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REVIEW ESSAY:

Economic Vulnerability and Resilience of Small Island States

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Abstract

This essay assesses the principles of economic vulnerability and resilience and their contribution to the study and development of small island developing states (SIDS). It is based on a detailed critical account of the contents of a recent publication - Briguglio & Kisanga (2004) - that addresses this issue. It is thus an extended book review that examines arguments central to many current mainstream considerations of small island economies.

Keywords: vulnerability, small island developing states (SIDS), islands, resilience, indicators.

Introduction

The Briguglio & Kisanga (2004) volume is a welcome contribution to the ongoing debate/literature on economic vulnerability and resilience of small states – features that have become associated with such inherent attributes as smallness, peripherality, openness, paucity of natural resources and lack of structural diversification. In this, a number of international organizations, notably UNCTAD, the Commonwealth Secretariat and UNDP, have played a prominent role, largely prompted by practical considerations as, for example, the wish to show that small states are deserving of special consideration in terms of development assistance and trade.

The book is well structured, comprising four parts dealing respectively with: conceptual and methodological issues, country case studies, special and differential treatment for small states and the role of international organizations. There are 26 papers in all, most of which are based on expert presentations at a workshop held in Malta (fittingly in Gozo, a small offshore island) in March 2004.

The first set of chapters (Chapters 1-6) clarify some of the methodological and definitional issues relevant to an analysis of economic vulnerability and to an understanding of the techniques used in the construction of composite economic vulnerability indicators (EVIs). Particularly valuable are observations on specific, resilience-building measures that can be adopted to reduce the negative economic effects of vulnerability and to enhance prospects for economic growth. The case studies (Chapters 7-17), drawn from various regions, are valuable for the comparative viewpoint they provide. The papers about international organizations (Chapters 20-26) outline their role in supporting the resilience-building efforts of SIDS via technical, financial, consultative and related forms of assistance.

Economic Vulnerability Indicators

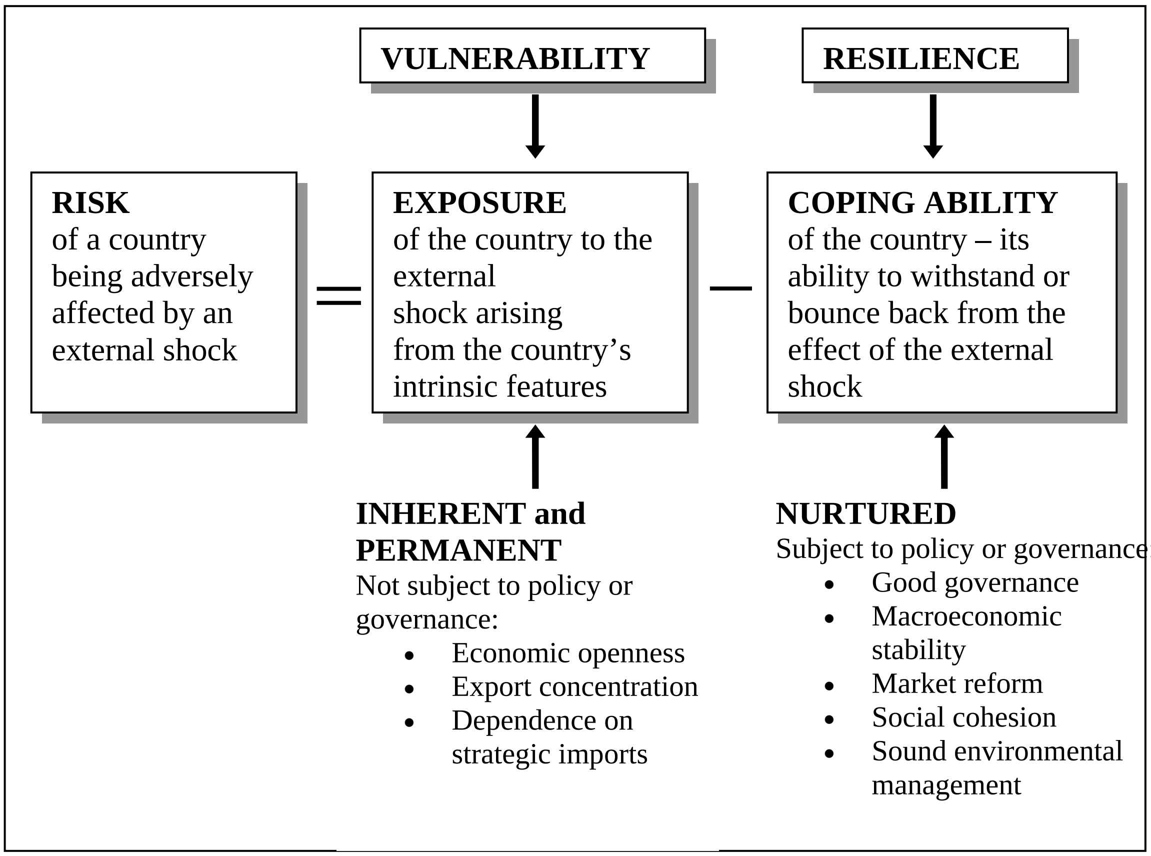
Attempts to construct EVIs are a relatively recent phenomenon. A major boost came in 1992 when UNCTAD commissioned a study of the feasibility of such an indicator for SIDS. This was followed, in 1994, by a major statement at a UN Conference entitled *Global Conference on Sustainable Development for Small Island Developing States*, held in Barbados, expressing the need for an EVI as a potentially valuable tool for assessing the development conditions and status of SIDS. This Conference endorsed the *Barbados Plan of Action* (BPoA) for the sustainable development of SIDS. In 1997, the United Nations Committee for Development Planning (UNCDP) recommended the adoption of an EVI as a criterion (together with measures of GDP per capita and an indicator of human welfare) for reviewing the list of Least Developed Countries (LDCs).

The basic object of an EVI is to provide quantitative indicators of major components of economic vulnerability and express them as a single composite index. The key variables are familiar: smallness, high trade dependence, remoteness, natural disasters and undiversified economic structures. For analytical purposes, researchers have tended to differentiate between economic vulnerability as being inherent or permanent on one hand, and that which stems from policy weakness or variously self-inflicted or nurtured on the other. This distinction is however not straightforward and invariably involves recourse to somewhat arbitrary assumptions and personal judgement. It is not surprising therefore, that one finds significant variations in methodology and in the construction of EVIs and what they purport to represent.

Among the various versions of EVIs discussed in this volume, Briguglio's (Chapter 2) is perhaps the least complicated. Briguglio postulates three key vulnerability components, classified as inherent or permanent conditions as distinct from those that are policy-induced or nurtured. These are: economic openness, trade concentration and paucity of strategic resources (e.g. energy). These variables are assumed to reflect more fundamental realities, for example, the small size of the domestic market, availability of resources, lack of diversity and limited natural resources. (Not specifically accounted for are natural disasters and environmental weaknesses, which, however, Briguglio included in some of his earlier versions of EVIs.) These inherent factors predispose small countries to a variety of external shocks over which they have little or no control and which can inflict severe harm on the economy. So far as policy-induced or nurtured vulnerabilities are concerned, Briguglio chooses to deal with these sources of instability separately and, accordingly, proposes the construction of a Resilience Index (RI). Viewed as a complement to EVIs, the RI is intended to measure a country's ability to cope with and meet harm from external shocks. The proposed components of RI are wide-ranging; encompassing such policy elements as good governance, sound fiscal and monetary policy, infrastructure strengthening, sound environmental management, and social cohesion (*see* Figure 1).

Briguglio acknowledges that the construction of a meaningful RI is likely to face many difficulties, but argues that its availability, and considered alongside EVIs, creates a useful methodological framework, helping to identify the most needy cases for purposes of aid giving, and handy in designing resilience raising policies for minimizing vulnerability risks.

Figure 1: Source: Briguglio & Kisanga (2004: 49)



The most interesting variant from the Briguglio’s EVI given in this volume is that associated with the UN’s Committee for Development Policy (UNCDP), UN ECOSOC (Chapter 4). This version was developed in the early 2000s and incorporates more variables than Briguglio’s schema, reflecting the effect of trade and natural shocks, the degree of structural diversification and ecological fragility. Specifically, these variables are:

- instability of agricultural production;
- instability of export of goods and services;
- log of population size;
- concentration of export goods;
- share of manufactures and modern services in GDP; and
- per cent of population displaced by natural disaster.

A composite EVI based on the above components reflected UNCDP's preference for an index capable of highlighting the degree of economic instability and fragility of SIDS, rather than vulnerability to external shocks as such. This approach was considered more useful in an operational sense, for example, in assessing the degree of economic fragility and in designating LDC status.

Of the other contributors to the EVI debate appearing in this volume, those by Patrick Guillaumont (Chapter 3) and Pierre Encontre (Chapter 4) are the most pointed. Both authors focus on inherent features underlying vulnerability, as opposed to policy induced factors. However, Guillaumont takes a broader view of shocks, which he equates with unforseen events relating to trade, the natural environment, and policy outcomes. Nonetheless, they both take issue with the component 'openness to trade', arguing that this condition is essentially policy induced, though admitting that it is not easily distinguishable from its inherent aspects. They also point out (quite correctly) that openness to trade has dynamic aspects that can contribute significantly to growth and resilience.

Regarding the actual measurement of economic vulnerability, Encontre (Chapter 4) cites figures of EVI scores compiled by UNCDP and UNCTAD for 2003, based on UNCDP methodology. The scores apply to 24 SIDS as well as a number of non-SIDS for comparison, selected on the basis of availability of data. Such data allows these countries to be ranked by degree of economic vulnerability, with a score of 100 representing the upper limit. Some features of the exercise are of particular interest. Thus, the highest degree of vulnerability, with scores of between 55 and 70, is recorded by the very small states of Tuvalu, Kiribati, Comoros and Cape Verde. This contrasts with the results for the larger SIDS such as Fiji, Jamaica and Papua New Guinea where the scores range from 31 to 37. Another notable feature was that, in the case of the most vulnerable SIDS, the influence of country size (as measured by population) and to a lesser extent export concentration and economic diversification, appeared as the leading determinants. However, in the case of Tuvalu, Kiribati and Comoros and, no doubt, other high vulnerable SIDS, the results may have exaggerated the importance of smallness, given that the UNCDP method of calculating the scores does not account specifically for other inherent weaknesses, for example, remoteness and extreme geographic dispersion, that are of major importance in these countries.

As noted, researchers have chosen to differ, often significantly, in their overall conception of what an EVI is supposed to represent and in their approach to its construction. As apparent from the Briguglio and UNCDP versions, a significant source of difference has been the underlying purpose for which a particular EVI is intended. As well, researchers have failed to reach common ground in the handling of technical issues, for example, the determination of key components of vulnerability, coping with statistical limitations and in distinguishing inherent sources of vulnerability from policy induced weaknesses. In dealing with these problems, researchers have often had to rely on a considerable degree of ingenuity and assumptions whose validity may be open to question. Given these and related pitfalls, it goes without saying that one's interpretation of EVIs has to be tempered with a degree of caution.

Beyond these caveats, Tom Crowards (Chapter 6) questions the value of composite indices as indicators of macroeconomic vulnerability. He points out that a simple index carries little justification beyond showing that SIDS are generally more vulnerable than other groups: he argues that vulnerability is determined by a range of specific factors peculiar to individual countries. Accordingly, he favours an approach that highlights specific vulnerabilities for each country. Such an approach would not allow meaningful cross-country comparisons but is likely to encourage more effective policy responses on the part of both domestic and international aid authorities.

In the light of Crowards' critique, an alternative compromise option would involve the construction of a 'regional EVI' that focuses on groups of SIDS that are broadly exposed to a common set of vulnerabilities. Thus, an EVI for Pacific island countries (or sub-groups thereof) would give greater prominence to such disadvantages as remoteness, natural hazards and ecological fragility - features that are likely to be of lesser importance to, say, island groups adjacent to large and populous landmasses (as is the Caribbean). Such a regionally based EVI would also preclude global comparisons but would have greater utility policy-wise, be more revealing of major vulnerabilities suffered by similarly placed groups of SIDS, and permit intra-regional ranking.

Economic Vulnerability and Growth

Several contributions (such as Chapters 3 & 5) touch upon the relationship between vulnerability and growth, but leave the impression that a great deal more hard evidence is needed, both at the formal and empirical level. For economists, a major challenge is to undertake more sophisticated analysis that can be applied to both SIDS and the more advanced economies, aimed at capturing the impact of major forms of shocks on GDP. Past studies on this issue have focused on the economic situation of large industrialized countries and on measuring the contribution to growth from such major variables as capital stock, labour force and education. The effect of exogenous shocks, along with many other less tangible influences, have simply appeared as part of an amorphic, catch-all 'residual'. In depth empirical studies of SIDS are equally vital to provide the raw material from which a more substantive analysis can be undertaken.

A further aspect concerns the importance of capital accumulation for enhancing economic resilience. Gordon Cordina (Chapter 5) cites evidence indicating that resistance to shocks is weakest in countries at the earliest stage of development, typically those where the level of capital stock is low relative to other factors of production. This puts the spotlight on the role of capital as a means of enhancing resilience: an emphasis that has practical implications for both domestic and international policy. In the case of aid donors, this suggests that channelling more resources into resilience building activities may be the most effective way of minimising damage from exogenous shocks and boosting prospects for sustainable development.

Case Studies

These studies comprise nine papers dealing with selected SIDS in the Pacific, the Caribbean and the Indian Ocean, and two 'generic' contributions on the Caribbean island group and the small, open economies of the Commonwealth. The papers, by and large, give a rounded and comprehensive account of the kind of vulnerabilities they face, both inherent and self-inflicted in origin, and the range of policy measures being taken or under consideration to enhance resilience and development in general. The emergent picture is not all one of 'doom and gloom': it is apparent that many, if not most, of these countries – and notably Singapore – have been successful in putting in place policy and institutional measures that have been effective in significantly moderating the negative effects of external shocks.

While these countries share many common weaknesses, they also are subject to their own individual set of vulnerabilities and policy challenges (and thus vindicating Crowards' arguments). Thus, in his study of Vanuatu, T. K. Jayaraman (Chapter 7) highlights how weaknesses in macroeconomic policy have been chronic, especially in relation to public finance and investment. Much the same theme resonates in the case of Fiji (Chapter 8), though the significant influence of non-economic factors contributing to continuing vulnerability is recognized. These features include: problems over land tenure, ethnic tensions, and seemingly endemic political uncertainty. For the Marshall Islands (Chapter 9), particular focus is given to vulnerabilities stemming from the natural environment: lack of fresh water, ecological fragility, and absence of domestic energy sources. In relation to Jamaica (Chapter 14), macroeconomic constraints, particularly poor fiscal and debt management, again take centre stage as a key threat to the country's development.

The paper on Singapore (Chapter 11) deserves close attention as a shining example of success in overcoming the disadvantages of smallness, natural resource limitations and in achieving robust growth over time. The key to this success appears to lie in such factors as sound financial management, forward-looking policies, political stability, favourable location and a disciplined and hard working population. Despite this success, Singapore remains hostage to a number of threats, notably those associated with a high degree of dependence on external financial markets and trade conditions. Nonetheless, for many SIDS, a close study of the so-called 'Singapore Paradox' could well pay dividends in the sense of providing valuable clues on resilience-building policies.

By and large, these case studies impart a sense of optimism. True, many SIDS remain highly vulnerable to exogenous shocks; but success is possible if they can get the policy framework right. The potential for this is particularly large for those SIDS where self-inflicted policy weaknesses are most evident. Nonetheless, this prognosis has to be taken with some reservations. Tuvalu, a tiny scattered atoll nation in the Pacific, is a case in point. Despite a long-standing record of sound economic management, Tuvalu has failed to achieve sustainable growth due largely to constraints imposed by the paucity of land-based resources, extreme isolation, smallness, and dispersion over vast ocean spaces. Tuvalu, as with other similarly placed countries, poses special challenges to the international community.

International Organizations

The final section (Chapters 20-26) of the book deals with the role of international organizations in the resilience building process and in promoting economic sustainability among SIDS. The leading agencies highlighted include the Commonwealth Secretariat, UNCTAD, UNICEF, UNDP and the World Bank. Each paper outlines, by individual organization, the nature of assistance provided, major project activities and observations on achievements and future priorities, focussing on each organization's chief area of specialization. However, the discussion also shows that many of these organizations go well beyond their own familiar bailiwick and are collaborating with other agencies on a range of 'cross cutting' issues: education, HIV, poverty reduction and women and youth in development. Particular attention is given to vulnerability problems of SIDS and to a commitment to implement the BPoA's goal of fostering sustainable development therein.

All in all, one gains the impression that the range of services and assistance on offer by international organizations is vast: a veritable shopping list which SIDS can access. In this, they are fortunate. It is also apparent that, while the vast bulk of this assistance is channelled into core areas of activity such as agriculture, education and training, and concessionary finance, there are also many activities that are both novel and innovative, capable of making a significant impact on the resilience and sustainability of SIDS. Among these cited are the World Bank's investigations into the feasibility of commodity risk insurance capable of lessening the vulnerability to trade shocks. UNDP has been involved in the construction of an environmental vulnerability index, while also of interest are UNICEF's ongoing efforts to promote the use of information and communication technology as a means of promoting technical literacy at the community level.

In Closing

On the whole, the papers are useful in setting out what these organizations do, their goals and commitment toward enhancing resilience and long-term sustainability of SIDS. However, some of the papers are rather long-winded (UNESCO's is 25 pages and UNICEF's is 21), generally falling short of a clear-cut focus on specific problems associated with vulnerability in small countries. One also gets the impression that, while some organizations, such as the World Bank and Commonwealth Secretariat, have progressed in promoting inter-agency collaboration, other have been less inclined, and thus forego potentially significant benefits by avoiding duplication and resource wastage.

Finally, more attention could have been paid to highlighting particular activities that have been successful, the reasons for success and the lessons of experience: after all, as Armstrong *et al.* (1998), Armstrong & Read (2002), Bertram & Poirine (2007) and Easterly & Kraay (2000) remind us, not all small economies are destitute, and perhaps some of the very same conditions that are seen as conducive to vulnerability can be equally attributed as contributing to impressive economic prosperity. One notes that Briguglio *et al.* (2006) is another, more recent, co-edited volume where the focus is more explicitly on resilience rather than economic vulnerability.

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