



Panorama of Singapore

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The relation between economic resilience and competitiveness in small island states

ABSTRACT

The objective of this chapter is to discuss the relationship between economic resilience and economic competitiveness with special reference to small island states. Economic resilience and economic competitiveness are both associated with economic success, however they relate to different aspects of such success. Economic resilience relates to the ability of an economy to withstand or reduce the harm associated with external shocks while economic competitiveness generally refers

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to the ability of an economy to survive in a productivity contest with other economies. The chapter utilizes an index of economic resilience across countries, constructed by the present author, and shows that this index is highly correlated with an index of competitiveness, also across countries, derived from the Global Competitiveness Indicators. The chapter argues that small states should assign major importance to resilience-building policies, in view of their high exposure to economic shocks, and to the enhancement of competitiveness, in view of high dependence on exports; and that it would be beneficial for small states to embed policy measures associated with resilience and competitiveness in their national development strategies and plans.

INTRODUCTION

The objective of this chapter is to discuss the relationship between economic resilience and economic competitiveness with special reference to small island states. Economic resilience and economic competitiveness are both associated with economic success, however they relate to different aspects of such success. Economic resilience refers to the ability of an economy to withstand or reduce the harm associated with external shocks (Briguglio, 2016) while economic competitiveness generally refers to the ability of an economy to survive in a productivity contest with other economies.

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The study is organized in five sections. The first deals with the special characteristics of small states. The next two sections respectively define economic resilience and economic competitiveness, and discuss the factors that are conducive to resilience-building and to competitiveness enhancement. The section that follows deals with the resilience/ competitiveness nexus and shows that both are positively related to GDP per capita. The last section derives a number of policy implications associated with resilience and competitiveness.

CHARACTERISTICS OF SMALL STATES

Small states tend to be highly exposed to external economic shocks because of their inherent characteristics, which lead them to be very trade open. High dependence on exports is mainly a result of their small domestic market, and high dependence on imports is mainly the result of their limited natural resources endowment. Exposure to shocks is exacerbated in many small states by their high export concentration and high dependence on strategic imports, including food and fuel. Many small states are also prone to natural disasters, and when these occur they often generate severe shocks to the economy.

Briguglio (2016), utilizing a vulnerability index made up of components that refer to the four variables just mentioned, found that small states, as a group, tend to be more economically vulnerable than other groups of countries. Such a tendency is commonly found in vulnerability indices proposed by other authors, including Atkins et al. (2000) and Crowards (2000).

Small states also face constraints relating to their economic competitiveness. They experience relatively high cost of production per unit in view of their small economic size, resulting in their limited ability to reap the benefits of economies of scale (Winters & Martins, 2005; Briguglio, 1998; Briguglio & Vella, 2015). Small states that are also islands, particularly those located in remote areas, face additional disadvantages associated with relatively high international transport costs and uncertainties relating to the delivery of industrial supplies, leading to high costs of storage of materials. Thus, while it is imperative for small states to be competitive in view of their high degree of dependence on exports, they face serious constraints in this regard, particularly in the production of goods that can be manufactured by mass production.

The inherent characteristics of small states, associated with exposure to economic shocks and with competitiveness constraints, pose serious limitations on the economic development of these states. However, in spite of these setbacks, many small states perform very well economically. Briguglio et al. (2009) called this reality “the Singapore paradox,” referring to the fact that the small state of Singapore is one of the best performing economies in the world in spite of the fact that it is highly exposed to external shocks and that it faces the small-size constraints discussed above. This seeming contradiction can be explained by the fact that Singapore has adopted economic policies that enable the country to build its resilience and at the same time enhance its economic competitiveness.

ECONOMIC RESILIENCE

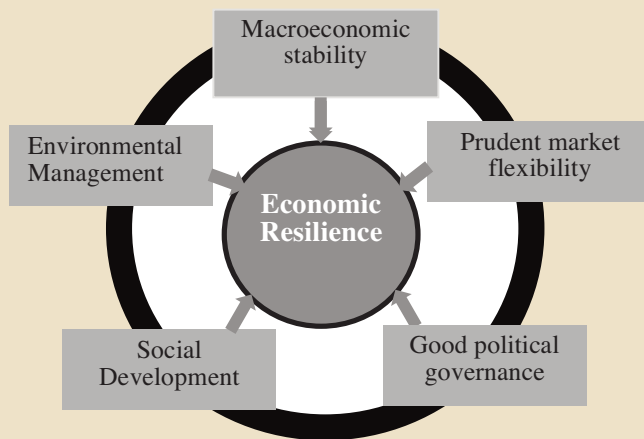
Briguglio (2016), building on Briguglio et al. (2009), defines economic resilience as policy-induced ability of a country to withstand or reduce the harm associated with

economic vulnerability. The set of policies identified by the authors just mentioned are in turn associated with:

- (a) macroeconomic stability, which allows policy manoeuvre following an external shock;
- (b) market flexibility, enabling the economy to adjust following external shocks, with due diligence to avoid excessive riskiness;
- (c) good political governance, which is essential for an economic system to function properly;
- (d) social development and cohesion, which enable the economy to function without the hindrance of civil unrest; and
- (e) environmental management, which generates stability through enforceable rules, economic instruments, and moral suasion.

Figure 3.1 summarizes these factors that enhance economic resilience.

FIGURE 3.1: **Factors that enhance economic resilience**



Briguglio (2016) measured the factors shown in Figure 3.1 and used them as components of an economic resilience index. The manner in which the components of the index were measured is explained in detail in Briguglio (2016).

ECONOMIC RESILIENCE IS RELATED TO GDP PER CAPITA

The resilience index constructed in Briguglio (2016) is highly correlated to GDP per capita as shown in Figure 3.2. This would seem to suggest that economic resilience is associated with economic success, possibly because the components of the index also capture elements of good economic governance.

Briguglio (2016), again basing on Briguglio et al. (2009), fitted the scores of the vulnerability and resilience indices into a scheme of what has come to be known as the vulnerability/resilience (V&R) framework. In this scheme, economic vulnerability is considered as an enhancer of the risk of a country being harmed by external shocks, and economic resilience as a reducer of such risk, as shown in Figure 3.3.

FIGURE 3.2: Resilience index and GDP per capita

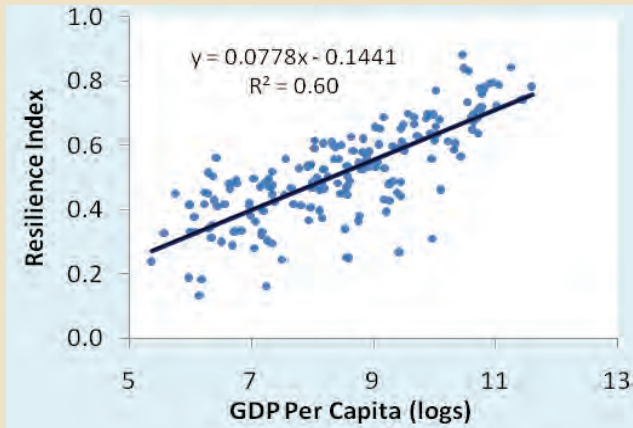
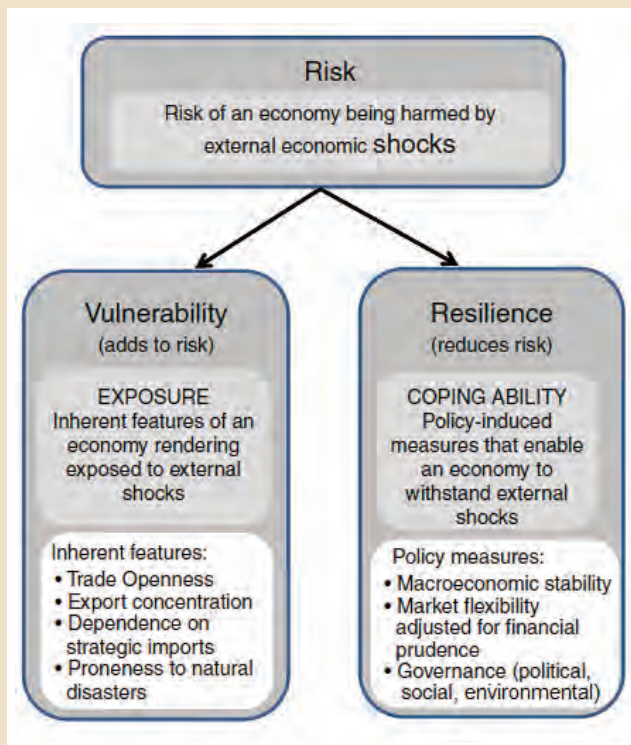


FIGURE 3.3: The Vulnerability / Resilience Framework



Briguglio et al (2009) identified four country scenarios on the basis of this V&R framework, in terms of the economic vulnerability index (EVI) and economic resilience index (ERI):

(1) Countries with low EVI and high ERI: it is hypothesized that these tend to be large developed countries with relatively good economic governance;

(2) Countries with low EVI and low ERI: it is hypothesized that these tend to be large developing countries with relatively weak economic governance;

(3) Countries with high EVI and high ERI: it is hypothesized that these tend to be small states with relatively good economic governance; and

(4) Countries with high EVI and low ERI: it is hypothesized that these tend to be small states with relatively weak economic governance.

Briguglio (2016) shows that the results

of the scores on the EVI and ERI indices confirm these hypotheses.

Among the small states that registered high vulnerability and high resilience scores are six countries that are often considered as high flyers in the economic spheres. These are Singapore (Asia), Luxembourg, Iceland and Malta (Europe), Mauritius (Indian Ocean), and Barbados (Caribbean). It should be noted that five of these six are island states.

ECONOMIC COMPETITIVENESS

In a globalized free trade context, competitiveness is the means for firms as well as for countries to survive and thrive. The alternative to competitiveness, namely protection from competition, has time and again proved to be counterproductive, as it results in inefficiencies and poor returns.

Competitiveness is especially important for small states because of their very high dependence on international trade, which is a consequence of their small domestic markets, leading to high dependence on exports; and limited availability of natural resources, leading to high dependence on imports.

The meaning of competitiveness

There are various definitions of competitiveness. When applied to an economy, generally speaking the definitions refer to the ability of an economy to efficiently supply goods and services for which there is demand, by combining price and quality in such a manner that buyers would prefer to buy these goods and services from this economy, when compared to similar products supplied by other economies.

Some definitions refer to the underlying conditions that are conducive to competitiveness. For example, Schwab (2014) defines the term as “the set of institutions, policies and factors that determine the level of productivity of a country.” Porter (2005) defines competitiveness in a similar manner as “the productivity with which a nation utilizes its human, capital and natural resources.” According to Porter (2005), competitiveness is related to a nation’s prosperity, which in turn is determined by the productivity of its economy, measured by the value of goods and services produced per unit of its resources.

It should be emphasized here that competitiveness, in the sense that it is normally used, does not simply refer to relatively low prices or to cheap labour. In fact, the cost of living and the wage rates are generally higher in highly competitive countries when compared to countries with weak competitiveness.

In addition, competitiveness, as generally defined, does not refer to subsidies or dumping activities, which enable a supplier to charge relatively low prices artificially. Relatively low prices can also be achieved through child labour, environmental degradation, workers’ exploitation, and inferior-quality products. Such practices do not constitute competitiveness in the sense that the term is commonly used.

Competitiveness is multifaceted

According to various authors, competitiveness is multifaceted, spanning economic, social, political, and environmental dimensions, and involves various stakeholders.

Briguglio and Cordina (2004), acknowledging the multifaceted character of competitiveness, proposed a competitiveness strategy which is underpinned by policy-based measures aimed at promoting:

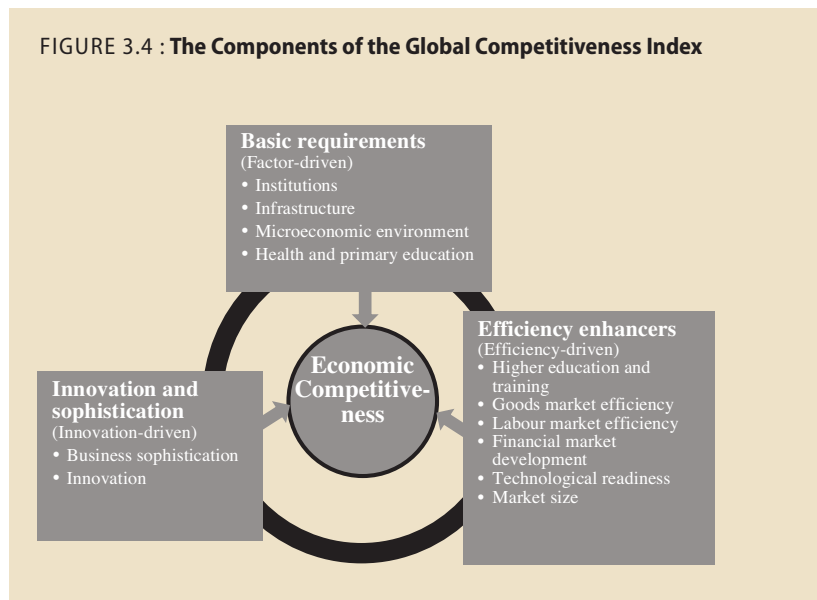
- macroeconomic stability;
- predictable legislative and regulatory frameworks;
- adequate infrastructural services;
- investment in human capital accompanied by innovation;
- a balance between wages, productivity, and taxation;
- facilitating business start-ups and business activity in general; and
- maintaining social cohesion, so that the promotion of competitiveness does not lead to exploitation or degradation.

A well-known index that attempts to measure competitiveness across countries is the Global Competitiveness Index (GCI) produced by the World Economic Forum. The GCI is partly built on the opinions of experts in each country (derived from the World Economic Forum's annual Executive Opinion Survey) which relate to concepts requiring a qualitative assessment or for which internationally comparable statistical data are not available. The manner in which the components of the GCI are measured are explained in Schwab (2014).

The GCI includes sub-indices that are directly related to economic realities, but it also contains components capturing social, environmental, and political variables that are assumed to be conducive to competitiveness. In all, the GCI has 12 pillars, as shown in Figure 3.4.

The question therefore arises as to why non-economic variables, such as social cohesion, environmental management, and political governance, affect competitiveness.

Briguglio et al. (2009)



argue that social development and social cohesion are essential components of economic management as these indicate the extent to which relations within a society are properly developed, enabling an effective functioning of the economic apparatus without the hindrance of civil unrest, and therefore conducive to economic stability. The relationship between social harmony and macroeconomic stability is also proposed in Vandemoortele (2010).

According to Foa (2011), social cohesion can also be conducive to economic performance as this leads to reduction of transaction costs—for example, in the case of violent conflict between different sections of society, the costs will include policing, crime prevention, and private security services. Because these costs may be such as to render unprofitable economic transactions at the margin, some deadweight loss will inevitably occur.

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In addition, social development and social cohesion facilitate collective action, and this may generate positive externalities arising in the form of providing, monitoring, and enforcing the provision of necessary public goods such as infrastructure, schooling, or health. And, most of all, there is a high cost to intergroup violence as a result of capital disaccumulation caused by the destruction of physical infrastructure and “brain drain” (loss of human capital).

Environmental management is also likely to be conducive to competitiveness. The connection between environmental management and economic competitiveness can be explained in terms of the stability that the environmental management generates, through enforceable rules, economic instruments, and education aimed at encouraging good environmental practices. Environmental management may be defined as institutions, regulation, practices, and other processes conducive to environmental conservation, protection, and use of natural resources. In order to achieve this aim, governments have to put in place appropriate legislative, judicial, and educational systems and foster economic and social arrangements, which collectively can fall under environmental law and policy. The environment, in many of its aspects, is a public good and may generate negative externalities, which in turn are associated with market failure and therefore need to be regulated and managed.

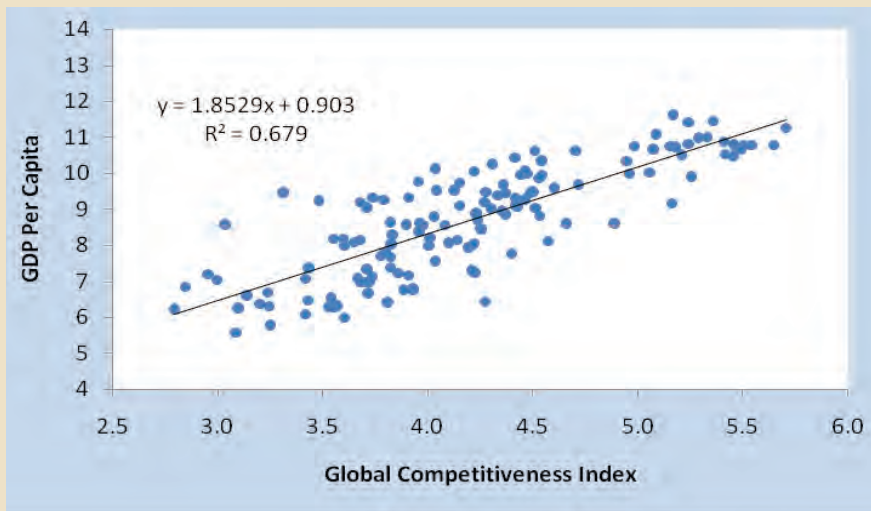
The role of government could also be of major importance in fostering competitiveness. Briguglio and Cordina (2004) argue that competitiveness is to a large extent an enterprise issue, and it is the individual firm at the micro level that needs to be competitive in order to enhance national competitiveness. However, the authors

further argue that the government has a major role to play in this regard, not least by placing competitiveness high on the policy agenda, and by taking the lead in putting in place measures that encourage entrepreneurship and efficiency and removing bottlenecks when these occur.

Competitiveness is related to GDP per capita

Like the ERI, the GCI is highly correlated with GDP per capita, a variable that may capture the state of development of countries, as shown in Figure 5. This relationship therefore suggests that those countries with the highest economic success, in terms of their per capita income, also tend to be the most competitive.

FIGURE 3.5: **The Competitiveness Index and GDP per capita**

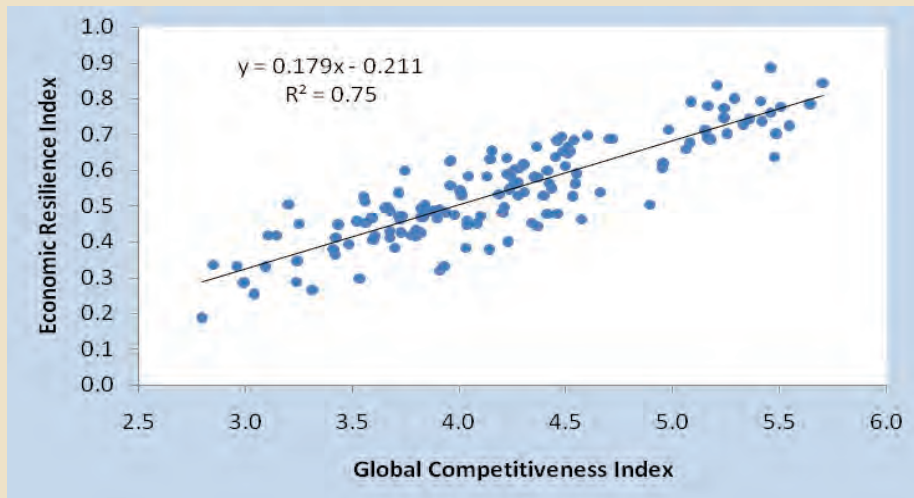


THE ECONOMIC RESILIENCE AND COMPETITIVENESS NEXUS

Both the Economic Resilience Index (Briguglio 2016) and the Global Competitiveness Index (Schwab, 2014) have good economic governance as an important pillar, although this variable is measured differently. In fact, there is a strong positive correlation between the two indices as can be seen from Figure 3.6. It is interesting to note that the two indices are derived from different sources, with the ERI based mainly on published data derived from Global Indicators (not including the GCI) and the GCI based to a high degree on the opinions of expert respondents.

Two other well-known competitiveness indices are the IMD World Competitiveness Ranking and UNIDO's Competitive Industrial Performance (CIP) Index. A recent

FIGURE 3.6: Relationship between ERI and GCI



version of the IMD index (IMD, 2014) only covers 60 countries. The IMD index was also found to be highly correlated with the ERI and with GDP per capita for the 60 countries.

UNIDO's Competitive Industrial Performance Index (UNIDO, 2013) covers 135 countries, but is only applicable to the manufacturing sector. Unlike the other two indices just mentioned, the CIP Index relates to the performance of countries rather than the underlying conditions. The CIP Index was also found to be highly correlated with the ERI and with GDP per capita.

IMPLICATIONS FOR SMALL STATES

General considerations

The Global Competitiveness Index does not cover all countries and leaves out many small states located in the Pacific Ocean and the Caribbean region. However, the small countries mentioned above as having relatively high resilience scores are covered in the GCI and also received relatively high competitiveness scores on the GCI. In particular, Singapore was ranked 2nd among 144 countries. Other small states that ranked in the top third of the list of countries in the GCI 2014 version included Luxembourg (19th), Estonia (29th), Iceland (30th), Mauritius (39th), and Malta (47th).

It should be stressed that the economic success of these small states is not because they are small, because, as explained above, small size poses a number of inherent economic constraints associated with exposure to external shocks and lack of competitiveness. Rather, the economic success of these countries was probably

achieved in spite of their small size, possibly because their economic governance, which is policy-induced, was conducive to resilience and competitiveness.

Conversely, those small states that are not economically well-governed face a double disadvantage in that their inherent vulnerability is exacerbated by policies that hinder resilience and competitiveness.

A major implication that can be derived from the above discussion is that small states should assign major importance to resilience-building policies, in view of their high exposure to economic shocks, and to the enhancement of competitiveness, in view of high dependence on exports. Given that resilience and competitiveness are multifaceted, requiring economic, social, political, and environmental policy measures, it would be beneficial for small states to embed such policy measures in their national plans and strategies.

Two-country case study

We shall take the case of Singapore and Malta, two successful small states, as examples of countries that received high scores on the resilience and competitiveness indices. These two states have adopted four major strategic directions which may, to an extent, explain their success, and which may serve as models for other small states. These are (a) putting in place strong regulatory frameworks; (b) identifying and supporting niche products and linkages; (c) promoting and creating production clusters; and (d) encouraging regional co-operation.

Putting in place regulatory and standard-setting frameworks

Regulatory frameworks require appropriate legislation that specifies and enforces the regulations as well as appropriate bodies and institutions that administer the regulations. Such administration involves the provision of information and guidance as to how these regulations are to be observed and the putting in place of enforcement and monitoring procedures to ensure compliance with the regulations. Such frameworks are necessary to control market abuse, to foster an orderly system in the conduct of business, and to provide a level playing field for the operators. Malta, being a member of the EU, has put in place an array of regulatory bodies, which oversee a wide spectrum of provision of services, including public utilities. Singapore also has advanced regulatory frameworks for financial services, communications, competition, and other services.

Both Malta and Singapore actively encourage private business enterprise and market flexibility, but in these countries free enterprise is not construed to mean the law of the jungle, but a mechanism operating within a regulatory framework that is aimed mainly at ensuring standards and preventing abuse, without discouraging entrepreneurship.

Brown (2010), referring to a number of Caribbean small states, recognizes the importance of high-performing regulatory institutions to good governance and development. Based on an extensive review of literature and field experience, the author concludes that institutional weakness cripples the small states' efforts to promote economic development.

The main problem that arises in small states with regard to putting regulatory frameworks in place relates to costs, particularly because such a framework requires institutional set-ups that involve high overhead layouts, given that overheads cannot generally be downscaled in proportion to the numbers of users.

Another problem identified by Brown (2010) relates to difficulties in finding the required expertise to operate these institutions in a small state.



View of Birgu and the colourful boats in the harbour, in Malta

Identifying niche products and linkages

Niche production need not involve producing the finished product, or a high proportion of it, but may focus on a segment of a finished product. For example, at the macro level, Singapore has one of the highest import to GDP ratios in the world (200%), meaning that, overall, the country adds only about a third to its final sales (i.e., its final sales are composed of GDP amounting to about 33% and of imports amounting to about 67%), but the country is still one of the most successful economies in the world.

Given their limited ability to compete in the production of goods and services which can be cheaply mass produced, small states often fail to develop a sustainable manufacturing sector. However, there are niche areas, even in the manufacturing sector, in which small states can compete, even with larger states, without resorting to cheap labour. This can be done by what is known as “vertical specialization.” The case of Malta in the production of semiconductors is a case in point, where the company involved imports about 75% of the value chain from other countries and adds 25% mostly by employing highly educated workers (Briguglio, 2011).

Small states that depend on tourism may benefit by identifying niche agricultural and fishing products, as linkages to tourism establishments, which often require fresh food inputs. For example, again referring to Malta, where the tourist industry is relatively large, the fishing and agricultural industries sell a large proportion of their product to hotels and restaurants. There may even be a market for light manufactured products tied to the services sector, provided that this can compete in price and quality with imported manufactured products.

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Creating linkages through clustering

A cluster is a concentration of interconnected businesses that can benefit horizontally through such linkages as sharing resources and innovation networks, as well as vertically by such linkages as joining a supply-chain and sharing outlets. The importance of business clusters in small states is that these can mitigate the disadvantages associated with limited ability of single enterprises to benefit from economies of scale.

Again, Singapore may provide a good example of the usefulness of industry clusters. As Yue (2005) argues, the country’s industrial strategy is all about identifying industry clusters to be nurtured. One outcome of such a strategy is that Singapore has developed a leading electronics hub. The strategy was aimed at upgrading

capabilities across the value chain in each industry cluster, mainly by identifying gaps in existing industry clusters and formulating initiatives to close them, by, among other things, establishing the Cluster Development Fund and promoting joint ventures between MNCs and local enterprises.

Malta's development agency, "Malta Enterprise," offers a number of different incentives designed to support clustering and networking, ranging from cash grants to part-finance investments (Malta Enterprise, 2013).

Again, here, enterprises in small states may experience difficulties in creating business clusters. Wignaraja et al. (2004) argue that clustering requires a degree of sophistication, and therefore government support may be required in this regard.

Regional co-operation

Both Singapore and Malta belong to regional organizations, with Malta being a member of the European Union (EU) and Singapore a member of the Association of Southeast Asian Nations (ASEAN).

Membership in the EU involves deep economic integration, and this automatically encourages free trade in a relatively large single market of over 500 million persons. Malta's integration within the EU has ensured rapid improvements in economic governance and regulatory frameworks (Briguglio, 2011).

The degree of economic integration within the ASEAN is not as deep as that within the EU; however, Singapore still benefits considerably by regional co-operation within the ASEAN, mostly because the country enjoys the advantage of trading with fast-growing ASEAN major trading partners (Wong et al., 2010).

There are various successful attempts at regional co-operation among small states. An example in this regard is the Caribbean Export Development Agency (see Hall, 2004). Another is the Information and Communication Technology (ICT) Connectivity in the Pacific, linking Tonga, the Solomon Islands, Samoa, and the North Pacific (see Asian Development Bank, 2016).

According to the OECD (2007), regional co-operation is a convenient and pragmatic organizing principle by which to focus resources and build partnerships, reducing the production, transaction, and co-ordination costs and bringing the actors together.

As Wignaraja et al. (2004) argue, regional co-operation between small states can also lead to useful synergies such as foreign direct investment, sharing of institutional frameworks including financial institutions, and entrepreneurship training. Such regional clustering would also reduce duplication efforts by small states, and this would enable them to economize on overhead costs.

CONCLUDING REMARKS

This chapter has used two global indicators to show that economic resilience and economic competitiveness are related, even though the two indices are measured differently and intended to capture two different realities. The first measures the degree to which countries can cope with or withstand external economic shocks, and the second measures the degree to which a country can compete internationally. It was also shown that both indices are highly correlated with the stage of development of countries as measured by their GDP per capita.

The major implication for small states derived from these findings is that small states that adopt resilience-building and competitiveness policies are likely to attain a higher level of economic development than otherwise. This finding was corroborated by the fact that most economically successful small states, in terms of their stage of development, are those with relatively high resilience and competitiveness scores. These included Singapore, Luxembourg, Iceland, Malta, Estonia, Barbados, and Mauritius.

The chapter also presented two case studies of Malta and Singapore. These two states have adopted four major strategic directions which may, to an extent, explain their success, and which may serve as models for other small states. These are (a) putting in place strong regulatory frameworks; (b) identifying and supporting niche products and linkages; (c) promoting and creating production clusters; and (d) encouraging regional co-operation.

The most important implication of this study is that, for small states, resilience-building and competitiveness enhancement are of major importance. Given that both competitiveness and resilience are associated with economic, social, political, and environmental policy measures, it would be beneficial for small states to embed such measures in their national plans and strategies.

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