

Designing Financial Systems for Competitive Island Economies: Developing the Case for the Caribbean

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Abstract

It is common knowledge among economic policy makers and academics that small island economies are particularly vulnerable to external economic events outside of their control. These “shocks” have never been as deep in modern economic history as the current global recession, the depth of its impact is made all the more profound because of the extent to which the mantra of globalization has been absorbed into the cultural fabric of the economic and fiscal policies of small island states. The impact on the financial system and financial intermediaries within small island states is as yet uneven with some anecdotal reports, yet lacking substantial empirical evidence and theoretical conceptualization. Based on a review of literature and previous studies, this paper presents a doctoral study in progress on the design and development of resilient and robust financial systems for competitive island economies in the Caribbean. This research (in-progress) paper discusses the vulnerabilities and capabilities of island economies in an increasingly volatile economy, and provides a preliminary review of the current state of affairs in the Caribbean. The paper concludes with several initial findings and outlines directions for further research and development.

1. Introduction

The global economic crisis, which erupted well over a year ago, painfully reminds us of how vulnerable countries - big and small - are to external shocks and turbulence. It is a clear and present signal that no country or economy remains untouched. As the 'great recession' lingers on in developed countries, and despite increasing signs of recovery, for the Caribbean this recession continues to be devastating in terms of job losses and the impact on poverty reduction efforts. In a recent commentary on the impact of the recession on the developing countries, the World Bank president confirms this:

"..the World Bank estimated that a further 64 million people would fall into extreme poverty between 2009 and 2010 as a result of the crisis. For developed countries, it is a matter of jobs and economic growth. For too many poor countries, it is the searing pain of millions going hungry, getting sick, with the impact being felt on a generation of children for many years" (Robert Zoellick, Reuters, Jan 2010).

Unlike previous recessions there is a sense of despair and doom with any likely recovery delayed and drawn out. The sense from the current economic literature is that there is a paradigmatic shift in how the free markets are viewed in terms of their efficacy. In addition the fact that a financial meltdown in the developed centers of finance has had such a deep impact on developing countries speaks volumes on the level of interconnectedness inherent in the global economy. Indeed, no island is an island.

This new normal of economic turbulence and developmental turmoil also underscores the fact that vulnerability is caused by not only external events, but more importantly, by an internal state of fragility. This internal fragility, or lack of agility, captures endogenous vulnerability, and is caused by a range of factors, including but not limited to e.g., inappropriate policies, institutional fragmentation, and overall weak governance (Peterson, 2006). Emphasizing the role of financial systems within the internal state of affairs, Roubini & Bilodeau (2009) conclude that the financial crisis underscores the central role that financial systems play in the economic development of countries:

"the importance of financial stability as a key aspect of financial systems that has implications extending well beyond a country's border and deep into the real economy has been made painfully clear. The sheer scale of the response required by policymakers to avert a deepening of the crisis has led countries to rethink the mechanisms for governance and oversight of financial systems at the global and local levels" (Roubini & Bilodeau, 2009).

This paper and the underlying doctoral research-in-progress contend that the foregoing applies readily, and especially, to small-island developing states (SIDS). Within the context of (small) islands states, there is a long standing recognition of their special challenges in terms of development, growth and competitiveness. The United Nations classifies over fifty countries as SIDS, and characterizes this group of islands by: limited resources, high vulnerability to natural hazards, low diversification, dependence on international trade, high transportation costs, poor public administration, expensive infrastructure, and limited economies of scale (McGillvray et al., 2008). Consequently, SIDS are often perceived as economically vulnerable and developmentally volatile. However, as emphasized in this paper, there is increasing evidence that 'islandness' is not a liability by definition, and not all islands are created equally (Brautigam & Woolcock, 2001; Easterly & Kraay, 2000; Peterson, 2006). Herein we encounter our key challenge - and contribution - to move policy and praxis beyond the current paradigms within the turbulence and turmoil of the 21st century.

Beyond the foregoing strategic impetus, this study is motivated by the fact that despite the mounting evidence of island asset-specificity, islands remain conceptually and empirically marginalized. While empirical studies concerning financial development and growth have generally found that cross-country differences in the levels

of financial development explain a considerable portion of the cross-country differences in growth rates of economies (Demirguc-Kunt, 2006; Levine, 2004; Roubini & Bilodeau, 2009), the amalgam of these studies are biased towards, e.g., the role of financial systems in large(r) and (more) developed (continental) countries, with occasional reference to small(er) and developing island states. Although there is some initial comparative work on differences between large(r) and small(er), and developed and developing (Brautigam & Woolcock, 2001; Demirguc-Kunt, 2006), there is scant empirical data and evidence on how and why some island states are different. More importantly, the scientific scrutiny, conceptualization, and validation on the design and development of financial systems, economic development and national competitiveness in the Caribbean remain relatively covert.

Subsequently, the main aim of this doctoral research-in-progress is to explore and explain, and thereby contribute to a better understanding and validation of *the role of financial systems for small-island economic development in the Caribbean*. The research focuses on the institutionalization and innovation of financial systems in Caribbean island economies, and questions the design and effectiveness of island financial systems in terms of policies and institutions, markets and mechanisms, that are conducive of financial innovation and economic development, and financial intermediation and services specifically. In situ, the research inquires into the strategy and significance of indigenous financial intermediaries in driving small-island economic development in the Caribbean, and the differences and commonalities in the design, development and contribution of financial systems within and across island economies in the Caribbean. The focus of this paper and the underlying doctoral study are thus on the developmental role of indigenous financial intermediaries, including commercial banks, investment banks and non bank financial entities that are localized and island based. They also include local subsidiaries of foreign based financial institutions.

The remainder of this paper is organized as follows. In the subsequent sections, the theory and practice of island studies and island economies is briefly discussed (Section 2), after which an in-depth discussion of financial systems and their importance to the Caribbean and island economies is presented (Section 3). The methodological design and framework of this study is outlined in Section 4. The paper concludes with preliminary findings and future developments (Section 5).

2. Islands and Island Economies

At the outset of a discussion on islands, economies and island economies, it should be readily recognized that any discussion on economies and economics is politically couched and socially constructed from within multiple philosophies, island realities and Caribbean globalities, which extend well way beyond the boundaries of this paper. It should, nevertheless, be noted that the ideological flavoring of economic policies have become somewhat more stealth-like, in that it is not clearly obvious that political ideologies drive economic policy among Caribbean states as it did in the past. There is a sense of convergence and perceived commonality on what needs to be done, driven by an emerging Caribbean pragmatism, or the disillusionment with the elusive quest for growth (Easterly, 2002). In addition, there is a growing recognition of the role and importance of islands, and the place of islands at the core - not the peripheral - of a global economy.

It appears, although substantial empirical research is still needed, that the commonality of consciousness Caribbean economic policies has been scrubbed of divergent ideological undercurrents in the post cold war era. This in contrast to the 1970's and 1980's where it has been said that we had come to expect a heavy dose of political commentary, as part of the nature of social science discourse whatever the topic (Conway, 1987). This current economic recession may in fact be a 'schadenfreude' moment for those who have long criticized global capitalism and its Eurocentric ideological underpinnings. However and more importantly, it is also a time for some to engage in economic discourse with a deeper philosophical and ideological flavor that posits this event as a paradigm shifting crises, rather than a correction and dust-off the discarded and tired models of economic development that have no relevance to the current island realities as viable alternatives.

Beyond ideologies, the study of islands on their own terms today enjoys a growing recognition in global research streams. There is indeed an emerging acknowledgement that islands are distinct enough and contain key differentials, to warrant their scientific respect as subjects of academic discussion and inquiry (Baldacchino, 2006). In addition, in reviewing the evolution of island philosophies and studies, there is a clear shift away from a classical vulnerability-couched discussion that dominates and dates up to the 1990s, towards a more holistic understanding and conceptualization of islands, islandness, and island development (Peterson, 2009).

Since the early 1960s, literature has discussed the problems of smaller territories (Benedict, 1967; Streeten, 1993) asking questions such as: How can small islands survive economically? What are the limitations of small scale? How can islands defend themselves? In these early writings, islandness was considered a source of significant and insurmountable disadvantage in terms of economic growth and sustainability. As we face a new economy and global reality, these age-old questions resonate again, as islands find themselves facing new trends and increasing turbulence. Indeed, towards the latter part of the 20th century, this original stream in island studies was strongly influenced by several institutions, including the UN, ECLAC and CARICOM, and their individual and collective work on the vulnerability of SIDS in the context of globalization (Streeten, 1993; Briguglio, 1995; United Nations, 1997).

The general conjecture of this era and stream of, predominantly descriptive, research hypothesized a negative impact of islandness on economic growth (Read, 2007) and was geared at measuring the vulnerable state of SIDS. It reinforces a 'Calimero complex' of island nations, emphasizing their weaknesses, disabilities, limitations, constraints and *inherently* vulnerable state of affairs and an 'island state of mind'. A further drawback of this initial line of reasoning is the lack of empirical evidence and support for the 'island backwardness' and the several methodological limitations of a relatively small body of empirical research (Read, 2007).

Today, island discussions have matured as we dive deeper beneath the surface of superficial deficiency-based questions and simplistic deterministic assumptions and 'sink-or-swim' assertions, and also ask ourselves: What are the strengths of islands? How can island nations thrive on turbulence? What are the systemic characteristics and capabilities of 'islandness'? How do islands build resilience and develop strategic flexibility and requisite agility? The foregoing questions represent a somewhat silent paradigm shift in our assumptions about, and subsequent scientific study of islands, islandness and island development. This line of inquiring testifies towards a clear and present departure from 'being' to 'becoming', i.e., from being vulnerable to becoming competent and building resilience (Peterson, 2009). It marks a significant development in our understanding of the non-deterministic nature of islandness and island development, and subsequently the role and responsibility of, e.g., institutional capacity, governance capabilities, policy development, social capital, economic competence and localized business networks (Peterson, 2006).

The foregoing shift in emphasis is notable in a growing body of research (Baldacchino, 2006; Brautigam & Woolcock, 2001; Demirguc-Kunt, 2006; Easterly & Kraay, 2000; Peterson, 2006; Read, 2007), which focus on island resilience and resourcefulness, and, e.g., the role of institutions and innovation in managing vulnerability and opportunity in sustaining growth, competitiveness and prosperity. Initial empirical research has been forthcoming on the small and positive impact of islandness (Read, 2007). Methodologically this 'neo-islandness' stream of research captures the impact of islandness over and above the use of a dummy variable for SIDS, and no longer assumes a homogenous group of SIDS, thereby increasing the definitional and conceptual robustness, and the empirical reliability and validity of island studies (Read, 2007).

The general tenet of these studies suggests that island states succeed at globalization and global integration by differentiation and developing deeper capabilities (Peterson, 2006). Seemingly paradoxical, success at global integration begets higher levels of local differentiation. Islands prosper when they are able to combine economic competitiveness, continual innovation and increasingly higher value-added production, with reductions in poverty, and improvement in socio-economic conditions such as health, literacy, education, safety and social cohesion (Brautigam & Woolcock, 2001).

This growing body of evidence supports the premise that, in addition to different other important factors, the performance and long-run economic growth and welfare of a country are influenced by its degree of financial development and the systemic capacity of financial systems (Demirguc-Kunt, 2006; Levine, 2004). Conceptually, the link between financial development and economic growth can be traced back to the early work of Schumpeter (1942). Recently, in assessing the global state of financial affairs, Roubini & Bilodeau (2009) indicate that the higher the degree of financial development, the wider the availability of financial services that allow the diversification of risks, which subsequently increases the long-run growth trajectory of a country, and ultimately improves the welfare and prosperity of producers and consumers that have access to financial services.

According to Demirguc-Kunt (2006), countries with better developed financial systems, in terms of depth and breadth of systemic assets and capacity, experience faster economic growth. In addition, studies indicate that financial systems play a crucial role in alleviating market frictions, and thus influence savings rates, investment decisions, technological innovation, and consequently therefore long-run growth rates (Demirguc-Kunt, 2006). The question remains, however, how, why and by what means and mechanisms, *island*-based indigenous financial systems operate and affect economic growth in *the Caribbean*.

3. Exploring Financial Development and Systems in Caribbean Island Economies

Financial systems mobilize and pool savings, provide payments services that facilitate the exchange of goods and services, produce and process information about investors and investment projects to enable efficient allocation of funds, monitor investments and exert corporate governance after these funds are allocated, and help diversify, transform and manage risk (Demirguc-Kunt, 2006). Financial systems encapsulate a range of factors and actors, including markets, intermediaries, range of assets, institutions, and regulations. Financial development is a multilevel, multidimensional construct consisting of multiple factors such as size, depth, access, and the efficiency and stability of a financial system (Roubini & Bilodeau, 2009). Financial intermediaries are critical to the internal capital flows and resource allocation imperative in an economy. Codrington and Coppin (1989) describe financial intermediation as the bringing together of surplus and deficit economic entities in order to allocate efficiently financial resources.

The role of indigenous financial intermediaries becomes even more vital within the framework of economic crises as a means of mobilizing savings and allocating resources to the broader economy. To the extent that this sector is undeveloped, under-developed, or under development, it impacts the optimal allocation of those resources and results in a misallocation to the least productive or least value enhancing sectors of the economy. This may lead to lower investment flows to the economy's productive centers and more to consumer spending which leads invariably to capital outflows in an open island economy. In assessing the global competitiveness of different countries, the World Economic Forum recently emphasized the importance of good governance and effective design financial systems for economic development in contemporary times:

“An efficient financial sector allocates the resources saved by a nation's citizens as well as those entering the economy from abroad to their most productive uses. It channels resources to those entrepreneurial or investment projects with the highest expected rates of return, rather than to the politically connected. A thorough and proper assessment of risk is therefore a key ingredient. Therefore economies require sophisticated financial markets that can make capital available for private-sector investment from such sources as loans from a sound banking sector, well-regulated securities exchanges, venture capital, and other financial products. This has been once again underscored by the liquidity crunch experienced by businesses and the public sector in developing and developed countries in recent times” (World Economic Forum, 2009).

The pivotal role financial intermediaries have in resource allocation within the Caribbean cannot be overstated. The Caribbean lacks homogeneity and cohesiveness and has major structural shortcomings, according to Barcena (2009). In addition, it is vulnerable because of “*thin domestic linkages, disadvantageous geographic location and remoteness, and has experienced macro economic instability inherent in characteristic insular export specialization and concentration, marked import dependence and disaster proneness*” according to McElroy (2006). With these relative disadvantages and risks, it becomes even more important to design suitably integrated institutional infrastructures and financial architectures of island economies, in order to channel resources for improving productivity, improving competitiveness, and reducing the level of poverty and income inequality within island communities.

Precisely because islands are exposed to the turmoil and turbulence of global currents, the quality and sophistication of their institutions and financial systems matters even more in terms of national innovation and competitiveness (Peterson, 2009). The fact is that state interventionist economic policies may be the only effective counter measures within the context of a global capitalized framework to offset off-island capital flows. The implied consequence of this is that those limited capital resources should be allocated to where they can be most effective. These are among the armory of policies that government has to promote increases in productivity and competitiveness and a proactive approach is needed to dampen the recession’s impact. The effectiveness of the region’s response, however, depends to a significant extent on the islands’ different macro- economic situations and whether or not they have room to finance effective counter cyclical policies (Moreno, 2009).

Building forth on the conceptual work of Porter (1990) on the competitive advantage of nations, preliminary explorations in the Caribbean underscore the importance and interplay of institutional and business forces in building institutional capability and industry sophistication. Analysis of World Economic Forum (2009) data on the sophistication of financial systems and markets in the Caribbean suggests that Caribbean island economies find themselves at different stages of development, and are lagging behind other (island) economies (see Table 1). A review of the data also suggests that small-island economies in the Caribbean have not been immune to the international financial crisis, yet, preliminary results indicate that in comparison to small(er) economies, larger economies experienced a sharper drop, according to World Economic Forum (2009). Size and history does seem to matter, but in which the depth and institutional embedding of financial systems are pivotal.

Country	Global Rank (1-133)	Change in rank (2010-2008)	General Competitiveness (1-7)	Stage of Development (1-3)	Financial Market Sophistication (rank, score)
Puerto Rico	42	-1	4.48	3 (innovation)	62, 4.26
Barbados	44	-3	4.35	2 (efficiency)	38, 4.67
Jamaica	91	+5	3.81	1 (basic)	46, 4.58
Dominican Republic	95	-3	3.75	2 (efficiency)	105, 3.64

Table 1. Competitiveness and Financial Market Sophistication of Select Caribbean Island Economies (WEF, 2009)

Based on further analysis of select country data (World Economic Forum, 2009) of Caribbean island economies, Peterson (2009) shows how *institutional capabilities*, as measured by macro-economic stability and institutional structures, and *industry sophistication*, as measured by financial market sophistication and business sophistication, are strongly related to on innovation and competitiveness of small-island economies in the Caribbean (Figure 1). In general, the results underscore the importance of island state innovation for building and sustaining competitiveness in an increasingly more turbulent global economy.

More specifically, the preliminary findings concur with previous studies that indicate that the sophistication of financial markets is associated with faster rates of innovation and firm dynamism (Demirguc-Kunt, 2006), and suggest that institutional capabilities play a dual role in enabling industry (financial) sophistication and stimulating national innovation capacity, thus reinforcing the notion that public and private institutions - in tandem - play a strategic role in economic development and growth (Brautigam & Woolcock, 2001; Peterson,

2006; Read, 2007). These preliminary explorations of course beg further qualitative investigation and in-depth validation into the how and why of the workings of island financial systems within a larger socio-political institutional context.

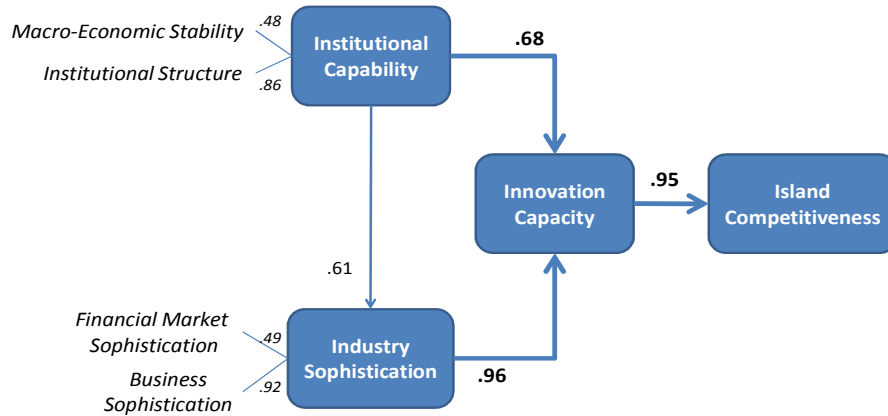


Figure 1. The Role of Institutional Capability and Industry Sophistication in select Caribbean Island Economies (Peterson, 2009).

The focus on the sophistication of financial systems and the efficacy of financial intermediaries is also important due to the pernicious, corrosive impact of money laundering in SIDS. Although reliable quantitative data is not readily at hand, there is sufficient anecdotal evidence to suggest that drugs are the primary source of dirty money (Economist, 1999). The geographical proximity of the Caribbean to major drug suppliers has facilitated the corruption of the financial systems in those islands with weak banking regulations and anti-money laundering laws. In fact, Antigua was pointed out as one of the primary centers in the Caribbean for money launderers and the OECD funded Caribbean Financial Action Task Force (CFATF) continues to struggle for transparency and tighter financial regulations. A further drill down of some Caribbean islands' economy may discover that these economies float on an undercurrent of laundered money using "property, construction, insurance, stock broking, foreign exchange, gold or jewellery" as economic props. Given the potential impact of money laundering, the challenge is to facilitate economic development by scrubbing financial flows of laundered funds which are counter-productive and avoiding the use of financial intermediaries as conduits for those funds .

Emphasizing the role of institutional capabilities, one of the most notable features of this economic crisis is the region's level of preparedness in terms of financial stability and economic growth. As Barcena (2009) points out, prior to 2009 the region was "experiencing growth rates that it had not seen for four decades, which was the fastest growth the region had seen in 40 years". Most key measures of growth were met or exceeded in the last four to five years , including the level of remittances, decline in regional unemployment (to 7.5%), extreme poverty reduction (from 19.4% to 12.9%), and international reserves region wide averaged 13% of regional GDP (Barcena, 2009).

Within the Caribbean there was an improvement in the strength of the financial sector which was based on endogenous, organic growth, rather than an infusion of foreign capital which was essentially short term. In addition the Jamaican banking crises of the 1990's had been resolved with a strengthening of the institutional framework of bank governance which resulted in increased capitalization and significant write offs of non-performing loans (Williams, 2008). Macro-economic management has improved markedly with good performance in key economic parameters, fiscal deficits have been reduced, public debt declined and net international reserves have increased, which has increased the resilience of regional economies, according to

Williams. The graph below (Figure 2) summarizes the percentage change in real GDP from 2002 -2007 for selected Caribbean islands showing a positive trend despite inter island disparities in economic growth.

% Change in real GDP

Years	2002	2003	2004	2005	2006	2007	2008
Aruba	-2.1%	0.5%	7.4%	1.0%	0.6%	-0.1%	-1.6%
Bahamas	2.3%	1.4%	1.8%	2.7%	3.4%		
Barbados	7.0%	2.0%	4.8%	4.1%	3.8%		
Antigua and Barbuda	2.5%	5.2%	7.2%	4.7%	12.5%		
Dominica	-4.2%	2.2%	6.3%	3.4%	5.3%		
Grenada	1.8%	8.1%	-7.2%	14.0%	8.0%		
St Kitts and Nevis	1.1%	0.5%	7.6%	4.8%	6.4%		
St Lucia	3.1%	4.1%	5.4%	6.0%	4.0%		
St Vincent and the Grenadines	3.7%	3.2%	6.2%	3.6%	8.7%		
Jamaica	1.1%	2.3%	1.0%	1.4%	2.5%		
Netherland Antilles	0.8%	3.3%	2.8%	4.8%	5.1%	6.3%	
Trinidad and Tobago	7.9%	14.4%	8.8%	8.0%	12.0%		

Figure 2. GDP change of select Caribbean economies (Central Bank of Aruba Annual Statistical Digest 2008).

At the micro level, research has shown that the development of financial systems, incorporating the nexus of structured rules and institutional framework that enforces contracts, enhances the opportunities for small business startups by reducing the level of entrepreneurial risk or by aligning the risk reward choice more favorably (Demirguc-Kunt, 2006). Increased capital flows light up the underbelly of entrepreneurship and releases those “animal spirits” that considers risk taking within a business context as the best approach to increasing wealth within the community. The allocation role of financial intermediaries becomes quite crucial for development objectives of any small island economy as it faces the task of diversifying from its mono economic base. If properly allocated to small and medium sized business increased capital flows will reduce the major constraint on firm growth by reducing its cost of capital. This reduction combined with “patient capital”, that is, capital that does not have a short term deadline for its return to capital providers or a positive return on capital, allows small businesses to develop and to do so within a medium to long term view framework. In fact, this sort of capital is driving the clustering of ethnic driven or ethnic dominated ventures to the exclusion of the others who lack such access within the society. One sees the impact in the Chinese domination of supermarkets or grocery stores and other ethnically based businesses.

It is a well established fact that micro- and small-size enterprises dominate in the Caribbean economy, yet still face considerable barriers and challenges in acquiring financial capital. More importantly, the organization and allocation of venture capital in Caribbean island economies is oftentimes not present, thereby impeding productivity growth and innovation. The approach to capital sourcing should be broad based because the success of these clusters points to the real opportunities that exist within small island economies. These initiatives should be inclusive rather than ethnic-based, and financial intermediaries are the tools to achieve this outcome.

It is clear that the social exclusiveness of *laissez faire* capitalism and a substantive absence of aggressive state intervention, which the Caribbean substantially subscribes to, have led to vast disparities in wealth and wealth creating opportunities. Further, the propensity by those policy makers of the neo-liberal economic schools, to adhere to a doctrine of trickle down wealth creation has failed to significantly reduce poverty rates. As a consequence the poor find it difficult to fund their own investments, since they lack the resources, collateral

and political connections to access finance (Demirguc-Kunt, 2006). This perpetuates the systematic, structural income and wealth inequality which is endemic on to islands. More importantly it impedes economic development and reinforces the dependence on globalized capital for growth and development. Such global capital has no allegiance to fixed locales and seeks to maximize returns on a global scale wherever and whenever those opportunities arise, despite the impact on local economies.

Caribbean policy makers tend to think of development in terms of capturing the next big investor, the next big chunk of this fast moving capital and harness it for local investment. Yet this is to view the economic architecture from a helicopter. This view does not allow them to see the importance of incremental, indigenous capital formation in fostering economic development. It is the marginal experience that transforms the economy and fosters growth. It is the success of that entrepreneur at the margin that transforms poverty to wealth; it is the access to credit at the margin that allows others to gather resources into a wealth creating, value added product.

4. Conclusion and Future Research

The foregoing sections have succinctly presented the current status and case for financial systems and development in Caribbean island economies. While research is currently still underway, the foregoing preliminary insights highlight some initial findings and lessons learned, including but not limited to, e.g.:

- The paradigm shift of islandness from being vulnerable to becoming resilient and building strategic capabilities;
- The importance of sound financial systems for sustainable economic development of Caribbean island states, and subsequently, the strategic opportunities that lay ahead for Caribbean island states in the global economy;
- The contribution of financial market sophistication to industry dynamism and national innovation, and subsequently the role of, e.g., entrepreneurship, business networks, service innovation, access to financial services and venture capital;
- The importance of institutional capabilities in enabling industry dynamism and stimulating national innovation, and subsequently the role of government in, e.g., providing a stable political and macro-economic environment, fiscal discipline, strong regulation and supervision, and the general well-functioning of legal and information infrastructures.
- The contingency of island (economy) size and the contextualizing effect of island (historical) development, initial legal and jurisdictional endowments, and institutional legacies.

While the importance of this study is underscored by the current economic crisis and the initial findings on the strategic importance of financial systems described above, there is a general paucity of empirical research on the role of financial systems in the economic development of *Caribbean island states*. This doctoral research-in-progress attempts to fill this 'Caribbean island' void by focusing on the institutionalization and innovation of financial systems in Caribbean island economies, and questions the embedded design and effectiveness of island financial systems in terms of policies and institutions, markets and mechanisms, that are conducive of financial innovation and economic development.

In light of the lack of empirical studies on financial systems in the Caribbean, and the need for an in-depth understanding of how and why financial systems affect and contribute to small-island economies, and consistent with previous country case studies (Demirguc-Kunt, 2006), a *multiple embedded case study design* is chosen (Yin, 1994). The choice for a multiple embedded case study research design is also motivated by the

lack of a strong theoretical framework which considers a *capability-based* perspective of *island development in the Caribbean*, and the fact that national data is often sporadic and fragmented in the Caribbean. Case study research is the preferred approach because it is context-driven and may appeal more to the target audience by encouraging an understanding of fairly complex and novel issues. In addition, multiple case studies allow for the simultaneous development and validation of (existing) theories and models.

Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. According to Yin (1994), and particularly applicable to the embedded complexity of financial systems in island states, case study research investigates a contemporary phenomenon within its real-life context, when the boundaries between phenomenon and context are not clearly evident, and in which multiple sources of evidence are used. In terms of sources of evidence, this research builds forth on previous studies by employing:

- *Multiple case studies* in the Caribbean, focusing on selected island economies, including Aruba, Barbados, Dominican Republic, Jamaica, and Puerto Rico. Initial data and island analysis has already been conducted on this case countries, yet further in-depth data collection and data analysis are pending;
- *Embedded case study design* by analyzing multiple levels of data at the level of the economy, industry and company. Financial systems consist of several (layers of) subsystems and interact at different levels and with different actors, ranging from the state (macro) to the firm (micro). Of particular interest are the developmental nature and dynamic processes underlying island financial systems and how they interact with the wider (socio-) economic system;
- *Multiple data collection* using both quantitative and qualitative data, including, interviews with key stakeholders, industry surveys, secondary economic data, and historical data in archives. The collection of multiple data serves to build rich case studies and improves reliability by means of triangulation. In addition to standard (macro-) economic (national and regional) data, data will also be collected on, e.g., institutional environment and structures, business environment and processes, banking and non-banking financial services, financial markets, networks and services, and financial access;
- *Mixed data analysis* will consist of both *statistical techniques* including time-series analysis and multivariate regression analysis to determine the direction and strength of relationships between key constructs and variables. In addition, data analysis will also consist of *qualitative pattern-matching* and *cross-case analysis* to determine key patterns in explaining how and why financial systems contribute to economic development of Caribbean island states.

In conclusion, and drawing upon recent findings on the global state of affairs of financial systems by Roubini & Bilodeau (2009):

*“The scale of the current financial crisis has rightfully stimulated movements to design and implement coordinated global governance of financial systems commensurate with their interdependence. ...The challenges and contexts for financial systems across the world’s major economies are varied and complex. Solutions at the global level must be accompanied by the rigorous prioritization and implementation of reforms **at the local level that are targeted to address the most pressing weaknesses and to cultivate existing strengths**”* (Roubini & Bilodeau, 2009) [emphasis added].

As an addendum to the foregoing, this research would add: *“in addition to the rigorous research and development of sound financial systems for the sustainable socio-economic development of Caribbean states”*.

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