populations to external trade and commerce, opening markets in which it is difficult to do business directly at the moment. The People's Bank of China is said to be in the forefront of the development of a digital RNB, which ought to give easier access to the Chinese market. Fourthly, the Caribbean countries should all use the US dollar reserves to retire all the notes and coins issued domestically, and convert all local currency assets and liabilities to US dollars at the currently prevailing exchange rates. This would eliminate troubling exchange rate uncertainty and create a single currency economic space within the region that would be more conducive to foreign investment, including investment from China.

In sum, the greatest benefit to the Caribbean comes from the worldwide diffusion of the gains from Chinese productivity, gains which are under threat from the surge in Western sentiment against globalization. The stronger and more persistent the anti-globalisation tide, the more the benefits of the Chinese connection are attenuated. However, Caribbean strategies for transportation upgrades and investment, renewable energy adoption, use of digital currencies and universal use of the US dollar offer promise of reaping benefits for the Caribbean from the China connection in the medium to long term, even in the face of Western isolationism.

### References

- Brei, Michael, Lauren Cato and DeLisle Worrell, 2020. "Credibility, reputation and de-risking in global banking: evidence from a theoretical model," *Journal of Globalization and Development*, February 19.
- Bernal, Richard, 2013. "China's rising investment profile in the Caribbean," *Inter-american Dialogue*, October.
- PV-magazine*, 2019. EU Spot Market module prices by technology, May, *pv-magazine.com*, downloaded July 15, 2020.
- Ren, Hongsheng, 2019. "One Belt, One Road and the development of the Caribbean region," Confucius Institute Lecture, January 2019, available at *ABCF-BB.com*.
- US Department of Energy, 2012. "Photovoltaic (PV) pricing and trends: Historical, recent and near-term projections," *Sunshot*, November.
- Worrell, DeLisle, 2019. "The time has come to permanently retire all our Caribbean currencies," Working Paper, May, *DeLisleWorrell.com*.

## Appendix

### Economic Impact in the Caribbean of "Made in China;" selected Caribbean countries

Data source: ECLAC Statistical Yearbook 2019

US\$b	DR 2017	T&T 2015	Ja 2017	Bahamas 2015	Guyana 2018	Barbados 2017
<b>GDP nominal</b>	80	25.06	15.71	11.75	3.88	4.98
<b>Imports</b>	17.7	8.6	5.15	2.95	2.01	1.83
<b>Consumer imports</b>	5.1	1.56	1.48	1.1	0.39	0.59

### SCENARIOS

#### % of C-imports "Made in China"

<b>80</b>	4.08	1.25	1.18	0.88	0.31	0.47
<b>65</b>	3.32	1.01	0.96	0.72	0.25	0.38
<b>50</b>	2.55	0.78	0.74	0.55	0.20	0.30

#### % of all imports made with Chinese products

<b>80</b>	14.16	6.88	4.12	2.36	1.61	1.46
<b>50</b>	8.85	4.30	2.58	1.48	1.01	0.92
<b>10</b>	1.77	0.86	0.52	0.30	0.20	0.18

#### Price advantage of "Made in China," impact on C-imports, 65% Made in China

Cost from alternative sources if China price advantage is:

<b>10%</b>	3.65	1.12	1.06	0.79	0.28	0.42
<b>30%</b>	4.31	1.32	1.25	0.93	0.33	0.50
<b>50%</b>	4.97	1.52	1.44	1.07	0.38	0.58

#### If Chinese price advantage is 5%, and 50% of imports have Chinese inputs

Cost of imports using non-Chinese inputs would be:

<b>Alternatives</b>	9.29	4.52	2.70	1.55	1.06	0.96
---------------------	------	------	------	------	------	------

#### Benefit of buying Made in China + imports with Chinese inputs, if:

65% of consumption imports are Made in China, with a 30% price advantage +

50% of all imports are made with Chinese products, with a 5% price advantage

<b>= US\$b</b>	1.44	0.52	0.42	0.29	0.13	0.16
<b>% of imports</b>	8.1	6.0	8.1	9.8	6.3	8.8