American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS)
ISSN (Print) 2313-4410, ISSN (Online) 2313-4402

http://asrjetsjournal.org/

China's Expanding Province in Caribbean Affairs: The Drivers of Port Infrastructure Development in the Caribbean Community under the Aegis of the 21st Century Maritime Silk Road Initiative

Serena Joseph-Harris*

The China-Caribbean Observatory Sirius International Caribbean Defence Contractors Ltd. Port of Spain, Republic of Trinidad and Tobago

Email: josephharrisserena@gmail.com

Abstract

Port infrastructure and its affiliated services are the key drivers of economic growth particularly when consideration is given to the reality that over 80 % of the world's merchandize trade by volume is transshipped by sea. The status quo is especially relevant to Member States of the Caribbean Community (hereinafter, CARICOM). First and foremost, this region is comprised mainly of island states. Secondly, it is nestled at the intersection of the world's primary North-South and East-West trade flows making it a key maritime highway. Thirdly, it is home to roughly 351 ports, 15 oil refineries and 51 tank terminals while hosting three separate categories of ports - specialized ports that cater for single commodities; public ports which are open to all types of cargo, and by no means the least, transshipment centers. Of late, increasing demands have been placed on the region's port communities by the booming cruise ship and yachting industries. Nonetheless, despite the exceptional geographic providence of the region, across-the-board low growth rates, fiscal stress, elevated debt levels, and declines in international reserves have placed serious constraints on the economies of CARICOM Member States. Most importantly, inherent structural gaps in port infrastructure in tandem with the undercapitalization of port facilities have been identified as key constraints to trade performance impeding investment opportunities. The Maritime Silk Road Initiative (MSRI) promoted by China which is an integral component the country's 'Go Global' policy is an ambitious trans-regional scheme that is specially configured to promote interconnectivity and economic agglomeration which are critical imperatives among Caribbean Community members at this juncture. What's more, MSRI has a heavy infrastructural dimension. This study argues that MSRI holds reciprocal advantages for China and the Caribbean Community.

----

* Corresponding author

Among the advantages is development of port communities in the region which will fulfill China's relentless drive for trade promotion, strengthened connectivity, access to strategically key resources, as well as enhanced regional and global competitiveness given the region's proximity to the United States and Central and South America. The Chinese business model on which MSRI is built guarantees client governments ease of access to funding while building their respective domestic infrastructural capacities: Chinese ground plans typically take the form of closely coordinated projects facilitated by clusters of inter-related state-controlled corporations and Chinese policy banks which are reputed for high-speed delivery untypical of Western multilateral bodies like the World Bank. The study concludes that if judiciously managed by Caribbean governments, port infrastructure development under the aegis of the Maritime Silk Road Initiative holds transformative potential for the region in light of the dire need for investment, diversification and trade facilitation which are indispensable to economic take-off.

Keywords: China; Caribbean; China-Caribbean Economic Relations; Maritime Silk Road Initiative; port infrastructure development; Caribbean strategic sectors; China-Caribbean Observatory.

1. Introduction

The People's Republic of China (hereinafter China) has shown itself prepared to plough exorbitant sums of money into projects on a large scale to develop infrastructure, trade, and critical aspects of connectivity in the Caribbean Basin despite the fact the Caribbean and Latin America (excluding Mexico) account for a mere 6.7 percent of its global imports and 4.17 percent of its global exports. Capital flows from China into Caribbean countries have been primarily in the form of aid for the purpose of funding infrastructural projects built by Chinese enterprises [1]. In what would appear at first glance to be contradistinctive, foreign direct investments received by China originate from three main sources – the Association of Southeast Asian Nations (ASEAN), Japan and the Republic of Korea. In combination, these accounted for an estimated 14 % of FDIs as of 2007 - 2008, at the height of the global economic crisis. This was regarded as considerable in light of the fact that: (i) around 4 % to 6 % of total FDIs during that period came from North America and the European Union; (ii) 2 % came from Taiwan Province of China; and (iii) 4 % came from Hong Kong Special Administrative Region of China. Thus, the ASEAN countries were the major sources of inflows to China. The Caribbean and Latin America, on the other hand, were the second largest major sources of FDI inflows, having contributed roughly a quarter of the total in 2007 – 2008. By the same token, it should be noted that 99 % of this latter investment originated from the British Virgin Islands and the Cayman Islands, which are tax havens [2]. In reality therefore, the Caribbean and Latin America account for less than 1% of FDIs going to China averaging between USD $70-$80 million, with Argentina, Brazil and Mexico accounting for the largest share. This leaves the Caribbean Community's share as a portion of FDIs to China as negligible by all accounts. Furthermore, notwithstanding the fact that trade agreements in the Caribbean Community have fallen short of creating the necessary demand pull for broad-based rationalization of resource allocation, diversification of production, and expansion of goods exports, Chinese investments in this part of the hemisphere have galloped away between 2005- 2020 [3]. The countries comprising the Caribbean Community (CARICOM) cover an area of roughly 177.000 square miles and have a total population of 18 million. Formed in 1974, CARICOM is a collective of Caribbean nations and dependencies in and around the Caribbean Sea, most of which emerged from a British colonial history. It comprises 20 countries of which 15 are full members and 5 are associated members. Among its full members are 14 independent states: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. The remaining full member state, Montserrat, is a British dependency. Most CARICOM members are island states, while Belize is located in Central America and Guyana and Suriname in South America. Among the significant geopolitical features of this grouping is its proximity to the United States as a' third border,' continental actors in Latin America and the interests of European powers such as the British, French and Netherlands which maintain a territorial presence in the form of dependencies, and in the case of France, 'departments'. Exports from CARICOM are precariously built on very few and select primary products making the economies in this part of the world especially vulnerable to external shocks, in particular, global fluctuations in commodity price and perennial tropical cyclones. Furthermore, notwithstanding the active embrace of trade liberalization policies, the adoption of free trade agreements, partial scope agreements, and preferential trade arrangements by Caribbean governments and despite being endowed with relatively open economies to facilitate such negotiated arrangements for over three decades service and goods exports declined in competitiveness with respective trade partners. A stocktaking of regional infrastructure needs (Bahamas Barbados, Guyana, Jamaica, Suriname and Trinidad and Tobago) which was undertaken by the Inter-American Development Bank (IADB)in 2019 discloses that the lack of quality and updated infrastructure and interconnectivity are key factors constraining trade and competitiveness among CARICOM members. This was attributed to the uneven coverage of infrastructural stock and the under-capitalization of critical supporting infrastructure and connectivity such as electricity, ground transportation, information technology and telecommunications [4]. Qualifying this finding are the observations emanating from the World Bank flagship publication "Doing Business 2020," which noted that no economies in the region ranked among the top 50 in the world on the ease of doing business; neither did CARICOM economies feature in the top 10 improved list over the past two years. China, on the other hand, has grown exponentially to become the largest merchandize exporter in the world apart from becoming the world's second largest economy based on IMF purchasing power parity (PPP), having seized a handsome share of over 14 percent of global exports. Moreover, China has registered an unprecedented number of signature projects in CARICOM over a fifteen-year period in a broad array of areas particularly infrastructure, agriculture, health, and education. In point of fact, the economic titan maintains a progressively widening trade deficit with CARICOM which, given International Trade Center calculations, remains overwhelmingly in its favor [5]. Having regard to these noteworthy asymmetries, why then is China attracted to the Caribbean region and why are Chinese authorities – the Government, State-controlled corporations and private enterprises - prepared to throw their weight behind investments in port infrastructure and closely related investments? The propensity towards deepened trade and economic ties with Caribbean nations is consistently iterated the public pronouncements of President Xi Jinping himself and many high ranking P.R.C. officials including the Chinese Foreign Minister Wang Yi. Yi stated that China views the Caribbean 'from a strategic height and long-term perspective,' in identifying the subregion as a natural extension of the global 21st Century Maritime Silk Road (hereinafter 'the MSRI'). Adopting an empirical methodological approach which exposes potentially incriminating indices that underscore marked structural gaps in quality infrastructure, economic growth, public debt fiscal consolidation, trade concentration, the dispersed nature of Caribbean Community economies, substantive cross-country differences, and a disproportionate dependence on external markets, this enquiry argues that the MSRI is mutually reinforcing in respect of Chinese and CARICOM interests, especially so, in the spheres of port infrastructure development. The MSRI comprises an elaborate and complementary package of mega projects that are in alignment with China's long-term strategic goals and buttressed by vehicles for the financing of development loans – a facility that regional banks and traditional Western lending institutions appear not to have satisfactorily addressed. What's more, the initiative capitalizes on the Caribbean's distinctive geographical providence - a maritime environment at the crossroads of East-West and North-South trade flows as well as a shared economic space, the latter anchored in the provisions of the Revised Treaty of Chaguaramas which enunciates the obligations among Member States under common market arrangements. These explain China's proclivity toward heavy investments in port development infrastructure at strategic nodes along the archipelagic chain of island states comprising CARICOM, stretching from the Commonwealth of the Bahamas in the northernmost parts to mainland Guyana, in the southward extremity.

Table 1: Rankings of CARICOM Member States, World Bank Business Report 2020

CARICOM Member States	Doing Business 2020 Rank
Jamaica	71
St. Lucia	93
Trinidad and Tobago	105
Dominica	111
The Bahamas	119
Barbados	128
St. Vincent and the Grenadines	130
Guyana	134
Belize	135
St. Kitts and Nevis	139
Grenada	146
Suriname	162
Haiti	179

Source: World Bank Business Report 2020, Caribbean Trade Law and Development

Admittedly, foreign policy, defence and security considerations of participating Member States is a key driver that informs their engagements with China and have an incontrovertible role to play in Chinese investments monetary and otherwise, in the Caribbean Community. Concurrents such as these,which underpin Beijing's geostrategy and are germane to the concerns and interests of traditional hegemons in the hemisphere like the United States and the European Union, lie beyond the core strands of the present enquiry. Given these considerations, it is reasonable to surmise, all things equal, that port infrastructure development in the region over the near to medium term would continue apace, more so, in light of Beijing's stepped-up diplomacy in the form of elevated institutionalized dialogue with the region's political elite. The trend hit a series of high spots between 2018 and 2019 with the signing of Memoranda of Understanding (MOUs) for the Belt and Road Initiative (OBOR) in close succession by Trinidad and Tobago (May 2018); Antigua and Barbuda (June 2018); Suriname (July 2018); Guyana (July 2018); Grenada (September 2018); Dominica (2018); Barbados (February 2019); and Jamaica (April 2019). The substantive arrangements under these agreements which are mirrored in the CELAC - China Joint Plan of Action on Cooperation in Priority Areas (2019-2021), and signal deepening ties between China and Caribbean partners. The main conclusion of this study is that port infrastructure development advances the mutual interests of China and Caribbean Community members [6].

2. Foreign Direct Investment Flows

The last three decades have witnessed a surge in global foreign direct investments FDIs) hand in hand with heightened interest in FDIs as a source of economic activity. Illustrative of this, between 2000-2016 the share of FDI stock to global GDP increased from 22 % to 35 %. This escalation has far-reaching ramifications for origin and destination countries in terms of economic growth, productivity, wages and employment. Furthermore, the expansion of multinational enterprises and related FDI flows has given rise to complex cross-border production chains which also have important implications for source and destination countries. A third notable trend is specific types of shifts being experienced in the FDI landscape. For example, from the 2000s onward evidence suggests that FDIs and exports have been operating not as opposing factors but as complementary strategies that are adapted to serve foreign markets. Illustrative of this China's regulatory framework, as argued by Sauvant and Chen, serves as an inducement for off-shore direct investments to enable firms to be more internationally competitive, since consistent with state policy, China's regulatory framework has transitioned from restricting off-shore investments to supporting them [7]. It is projected that the future of the MSRI would be contingent to economic and political determinants of host/participating countries. The author in [1] noted that capital flows from China into the Caribbean have been escalating, are heavily concentrated in infrastructure projects and enjoy a high level of state involvement by the Chinese government. The Chinese government has adopted a range of business schemes which are directly managed by state-owned enterprises operating in tandem with Chinese policy and commercial banks, medium-sized multinational enterprises (which comprise an estimated 99 % of businesses in China) and, more recently, private companies which are benefitting from a newfound level of visibility. The latter development comes on the heels of a massive anti-corruption crackdown spearheaded by President Xi Jinping himself, an offshoot of which was the departure of thousands of high ranking state officials from large corporations that were being purged of corrupt practices.

3. Layout of the Study

This study is arranged as follows: Introduction which is segmented into Materials and Methods - Premise of the Enquiry, Statement of Hypothesis, Previous and Ongoing Studies, Limitations of the Study, and Theoretical and Empirical Considerations. Part I, entitled, "Overview of China's Silk Road Economic Belt and Maritime Silk Road Initiative" provides a description of the impetus behind China's "Go Global" (*zu chuqu*) push and its formal inauguration under President Xi Jinping. It describes China's trade portfolio and the extent to which it is skewed in favor of Asia- Pacific jurisdictions. This section of the study considers the systemic challenges confronting Caribbean economies that underscore the need for urgent intervention through long-term planning and prudent capitalization. It also elaborates on the importance of the maritime domain, port infrastructure development, port specialization and logistics as crucial vectors for trade promotion, economic development and transregional partnerships. Part II focusses on the providential aspects of the region as a maritime hub housing principal North South and East West maritime highways and complex interrelated layers of transshipment networks. It describes the key drivers of trade in the Caribbean Community and the imperative to match these trade flows with systemic gaps in port infrastructure requirements. In essence, this calls for a port community mindset which host governments appear to be gravitating toward, as reflected in their respective long-term national development plans, which are carefully chronicled. Reciprocally, China's business model, as reflected in its ground plans in the region, reflects a proclivity towards undertaking clusters of coordinated and interconnected projects all of which are heavily capitalized by Chinese policy banks and state-controlled corporations. This is followed by Results, Conclusions, Acknowledgements and References.

4. Materials and Methods

Premise of the Enquiry

The premise of this enquiry is that the free movement of goods, services and information rapidly, reliably and cheaply across borders (i.e. the bulwark of supply chain logistics) facilitates trade, development. and competitiveness. This premise explains the all-important concern among Caribbean Community Member States to aggressively pursue port infrastructure development. Foregrounding this study are three pertinent factors. The first factor evolves around the advantages of geographical 'location' and the implications of 'island state' status. The second factor pivots around the economics of trade. The third factor is circumscribed by logistics, i.e. the quality, affordability and availability of vital support services inclusive of shipping, ports and related maritime services and how these intersect with economic realities in contributing towards an efficiently operated port community [8]. Location and Island State status: Being mostly island states, the trade of Caribbean countries is conducted primarily by air or ship and the latter is by far the more dominant means of transport. In fact, CARICOM members depend to a greater extent on transport for economic survival that other countries in Latin America and the Caribbean and this dependency relates as much to exports as it does to imports. This includes the transportation of goods for private consumption as well as commodities essential to support the provision of services such as tourism as the mainstay of many economies. In turn, the costs of transportation of goods is affected by the distances to be travelled and the. nature of cargo along with other factors that are location sensitive as for example port dues, tariffs, the waiting period at seaports, freight rates, insurance premiums as well as inland transport costs. Economics: World Bank studies have established firstly, that there exists s a negative relation between foreign investment and transport costs and implies that maritime transport services would lead to more foreign investment; secondly, that maritime industries and services provide taxable income and employment but that the protection of these industries from foreign investors could lead to less efficient transport and the dampening of trade, underscoring the benefits of liberalization; and thirdly, that diversification (which incidentally is the goal of many regional governments seeking to reduce dependency on too few commodities) could lead to increased unit costs since the use of specialized cargo to take ships to a final destination is more efficient than general cargo taking a variety of products to transshipment centers.

Logistics: The third factor foregrounding this study relates to the quality of logistical needs at ports region-wide. On this score, the Inter-American Development Bank had undertaken of port infrastructure facilities many decades ago on which it based specific recommendations for upgrades. To date, most of these have not been fully addressed. A few are itemized herein: Barbados: increased berthing and storage space, and a new Ro Ro facility; Guyana: dredging, navigational aids, container facility, general upgrading; Jamaica: expanded container facilities in Kingston (which has since been addressed); St Kitts and Nevis: port expansion; Suriname: roofing for sheds, asphalting of quays, dredging, container facilities; Trinidad and Tobago: modernization of Port of Spain's capital stock and waterfront development. Currently, the shipping services in CARICOM consist of four main groupings that operate simultaneously and complementarily; inter-island transport undertaken by small tramp vessels; short sea-shipping which connects the islands; deep sea shipping, which uses larger vessels to transport cargo directly from the Caribbean to Europe, Asia and farther regions; and fourthly, shipments of non-Caribbean cargo which pass through the Caribbean due to the location of the region at the crossroads of major transcontinental shipping routes. Taken in totality, the above factors underscore the importance of maritime transportation, its relevance to Caribbean countries and the importance of ports and shipping arrangements as vectors for successful trade. The study argues that the MSRI holds reciprocal benefits for China and Caribbean Community Member States. The factors also underscore the logic that less expensive transport fuels more foreign trade. MSRI comprises a network of trans-regional economic corridors emanating from the Asia Pacific region across continents and is poised to provide a platform for Caribbean Community member states while addressing infrastructural deficits and mobilizing capital flows that are vital to long-term investment. For this reason, there are geopolitical and geostrategic ramifications for this mega-project which is commodiously aligned with the China – CELAC Joint Plan of Action for Priority Areas (2019 - 2021). Under this intergovernmental arrangement partner nations of the Caribbean and Latin American counterparts have institutionalized their dialogue and jointly committed to: (a) promoting cooperation in infrastructure between CELAC and China in terms of design, connectivity, execution of work, operations and administration; (b) fostering cooperation and investment in sectors such as railways, roads, ports, airports, logistics systems, information and telecommunications technology, electric power etc.; and (c) participating in priority projects that favor the integration of Latin American and Caribbean community and interconnectivity between States of CELAC and China, respectively, through already existing mechanisms.

5. Statement of Hypothesis

The central hypothesis of this study is that China's 21st. Century Maritime Silk Road Initiative holds considerable transformative potential for Member States of the Caribbean Community that is mutually reinforcing, if judiciously managed. Two critical push factors are driving this endeavor - geographical providence and economic necessity. The Caribbean is home to three layers of transshipment networks made up of global transshipment hubs, regional hubs and service ports that support a dense network of shipping linkages at the crossroads of East-West and North-South maritime corridors. However, in parallel with this, incriminating indices emanating from the World Bank and IMF paint a daunting picture of economic under-performance, persistent public debt, fiscal stress, and substantial port infrastructure deficits. Key to the success of China's grand scheme is the efficiency of supply chain logistics and interconnectivity underpinning the region's port system. This underscores the high priority to port infrastructure development assigned by the respective governments. Using empirical evidence, and drawing illustrations from country experiences and relevant United Nations ECLAC surveys, the paper concludes that port infrastructure investment is a promising area for present and long-term economic cooperation between China and Caribbean Community Member States and holds reciprocal benefits. One such mechanism is the United Nations Sustainable Development Goals 2030, specifically Goal No.9 under which the wider international community committed to global cooperation in the spheres of infrastructural development of transportation facilities and supporting connectivity like telecommunications which were at uneven stages of development in many developing countries [9].

6. Previous and Ongoing Studies

The global dominance of a non-Western nation has literally shaped the meta narrative surrounding China's ostensibly imposing presence in strategically significant parts of the Western Hemisphere. A less discussed component of the narrative, however, is the role of the Caribbean Community in China's widening sphere of influence in the West. Not surprisingly, a substantial amount of focus has been placed by occidental scholars on juxtaposing China's meteoric rise and expansion across regions against Western interests more so, the United States. For this reason, the Caribbean has remained peeripheral in emerging scholarship and confined to monographs and featured articles that appear to be a knee-jerk response to each major milestone the Asian giant is perceived as making. Seminal works such as. Martin Jacques's far-sighted opus, "When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World" have argued that China's rise signals the end of the dominance of Western countries and a reversion to its position of its traditional position as the center of a tributary system with an un-accompanying sense of superiority. Jacques's reconfiguration, however, fails to address China's impact on sub-regions considered to be the outliers of the United States [10]. This gap is called attention to in "The Twilight of America's Omnipresence: China's Aggrandizement in a New Era of Multipolarity", a comparative study which scans the full breadth of Chinese expansionism across regions (including Latin America and the Caribbean) and in all decisive domains, thereby setting the stage for greater depth in analysis [11]. This opportunity has not been exploited to the fullest prior to the inauguration of the China | Caribbean Observatory in 2019. The project is designed to maintain a repository of engagements between China and the Caribbean Community between 2005 moving forward, and a continuing survey of developments in strategically significant areas in this part of the hemisphere [11]. Robert Evan Ellis, faculty member at the Strategic Studies Institute (SSI) US Army War College PA), has been intellectually active for more than two decades in examining and commenting on the impact of Chinese engagements in Latin America and the Caribbean. His earliest works, "China in Latin America: The Whats and Wherefores (2013)" "The Strategic Dimension of Chinese Engagement in Latin America (2014)" and "China on the Ground in Latin America" provide an illumination of the multidimensional strands of China-Latin America relations and reflect a decidedly continental bent. Ellis considers the South American continent as a mosaic of sub-regions and analyzes economic, political, diplomatic and military components of the Chinese presence in each of these regions and how these partnerships are likely to impact on U.S. security and defence priorities. His subsequent monographs incorporate descriptive accounts of Chinese engagements in select countries of the Anglophone region, their political, economic, environmental and cultural dimensions and the potential challenges Chinese encroachment may present on the interests of the United States. Among his country-specific briefs on CARICOM members are: (i) "Suriname and the Chinese: Timber, Migration and Less Told Stories of Globalization," (ii) "Chinse Commercial Engagements with Guyana," and more recently in 2019 (iii) "China's Engagement in Trinidad and Tobago" (26 March 2019). These studies were largely expository in nature and policy prescriptions for host governments have filtered into his more recent work. Despite the contemporaneity of his research, port infrastructure development has not been addressed. Perhaps, the most proximate reference to this topic was contained in a compilation of essays, entitled, "The Strategic Dimension of Chinese Engagement in Latin America." The collection was intended to: (i) lend clarity to the strategic dimensions of how Chinese engagements were impacting on the political dynamics within and between states in the region in strategic military sectors, military to military engagements, and emerging trans-Pacific organized crime; and (ii) serve as a reference point for scholars and practitioners whose focus was on security and defence components. Although he chronicles the main elements of Chinese progression that are deemed to be strategically important sectors, his survey was confined to the extent and pace of telecommunications penetration in Trinidad and Tobago, the Dominican Republic, Cuba, Guyana, Suriname and Jamaica; the growing corporate presence of Chinese high-tech giants in the Caribbean and Latin America, specifically Huawei and ZTE; and the space architectures being established by China in countries in neighboring South America [12]. In the same context, the research focus of the Inter-American Dialogue in respect of China-Latin America and the Caribbean relations is skewed towards examining the operation of Chinese policy banks in Latin American countries and is contradistinctively sparse in its treatment of port infrastructure development. In a paper developed by Margaret Myers, Director of the Asia and Latin America Program of the Inter-American Dialogue and collegiate, Kevin Gallagher entitled, "Cautious Capital: Chinese Development Finance in Latin America and the Caribbean," the authors examine what is referred to as "the multilateralization of Chinese finance." This refers to a pattern whereby Chinese banks have partnered with multilateral banks in Latin America and the Caribbean in co-financing an array of infrastructural projects in order to mitigate possible reputational damage by applying the safeguard policies of respective partner institutions. Save and except for the inclusion of partial data on the Dominican Republic, no mention is made of CARICOM jurisdictions, let alone port infrastructure development projects [13]. Richard Bernal's study, "Chinese Foreign Direct Investment in the Caribbean,' (2016) which was undertaken under the auspices of the Inter-American Development Bank (IDB) addresses issues that are germane to the Caribbean experience in relation to China's ongoing engagements. Bernal provides a comprehensive discourse on the potential for future investment in the region, citing opportunities for the expansion of sectors such as agriculture, tourism, manufacturing, mining, infrastructure and fishing. Noting that "China has made a strong push for investment in ports across the globe and activities related to shipping and shipyards" further references to port infrastructure projects are at best cursory and confined a list of venues where the writer discerns port investment, but are which are not necessarily exclusive to the Caribbean: the Bahamas, Bangladesh, Belgium, Djibouti, Greece, Nigeria, Pakistan, Singapore, Sri Lanka, Togo and the United States (Los Angeles and Seattle) [14]. Annita Montoute, faculty member and lecturer at the University of the West Indies at St. Augustine, Institute of International Relations produced a paper in 2013 entitled "Caribbean-China Economic Relations: What Are the Implications?" Montoute's enquiry was wide-ranging and multidimensional in approach. She considers the interests and motivations of Caribbean Community Member States in engaging with China and concludes that the deepening liaison provides expanded options and greater confidence and space for governments to manoeuvre in external relations, as well as ease of access to additional sources of funding. Her key observations were:: (i) that China provides a counterweight to US and EU hegemony; (ii) that Caribbean trade with China was overwhelmingly in China's favor over the ten-year period 2001 to 2010; (iii) that development projects in Trinidad and Tobago, the Bahamas, Guyana, Barbados, Jamaica, Antigua and Barbuda exposed disparities such as the employment of Chinese workers in lieu of local labor in the construction sector and a mismatch between investments in the manufacturing sector and investments in the services sector; (iv) the steady accumulation of concessional loan funding by host countries engaging with China bilaterally; and (v) a growing trade deficit which was manifestly in China's favor.

Another key concern raised by Montoute was that engagements with the Chinese would ultimately present implications for regional integration and Caribbean foreign policy relations. Her paper was mute on port infrastructure development [15]. The U.S. China -Economic and Security Review Commission, which was created under congressional authority in October 2000 pursuant to the provisions of the Floyd Spence National Defence Act, maintains a watching brief on China's engagements in the region and how these impact on American interests. Reports of the Commission must contain a minimum of data reflecting an array of strategic components such as, but not limited to, the drivers of economic, technical, political, cultural, security, and people-to-people relations between China and other countries, regions, and regional institutions as well as the economic and security implications of Chinese direct investments and market access challenges emanating thereto. Since 2000 the Commission has submitted a range of focus reports to the U.S. Congress. These included: "China's Military Power Projection and U.S. National Interests," "A World Class Military: Assessing China's Global Military Ambitions," "The U.S. -China "Phase One" Deal: A Backgrounder," and "China's Quest for Capital: Motivations, Methods and Implications." Although the Commission noted in 2014 that Chinese companies have been involved in port infrastructure projects in the Caribbean in a likely effort to capitalize on the boost that Caribbean ports were expected to garner from the expansion of the Panama Canal (the tonnage capacity of which was expected to surge by 2025) there is no indication that the Commission is maintaining specific attention on port infrastructure projects in the Anglophone Caribbean – notably, a later report by the Commission dated 17 October 2018 itemized major infrastructure projects in Belize, Colombia, Ecuador and Costa Rica between 2000 – 2018 but excluded mention of the Caribbean.16]. In an unprecedented move, a joint session comprising two congressional committees - the Sub-Committee on Asia and the Pacific and the Sub-Committee on Western Hemisphere Affairs – was convened on September 10, 2015 for a Hearing on the topic, "China's Advance in Latin America and the Caribbean" [17]. The Congress heard the testimony of a panel of four experts on China – Latin America Caribbean relations (including this writer) on China's impressive inroads into the region politically, diplomatically, economically and militarily and the impact of these engagements on U.S. relations with its LAC counterparts. The Caribbean component of the debate relied exclusively on the indepth and comparative treatment of the topic in a recently released book entitled, "The Twilight of America's Omnipresence: China's Aggrandizement in a New Era of Multipolarity." This intervention was augmented by a monograph expounding on China- Caribbean trade relations titled, "China-Caribbean Economic and Trade Relations and Implications for the United States – The Way Ahead" [18]. Given the dynamism of infrastructural investments at that time across strategic fronts in the region, to wit - the expansion of Panama Canal, the Hutchison Whampoa project in the Commonwealth of the Bahamas and the planned although questionable construction of the Nicaragua Canal with the capability of rivalling the Panama project- and having regard to the potential of these mega projects to shape the strategic environment, this writer's testimony included a battery of proposals for the rebalancing of relations between the U.S. and Caribbean partners through soft diplomacy [17]. The groundwork was thus laid for more focused research. Lastly and by no means the least, in Fall of 2019 the China | Caribbean Observatory was launched by Sirius International Caribbean Defence Contractors Limited, headquartered in Trinidad and Tobago as a rejoinder to the dearth of focus on Sino-Caribbean investments in the Anglophone region. The Observatory hosts a curated database of initiatives being pursued by China in strategically critical sectors in the region, spanning the period 2005 to 2019. Specific to this study, it includes a checklist of port infrastructure ventures on a country-by-country basis, complemented by project descriptions, costs, funding arrangements, the status of implementation, and the extent of involvement of Chinese policy banks and state-controlled corporations in the capitalization of ventures. Notwithstanding its nascence, the facility opens possibilities for more targeted research in the future on port infrastructure development and related themes.

7. Limitations of the Study

Based on the above literature survey, research on port infrastructure development and related investment opportunities pursued by China in the Caribbean region would appear to be a relatively parched field that is less explored among Western scholars. The dynamism of such projects has not been matched by regional and country analyses or systemic studies at firm level. Moreover, it is noteworthy that where such references have been traced, they are framed in terms of the realist tradition which espouses (a) that survival and security are or should be the most important factors considered in enacting state policy; and (b) that the primary consideration in accomplishing policies and goals is anchored in the relative power of nations and states in the international arena. However, as the present paper discloses, the catalyst behind the MSRI vis-à-vis port infrastructure projects in the Caribbean is primarily economic. The situation spotlights issues such as the significant activity assumed by non-state actors in a scenario in which cooperation, and arguably conflict, have the potential of erupting from non-military and non-security related types of activity, more specifically put by commercial activities in strategic sectors For this reason, on the one hand, one group of scholars and practitioners find themselves grappling to discern points of reinforcement and divergence in the conceptual nexus between international politics and economics in seeking to explain non-military activity in the broader sweep of international affairs; on the other hand, another camp is pre-occupied with 'the security dilemma' and disposed for the most part by the realist tradition. Is there a middle ground? Most notable, completely absent in this body of learning is a post-colonial perspective that confronts the contested concerns peculiar to former colonies and emerging economies that make up the Global South. A second limitation of this study is that China does not conform to the present-day conventions of the developed world and the global polity. China's passage to modernity is sui generis. This study is forced to confront the challenge without necessarily resolving it by employing an illustrative study of a particular sector, in a particular region, within a given time frame, and from the standpoint of the role of the political economy. However, this does not resolve the core challenge succinctly encapsulated by Martin Jacques who stated: *"The problem with evaluating and interpreting China solely or mainly in terms of the Western lexicon of experience is that by definition, it excludes all that is specific to China: in short, what makes China what it is."* Herein lies a crucial paradox. Neither is the notion of the Caribbean as a geopolitical area of analysis lacking in complexities of its own. Despite the relatively small size of most countries, a perceptive understanding of the region is vital to this study and becomes apparent in making recommendations on the way forward since it must take into account the dispersal of ethnic, linguistic, economic and political diversity in the region. The Caribbean consists primarily of liberal democracies in a neighborhood shared with what is arguably the last remaining bastion of communism in the world, along with an array of territories associated with the United States, the United Kingdom and parts of Western Europe. Pervading this milieu is a culture of insularity whereby each jurisdiction – whether it be a small independent state, a colonial territory, or the province of an external power - is quick to assert its distinctiveness from the others, even within the context of conventional groupings. The situation is made more intricate given the perennial realities of inter-island rivalry, border disputes which have festered for very many years and a host of internal political features such as political leadership styles, compounded by deep-seated social stratifications based on ethnicity, class and an array of cultural nuances peculiar to each jurisdiction. All of these factors could potentially discredit generalizations. As a consequence, CARICOM has had an unyielding history of failure in achieving consensus positions on matters of regional significance, let alone undertaking effective joint action and maintaining any semblance of coherence, harmonization and credibility in the face of serious regional issues. The dilemma extends to the issue of third states and their role and impact on regional affairs with the most recent illustrations being China, and of course, the Bolivarian Republic of Venezuela. No less relevant is the fact that the Caribbean Community is located in the subregion in the world with the highest concentration of countries that maintain diplomatic ties with the Republic of China in what may be construed as a cold-shouldering of Beijing's One China policy.

8. Theoretical and Empirical Considerations

The dramatic rise in Chinese FDIs has sparked intense political, economic and developmental debates regarding active state involvement envisioned in the thesis of state corporatism. The 1998 UNCTAD World Investment report analyzed the determinants of outward bound FDIs in general and host country determinants within three broad parameters defined by (a) political determinants; (b) business facilitation; and (c) economic factors. These indices were commonly adopted by scholars in seeking to explain the international movement of capital. Other models would also be adopted. Illustrative of this, under the *industrial organizational approach*, Hymen (1976) employed an FDI typology of industrial organization in explaining internal production in the context of an imperfect market framework. The essence of his theory was that firms operating abroad have to compete with domestic firms that are in a decidedly advantageous position in terms of culture, language, and legal systems and consumer preferences, in addition to being exposed to a certain level of exchange risk. These advantages must be offset by market power i.e. firm-specific or monopolistic advantages such as patent protected superior technology, brand names, economies of scale and cheaper sources of finance. D. Nayak and R.Choudhury noted that: [18] Hymen's argument was supported by Lemfalussy (1961), Kindleberger (1969), Knickerbocker (1963), Dunning (1974), Vaitsos (1974), Cohen (1975) and others. Kindleberger's (1969) FDI model on the other hand adopted a theoretical framework for monopolistic power. He argued that the greatest chances to reap the advantages of an imperfect market lay in earning the monopoly profits. Nonetheless, he failed to describe which specific advantages a firm should focus on, whether it be superior technology, managerial expertise, patents etc. In contrast, Buckley and Casson (1976) shifted the prevailing focus on internationalization theory from country-specific criteria towards industrial level and firm level determinants. They framed their argument around (a) the measurement of profits; (b) the creation of international markets for the purpose of by-passing intermediate products; and (c) the internationalization of markets across the world leading to MNCs. Knickerbocker's (1973) oligopolistic theory for explaining FDIs hypothesized that besides the need to increase access to the host country market and utilization of host country resources. A third reason for choosing a firm's allocation was to match a rival's move. In other words, firms exhibit imitative behavior to avoid losing their strategic advantage. The authors at [18] also noted that by far the most robust and comprehensive theory of FDI was put forward by Dunning (Read, 2007) who amalgamated the major market-based models – oligopolistic and internationalization theories - and added a third dimension referred to as the *location theory* to explain why a firm is motivated to operate a foreign subsidy. Location theory addresses the very crucial issue of who produces what goods and why, and is used by researchers to understand what factors influence MNC units. Such factors would include the policies of host countries, economic fundamentals and the agglomeration of economies that accrue to firms that operate in clusters. What became increasingly apparent was that location advantages of different countries play a significant role in determining which countries play host to MNCs. According to the authors at [18], Dunning iterated the basic principle in the following words: "*OLI triad of variables determining FDIs an MNCs activities may be likened to a three-legged stool; each leg is supportive of the others, and the stool is only functional if the tree legs are evenly balanced,*" that is to say ownership advantage, internationalization gains and location advantage." Later adaptations to the foregoing theories pivoted around the contemporary challenges confronting developing and emerging economies and the proliferation of third world multinational corporations (TWMNCs). The adaptations took account of contemporaneous developments that earlier theories failed to address such as the issue of technology transfer. The underlying rationale was that as products became more familiar in foreign markets and as the markets for these products became more established, firms acted on the preference for establishing subsidiaries abroad. Modifications of the product were then made by either scaling up or scaling down in a manner amenable to consumer taste and demands. In this way, ownership advantages are retained by TWMNCs over the MNCs of the developed world based on lower overheads. TWMNCs also acquire a closer familiarity with local conditions and are perceived as less threatening to the local political and economic environment, making them more welcomed, so to speak. By the same token, it should be noted that of late with a powerful country like China, which is increasingly being perceived as dominant in the region, Chinese firms risk being perceived as a political and /or economic threat in a host country. As one of the most referenced scholars working on FDIs, Dunning proposed three FDI typologies based on the motives behind the investments of the prospecting firm. The first type is the *market-seeking* FDI, also referred to as the horizontal FDI. This prototype entails the replication of production facilities in the host country. The second type of FDI is called *resource-seeking:* this design arises when firms invest abroad in order to obtain resources not available in the home country such as natural resources, raw materials or labor. In the manufacturing sphere factor-cost considerations are of paramount importance in such a scenario. Furthermore, vertical or export-oriented FDIs would find themselves relocating parts of the production chain to the host country. The availability of low-cost labor is logically a prime factor for export oriented FDIs in the resource sector such as oil and natural gas and a feature that is particularly attractive in the host country. The third type of FDI is called *efficiency seeking* and is employed where the firm can gain from the common governance of geographically dispersed activities taking advantage of economies of scale and scope. Bernal (2016) adopted an expanded version of Dunning's model to analyze and explain China's FDIs in the Caribbean in parallel with the growth phenomenon of third world multinational companies employing a five-category typology comprising the following drivers - raw material seeking, market seeking, efficiency seeking, asset seeking and debt recovery. The last driver, debt recovery, arises when a country agrees to provide an asset in preference to the repayment of a debt, in cash. The authors at [18] have acknowledged that most of China's global FDIs have been in raw material and market seeking and to a lesser degree, in efficiency and strategic asset motivation, as argued by Dunning 1981; Dunning, 1993; and later Bernal, 2016. The authors at [18] have also argued that Chinese firms identify markets guided by political, economic, cultural and other complex aspects, as represented by Quer, Claver and Riender, 2012 and their objectives are essentially to gain global sustainable market share and advantage within a short space of time as per Rui and Yip, 2008. Regarding the Caribbean, while the small size of any single country may prove to be a deterring factor in FDI determinants and investors would be less likely to be enticed by markets lacking economies of scale and scope, they would be inclined to gravitate to the region on the basis of geographical considerations since in addition to being endowed with a proliferation of deep-water ports, the region is an ideal bridgehead between the Middle and Far East and lucrative markets in North, Central and South America. If anything, this spotlights the pivotal role of geography and connectivity. Insofar as FDI theories go, macro-FDI theories have tended to emphasize country-specific factors and are skewed towards trade and international economics. Micro-FDI theories on the other hand, as articulated by Dunning and his camp are firm-specific, address ownership and internalization benefits, and lean towards industrial economies and market imperfection bias. China is a developing country that transitioned at an exponential pace that was virtually unprecedented, from a centrally planned system to a market-oriented economy modelled along state monopolistic capitalism, and sui generis in every respect. However, the absence of a generally accepted theoretical framework for explaining FDIs has led researchers to rely almost exclusively on empirical evidence in explaining the emergence of FDIs and their spin-offs such as production and trade flows. For this reason, the present enquiry relies on empirical evidence in building the argument and drawing conclusions. Like Nayak and Choudhoury, P. Makoni undertook a chronological survey of FDI theory in her thesis, “An Extensive Exploration of Theories of Foreign Direct Investment.” She concluded that there was in fact no single superior theory of foreign direct investment that comprehensively explains FDIs; nonetheless since theory provided a grounding for further work, the history of classifications addressed in her article could be referenced by scholars for future work [19]. A second theoretical consideration evolves around the virtual absence of current theorizing on the role of Chinese corporations (as distinct and apart from private firms) in promoting and enabling FDIs in respect of which institutional theory dominates. What is now needed is a multi-theoretical view that encompasses a political-economic approach to address the role of the Chinese government. In the given context, the role of the state is evident in that the majority of China’s OFDIs is conducted by state-owned entities which account for approximately 80 % of Chinese cumulative investment stock (UNCTAD, 2013). This level of state dominance means that a mixture of political and commercial interests governs Chinese investment decisions. This is a crucial component in the discussion if only because state ownership creates a political affiliation of Chinese MNEs with their home country and increases the corporation’s resource dependence on the home country’s institutional constituents. The dependence in turn along with political perceptions and influence fundamentally shapes the investment patterns and motives of Chinese state-owned entities. In terms of future research prospects, a more fruitful research stream can be opened to examine to what extent Chinese state ownership might advance theories of FDI. A third theoretical consideration pivots around the insufficiency of the existing strands of Realism and Liberalism to interpret China’s internationalization efforts, despite the fact that both theories offer invaluable insights into possible interpretations of China’s expansion across regions. Realist theory, on the one hand, focusses on the pursuit of power and security in an international anarchic system whereby self-interested sovereign states as central actors in the world system compete in a zero-sum environment to achieve relative gains. Its proponents like Hans Morgenthau and Kenneth Walz, for example, tend to have a pessimistic outlook premised on the selfishness of human nature and the anarchic character of the international system. In their estimation, states as the central actors in the international system fail to cooperate. Their survival depends on a struggle for power and authority, often leading to conflict. But Realist interpretations tend to rely on historical analogues and fall back on the proverbial Thucydides Trap… *it was the rise of Athens and the fear that it inspired in Sparta that made war inevitable*. Liberalism like Realist theory has many strands, the most compelling of which appears to be notions of 'interdependence' and 'democratic peace' explored by scholars such as Michael Boyle and Andrew Moravcsik. Its protagonists believe more optimistically that conflict can be mitigated through cooperation and that states are not necessarily the central actors in world politics. Individuals, groups, intergovernmental bodies, and NGOs have an influence on states and this leads to absolute gains. The notion of 'international institutions,' 'democratic peace,' and 'interdependence.' Interdependence, economic interdependence, is arguably one of the strongest strands of the Liberalist armament. The concept which is about "the sensitivity of economic activity between multiple nations in relation to economic developments with these nations" as argued by Cooper (1972) is suggestive of a two-way /symbiotic relationship that diminishes the possibility of conflict. This is particularly relevant to the China-Caribbean interplay whereby trade interaction and the increasing number of FDIs are becoming progressively intertwined. Furthermore, China's internationalization presents a number of unique features that lack historical antecedents. Accordingly, this area also provides opportunities for extending existing theories that seek to explain the manifestations of motivations among international actors.

Part I

1. Overview of China's Silk Road Economic Belt and Maritime Silk Road Initiative

In 2013, Chinese President Xi Jinping launched the Silk Road Economic Belt and the 21st Century Maritime Silk Road, collectively referred to as One Belt One Road (OBOR), China's most ambitious foreign policy initiatives in modern time. OBOR is a geopolitical project with a heavy infrastructural dimension [20]. The Silk Road Economic Belt is the land-based segment of the project and has a decidedly domestic focus. Its immediate aims are to connect China's underdeveloped hinterland and rustbelt to the less developed regions of neighboring countries. The area includes China's north-east and south-west provinces inclusive of restive Xingliang - the main source of domestic terrorism in China. The second segment, the 21st Century Maritime Silk Road (MSRI), would connect the South-East Asian region to the southern provinces of China through an elaborate network of ports and railways. Currently all of China's provinces have developed customized OBOR plans in alignment with Jinping's blueprint. Titled, "Vision and Actions on Jointly Building Silk Road Economic Belt and 21st. Century Maritime Silk Road," the plan was officially disseminated in March 2015 (two years after its initial announcement) by the National Development and Reform Commission, the Ministry of Commerce and the Ministry of Foreign Affairs. In sum, it is a mega transregional initiative with a robust geopolitical thrust which is undergirded by economic drivers. The impetus behind OBOR is manifold. First and foremost, at domestic level the initiative is intended to spur growth within China's under-developed provinces and address the chronic issue of industrial surplus capacity which was an offshoot of the government's stimulus package that was introduced at the height of the 2008 global financial crisis. One of spill-overs from that ill-fated period was mass lay-offs precipitating high unemployment levels. All of this was compounded by debt distress resulting from unprecedented levels of bad loans in the China's banking sector due to excessive overleveraging that characterized thousands of state-controlled banks. Job creation for millions of jobless and displaced Chinese nationals is therefore of paramount importance to the Chinese government. Third and equally important, OBOR initiative is meant to spur regional economic integration by speeding up connectivity in peripheral regions and beyond. The initiative promises to open six economic corridors encompassing China and Mongolia; Eurasian countries; Central and West Asia; Pakistan and other countries of the Indian sub-continent and Indo-China. The China-Pakistan Economic Corridor, for example, would connect Kashgar in Xinjing in China's far-west to Port Gwardar in the Bulachista province. Widened integration would also serve to diminish too great a reliance by China on vulnerable transportation choke points such as the Strait of Malacca. On the broader geopolitical front, OBOR was also intended to serve as a counterbalance to the now defunct Pivot- to-Asia and the Trans-Pacific Partnership (TPP) which until 2016 was aggressively shepherded by the United States under the Obama-led administration.

8.1 Geopolitical and Geostrategic Considerations

With the election of President Trump and corresponding reversals in U.S. foreign policy autographed in the emergent America First credo (effectively signaling an official retreat from traditional alliances), China took advantage of new opportunities to consolidate its epic re-emergence as a trans-continental trade titan and promote a new economic global modality extending across the Pacific into the Atlantic. This time-honored persistence in geographic economic and trade relationships – from East to West and back to the East - in pursuit of vast trade potentialities is fueled by domestic demands for increased trade through strengthened alliances and partnerships and a push for interconnectivity requiring supporting infrastructural architectures. While on the one hand, some academics suggest that the potential routes for the Maritime Silk Road could contribute to increasing tensions between China and some of its existing trade partners (Brunei, Malaysia, Indonesia, Philippines and Vietnam) an alternative school of thought is that the initiative could very well provide a means for the resolution of long-standing sovereignty-related disputes by providing an opportunity for mutual gain. This underscores the strategic components of Chinese engagements with international partners and the high stakes at hand which are interwoven into One Belt One Road. [21]. On the face therefore, much of the alarm and negative interpretations being ascribed to Chinese penetration in the Asia-Pacific and beyond that into other hemispheres could very well be misplaced, as this study will demonstrate. Indeed, the key motivations in China's assertive foreign policy go beyond strategic calculations informed by geostrategy such as long-term power projections mapped by many Western thinkers, to mundane and defensible concerns such as China's chronic social issues and domestic economic challenges which the body politic has failed to put in check. Despite its relatively modest contribution to the Chinese economy, China regards the Latin America and Caribbean market as an important node in its global outreach. This point is consistently iterated by President Jinping, high ranking CCP officials and the Chinese Ministry of Foreign Affairs. A thorough analysis of China's accelerated gravitation to Caribbean jurisdictions, particularly member states of the Caribbean Community (CARICOM), necessitates going beyond the product dollar value of imports and exports and considering the long-term economic and strategic rationality of such engagements. Consider this: in 2018, the Latin America and Caribbean market, excluding Mexico, accounted for a mere 6.7 % of China's export stock and 4.17 % of its imports with the rest of the world. In contrast China's principal trade partners remain concentrated among peripheral states in the Far-East which are its closest neighbors, namely Japan, South Kora, India, Vietnam and Singapore. The Caribbean in turn has certain advantages among which it serves as a gateway to North America and Latin America opening the door to lucrative market possibilities. A second consideration is that scholars have argued that the future of the 21st.

Century Maritime Silk Road could only be as successful as the economic performance of participating countries. This raises the issue of funding. President Jinping pledged USD $113 billion to China's New Silk Road Plan on the occasion of the formal launch on 14 May 2017 [22]. This sum was to be disbursed through the state-owned Silk Road Fund which was inaugurated in 2015 with USD $40 billion in initial capital and two Chinese policy banks which are currently highly visible in the Caribbean, namely, the China Development Bank and the Export Import Bank of China. Additionally, two multinational institutions led by China would also be contributors – the Asia Infrastructural Investment bank with a registered capital of USD 4100 billion and the Shanghai-based New Development Bank with a starting capital of USD $50 billion. Notably, China is a donor member of the Inter-American Development Bank, the Inter-American Investment Corporation which focusses on small to medium sized businesses and the IDB Multilateral Investment Fund which promotes poverty reduction programs in collaboration with the private sector of Latin America and the Caribbean. These affiliations confirm the multidimensional nature and depth of Chinese financing in the hemisphere.

8.2 Trade Concentrations and Trade Flows

This section of the paper examines current trade concentrations and flows in the Caribbean. Table1 shows the products that accounted for the highest dollar value of Chinese import purchases and the percentage share of China's overall imports by US dollar value. In 2018, China's most valued exports were electrical machinery equipment, mineral fluids including oil, computers, ores, slag and ash, optical, technical and medical apparatus, vehicles, plastics and plastic articles, organic chemicals, gems and precious metals and copper. Of these imported goods, 59.9% were imported from Asian countries, with the European Union accounting for an estimated 17.7% of imported goods, bought from China. Smaller percentages came from suppliers in North America (9.3%), Latin America excluding Mexico but including the Caribbean (6.7%), Australia and other Oceana sources (5.7%) and Africa (4.6%). There were import increases in three specific areas only -organic chemicals which rose by 20.7% from the previous year, machinery including computers which rose by 19.3% and copper with an increase of 15.4%. A similar picture emerges when export trends are examined. Countries of East Asia are the primary recipients of Chinese exports. According to the World Trade Center, China shipped $2.294 trillion worth of products around the globe in 2018. The most valuable exports were phone system devices including smart phones, computers including optical readers, integrated circuits, computer parts and accessories, TV receivers, monitors and projectors, lamps and lighting including illuminated signs, semi-conductors and various furniture. Its top 10 exports were electrical machinery. Its top ten exports were machinery, computers, furniture, plastics and plastic articles, vehicles, knit or crochet clothing accessories, clothing, optical, technical and medical apparatus and organic chemicals. Table 2 refers. Of all the exported commodities, organic chemicals comprised the fastest growing, registering a 20.2% gain over the previous year. Second in descending order of improved exports were articles made from iron and steel which reflected a 15.6% increase followed by plastics as the third fastest growing export products, increasing by 14 % over the previous year [23]. Regarding exports 62.3% of products purchased from China were bought by importers from the United States (19.2%), Hong Kong (12.1%), Japan (5.9%0, South Korea (4.4%), Vietnam (3.4%), Germany (3.1%), India (3.1%), Netherlands (2.9%), United Kingdom (2.3%), Singapore (2%), Taiwan (2%) and Russia (1.9%). Once again, a sizeable share (47.8 percent) of exported goods were delivered to Asian countries 22.4% to North American importers, 19.1% to clients in Europe, 4.21% to Africa, 4.17 % to Latin America (excluding

Mexico but including the Caribbean), and 2.3% to Oceana led by Australia and New Zealand. Significantly, during the same period, Mexico increased its import purchases from China at the fastest rate - up by 22.9%, followed by Vietnam (up by 17.3%), India (up by 13%), Russia (up by 12.1%) and the United States (11.5%).

Table 2: China's Top 10 Imports by Product, Value and % of Overall Imports (2018)

Rank	Product	Import value in US dollars	% Share of Overall Imports
1	Electrical machinery	$521.5 billion	24.4 %
2	Mineral fuels including oil	$347.8 billion	16.3 %
3	Machinery including computers	$202.3 billion	9.5%
4	Ores, slag, ash	$135.9 billion	6.4 %
5	Optical, technical, medical apparatus	$102.5 billion	4.8 %
6	Vehicles	$815 billion	3.8 %
7	Plastics, plastic articles	$74.9 billion	3.5 %
8	Organic chemicals	$67.4 billion	3.2 %
9	Gems, precious metals	$62 billion	2.9 %
10	Copper	$47.6 billion	2.2 %

Source: World Top Imports http://www.worldstopexports.com/chinas-top-10-exports/

Table 3: China's Top 10 Exports by Product, Value and % of Overall Imports (2018)

Rank	Product	Import value in US dollars	% Share of Overall Imports
1	Electrical machinery equipment	$664.4 billion	26.6 %
2	Machinery including apparatus	$430 billion	17.2%
3	Furniture, lighting signs, prefab buildings,	$96.4 billion	3.9 %
4	Plastics and plastic articles	$80.1 billion	3.2 %
5	Vehicles	$75.1 billion	
6	Knit or crochet clothing, accessories	$73.5 billion	2.9 %
7	Clothing accessories	$71.4 billion	2.9 %
8	Optical, technical and medical apparatus	$71.4 billion	2.9 %
9	Articles of ion or steel	$65.6 billion	2.6 %
10	Organic chemicals	$59.8 billion	2.4 %

Source: World's Top Exports http://www.worldstopexports.com/chinas-top-10-exports/

8.3 Distinctions between Caribbean Economies

Trade facilitation, which involves the free movement of goods from one point to another, from one country to another, and in this context from one hemisphere to another, necessitates a composite of unique transportation arrangements that comprise the supply chain, and encompasses complex logistics. This was the central idea promoted by Pinnock and Ajagumma in their 2012 paper entitled, "Maritime Highway Corridors into the Caribbean Seas" [24]. The authors noted that trade facilitation encompasses but is not limited to customs modernization, the promotion of electronic processing of trade documents, improvement access to trade and transport information for the purpose of tracking, tracing, processing and approval, and the cultivation of local logistics competence in forwarding, tracking and freight consolidation. Another crucial point made by the authors in [24] is that given the common maritime space afforded by the Caribbean Sea, the heavy reliance on maritime transportation and port infrastructure and capitalization on geographic circumstances, is inevitable. A critical component of trade facilitation within the framework of the 21st Century Maritime Silk Road is building enormous amounts of infrastructure systems such as air and sea ports, telecommunications, roadways, industrial parks and power grids to enhance connectivity. One of the major challenges presently confronting Caribbean nations is how to connect efficiently to global supply chains and how to maximize opportunities for transshipment hubs given the high demands placed on infrastructural requisites. A second major challenge is that despite the heavy reliance of most Caribbean states on tourism and offshore banking as the primary drivers of economic activity, countries still remain disproportionately dependent on imports from North America, the United Kingdom, Canada and Europe compared with considerably lower volumes of inter- and intra-regional trade flows. The ocean as a vector for moving commodities is thus inescapable. An examination of key indices of trade performance in CARICOM economies, namely growth trends, public debt, fiscal performance, trade concentration and constraints to competitiveness lends clarity to the basis for China's prioritization of port infrastructural development in this part of the hemisphere. In terms of general growth trends, Caribbean economies grew by an average of 2.4 percent over the period 2000-2012 while subregional economies grew at an even slower rate of 1.1 percent in 2010 and 2 percent in 2013. An array of bilateral trade agreements, free trade agreements, and partial scope agreements that embraced trade liberalization and openness of economies failed to deliver on their intended results. To the contrary, the region continued to account for a mere marginal share of global (0.06 %) (1.2 %) and regional trade in 2013 [25]. Additionally, most CARICOM members have registered current account deficits over the same period. The overall regional average stood at 16.2 percent of GDP whilst that of the Eastern Caribbean States was 16.8 percent (Mc Lean and his colleagues 2014). The second component of trade performance evolves around public debt. CARICOM member states are constrained by high levels of public debt, with countries like Barbados, Jamaica and St. Kitts and Nevis all having public debt-to-GDP ratios at unsustainable levels exceeding 100 percent [26]. In the case of Belize, Grenada and St. Kitts and Nevis, attempts were made in 2012 to restructure portions of these countries' debt levels, but there is evidence that while some economies may have engaged in debt restructuring initiatives and reduced the face value of their debt, in many instances the debt stock has not contracted since maturities were simply lengthened and interest rates reduced (United Nations, 2014). The third component of trade performance concerns fiscal consolidation. The authors in [25, 26] underscore that Governments of the more indebted CARICOM economies instituted a raft of fiscal consolidation measures following the 2008 global financial crisis, which when coupled with debt consolidation commitments, resulted in the limited availability of resources for investment purposes, in building export capacity, increasing trade competitiveness and in fostering private sector development. A fourth and equally pertinent component of trade performance relates to trade concentration and the nature of commodities exported from CARICOM both intra- and extra-regionally. Employing the Herfindahl- Hirchmann Index the authors in [25] note that the production and export of Caribbean goods is more specialized in fewer products when compared with the world average, and with that of Small Island Developing States, in general. In the case of the Caribbean Community, the three top trade products accounting for 40 % to 90 % of the total products traded. Additionally, the top ten products account for 75 % of the region's exports. This implies that the region's goods exports are precariously built around a few primary products making the economies particularly vulnerable to external shocks such as commodity price changes. What is equally notable is that few CARICOM economies can be classified as good producers: Belize (sugar, citrus, bananas, petroleum); Guyana (sugar, rice, bauxite, gold, alumina); Jamaica (aluminum and bauxite); and in the case of Trinidad and Tobago (oil, chemicals and natural gas). The service sector, on the other hand dominates most of the smaller and larger number of economies and accounts for over 70 % of their economic output: Bahamas (76.5 %); Barbados (81.7 %); Dominica (70.7 %); St. Kitts and Nevis (74.2 %); St. Lucia (73.2 %); St. Vincent and the Grenadines (73.5 %); and the OECS (75.6 %). The fifth component in relation to trade performance, iterated by the authors of [25] (which is a in effect a subset of the fourth component) is the fact that CARICOM export commodities are disproportionately dominated by extra-regional markets in North America and Europe including the United Kingdom, while intraregional exports account for a mere 15 % of the total and amounts to 25.7 % if Latin America were included. This implies that exports from Latin America comprise a sizeable proportion in CARICOM trade flows although as a whole trade with the more developed countries dominates the region. As a consequence of the aforementioned factors, trade agreements whether they be bilateral, free trade or partial scope along with the lack comparative advantages have failed to create the demand pull necessary for broad-based rationalization of resource allocation, for the diversification of production and for the expansion of goods exports. Not surprisingly, a key conclusion emerging from the 2015 ECLAC-commissioned study authored by Mc Lean and Khadan was: "*It would appear that inherent structural gaps particularly in the areas of quality infrastructure, interconnectivity, productivity, and competitiveness have limited the ability of Caribbean economies to transform domestic production systems and increase trade competitiveness"* It should also be noted that during the post financial crisis period after 2008, when some of the region's more indebted economies began a phase of fiscal consolidation which when coupled with debt repayments, this course of action actually limited the quantity of resources available for investment and building export capacity, increasing trade competitiveness and fostering private sector development. Compounding this intractable state of affairs, is the dispersed nature of Caribbean economies with each country pursuing its own national priorities, cross-country differences in population size, politics and demographics, the small-scale nature of production which inhibits economies of scale, disproportional reliance on external markets and vulnerability to natural disasters, all of which inhibit trade competitiveness [27]. In combination, these hamper any potential gains of regional economic integration (Duncan, Mc Lean and his colleagues UNELAC, 2014).

8.4 Economic agglomeration and Institutional Alignments

China views these systemic deficiencies as opportunities for economic agglomeration which it proactively pursues by engaging with governments at bilateral and multilateral levels. Thus, mechanisms such as the China-CELAC Forum and the Joint Plan of Action for Cooperation on Priority Areas (2019-2021), which was signed in Santiago, Chile, in January 2018 on the occasion of the Second China- CELAC Meeting of Ministers, brings into alignment the collective goals of CARICOM members with China's long-term vision under a shared platform of mutually reinforcing priority areas [28]. In the same vein, the Joint Plan of Action incorporates the United Nations Millenium Goals for Sustainable Development 2030, and in so doing, effectively promotes intercontinental dialogue. Goal No. 9 of the United Nations 2030 Agenda for Sustainable Development is anchored is the reality that efficient transport services are key drivers of economic development and more than 80 % of the world's merchandize trade by volume is transported by sea [29]. In addition to these institutional alignments, China is a donor member of the Inter-American Development Bank through which it provides multi-donor funding for building institutional capacity in Caribbean countries [30]. China also makes financial endowments to the Organization of American States and has set up a China - Latin America Caribbean Cooperation Fund consisting of a Co-Financing Fund and a Private Equity Fund. The latter is administered by the Export-Import Bank of China. Thereto, China has been able to facilitate economic agglomeration through the channels of multilateralism, institutionalized dialogue and soft diplomacy while co-opting state-controlled (Chinese) corporations at home.

Part II

The Caribbean as a Major Maritime Transshipment Corridor

We will improve the bilateral and multilateral cooperation mechanisms of the Belt and Road Initiative focusing on policy communication, infrastructure connectivity, trade facilitation, capital flow and people-to-people exchanges…We will advance the development of multi-model transportation that integrates expressways, railways, waterways and airways, build international logistics thoroughfares, and strengthen infrastructure development along major routes and major ports of entry… (Xi, J., 2017 a) The preceding section illustrates the extent to which Caribbean Community Member States are heavily reliant on imports from North America and the Far East in spite of the disproportionately small import parcel sizes at subregional level when compared with world trends. In this scenario, Caribbean economies do not provide a large enough economic base to support the development of modern port facilities commensurate with international standards. As a consequence, the present imperative demands substantial long-term investments and loan funding. This section demonstrates the all-important need to address systemic infrastructural gaps having regard to the logistical demands of trade and commerce in a maritime context that is unique to the region. The Caribbean is home to an estimated 351 ports, 15 oil refineries, and 51 tank terminals. Approximately 16 types of ships transit the area which is assuming increasing significance by virtue of its maritime relevance. The ports can be divided into three main groups:

- Specialized ports which cater for one type of cargo such as sugar, oil, natural gas or bananas and are invariably privately owned;
- Public ports which are open for all types of cargoes which are typically break bulk and containers;
- Transshipment centers which are specialized ports or terminals that handle mainly containers and

which do not enter or originate from the country itself.

Complementary to these ports are supporting shipping services: (i) inter-island transport; (ii) short sea shipping; (iii) deep sea shipping; (iv) shipments of non-regional cargo which transit the region taking full advantage of the intermediary setting along the principal Est-West global trade routes that pass through the Panama Canal and the North- South routes between North America and South America. Lately, the concept of containerization has become a crucial issue since many of the small ports in the region were initially designed to support colonial economic sources of bulk importation of basic items and the exportation of commodities such as bananas and sugar. With technological advancements, and corresponding increases in the sizes of container ships and in levels of specialization, new demands have been placed on general cargo port configuration for larger storage areas and for pier-side handing infrastructure, commensurate with container traffic. In recognition of this development some countries, as for example the Bahamas and Jamaica although not exclusively so, have invested substantially in cargo ports in comparison to others depending on their geographic location and whether they serve the interests of global transshipment hubs, sub-regional hubs, or service ports which cater primarily for domestic needs, as displayed in Table 4. Currently, there are six competing global transshipment hubs in the greater region, two of which are located in Caribbean Community Member States - Kingston in Jamaica, and Freeport in the Bahamas. The remaining ports are hosted among four non-CARICOM countries. These are Manzanillo and Colon in Panama, Caucedo in the Dominican Republic, Cartagena in Colombia and notionally, Marel in Cuba. China already has substantial interests in the Bahamas, Jamaica and Panama which are key trans-Atlantic choke points and significant nodes in the 21st Century Maritime Silk Road initiative. See Table 5. Another distinctive feature of the regional maritime environment are the geopolitical ramifications that go hand in hand with the coveted designation of 'global hub' port, which has been earned by all but few of the region's ports. Historically, the use of transshipment hubs in the Caribbean has been employed as a strategic tool to circumvent restrictions imposed on ships bound for the U.S. under U.S. shipping codes specifically the United States Merchant Marine Act of 1920, commonly referred to as the Jones Act. The Act's cabotage provisions, at the heart of which is the issue of national defence, regulate maritime commerce in U.S. waters and between U.S. ports. The provisions stipulate that all goods transported by water between U.S. ports must be carried by U.S. flag ships, constructed in the U.S., and owned and crewed by U.S. citizens. Given this restraint, cargoes bound for the United States are typically transported to a central location outside of U.S. waters on main liners, and thereafter, re-parceled into feeder vessels and distributed through the U.S. port system. Pinnock and Ajugunna underscore these points in addition to which two other factors are important in this respect. The first is that over ninety percent of global container liner tonnage is registered with flags of convenience to circumvent restrictive local laws. The second is that the Bahamas is the third leading flag state in the world with a total value in 2018 of $79,551 million in registered vessels superseding Norway and the United States while Kingston Harbor in Jamaica is the seventh largest natural harbor in the world and the seventh busiest port in the Americas. Table 4 refers.

Key Trade Drivers

Preceding sections of this study establish that not only is the Caribbean is providentially located within the geographic approaches to the U.S. homeland but is placed within the cusp of elaborate transshipment networks, and that no single port in the region is invested with the capacity to serve the entire area. Not unexpectedly, China sees the region's dense network of global linkages fostered by the advantage of being at the crossroads of East-West and North-South maritime routes and trade flows as a primary trade driver and an opportunity for establishing transshipment hubs that support the MSRI. This is a primary trade driver; but there are other equally notable ones. The second trade driver relates to the impact of extensive expansion work on the Panama Canal – a major gateway for cargo moving from the Far East to U.S. east coast ports. This development has increased demands placed on the capacity of inbound and outbound trade flows for subregional ports, on interconnectivities between ports, on trans-Atlantic and south-south trade flows and competitive access to the U.S. east coast.

Table 4: Global Transshipment Hub Port, Sub-Regional Service Ports and Service Ports in the Caribbean as Classified by Industry Experts

Ports	Countries	Global Hub	Sub-Regional Hub	Service Ports
Kingston Container Terminal	Jamaica	*		
Free Port	Bahamas	*		
Manzillo	Panama	*		
Colon	Panama	*		
Caucedo	Dominican Republic	*		
Cartegena	Colombia	*		
Port of Spain	Trinidad		*	
Point Lisas	Trinidad		*	
Kingston Wharves	Jamaica		*	
Bridgetown	Barbados			*
Rio Haina	Dominican Republic			*
Puerto Plata	Dominican Republic			*
La -Roman	Dominican Republic			*
Boca-Chica	Dominican Republic			*
Georgetown	Cayman			*
St. John	Antigua			*
Castries	St. Lucia			*
Vieux Fort	St. Lucia			*
Georgetown	Guyana			*
Havana	Cuba			*
Willemstad	Curacao			*
Point-A-Pitre	Guadeloupe			*

Source: Developed by Pinnock and Ajugunna 2012. Article, "Maritime Highway Corridors into the Caribbean Seas." https://www.faq-logistique.com/EMS-Livre-Corridors-Transport-19-Maritime-Highway-Carribean-Seas-Panama-Canal.htm/ Accessed 26 December 2019.

Table 5: Caribbean Competing Global Transshipment Hubs

Location	Gantry Cranes	Terminal Area	Berth (M)	Depth (M)	Current Capacity (TEUs)	Planned Capacity	Global Port Operator Interest
Kingston, Jamaica	19	185	2,455	14.5	2,8000,000	5,800,000	Self
Freeport, Bahamas	10	49	1,036	16	1,500,000	3,5000,000	Hutchison Whampoa Ltd.
Manzanillo, Panama	14	52	1,940	14	1,3000,000	4,000,000	Self
Colon, Panama	10	74	982	15	400,000	1,3000,000	Evergreen Group
Caucedo, Dominican Republic	7	50	922	13.5	1,250,000	-	Dubai Port
Cartagena, Colombia	6	96	1,200	11.8	1,200,000	3,200,000	Self
Mariel, Cuba -Projected	6	Not Available	700	15	-	850,000	PSA International

Source: Developed by Pinnock and Ajugunna, 2012. Article, “Maritime Highway Corridors into the Caribbean Seas.” https://www.faq-logistique.com/EMS-Livre-Corridors-Transport-19-Maritime-Highway-Carribean-Seas-Panama-Canal.htm/ .

The third trade driver is Latin America’s booming trade with China, most notably, as the chief commercial partner of Brazil, Chile and Peru and the second largest for Argentina, Colombia and Uruguay in commodities such as whole grain soy imports, minerals and oil. In response to this uptick, traditional service ports in the Caribbean that historically operated at subsistence levels are compelled to upgrade their facilities in order to remain viable and competitive in this fiercely competitive market. The reality of having three layers of transshipment networks supporting global, sub-regional and service port needs, respectively, and maintaining a dense network of shipping linkages places additional strains on the shipping corridors, underscoring related demands on connectivity and even explaining the increasing visibility of technology giants like Huawei which has establishing a decisive footprint in the region. Although the latter falls beyond the scope of this study, telecommunications and information technology do in fact underpin transportation and logistics. Moreover, port development projects in the Caribbean Community which are varied in type and in scale are promoted | monopolized by two main companies, the China Harbor Engineering Company and the China -EXIM Bank. Both companies are involved in interconnected projects and supported by clusters of interconnected firms, as illustrated in major work in the Bahamas (North Abaco) and Jamaica, respectively. A number of similar projects in the wider region are at various stages of evolution ranging from conceptualization, to technical and financial feasibility studies, to fully blown implementation. All in all, port community investment in CARICOM countries is proving to be a catalyst for outbound direct foreign investment of Chinese policy banks and Chinese corporations, many of which are state-owned or state-controlled.

Projections for Future Establishment of ‘Global Hubs’

This section of the study attempts to make future projections based on two pillars: commissioned surveys and recommendations made by multilateral bodies and ongoing state policies of regional governments. For illustrative purposes, four of the larger regional economies are spotlighted of which two are service oriented and two commodity-based: Bahamas, Jamaica, the Cooperative Republic of Guyana and the Republic Trinidad and Tobago. In the Caribbean, the key drivers of marine transshipment that will inform the future location of deep-water ports, particularly the "global hub port," category are the following:

- Proximity to the crossroads of main maritime highways;
- The productivity of stevedoring operations;
- The guarantee of berths;
- The competitiveness of tariffs;
- The control of operations in tandem with safety and security;
- The operation of dedicated feeder services;
- The robustness of supporting information and telecommunication systems; and
- The potential for import/export and other aspects of related development in the peripheral areas of port estates.

A 2019 IDB report describing the challenges confronted in select countries of the Caribbean Community in the development of infrastructure based on the Borensztein and his colleagues (2014) development gap methodology in the spheres of environment energy, water and sanitation, technology, energy, and transportation, revealed that there existed substantial deficits in the port facilities and roadway networks of Bahamas, Jamaica, Trinidad and Tobago, Guyana and Suriname, respectively. The report underscored the region-wide need for the modernization and upgrade of facilities to world standards. In the case of the Bahamas, a small open archipelagic economy with an estimated per capita GDP of US $30,500 which relies on sea and air transport to connect people and local economies, the report noted that shipping to the more remote south-west islands remained the biggest challenge for the government since many port and shipping facilities remained outdated, inefficient and fragmented, in dire need of modernization and connectivity, while ICT standards remained below expectations ranking 22nd in LAC mobile and telephone penetration only above Ecuador, Haiti, Guyana and Belize [31]. With respect to Jamaica, a small middle-income jurisdiction with a GDP of US $4,750 at the end of 2017, IDB noted fiscal constraints had led to insufficient road maintenance and significant deterioration in Jamaica's road quality. Logistics performance at ports was described as weak as were other areas such as goods clearance processes at ports and seaports and the automation of document processing due to the absence of a single trade window. The picture emerging from transshipment was more encouraging. While on the one hand, the performance of ports in this area of operation was described as strong and improving, on the other there were limited investments in infrastructure to support the development of value-added logistics services [32]. The Cooperative Republic of Guyana, with a GDP per capita of US $4,580 and whose economy based on IMF calculations is expected to grow at an annual rate of 19 percent between 2019-2023, possesses one of the sparsest road networks in South America. As a consequence, Guyana's transportation challenges have adversely impacted on trade connectivity. The IDB report noted that 80% of Guyana's road network remains largely unpaved and the country lacks a transshipment corridor connecting it to Brazil. Also absent is a crucial bridge connecting the major coastal highways of Guyana and neighboring Suriname as well as vital investments in bridges that spanning the country's extensive river system. The report found that improvements to the port system to bring it up to international standards would reduce the cost of transport and complement the proposed development of a transportation corridor with Brazil. A broader study on the feasibility of constructing a deep-water port on Guyana's coast has been in progress for some years. This enquiry notes that construction of a proposed deep-water port in Berbice augmented by a 90-meter wharf and 10,000-meter logistics yard would serve a dual purpose conducive to trade facilitation by (a) providing a hub for the Guyanese bauxite, rice and sugar industries; and (b) servicing the country's burgeoning oil and gas exploration sectors which have recently emerged as the bulwark of the economy [33]. Regarding Trinidad and Tobago, a high-income economy by World Bank accounts which ranks among the wealthiest in the Caribbean, government infrastructure investment decreased substantially in recent years. Between 2016 -2018 infrastructure investment 'proxied by the net acquisition of non-financial assets,' averaging 2.4 percent of GDP, down from 4.50 percent of GDP between 2010-2015. In consequence, infrastructure warranted urgent improvements to support productivity and commensurate growth and the achievement of long-term development goals. Of 138 countries assessed in the 2017-2018 Global Competitiveness Report Infrastructure Index, Trinidad and Tobago ranked 59th and despite significant capital expenditure in this area, substantial constraints were identified in relation to maritime transportation at the two major ports in the capital city of Port of Spain and in industrialized Point Lisas estate. The following infrastructural deficits were particularly striking: (a) that the major transportation port in the capital city has an 11 meter draft that restricts the size of vessels entering and the time they may enter; (b) that the largest vessels (Panamax) could only enter once every 24 hours; (c) that there is an insufficient number of cranes, and further, low productivity of the existing ones contribute to the fact that handling time which was found to be more than triple that of more efficient ports; and (d) the main transnational port's location in the capital placed limits on the land space available for the storage of containers and contributed to traffic congestion in the commercial environs. All of the foregoing is compounded by a roadway network with the highest level of motorization in the Caribbean, a large portion of which is in poor condition with freeways that are narrow and poorly aligned compounded by bottlenecks at key intersections. The report noted that substantial shortcomings and inefficiencies of the country's transport system was costing users an estimated US $367 - $245 million annually in lost time, reliability and fuel (Inter-American Development Bank, 2016). Its prognosis was that infrastructure rehabilitation and modernization in Trinidad and Tobago begged urgent attention. In addition to ongoing work on major interchanges, Trinidad and Tobago's government has proposed the development of a dry dock facility in the southern part of the main island which will potentially increase the size and number of shipping vessels visiting the country and allow the movement of larger vessels from Panama Canal's expanded facility, thereby positioning the country as a hub for cargo shipments [34].

Response of Caribbean Governments to Port Infrastructure Imperatives

The Caribbean is undisputedly a vital economic corridor in the Western Hemisphere and its share of global cargo is increasing. The Chinese focus on trade facilitation and connectivity is reflected in a number of already mentioned documents that transpose and shed light on its current regional engagements. The principal examples are China's National Plan on Implementation of the 2030 Agenda for Sustainable Development, the 13th Five Year Plan of the People's Republic of China (P.R.C. 2016), the CELAC – China Joint Plan of Action on

Cooperation on Priority Areas (2019-2021) which was adopted in January 2018 in Santiago, Chile, and the United Nations Sustainable Development Goals 2030 Agenda (specifically Goal No. 9). Port infrastructure development has been officially incorporated into the long-term development plans of Caribbean Community member. Jamaica's Vision 2030 National Development Plan (March 2015) [35], Trinidad and Tobago's Vision 2030 [36] and Guyana's Green State Development Strategy Vision 2040 [36] all envisage substantial infrastructural upgrades as part of their respective national long-term developmental goals. So too do Grenada's National Sustainable Development Plan 2035 [37]; Antigua and Barbuda's 2016 – 2020 Medium Term Strategic Development Plan as a subset of 'Industry, Innovation and Infrastructure [38];' Barbados's Growth and Development Strategy 2013-2020 and National Strategic Plan 2006 - 2025: Global Excellence, Barbadian Traditions [39]; the St. Vincent and the Grenadines' National Economic and Social Development Plan 2013 – 2025 which incorporates a guide to optimal improvement in the country's infrastructural and environmental sectors [40]; Suriname's Policy Development Plan 2017 – 2021 which identifies 'physical infrastructure' as a primary pillar under Development Capacity Goals [41]; and Dominica's National Resilience Development Strategy 2030 which commits to rehabilitating the country's cruise ship berth, ferry terminals and the Woodbridge Bay deep water cargo port inclusive of adjacent cargo sheds and the commissioning of a study on the adequacy of the country's existing port infrastructure [42]. Jamaica has been particularly proactive port community development and much focus has been placed on the Port of Kingston, the country's main port. According to the Jamaica Port Handbook (2007-8) , port upgrades have included: (a) investing in a new West Terminal to complement the North and South Terminals in order to boost handling capacity from 1.7 million teu to 3.2 million teu; (b) bolstering maritime support services in the immediate environs of port institutions – the Newport West and Port Bustamante - which are home to an array of cargo handlers, container repair companies, handlers, logistics providers, stevedores and other specialist companies; (c) developing a complementary network of free zones, namely the Kingston Free Zone, the Jamaica International Free Zone, the Portmore Informatics Park and the Montego Bay Free Zone; and (d) expansion of berthing to handle large container ships and state-of-the-art mobile cranes. Nonetheless, this transpired ten years prior to the aforementioned IDB report on port infrastructure. What's more, the Government commissioned the establishment of a Global Auto-Logistics Facility which would position the country to be the fourth global logistics commodity point in the world with comparable standing to Singapore, Dubai, and Rotterdam. Additionally, Kingston Wharves Limited, (KWL) a terminal facility strategically located on the port of Kingston and one of the Caribbean's leading multipurpose terminal operators, collaborated with the Caribbean Maritime University in order to ramp up its logistics capabilities in a move that is expected to increase the port's annual traffic and give it a share in the global logistics trade which is expected to exceed $16, 400 billion by 2026. An initial framework agreement for the proposed development of the Portland Blight/Goat Island between the Government and China Harbor Engineering Company Limited was intended to create a $1 billion deep water transshipment port with access channels and industrial park with associated operations in storage, assembling and packaging of goods in light industries, manufacturing, information technology and skills training. The proposed container terminal would also have facilitated berthing of sufficient width, length and depth to accommodate Super Post Panamax vessels. However, the project was scrapped by the Government in 2016 based environmental considerations pointed out in studies conducted by several companies in the United Kingdom and the United States paving the way for cheaper and less environmentally damaging alternatives.

Regarding the Bahamas, Hutchison Ports is known to have had a sustained and checkered history in that country. The Chinese conglomerate touched soil for the first time in Grand Bahama in 1996 for the purpose of conduct a feasibility study and found the location ideal for use as a transshipment terminal. Having made that first investment, the company went on to invest in a harbor, an airport (Devco) and the island's largest real estate property, the Grand Lucayan. Situated 65 miles from Florida, the Freeport Container Port is the natural transshipment hub for the Eastern seaboard of the Americas and the principal East-West Line haul routes through the region. Hutchison was allowed to construct and operate the container port and eventually became a major shareholder holding with a 50 percent interest in Freeport Harbor in exchange for financing the prohibitive costs incurred in the dredging and enlarging Freeport Harbor to a much greater depth to facilitate the larger container ships utilizing the Panama Canal. Another concession accorded to Hutchison by the Bahamian government besides the fifty percent interest was its Exclusivity in a proposed the cruise ship terminal on the island ("the Carnival Project") and from time to time, when requested by the Government, further waivers to facilitate other developments on Grand Bahama. A later waiver was granted when the government agreed that no real property tax or taxes on capital gains would be levied or imposed in respect of real property owned by Hutchison, the Grand Bahama Company Limited or the Freeport Development Company Limited for twenty years commencing 04 May 2016. Today, Hutchison Ports is the port and related services division of CK Hutchison Holdings Limited, the world's leading port investor, developer, and operator with an impressive network of port operations in 52 ports spanning 27 countries throughout Asia, the Middle East, Africa, Europe, the Americas and Australasia. The conglomerate has expanded its operations into other logistics and transportation-related businesses including cruise ship terminals, airport operations, distribution centers, rail services and ship repair facilities. In 2018, Hutchison Whampoa handled a combined tonnage of 84.6 million TEU. All of the foregoing features underscore the deepening of Chinese penetration and interconnectivity in the Caribbean.

9. Results

First and foremost, this study provides compelling bases of the extent to which the MSRI holds transformative potential for Caribbean Community nations and the fact that it is mutually reinforcing to both sides despite manifest asymmetries between the two polities. What's more, the study demonstrates that China has successfully marshalled the commitment of some of the most relevant geopolitical blocs in the region, CELAC and the 15-member Caribbean Community, by ingeniously interweaving its economic development agenda and political and cultural long-term goals into sustainable development goals of the Caribbean at regional and national levels. In so doing, China has moved up the added value chain commercially speaking, created reliable access to key resources, established its presence in strategically important sectors whilst improving its technological prowess and competitiveness in this part of the world. The grand scheme entailed foreign policy activism propelled by push factors discussed in this paper, geographical providence and economic necessity. Furthermore, the study discloses the marriage of developmental pathways between China and the Caribbean and the fact that it is proceeding apace despite region-wide systemic weaknesses – low growth rates, elevated debt levels, declines in international reserves and infrastructural gaps which have been identified in various studies. Because success of the Chinese model for development assistance is contingent to the economic performance and global competitiveness of host countries (Blanchard, 2017), given China's 'going global' push (*zou chuqu*), there are high stakes involved in investing heavily in areas considered vital to trans and intra-regional transportation and connectivity. Left unaddressed, port infrastructure development would assuredly constrain the global competitiveness of China and the Caribbean Community alike. If anything, this explains the high priority assigned to this area of development cooperation by the region's political elite and the shoring in of similar ventures at key locations on the American continent such as Panama (the Colon Terminal), Mexico (the Manzanillo Container Terminal) and Brazil (terminal acquisitions at Santos Port by Chinese shipping magnate COFCO). Additionally, the signing of MOUs for the One Belt One Road initiative by eight of the fifteen Member States comprising the Caribbean Community within an 18-month period (2018 -2019) in which parties committed to cooperation in infrastructure development represented a game changer that cemented already existing ties between the Asian giant and the Caribbean Community. A third outcome of this study is its exposure of the mutually reinforcing character of the Chinese business model – to wit, a proclivity to assigning high priority to growth poles through the geopolitical co-location of mega projects, achieving a level of high speed implementation that is untypical of Western multilateral institutions (e.g. World Bank) and a preference for pursuing a coordinated set of projects involving clusters of interconnected firms thereby nurturing local markets, crowding additional investment and catalyzing economic agglomeration **(**Chin and Gallaher**,** 2019; Dreher and his colleagues 2019). Thus, port infrastructure mega projects in the Region incorporate the full gamut of port support services – a concept commonly referred to as 'the three pillars 'of the maritime transport sector: the first pillar, blue water services which incorporates freight and passenger transportation; the second pillar, auxiliary services such as agency, cargo handling services, storage, multimodal transport, warehousing and freight transport agency services; and the third pillar, services of a non-discriminatory nature typical of ports as for example pilotage, lighterage and repair and bunker services. The framework | modus operandi is employed by the Chinese in other regions of the world and is discernible in China's ground plans in the Caribbean. Such initiatives are likely to continue over the medium to long-term given the fact that this area of infrastructure development has been under-capitalized over a prolonged period of time and is region-wide in scale. Fourthly, from a scholastic standpoint, the study opens interesting avenues for expanded theory and more extensive research in relation to the dominant role of the state in outbound overseas investments and the closely related topic of corporate governance of State-Owned Enterprises.

10. Conclusions

This study concludes that the 21st Century Maritime Silk Road Initiative provides an impetus for China to pursue port infrastructure development throughout the Caribbean in order to advance the long-term economic goals of the Chinese government. Central to the study is the fact that MSRI is aligned with the economic goals and infrastructural imperatives of Caribbean Community Member States which rely overwhelmingly on port services and the regional maritime domain as vectors for intra- and extra-regional trade, and by extension, economic survivability in a fiercely competitive global market. MSRI, by virtue of its organizing principles considered in this study, is therefore mutually beneficial to China and the Caribbean. Moreover, it is safe to conclude that it supersedes other options that may be pursued through traditional multilateral Western institutions for the time being.

11. Recommendations

The recommendations hereunder are based on the following key considerations that emerged from this study:

- That maritime transportation is relevant to Caribbean countries, and more particularly, to small island states which are heavily reliant on trade among themselves and with the rest of the world and almost exclusively on maritime shipping;
- That unit costs of maritime transport tend to be higher in the Caribbean that in other parts of the world based on a number of factors including comparative disadvantages related to the particular situation of island states, trade imbalances, diseconomies of scale, the difficulties of creating competition among ports and poorly maintained and outmoded port infrastructure facilities. The state of affairs is having a negative impact on trade, economic growth and sustainable development and needs to be addressed as a regional priority;
- The desirability to de-scale the current state of affairs in which construction, technology and institutional linkages in respect of port infrastructure, transportation and logistics appear to be overwhelmingly in favor of a single international actor. Should the present state of affairs persist unchecked, it could limit opportunities for other actors to become engaged in regional investment and possibly inhibit healthy competition. Furthermore, the status quo may place strains on the Region's foreign relations with partner nations in North America which perceive China as a rival rather than as a global competitor;
- The desirability for Caribbean Community Member states to engage with China in a manner that promotes regional integration, at the heart of which is the ultimate goal of achieving a single market and economy in a single economic space. Regional integration should therefore underpin CARICOM engagements with China, notwithstanding the shared benefits of such engagements.

Recommendation 1

Regional level: Bilateral and multilateral engagements with China in the sphere of port infrastructure development require coordinated and integrated approaches. This may require the establishment of an overarching entity. A number of intergovernmental institutions exist in the region with a history of cooperative interactions and collective responses to shared concerns, among the more exemplary is the Implementation Agency for Crime and Security (IMPACS). Intergovernmental bodies such as IMPACS could be emulated as the region braces for the coming on stream of mega sectoral projects in locations such as Guyana and Trinidad and Tobago.

Recommendation 2

Regional level: The security dimension of port infrastructure development needs to be carefully considered at the highest decision-making level of the Caribbean Community i.e. the Conference of Heads of Government, given the fact that the transportation sector is a rapidly expanding and important strategic sector in the region. Accordingly, port infrastructure should be prioritized and placed on the agenda of the annual Inter-Sessional

Meetings of CARICOM Heads of Government.

Recommendation 3

National Level: There is need to address inefficiencies at the Region's main ports at national level through a series of systemic layering. This was iterated in a 2016 study published by the Caribbean Development Bank, titled "Transforming the Caribbean Port Services Industry" which attributed the inefficiencies to the growing unmet demand for port infrastructure investment, inadequate infrastructure, poor maintenance and under-capitalization. Most importantly, the report advised, as reiterated below, that national initiatives must incorporate the concept of 'human settlements' and host governments should assume a lead role in the following activities:

- Ensuring that areas adjacent to port estates proceed in accordance with authorized land use plans;
- Ensuring that the design of ports caters for multi-user purposes to accommodate the mushrooming cruise ship and yachting sectors in the region;
- Putting measures in place so that infrastructural layouts minimize the environmental impacts and constraints to effective waste management;
- Institutionalizing policies, green taxes and development charges for major land users while ensuring these are coordinated and enforced in order to maximize revenue collection opportunities and make port services management a self-financing enterprise;

Recommendation 4.

The strictest enforcement of open procurement codes and practices supported by acceptable standards of public accountability in the award of port development contracts in CARICOM is crucial at this stage. Such a course of action must be undergirded by robust procurement legislation at domestic level that accords with the relevant article provisions of international conventions and treaties governing corruption and money laundering and the institutionalization of a global taxation governance regime geared toward tracking and tracing the operations of transregional multinational enterprises.

Acknowledgements

I am grateful for the consultation with Professor Jessica Byron-Reid, Director Institute of International Relations and the Diplomatic Academy of the Caribbean, University of the West Indies (UWI), St. Augustine in relation who invested much time to share with me the scope of ongoing research being undertaken on the topic of China's engagements in the Caribbean at the various campuses and departments of the University of the West Indies. Special recognition is also extended to Dr. Enrique Dussel Peters, Head of the Graduate Studies Division of the Faculty of Economics of the National Autonomous University of Mexico (UNAM) in his capacity as Coordinator of the Academic Network of Latin America and the Caribbean on China, who made available to me an impressive collection of indepth studies being pursued by the network throughout Latin America. Many thanks to Robert Evan Ellis (currently) Member of the U.S. State Department Policy Planning

Staff with responsibility for Latin America and the Caribbean; (formerly) Research Professor and faculty member of the Strategic Studies Institute (SSI), U.S. Army War College P.A.USA - for his generosity in transmitting ongoing research and publications on Sino-Latin America and Caribbean engagements. The resources of the recently inaugurated China | Caribbean Observatory in Port of Spain Trinidad and Tobago cannot be overlooked. These were vital for the collation of pertinent and updated material specific to port infrastructure initiatives in the Anglophone Caribbean.

References

[1] R. Bernal. (2016, November). Chinese Direct Investments in the Caribbean. Potential and Prospects (1st. edition). [On-line]. p. 7. Available: https://publications.iadb.org/publications/english/document/Chinese-Foreign-Direct-Investment-in-the-Caribbean-Potential-and-Prospects.pdf. [February 14, 2020].

[2] O. Rosales and M. Kuwayama. (2012, April). China and Latin America and the Caribbean: Building a Strategic, Economic and Trade Relationship.(1st. edition). [On-line]. 29(i). Available: https://repositorio.cepal.org/bitstream/handle/11362/2599/8/S2012007_en.pdf. [February 14, 2020].

[3] S. Mc Lean and J. Khadan. An Assessment of the Performance of CARICOM Extraregional Trade Agreements. An Initial Scoping Exercise (1st. edition). [On-line]. 14-17. Available: https://repositorio.cepal.org/bitstream/handle/11362/37612/lcarl455_rev1.pdf?sequence=5&isAllowed=y. [February14, 2020].

[4] Author(s): E. Bollers, Z. Deyal, V. Gauts, L. Alvarez, J. Khadan, H. Mooney, L. Smets, K. Waithe and A. Wright. Country Infrastructure Briefs Caribbean Region.(1st. edition). [On-line]. 1-47. Available: https://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdf. [February 14, 2020].

[5] A. Nicholls (Feb. 2013), "World Bank Doing Business Report 2020: How Did the Caribbean Do?" Internet: https://caribbeantradelaw.com/2019/10/24/world-bank-doing-business-report-2020-how-did-the-caribbean-do/, [Feb. 14, 2020]. Also, A. Montoute, "China-Caribbean Economic Relations: What Are the Implications?" Caribbean Journal of International Relations and Diplomacy, vol. I, Issue I, pp. 110 -126, Feb, 2013.

[6] N. Galban, "Interview: China -CELAC Forum a joint commitment to shared prosperity: Cuban expert," XINHUANET. Internet: http://www.xinhuanet.com/english/2018-01/24/c_136921278.htm./ Jan. 24, 2018. [Feb. 15, 2020].

[7] Sauvant and V. Chen, "China's Regulatory Framework for Outward Direct Foreign Investment." China economic Journal, vol. 7(1). Feb. 13, 2014. Internet: https://www.tandfonline.com/doi/abs/10.1080/17538963.2013.874072, Feb. 13, 2014. [Feb. 15, 2020].

[8] [ECLAC Editorial, "Maritime Transport in the Caribbean," FAL Bulletin (September 1997), Issue No. 136. p. 8. Internet: https://www.cepal.org/en/publications/36276-maritime-transport-caribbean. Sep. 1997 [Feb. 15, 2020].

[9] United Nations," Sustainable Development Goals 2030," Internet: https://www.un.org/sustainabledevelopment/infrastructure-industrialization/. [Feb. 15, 2020].

[10] M. Jacques, "When China Rules the World: The Rise of the Middle Kingdom and the End of the Western World," London, England, Penguin, 2009.

[11] S. Joseph-Harris, "The Twilight of America's Omnipresence: China's Aggrandizement in a New Era of Multipolarity," FL, USA, Fortis Publishing, 2014.

[12] R. Ellis, China in Latin America: The Whats and Wherefores: USA China Review International, 2013. Internet: www.researcggate.net>publication>230728716_China_in_Lain_America [Feb. 15, 2020]; R. Ellis, The Strategic Dimension of Chinese Engagement in Latin America. 2014. USA. Internet: williamjperrycenter.org>content>strategic-dimension-chinese [Feb. 15, 2020]; R. Ellis, China on The Ground in Latin America. Also see: R. Ellis (2012), "Suriname and the Chinese," SAIS Review International Affairs. [On-line] Vol. 32 (2) , pp. 85-97 Available: https://www.semanticscholar.org/paper/Suriname-and-the-Chinese%3A-Timber%2C-Migration%2C-and-of-Ellis/4066b0eb1264834492c178f3ac2d24d1788760e0. [Feb. 2020]; R. Ellis (2013, Sep.). "Chinese Commercial Engagements with Guyana," The Jamestown Foundation. [On-line]. https://jamestown.org/program/chinese-commercial-engagement-with-guyana-the-challenges-of-physical-presence-and-political-change/. [Feb. 15, 2020]; R. Ellis, "China's Engagement in Trinidad and Tobago." Global Americans., March 2019. Internet: https://theglobalamericans.org/2019/03/chinas-engagement-with-trinidad-and-tobago/[Feb. 15, 2020].

[13] M. Meyers and K. Gallagher, "Cautious Capital: Chinese Development Finance in Latin America and the Caribbean, 2018," China-Latin America Report, Feb. 2019. Internet: www.the.dialogue.org>2019>02>China-Finance-in-LAC-2018.[Feb. 15, 2020].

[14] R. Bernal, "Chinese Foreign Direct Investment in the Caribbean: Potential and Prospects." Inter-American Development Bank, Technical Note: IDB-TN-1113. Nov. 2016. p. 15. Internet: https://www.tandfonline.com/doi/abs/10.1080/17538963.2013.874072. Nov. 2016 [Feb. 15, 2020].

[15] A. Montoute, "Caribbean-China Economic Relations: What Are the Implications?" Caribbean Journal of International Relations and Diplomacy. vol. I, issue I, pp. 110-126.

[16] K. Koleski and A.Blivas, (2018). "China's Engagement with Latin America and the Caribbean - Major Infrastructure Projects Built by Chinese Firms in LAC, 2000-2018." US-China Economic and Security Review Commission. Washington D.C. Internet: https://www.uscc.gov/charter. [Feb. 15, 2020], appendix I p. 30.

[17] You Tube Joint Sub Committee Hearing, "China's Advance in Latin America and the Caribbean." House Foreign Affairs Committee Republicans Event ID=103931. Streamed Live. https://www.youtube.com/watch?v=JcDwN0kzieI&t=210s. [Feb. 15, 2020].

[18] D. Nayak and R.Choudhuty (2014, March). "A Selective Review of Foreign Direct Investment Theories. Asia Pacific Research and training Network. [On-line]. pp. 2-27. Available: www.econstor.eu>bitstream. [Feb. 15, 2020].

[19] P. Makoni. "An Extensive Exploration of Theories of Foreign Direct Investment. PhD. thesis, University of South Africa. Risk Governance and Control Financial Markets and Institutions. Volume 5, Issue 2, Continued 1. pp. 77-81. Available: www.virtusinterpress.org>IMG>pdf. [Feb. 15, 2020].

[20] "President Xi Jinping Pays State Visits to Turkmenistan, Kazakstan, Uzbekistan, and Kyrgzstan Attends Eighth G20 Summit and Thirteenth Meeting of Council of Heads of Member States of

Shanghai." Official Government Release Ministry of Foreign Affairs of the people's Republic of China. Internet: https://www.fmprc.gov.cn/mfa_eng/topics_665678/xjpfwzysiesgjtfhshzzfh_665686/t1076334.shtml. [Feb. 16, 2020].

[21] K. Tseng, (June, 2016). "Contemplating the South China Sea Issue: Sailing with the Wind of the Twenty-First Century Maritime Silk Road." The Chinese Journal of Global Governance. vol. 2(1) : 63-95. doi: 10-1163-23525207-12340016. ISSN2352-5207.

[22] Z. Huang, "Your Guide to Understanding OBOR: China's New Silk Road Plan. Quartz. QUARTZ. May 15, 2017. https://qz.com/983460/obor-an-extremely-simple-guide-to-understanding-chinas-one-belt-one-road-forum-for-its-new-silk-road/. [Feb. 16, 2020].

[23] D. Workman. "World's Top Imports.: China's Top Import Partners" Internet: http://www.worldstopexports.com/chinas-top-import-partners/. Jan. 4, 2020. [Feb. 16, 2020].

[24] D. Workman. "World's Top Exports: China's Top Export Partners" Internet: http://www.worldstopexports.com/chinas-top-10-exports/. Jan. 22, 2020 [Feb. 16, 2020].

[25] S. Mc Lean and J. Khadan. An Assessment of the Performance of CARICOM Extraregional Trade Agreements. An Initial Scoping Exercise (1st. edition). [On-line]. 14-17. Available: https://repositorio.cepal.org/bitstream/handle/11362/37612/lcarl455_rev1.pdf?sequence=5&isAllowed=y. [February14, 2020] pp. 19-21.

[26] C. Rostomjee. "Vulnerability and Debt of Small States." Center for International Governance Innovation Policy Brief 83 of July 16, 2016. Internet: [Feb.17, 2020].

[27] https://www.cigionline.org/sites/default/files/pb_no._83web.pdf. IMF Policy Paper Feb, 2013. Internet: Also see: "Caribbean Small States: Challenges of Huge Debt and Low Growth." International Monetary Fund. Internet:https://www.imf.org/en/Publications/Policy-Papers/Issues/2016/12/31/Caribbean-Small-States-Challenges-of-High-Debt-and-Low-Growth-PP4747. Feb. 20, 2013. [Feb. 17, 2020].

[28] "China's Rapidly Advancing Caribbean Role," The Caribbean Council. Internet: https://www.caribbean-council.org/chinas-rapidly-advancing-caribbean-role/. [Feb. 17, 2020].

[29] United Nations 2030 Agenda for Sustainable Development. Goal No. 9 – Industry, Innovation and Infrastructure. Internet: https://sustainabledevelopment.un.org/sdg9. [Feb. 17, 2020].

[30] "China Joins IDB in Ceremony at Bank Headquarters." IDB News. Internet: Jan. 12, 2009. https://www.iadb.org/en/news/china-joins-idb-ceremony-bank-headquarters. [Feb. 17, 2020].

[31] A. Wright. "IDB Country Infrastructure Briefs: Caribbean Region" – The Bahamas. Internet: https://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdfhttps://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdf. [Feb. 17, 2020] pp. 3-6.

[32] H. Mooney. "IDB Country Infrastructure Briefs: Caribbean Region" - Jamaica. Internet: https://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdfhttps://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdf. [Feb. 17, 2020] pp. 16-19.

[33] V. Gauts and E. Bollers. "IDB Country Infrastructure Briefs: Caribbean Region." - Guyana. Internet.

https://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdfhttps://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdf. [Feb. 17, 2020] pp. 11-15.

[34] Z. Deyal and L. Smets. "IDB Country Infrastructure Briefs: Caribbean Region." - Trinidad and Tobago. Internet: https://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdfhttps://publications.iadb.org/publications/english/document/Country_Infrastructure_Briefs_Caribbean_Region_en_en.pdf. [Feb. 17, 2020] pp. 24-26.

[35] "Vision 2020 National Development Plan." Planning Institute of Jamaica. Internet: http://www.vision2030.gov.jm/. [Feb. 17, 2020].

[36] "Vision 2030." Ministry of Planning and Development. Internet: https://www.planning.gov.tt/content/vision-2030. [Feb. 17, 2020].

[37] "Green State Development Strategy: Vision 2040: Diversified, Resilient, Low-carbon, People-centered." Internet: https://www.doe.gov.gy/published/document/5cd1d69fe5569929a69b35b0. [Feb. 17, 2020].

[38] "National Sustainable Development Plan 2020-2035. Better. Ever Stronger. Together." Internet. https://www.nationalplan2030.gd/. [Feb. 17, 2020].

[39] "Barbados Growth and Development Strategy 2015 -2020." Ministry of Finance and Economic Affairs. Internet: http://caribbean.cepal.org/content/barbados-growth-and-development-strategy-2013-2020. [Feb. 17, 2020].

[40] "National Economic and Social Development Plan 2013 – 2025 of St. Vincent and the Grenadines." Regional Observatory for Planning and Development in Latin America and the Caribbean. Internet: https://observatorioplanificacion.cepal.org/en/plans/national-economic-and-social-development-plan-2013-2025-saint-vincent-and-grenadines.[Feb. 17, 2020].

[41] "Suriname Policy Development Plan 2017-2021." Regional Observatory for Planning and Developmen in Latin America and the Caribbean. Internet: https://observatorioplanificacion.cepal.org/en/plans/policy-development-plan-2017-2021-suriname. [Feb. 17, 2020].

[42] "Dominica National Resilience Development Strategy, 2030." Government of Dominica Web Portal. Internet: http://www.dominica.gov.dm/government-publications/national-development-strategies/the-national-resilience-development-strategy-dominica-2030. [Feb. 17, 2020].