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ECONOMIC VULNERABILITY IN THE CARIBBEAN IN THE 1990s: SELECTED CASES

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Abstract. This chapter attempts to show that Caribbean Small Island Developing States (SIDS) are economically vulnerable due to a number of features, including a high degree of economic openness and a relatively high dependence on a few items of exported goods and services, and relatively high dependence on imports of strategic importance. The SIDS covered in the study are Antigua and Barbuda, Barbados, Dominica, Jamaica, St Lucia and Trinidad and Tobago. The chapter argues that given this reality, the Caribbean SIDS need to build their resilience in order to cope with their inherent vulnerabilities and to benefit adequately from the globalisation process. Four important policy measures are proposed in order to build the resilience of the Caribbean SIDS, namely (a) diversification (b) efficiency in energy use (c) market integration and (d) sustainable development, in order to take account of social and environmental, in addition to the economic dimensions.

1. Introduction

The challenges of economic development of small economies have occupied Caribbean thinkers[1] since the immediate post-World War II period. In the 1990s, the issue of size is once again in focus in the form of the economic vulnerability of the Small Island Developing States (SIDS) of the region.

In this chapter, economic vulnerability is interpreted to mean exposure to risks arising from exogenous shocks to an economy's systems of production, distribution and, by extension, consumption. This is a dynamic macroeconomic perspective on economic vulnerability that focuses on the impacts of shocks on the processes of economic growth and economic development, and in the extreme cases, on the livelihoods of sections of the population.

[1] Perhaps the two best-known works are Lewis (1958) and Demas (1965).

One type of exogenous shock to the economy's production system originates in natural forces, such as a hurricane that can destroy tourist facilities and agricultural crops such as bananas.[2] An ECLAC study in 2002 gave examples of damage to selected Caribbean economies caused by hurricanes in 1995, with estimates as high as 105.2 percent of GDP in St Kitts and Nevis and 147 percent of GDP in tiny Anguilla (ECLAC, 2002: Table 2).

Another type of shock arises from social disruption, such as a military invasion or violent revolution. Modern Caribbean history is replete with examples such as the invasion of Grenada in 1983, social unrest in Jamaica in the 1990s, and heightened political instability in Haiti since the 1990s.

In the era of globalisation, rapid changes in the terms of engagement of SIDS with the world economy have generated far-reaching shocks to SIDS. SIDS tend to be open economies, with a high ratio of imports plus exports of goods and services to GDP. This means that is, a major portion of economic activity revolves around international trade. In addition, SIDS have been historically dependent on external finance in the form of foreign investment, foreign aid, and remittances from migrants. In the last two decades, some islands and low-lying coastal countries, such as Jamaica, Antigua and Guyana in the Caribbean have become dependent on external debt financing. External shocks can arise from sudden adverse shifts in the terms of trade, and from sharp reversals of volatile capital flows.

Concern with the economic vulnerability of small island states is at once concern with the capability of these states to adjust to the rapid changes in the international economy by repositioning themselves in the emerging international division of labour. Their dilemma is that their capability to earn income in the international markets and to attract capital flows is being outstripped by their demand for resources to meet consumption and investment, and in some cases, debt repayment.

The rapid economic changes brought by the globalisation process in the 1990s have tended to put downward pressure on the foreign exchange earnings of island economies that depend on traditional primary product exports, through the weakening of prices and the loss of access to markets.

[2] The recent occurrence of Hurricane Ivan in the Caribbean, especially its destructive effects on Grenada, is an striking example of how devastating a natural event can be on vulnerable small island states.

The cases of sugar and bananas for Caribbean economies are well known. At the same time the liberalisation of import regimes have effectively removed the distinction between the domestic market and the international market for many commodities with domestic producers facing competition from imports.

For small island exporters of primary products with low income elasticities of demand, increases in income in the importing countries lead to less than proportionate increases in the demand for these exports.[3] Indeed, in some cases these goods may also be inferior ones, in an economic sense, and therefore there could be a decline in the demand for them as foreign consumers become richer. As demand shifts away from traditional exports, SIDS have little else to offer in the short to medium run, since their export activities tend to be concentrated among a few major goods and services

The price elasticities of small island economy imports tend to be low since a large proportion of imports are industrial supplies and other necessities.[4] Price increases inevitably mean almost *pari passu* increases in import expenditure since there is little room for cut-backs of imports of necessities. For every 10 percent increase in the price of an imported good or service, the import bill will tend to rise by the percentage increase in the price multiplied by the share of expenditure on that commodity in the total import bill. It is because this bill tends to be high for necessities (e.g., oil and food) in SIDS that the initial shock of rising import prices to the economy is translated into a major wave of disruption of economic activity.

Where import regimes have been liberalised, consumers benefit initially from the lower prices of imports, but in this case, the domestic producers of substitutes are likely to be adversely affected by the foreign competition. Further, the development of new exports requires adequate investment, the relevant know-how, and ease of market access. In the interim period, import levels can be sustained with debt for a few years, but servicing

[3] See A.P. Thirlwall's comprehensive review of development theory that discusses the tendency for developing countries to export primary agricultural commodities and some manufacturing commodities with low income elasticities of demand. In particular, see pages 115, 274, 667.
[4] Necessities are to be understood in the literal and socio-cultural senses. Petroleum is literally a necessity for automobiles to move, and for power generation in general. An example of a socio-cultural necessity is the quasi-addiction to wheat that Jamaicans have developed.

the debt imposes additional charges on the country's foreign exchange earnings in the immediate future. Thus, the vulnerability of SIDS to sudden adverse shifts in the terms of trade tends to be compounded by the cost of attracting new investment and/or the cost of new debt.

In an era of rapid change in the international economy and the redirection of investment flows away from primary producing activities, the adjustment to external shocks and the management of vulnerability are very challenging to SIDS.

Inevitably the economic changes feed into the social changes, such as migration, the adoption of new patterns of consumption and social behaviour, and the generation of tensions in the relations within and among various social groups. While migration generates remittances that help to cushion shocks to the soft underbellies of SIDS' economies, it also drains their societies' highly-skilled and leadership resources, and tends to destabilise the primary social unit, the family.

The communications revolution is leading to rapid changes in the patterns of consumption and social behaviour that test the fabric of many societies and widen the gap between their capacity to produce and their consumption needs and wants. If the relations among people as individuals and in their groups are the threads from which the social fabric is spun, the rupture of these traditional relationships constitutes the social vulnerability of these states.

Environmental vulnerability is the third dimension of the vulnerability of small island states. In recent times, this vulnerability has been most graphically expressed in the rise of sea levels that accompanies global warming. The societies that inhabit these islands are threatened by the natural forces spawned by climate change.

Human behaviour, especially economic activities, often aggravates the potential damage of natural forces. Thus, damage to reefs by tourist activities, effluent disposal by hotels and households, chemical run-off from agricultural and mining activities, and deforestation arising from the practice of burning charcoal exposes the island to greater destruction from hurricanes and flooding respectively.

These three dimensions of vulnerability interact with, and too often reinforce, each other.

2. Economic Vulnerability in the Caribbean

In order to review the recent trends in the economic vulnerability of the Caribbean, the present author (Witter, 2003) has adopted a Briguglio-type[5] index of economic vulnerability (IEV), that is, one based on an equally weighted average of four indicators (Briguglio, 1995)[6], namely:

- *Exposure*, as measured by an indicator of openness, namely, the ratio of the sum of imports and exports of goods and services to GDP.
- *Export concentration*, as measured by the ratio of the sum of the three principal exports of goods plus tourism to total exports of goods and services. Where detailed export data was unavailable, as in the case of Antigua, an appropriate adjustment was made to the indicator.
- *Energy dependence*, as measured by the share of imported energy in total energy consumption.
- *Debt*, as measured by the ratio of the stock of external debt to the GDP.

The IEV proposed by Witter (2003) differs from Briguglio's mostly in that it excludes a peripherality index and includes a debt index.

The Caribbean is physically close to one of its major markets, North America, and has good communication and transport services to its other major market, the European Union. For this reason an indicator of remoteness may not be as relevant to the Caribbean as to other SIDS, such as those in the Pacific and the Indian Ocean.

The external indebtedness of so many of the Caribbean countries presents itself as an aspect of vulnerability that should be captured in the index. While there are internal factors that account for the indebtedness, such as inappropriate public policy, there are also external factors arising from the declining terms of trade that have stymied the gains from trade by developing countries.

On the basis of these definitions, Witter (2003) estimated the IEV for six Caribbean SIDS—Antigua and Barbuda, Barbados, Dominica, Jamaica, St Lucia and Trinidad and Tobago for the decade 1992-2002. The results averaged over a period of ten years, confirm that these

[5] Lino Briguglio of the University of Malta pioneered the definition and estimation of an index of economic vulnerability.

[6] Witter (2003) opted for equal weights for the four indicators in the overall index since there is no objective basis for assuming unequal weights. The variables of the index were normalised as in Briguglio (1995).

states have relatively high vulnerability scores, a finding also reported in Briguglio (1995). Averaging vulnerability scores over a period of ten years has the advantage of smoothing out random or short-term variations, given that the features included in the index are inherent and quasi-permanent. Witter (2003) however found that there is some indication that the scores have tended to increase over the 10-year period.

Table 1 presents some data on these six SIDS.

- In terms of area and population, Jamaica is the largest, followed by Trinidad and Tobago. However, in terms of GDP, Trinidad and Tobago is significantly larger than Jamaica, which is three times as large as Barbados, the next in size.
- In terms of GDP per capita, Barbados is the best performer, with Jamaica being by far the worst. It appears anomalous that Antigua outperforms Trinidad, the region's most successful economy by many other measures.
- Trinidad is primarily a petroleum exporter, but it has become the most diversified economy with the development of manufacturing.
- Tourism is important in all the economies with the exception of Trinidad and Tobago where it has only recently been encouraged. Antigua, Barbados, and to a lesser extent Jamaica have long committed themselves to tourism, but tourism is a recent development in Dominica and St Lucia, where for the past several decades, bananas have been the most important export.

Table 1
Selected Indicators of the Sample of Caribbean Economies

	Antigua & Barbuda	Barbados	Dominica	Jamaica	St Lucia	Trinidad & Tobago
Population ('000)	76	270	71	2609	158	1267
Area (Km^2)	442	431	750	10991	616	5128
GDP (US$ Million)	584	2549	263	7768	660	8955
GDP per capita (US$)	7706	9444	3696	2977	4185	7069
Agriculture/GDP (%)	3.9	4.7	18.6	6.6	6.5	1.8
Mining+Manufacturing/GDP (%)	3.9	6.8	8.6	18.6	5.3	38.1
Tourism Expenditure/Exports (%)	6.36	2.53	1.02	1.03	4.79	0.05
HDI Rank (2002)	55	29	95	79	71	54
No. of Natural disasters 1970-2000	6	4	6	17	8	4
Average IEV 1992-1999	0.44	0.43	0.49	0.41	0.72	0.47

Source: Caribbean Development Bank (2002) and World Bank (2002).

- In terms of the Human Development Index (HDI), Barbados and Trinidad and Tobago are classified as high human development countries, with the rest classified as countries in the medium human development category.

3. Resilience

Even where the risks of sharp and rapid changes in the terms of engagement of SIDS with the international economy are no greater than other types of economies, the capability to absorb, withstand and recover from the shocks of these changes, that is the resilience of these economies, is likely to be weaker than the resilience of large developed economies. Large developed economies that are dependent on petroleum imports are equally at risk as SIDS to sudden price increases, but the impact on the SIDS due to their high reliance on foreign trade, is likely to be greater and more disruptive of economic activity. For example, it is arguable that Jamaica's secular stagnation was triggered by the oil price increases of 1973, and three decades later the economy still has not recovered a path of sustained growth, although other factors, including governance, have had a major influence as well.

Similarly, the loss of export earnings is relatively more harmful to SIDS because of their high dependence on a limited range of exportable goods and services. The experience of the Windward Islands banana exporters, two of which, Dominica and St Lucia, were included in the sample for this study, exemplifies the lack of resilience. The Dominican economy has been so badly affected that the migration rate is now exceeding the rate of natural increase of the population. In St Vincent, another traditional banana producer, some farmers have turned to producing marijuana for export.[7] St Lucia has had marginal success in developing tourism to replace the banana industry, but the signs of rural stagnation are unmistakable.

The economies of SIDS are said to be "fragile" in the sense that they are easily damaged, because their economic structure is "thin". That is, the range of economic activities is narrow, and the number of producers within each type of activity is small. This feature arises from the small size of the islands—in terms of land mass and population.

[7] Some informal economic activities that have long existed have received a boost as producers displaced by globalisation search for new survival livelihoods.

This thinness of the economic structure accounts for the lack of resilience, as the opportunities for alternative economic activities are limited, and within each line of activity the tendency for monopolistic or oligopolistic market structures. Ultimately this explains why the impact of an external economic shock on the island economy is proportionately greater than on a large economy.

Thinness is of course relative to the consumption, and hence the production, requirements of the population. As consumption patterns of island societies converge with those of the developed countries, traditional economic activities, and the structures that support them, become less capable of meeting social needs, and reliance on imports increases.

For example the acquisition of tastes for imported foods is coinciding with the weak (and in some instances, weakening) capability of domestic food supply systems. Throughout the Caribbean, and particularly in Jamaica, the 1990s brought several multinational foreign fast food providers utilising primarily imported food supplies. At the same time, there is evidence that the percentage of household expenditure on food that is accounted for by "meals away from home" has increased *pari passu*.

In the case of meals provided within the home, imported grains, such as wheat, have long been replacing traditional staples such as yams and other root crops.

In an earlier historical period, when consumption was more in line with the productive capacities of traditional economies, there was less exposure to external economic shocks and the adjustments to income loss arising from shocks were less challenging to socially acceptable living standards.

In other words, the requirements of modern island economies are now much more dependent on foreign supplies. This is particularly so in energy supplies. A reduction or an increase in the price of such supplies lead to major hardships for the population of the islands either because of the high dependence on energy intensive production activities and transportation.

The question arises therefore as to what the Caribbean SIDS should do to enhance the resilience, in order to improve their ability to cope with or withstand external shocks, which are to an extent associated with dependence on strategic imports. It should be emphasised that we are referring here to policy induced measures, which could mitigate or cushion the inherent vulnerability of the small island developing states. In the view of the present author, the most important policy measures that could be adopted in this regard relate to (a) encouraging diversification (b) using energy imports efficiently (c) promoting market integration and (d) fostering sustainable development.

Diversification

Diversification of the economy is a principal strategy in building resilience to sudden changes in international markets. As has been argued above, Caribbean SIDS tend to be vulnerable due to their relatively high dependence on a narrow range of exports, rendering their economic performance volatile. However, diversification is easier said than done, given the small size of the domestic market and the limited natural resources.

In pursuit of a broader range of export industries, many Caribbean SIDS have shifted rapidly in the 1990s to the provision of services, primarily tourism and to a lesser extent, offshore banking, to adjust to the decline and/or stagnation of traditional export earnings.[8]

However, where the dependence on traditional exports has been transferred to tourism, the vulnerability of these economies has increased even where the per capita levels of GDP have risen. Tourism is a fragile economic activity, because it is prone to disruption by natural forces, by social unrest in the host country, by unfavourable images in the international media, by the availability of and the accessibility to air transport, and by the unwillingness of people to travel either through real or imagined fears. In the aftermath of the destruction of the World Trade Centre in New York on September 11, 2001, the vulnerability of tourism to external events is patent.

Some small island jurisdictions have attempted to develop offshore financial services. These activities have received a major set-back with the imposition of the 25 criteria of the Financial Action Task Force set up by the OECD countries. Some countries have been able to institute the reforms required for compliance, but there are others that are still blacklisted (ECLAC, 2002).

[8] "Unilateral trade liberalisation in Caribbean countries since the 1980s has altered trade flows. Imports have been growing faster than exports in most countries and export diversification has been mainly in the area of services, namely tourism and offshore financial services, where most countries tend to have comparative advantage" (ECLAC, 2001: 12).

When considering diversification, it is pertinent to refer to the potential of informal legal economic activities. Such activities includes:

- very small scale agricultural activity, fishing and hunting;
- petty retail trade referred to in some places as higglering or huckstering;
- provision of professional and personal services (often unrecorded in official national accounts). These include the services of domestic servants, tailors and hairdressers, accountants and other professional consultants, practitioners of natural/herbal medicines, musicians and other entertainers, and others.

Throughout the Caribbean, informal economic activities play an important role in the livelihood strategies of the poor. Different types of informal economic activities thrive depending on whether the formal economy is expanding or contracting.

It can be argued that such informal economic activities can contribute to the resilience of the Caribbean SIDS, in the sense that they tend to cushion the negative effects of external shocks, which could lead to loss of jobs in the formal economy.

Some informal activities, however, do not contribute to sustainable economic development. In Caribbean countries facing severe cut-backs in agricultural exports, there has been an increase in the production and/or transhipment of illegal drugs to the lucrative North American markets, and the subsequent laundering of narco-dollars through various means, including trade in cheap imported consumer goods.

Efficient use of Energy

Energy dependence renders many SIDS as very exposed to conditions outside their control. Very little progress has been made in the CARICOM sub-region of the Caribbean in reducing the dependence on imported petroleum. Dominica has developed some of its significant hydropower potential and is in the process of tapping some of its geothermal power potential both for domestic consumption and export to neighbouring islands. In Jamaica, pilot projects in wind energy, fast-growing trees for charcoal production, biogas digesters, and marginal increases in hydropower have been implemented in the 1990s, but without significantly impacting on the economy's dependence on imported petroleum energy.

Policy-making in the region still lacks the holistic focus that treats energy as one item in a basket of goods and services. In Mauritius, for example, the traditional sugar industry was re-engineered to produce sugar and an array of sugar-based products as well as energy through co-generation (see Deepchang, 2003).

Potential energy solutions utilising solar energy for drying and heating, extracting energy from waste, and harnessing geothermal and ocean thermal energy resources are now well developed alternatives to petroleum-based energy. These solutions however require an alternative approach to development policy that is holistic, environmentally sensitive and long-term in vision.

Market Integration—the CSME

CARICOM is currently pushing hard to establish the Caribbean Single Market and Economy (CSME) by 2005. The rationale is that the regional market will facilitate growth and expansion by regional firms and serve as a platform for export to the international economy. The larger market will potentially ease the constraint of size that determines the thinness of national markets while allowing for some firms to develop the scale of operations required for successful participation in the international economy.

Even so, the CSME remains a small market by international standards, with a base of 5-6 million consumers and 20-25 million when the trade treaty with Cuba and the Free Trade Agreement with the Dominican Republic are included. A large firm by CARICOM standards would be a small firm by North American standards.

Furthermore, the potential intra-CARICOM trade has long been limited by the similarity of production structures among the member island economies, and by the strong export-import relations with the former metropolitan economies, primarily the UK. In the last decade, Trinidad and Tobago has come to dominate the intra-regional trade with its relatively powerful manufacturing sector and its supply of petroleum to other CARICOM member states. Again, there remains ample room for intra-regional cooperation in food and related production, and common services that depend on the commitment of the various national governments to a holistic approach to economic development strategies and the supporting policies in which regional cooperation is a high priority.

Resilience and Sustainable Development

Sustainable development implies taking a long-term view of development and living within your means. It also implies adequate participation by stakeholders and building consensus as to what needs to be done for improving the wellbeing of the population. Most of all, sustainable development has an ethical dimension in that the interests of one group have to be balanced against the interests of others. This also covers inter and intra generational considerations.

Importantly, sustainable development requires appropriate education, involving awareness of the meaning of such development, the development of participatory skills and promotion of appropriate sustainable livelihoods, with regard to consumption and production.

Promoting these goals and policies is a sure way to improve the resilience of the country. In particular, the sustainable consumption and production are essential requisites towards this end. To be sure, living beyond one's means increases susceptibility to external influences. Unfortunately, a decade after the adoption of the SIDS Programme of Action in Barbados in 1994, very little progress has been made in the Caribbean toward sustainable development. Similarly, progress toward the Millennium Development Goals adopted by all the countries four years ago, has been uniformly slow throughout the region.

4. Conclusion

In this chapter we have attempted to show that Caribbean SIDS are economically vulnerable due to a number of features, including a high degree of economic openness and relatively high dependence on a few items of exported goods and services, relatively high dependence on imports of strategic importance, and high rates of indebtedness. The SIDS included in the study are Antigua and Barbuda, Barbados, Dominica, Jamaica, St Lucia and Trinidad and Tobago.

The chapter argues that given this reality, Caribbean SIDS need to build their resilience in order to cope with their inherent vulnerabilities. Four major policy measures were proposed in this regard, namely:
(a) diversification;
(b) efficiency in energy use;
(c) market integration; and
(d) sustainable development, in order to take account of social and environmental, in addition to the economic dimensions.

By adopting such measures, Caribbean SIDS would be better able to cope with their inherent exposure to damaging external shocks, and as a result improve the possibilities of benefiting adequately from the globalisation process.

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