

Country Size and Determinants of Economic Growth: A Survey with Special Interest on Small States

Brito, Joao

Faculty of Economics of University of Coimbra, School of Economics and Management of University of Minho

January 2015

Online at https://mpra.ub.uni-muenchen.de/61273/MPRA Paper No. 61273, posted 14 Aug 2015 19:57 UTC

Country Size and Determinants of Economic Growth:

A Survey with Special Interest on Small States

João António Brito^a

January, 2015

ABSTRACT: This paper surveys the literature on country size and economic growth, focusing on research on small states. The paper first analyzes theoretical and empirical effects of country size on economic growth. Furthermore, the paper surveys some empirical studies on the determinants of economic growth, with special reference to small states. Theoretical studies consider small size a disadvantage, but there is no consensus in empirical studies on the effects of country size on economic growth. However, there's a certain consensus in identifying the geographic distance from major markets as a principal determinant of economic growth in small states.

JEL classification: O40, O50

Keywords: Country Size, Small States, Economic Growth.

1 - INTRODUCTION

The purpose of this paper is to analyze the impacts of country size on economic growth and the determinants of economic growth, with a particular interest on small states, by conducting a theoretical and empirical literature review.

Studies on small states emerged during the massive decolonization period (1960's). One of the first debates with specific issues about small states occurred in 1962 when the Institute of Commonwealth Studies initiated a series of seminars at University of London. These seminars took place at regular intervals over a period of two years and introduced more than 20 works related to the common problems faced by small states (Lockhart, 1993). These works were later edited by Benedict (1967) in his book "Problems of Smaller Territories", constituting one of the first works on small states. Since then, there have been several studies published and numerous debates and conferences focusing on small states and there is some

^a Student in the PhD Programme in Economics at University of Coimbra, Faculty of Economics and University of Minho, School of Economics and Management. Contact: e-mail: litosbrito@hotmail.com. This paper is a chapter of my PhD thesis, which is supervised by Professor Francisco Veiga and Professor Pedro Bação.

division among economists about the key factors which explain economic growth in these states.

There are different criteria used to define country size (micro, small, medium or large) and the most common are: population, area and GDP. Among these, the size of population is the most common. However there is no consensus on the limit which defines small states. As suggested by the Commonwealth Secretariat (defined in the report "The Future for Small States: Overcoming Vulnerability", published in 1997) small states are defined as those with population less than 1.5 million people, and includes countries such as Jamaica, Lesotho, Namibia and Papua New Guinea with a higher number of inhabitants, but sharing the same features as small states. It is not clear in the literature why the limit of 1.5 million people or other limits are used to define small states.

Using this limit, we find 45 small states with a total of 20 million people, which is less than 0.4% of the total population of developed countries. We find micro-states, such as Nauru, Palau, Cook Islands (just over 20,000 people each) and larger states such as Botswana, Gabon, Gambia, Guinea-Bissau (over 1 million people each).

Several studies indicate small states compared to larger states as the most disadvantaged due to the negative effects of their small size on the economic growth process. But, paradoxically, many small states have a high level of economic growth and they are part of the group of countries with the highest GDP per capita worldwide.

Theoretical studies identify the difficulty of benefiting from economies of scale in various goods and services as one of the main disadvantages associated with small size, while strong social cohesion is considered the main advantage in the growth process. However, empirical studies do not take a common position in defining the effect of country size on the process of economic growth. On the determinants of economic growth in small states, there is a certain consensus in identifying geography (distance from the country to the major markets) as the main factor explaining the economic performance of small states.

Against the foregoing background, the rest of this paper is structured as follows: the second section presents some theoretical studies on the main constraints and benefits associated with country size on economic growth; the third section reviews the main empirical findings on the determinants of economic growth with a focus on small states; and, the last section concludes this literature review.

2 - THEORETICAL EFFECTS OF COUNTRY SIZE ON ECONOMIC GROWTH

The theoretical literature suggests several factors, mechanisms and features that can explain the economic growth of a country associated with the size. Armstrong and Read (2003) consider that characteristics of small states have important implications for their growth and development strategies, since it restricts the structure of domestic economic activity and the autonomy of economic policies. Since this study focuses on small states, we will analyse the benefits and constraints of small country size.

2.1 – Constraints of small size

Small states face various constraints in their quest for economic development arising from their small size. Some of these constraints turn out to be advantages for large countries. We emphasize the following:

a) High per capita cost of some goods and services

The high per capita cost of some goods and services is connected to the indivisibility of various public goods and services, political costs and administrative structures. This indivisibility is indicated as a barrier to international competitiveness of small states (Bray, 1992; Briguglio, 1995; Armstrong and Read, 2003). According to Srinivasan (1985), in small states the cost to create additional capacity for thermal power generation is on average 65% higher compared to large states. This value can be reduced to 20% if the population density rate is high. In order to mitigate the adverse effects of that indivisibility, the author suggests sharing with neighbouring countries some costs of infrastructural activities such as the production of electricity, education, communication and health.

b) The narrow structure of domestic output, exports and export markets

The strong geographical concentration of exports and the limited diversity of production and exports in small states are justified, in part, by the small domestic market. The small domestic market does not support multiple companies producing the same goods and services, which leads to the formation of monopolies or oligopolies, implying less diversified economic structure than the ones in large states (Briguglio, 1995). Castello and Ozawa (1999) consider that the small size of workforce restricts the possibility of differentiation in the labour markets and leads to slow segmentation of business and professions which limits domestic production. The small size of the market (in terms of area and population) may lead to less diversification of raw materials and resources which also limits production and export (Castello and Ozawa, 1999; Commonwealth Secretariat, 2014). The country is subject to an increase in its exposure to external shocks when there is a geographical concentration of exports and limited diversification of exports.

c) High national and international transport costs

The high domestic (especially in cases of archipelago states) and international (for cases of island states and located far from major markets) transport costs influence negatively the competitiveness and the production structure of small states. High transport costs can act as natural barriers to foreign trade (Srinivasan, 1985). Small states are heavily dependent on foreign trade for economic development and social progress. Thus, the distance from major markets implies expensive transport costs for imports and exports (Commonwealth Secretariat, 2014). According to Briguglio (1995), the distant location of the principal markets may involve additional costs related to delays and uncertainties in supply and storage costs (the producers will need to have large stocks of goods as the air and maritime traffic is not frequent). The high international shipping costs can lead to geographic concentration of exports.

d) High environmental, economic, social and political vulnerability

<u>Environmental vulnerability</u> (countries' susceptibility to natural disasters) is related to the location of countries (small or large) in areas subject to these disasters. However, according to Srinivasan (1985) and Briguglio (1995) the higher vulnerability of small states is due to the disproportionate effect (in terms of unit area and per capita cost) that a disaster of

the same intensity may have in a small country compared with a large one. Moreover, according to Alesina et al. (2005), in large countries there may be resource transfers from one region (not affected) to another region (the affected), but on small states, the disasters often influence the whole country and hence it is necessary to appeal to external aid. The economic vulnerability (sensitivity of an economy to the adverse impacts resulting from external shocks outside the control of the country) of small states for Downes and Mamingi (2001) and Armstrong and Read (2003) is caused by the high degree of trade openness, small domestic market, high per capita cost of installation and maintenance of social infrastructure, exports concentration and little production diversification. Downes and Mamingi (2001) relate social vulnerability (resulting from the influence of external criminal and cultural activity in domestic social values) of small states to the incapacity to withstand external cultures and social influences that have proven to be very costly in financial and human areas in these countries. Political vulnerability (refers to the influence in the political and diplomatic issues) results from direct or indirect dependence of small states on the political decisions of large and powerful countries about trade and other assistance (Srinivasan, 1985; Castello and Ozawa, 1999; Downes and Mamingi, 2001).

The difficulty in benefiting from economies of scale in various activities is indicated as the main handicap associated with small size. However, Backus et al. (1992) observe that there is not a strong connection between GDP per capita and measures of scale effects, but they identified a significant relationship between growth of GDP per worker and the scale effects. In this context, the scale effect is more observable at the micro level than at the macro level. Jones (1995) found inconsistency of endogenous growth models (AK and R&D) in the long term in time series.

2.2 – Benefits of small size

Armstrong and Read (2003) argue that any potential advantages associated with small size are less than the disadvantages, thus implying that small states face a greater challenge in generating and sustaining economic growth compared to large states. Some of those benefits can be seen as constraints in the large states. The main benefits accruing to small size are:

a) Strong social cohesion

Castello and Ozawa (1999) and Laurent (2008) consider small states more open to changes, with greater political integration, more flexible institutional systems and better prepared to face the uncertainties and external shocks, due the prevalence of greater solidarity and social cohesion compared to large countries. For Bray (1992) and Castello and Ozawa (1999) small states tend to develop a very integrated society with a very complex relationship network, due to the low geographical distance and higher frequency of face-to-face contact. This allows a high degree of interpersonal communication and efficient flow of information between government and companies which are important to strengthen the required relationship between the two sectors. These behaviours have positive impacts on economic growth (Armstrong and Read, 2003).

b) Homogeneity of population

Alesina and Spolaore (1997) and Alesina (2003) argue that larger population may involve less homogeneity, because the cultural differences and the distance between the preferences of individuals probably have a positive correlation with country size. This implies that the public choices are close to the average individual's preferences in a small state. The

stability of many national governments has been threatened by serious domestic conflicts associated with racial, religious and linguistic diversity. Hence, greater social homogeneity is conducive to a more stable government.

c) High degree of foreign trade, high propensity for human capital formation and location in favourable regions

Armstrong and Read (2003) believe that despite the disadvantages associated with small states, they have characteristics that allow high rates of economic growth such as high degree of foreign trade, high propensity for the formation of human capital and location in favourable regions. The high level of external openness requires small states to follow growth policies oriented to exports and thus avoid the negative effects associated with industrialization policies for import substitution. In addition, imports of goods and services with high technological level have beneficial implications on domestic competition and production. The high level of the stock of human capital improves the ability of technological absorption which is important for small states. Regional integration provides opportunities for interaction with other wealthy countries, which increases the inflow of Foreign Direct Investment (FDI).

Strong social cohesion is mentioned as the main benefit resulting from small size. However Briguglio (1995) argues that this greater cohesion in small states can create administrative problems, in the sense that people know each other well and are related very often. This may compromise impartiality and efficiency in public administration by for example interfering with the promotion and recruitment of the workforce, which should be based on merit. Armstrong and Read (2003) point out that the economic behaviour in small states can be negatively influenced by family ties or nepotism due to the close relationship between decision makers and the constituents.

Alesina and Spolaore (1997) and Alesina (2003) studied the impact of size through the tradeoffs between the benefits of size (economies of scale, military strength, etc.) and cost of heterogeneity of preferences, cultures and population attitudes, and they concluded that country size is not relevant for growth if there is free international trade. However, if the markets are closed, large countries perform better. Robinson (1960) suggests that the adaptability of small states and the high degree of social homogeneity can help to overcome the negative effects of the small domestic markets.

Thus, the constraints and benefits that are associated with size imply that the growth strategies in small and large states must be different. Laurent (2008) argues that small states should seek to overcome the disadvantages associated with their smallness through globalization and large states should focus on economies of scale, to develop an endogenous domestic growth. In addition, Armstrong and Read (2003) suggest that small states should follow growth policies related to activities at small scales and with more emphasis on human capital such as the services sector.

3 - DETERMINANTS OF ECONOMIC GROWTH

In recent decades, several theoretical and empirical studies have been tried to explain the differences in economic growth between countries or groups of countries. The lack of consensus on the best model or methodology to explain the economic growth and the use of different proxies to measure the same factor have led to empirical results often contradictory. However, empirical studies identify a group of variables that have had almost the same effect on economic growth, as the cases of: initial level of GDP per capita (negative effect), human capital (positive effect) investment (positive effect) and growth rate of the population (negative effect).

We present in this section some empirical studies on the determinants of economic growth, particularly those focusing on_small states. The literature review is made up of two parts. The first considers studies that analyse the determinants of economic growth in countries generally, while the second examines studies that focus on the determinants of economic growth in small states.

3.1 – Determinants of economic growth in countries in general

There are several studies on the determinants of economic growth and they differ by the applied methodologies and models, groups of countries analyzed and time period considered. Some of these works are:

- 1) Grier and Tullock (1989) investigated the economic growth of 113 countries in the period 1951-1980. The authors divided the 113 countries into two main groups, the first one consists of 24 OECD countries and the second consists of 89 countries outside of the OECD which they called ROW and this group was subdivided by continents: Africa, the Americas and Asia. For each group, they drew the following conclusions regarding the effect of the following variables on the growth rate of GDP per capita: the growth of population is positive and significant in the Americas, ROW and OECD, and insignificant in Africa and Asia; the initial level of GDP per capita is positive and significant in Africa, Asia and ROW, and negative and significant in OECD and insignificant in the Americas; average inflation is negative and significant in Africa and ROW and insignificant in Asia, and positive and insignificant in the Americas, Africa, ROW and OECD, and positive and significant in Asia; volatility of GDP is positive and significant in Africa, ROW and OECD, and negative and significant in the Americas and Asia; and, the inflation volatility is negative and significant in the Americas, OECD, ROW and Asia, and positive and insignificant in Africa.
- 2) Barro (1991) analyzed the determinants of economic growth in about 98 countries in the period 1960-1985. Barro concluded that the growth rate of GDP per capita is negatively and robustly related to the initial level of GDP per capita only when the level of human capital is considered in the model. The author found a positive relationship between the growth rate of GDP per capita and the initial human capital (measured by enrolment rates of school). On the other hand, he identified a negative relationship between the growth rate of GDP per capita and distortion in prices, political instability, government consumption (excluding the cost of education and defence) and dummies for Sub-Saharan Africa, Latin America and socialist economic system. The relation between growth and the amount of public investment was low. The author also verified that countries with high levels of human capital have low fertility rates and high physical investment (% of GDP), and private investment is influenced negatively by the government consumption.
- 3) Levine and Renelt (1992) analyzed the robustness of more than 50 variables identified as determinants of economic growth in 119 countries (the major oil exporters are excluded) for the period 1960-1989. They used the Extreme-Bounds Analysis process (EBA) to test the robustness of the estimated coefficients. Due to the requirements of the test, few variables were identified as robust. They only found a strong positive correlation with the growth rate of investment and the initial enrolment rate of secondary school, and negative and

robust correlation with the initial level of GDP per capita. The remaining variables were identified as fragile, that is, the set of expenses and fiscal policy variables, monetary policy indicators and political stability index, have no robust relationships with economic growth.

4) Sala-i-Martin et al. (2004) selected 67 variables listed as determinants of economic growth and analyzed the strength of the correlation with the growth rate of GDP per capita. The database was formed by 88 countries for the period 1960-1996. The robustness of the variables was tested using Bayesian Averaging of Classical Estimates (BACE), a less exigent test than the one used by Levine and Renelt (1992). They found 18 variables with significant and robust correlation with the growth rate of GDP per capita and 3 with a marginal correlation (initial density of the population, distortion in exchange rate and population speaking a foreign language). The variables with strongest significance were the relative price of investment goods (negative correlation), the initial level of GDP per capita (negative correlation) and the initial enrolment rate of primary school (positive correlation). Other variables identified with positive and robust correlation are: dummy for East Asia, coastal population density, mining industry and number of years of trade liberalization. In addition, with negative and robust correlation they recognized: prevalence of rate of malaria, location in the tropical region and dummies for sub-Saharan Africa and Latin America. They also found a negative correlation of economic growth with public investment and consumption, but the result was significant only for a certain model.

3.2 – Determinants of economic growth on small states

There are only a few studies that focus on identifying the determinants of economic growth in small states or groups of small states. Some of these studies examine small states in general, others divide the countries according to geographical location and some are individual country case studies. Some of these works are:

- 1) Armstrong et al. (1998) defined small states as those that have less than 3 million people. The authors analyzed the variables that explain the economic performance of small states in the period 1980-1993. They concluded that tourism (positive impact), financial services (positive impact) and agriculture (negative impact) are the most significant variables in explaining the GDP/GNP per capita of small states. The results also indicate that the economic performance of small states is positively influenced by variables like exportable resources and industrial sector, although the effect of the industrial sector is less significant. The regional location variable plays an important role and the variable insularity does not seem to influence GDP per capita in small states.
- 2) Peters (2001) used two different models, Solow and endogenous growth models, to investigate the determinants of economic growth in 12 small states of the Caribbean region in 1977-1996. The author concluded that the main drivers of the growth are: economic openness, human capital accumulation and access to information. He also found a positive and significant relationship of the growth rate of GDP per capita with investment and life expectancy, and negative and significant relationship with inflation and population growth rate. The effect of government consumption was not very significant and the financial sector had no impact on the economic performance of states in the region. Peters relates the result of the financial sector to its early stage of development in the region.
- 3) Bertram (2004) studied the economic performance of 60 small island states in 1970-1999. He emphasizes that the level and the growth rate of GDP per capita in small states depend directly on the level and growth rate of GDP per capita and the strength of political

ties with the main metropolis. He defined small states with the limit of 3 million people. The author confirmed its basic assumptions, namely political integration and the level and growth rate of GDP per capita of the main metropolis have positive and robust influence on the level of GDP per capita of small island states.

- 4) Armstrong and Read (2006) studied economic behaviour of small states, and they defined small states with less 5 million inhabitants. The authors focused the research on the geographical characteristics of the countries and used cross-section data for 2001. They concluded that Gross National Income (GNI) per capita has a negative and significant relationship with the agricultural sector, distance from major markets and sovereignty and, on the other hand, a positive and significant relationship with financial services, tourism and resources. He also identified negative impacts of mountain, islands and landlocked and positive effects of industry and insularity on GNI per capita, but without statistical significance. The authors link the negative effect of landlocked variable to the fact that most of these countries are far from large markets and located in poor regions.
- 5) Another study on the determinants of economic growth on small states is Yang et al. (2013). The authors studied empirically 45 small states in 1992-2008. They concluded that the geography factor (distance from major markets) is the main determinant (significant negative) of economic growth on small states. The authors identified a positive and significant relationship of growth rate of GDP per capita with exports, investment and political stability. On the other hand, volatility of GDP, population growth, foreign aid and initial level of GDP per capita had a negative and significant relationship with growth rate of GDP per capita. The tests indicated that the ratio of external aid had no reverse causality with the growth, i.e., slower growth does not lead to greater foreign aid. They assumed that this negative impact of foreign aid is related to the "Dutch Disease" effect.
- 6) Tumbarello et al. (2013) analyzed the economic performance of small states located in Asia-Pacific region in 1990-2010, and their results were similar to those presented by Yang et al. (2013). The authors found a negative and significant relationship of growth rate of GDP per capita with public debt, initial level of GDP per capita, GDP volatility, government consumption and distance to the nearest continent, and a positive and significant relationship with openness to foreign trade and education. They identified the distance to the nearest continent, as the main variable explaining the difference in economic performance among small states, followed by government fixed costs, capacity constraints, lower openness to foreign trade and increased volatility of GDP.

Others studies explain the economic growth in small states, but the factors are analyzed separately:

- Tourism is mentioned in several studies as one of the most important for the growth process in small states, particularly small island states. Narayan et al. (2010) found a positive and robust impact of tourism on economic growth in four Pacific islands. Seetanah (2011) also identified positive and significant impact of tourism on economic growth of 19 island states (18 are small states). The author found that the causal link between tourism and economic growth is bidirectional. Apergis and Payne (2012) similarly concluded that there are two-way causal relationships between tourism and the GDP per capita of nine small Caribbean states, in the short and long term.
- Another factor that has a high importance in determining economic growth on small states is remittances. Jayaraman et al. (2011) found a positive and robust effect of remittances in two small Pacific states (Samoa and Tonga). This impact occurs via

increased liquidity in the banking system, which will increase credit to the private sector. Feeny et al. (2014a) found a significant positive relationship between remittances and economic growth on Small Island Developing States. Sami (2013) concluded that there is an important causal relationship in the short and long term, between remittances and economic growth and the banking industry in Fiji.

•FDI is cited as a major driver of growth in small states in some studies (Parry, 1988; Read and Driffield, 2004). Empirical studies on the impact of FDI on economic growth of small states are scarce. Read and Driffield (2004) attribute this scarcity to the fact that in absolute terms the FDI flow to small states is very low and there is a serious limitation of data, i.e., data exist only for a limited number of small states, which creates bias in a sample selection. However, Feeny et al. (2014b) also conclude that FDI has a positive and significant effect on economic growth of small Pacific states. Jayaraman and Choong (2010) obtained strong empirical evidence of a positive and significant relationship in the short and long term between FDI and economic growth in Vanuatu. Jayaraman and Singh (2007) concluded that there is a positive and significant effect of FDI on job creation and a one-way causal relationship between FDI and GDP in the short term in Fiji.

Therefore, we concluded that the variables identified as basic (like initial level of GDP per capita, education, population growth and investment) in explaining economic growth have similar statistical and economic behaviour in the group of small states and states in general. The lack of consensus on the determinants of economic growth on small states and on states in general seems to be influenced mainly by the groups of countries included in analysis and the methodology used.

However, we note a certain consensus among the studies in identifying the geographical variable (distance from the main market) as the main determinant of economic growth in small states. This may be related to strong positive impact of foreign trade, FDI, remittances and tourism in the economic growth of small states. The greater the distance from the main market, the higher will be the costs of exports, imports, tourism, foreign investment, and emigration. The higher costs would reduce the competitiveness of exported products and constitute disincentives to foreign investment and tourism. Other factors important in explaining economic growth in small states are political and economic ties with the main metropolis and agricultural activity. The insularity is considered theoretically a major disadvantage, but in empirical studies it is found that this variable is not statistically significant for economic growth. Another fact to take into account is the insignificant impact of government consumption per capita on economic growth of small states, despite the high level of this variable.

4 - CONCLUSION

This survey focused on two main points: first, some theoretical studies of the effect of country size on economic growth are presented; second, some empirical studies on the determinants of economic growth are considered.

Regarding the first point, we concluded that the theoretical studies are unanimous in identifying small states compared to larger states as the most disadvantaged due to the constraints associated with small size on economic growth. Despite the many theoretical disadvantages of small size, we verified that there is no consensus about its effects on

economic growth. This can be explained by these hypotheses: the theoretical negative impact of small size on economic growth is not large enough to be significant; the use of different theoretical and econometric models and data (panel or cross-section) leads to different results; and, almost all studies are faced with a shortage of data on small states.

Next we did a survey of some empirical studies on the determinants of economic growth and the analysis was focused on small states. The variables identified as basic (initial level of GDP per capita, human capital, investment and growth rate of population) in growth models have the same behaviour in the group of small states and states in general. For small states, there is a certain consensus in identifying the geography factor (distance from major markets) as the main determinant of economic performance.

In general, we did not find studies that have analyzed the impact of size on growth, by comparing simultaneously the effects of the determinants of economic growth between small and large states. Therefore, we propose an empirical study using the same database, proxies, methodology and economic model to compare the effects of some factors in the economic growth of small and large states. This study will analyze whether the differences between small and large states are significant enough to justify a different economic treatment between these two groups of states. As was seen previously, one of the causes of the lack of consensus on the impact of country size on economic growth is related to the use of different methods, models, databases and periods of analysis in the studies.

REFERENCES

- Alesina, A. (2003) "The Size of Countries: Does it Matter?" *Journal of the European Economic Association*. 1(2-3), 301-306.
- Alesina, A.; Spolaore, E. (1997) "On the Number and Size of Nations" *The Quarterly Journal of Economics*. 112(4), 1027-1056.
- Alesina, A.; Spolaore, E.; Wacziarg, R. (2005) "Trade, Growth and the Size of Countries" in Aghion, P.; Durlauf, S. (eds.) *Handbook of Economic Growth, Volume 1 B.* Amsterdam: Elsevier B. V., 1500-1539.
- Apergis, N.; Payne, J. E. (2012) "Tourism and growth in the Caribbean: evidence from a panel error correction model" *Tourism Economics*. 18(4), 449-456.
- Armstrong, H.; Kervenoael, R.; Li, X.; Read, R. (1998) "A Comparison of the Economic Performance of Different Micro-states, and Between Micro-states and Larger Countries" *World Development*. 26(4), 639-656.
- Armstrong, H.; Read, R. (2003) "The determinants of economic growth in small states" *The Round Table*. 92 (368), 99-124.
- Armstrong, H.; Read, R. (2006) "Geographical 'handicaps' and small states: Some implications for the Pacific from a global perspective" *Asia Pacific Viewpoint*. 47(1), 79-92.
- Backus, D; Kehoe, P.; Kehoe, T. (1992) "In Search of Scale Effects in Trade and Growth" *Journal of Economic Theory*. 58 (2), 377-409.
- Barro, R. (1991) "Economic Growth in a Cross Section of Countries" *The Quarterly Journal of Economics*. 106(2), 407-443.
 - Benedict, Burton (ed.) (1967) Problems of Smaller Territories. London: Athlone Press.
- Bertram, G. (2004) "On the Convergence of Small Island Economies with Their Metropolitan Patrons" *World Development*. 32(2), 343-364.
 - Bray, M. (1992) Educational planning in small countries. France: UNESCO.
- Briguglio, L. (1995) "Small Island Developing States and Their Economic Vulnerabilities" *World Development*. 23(9), 1615-1632.
- Briguglio, L. (1998) "Small Country Size and Returns to Scale in Manufacturing" *World Development*. 26(3), 507-515.
- Castello, S.; Ozawa, T. (1999) *Globalization of Small Economies as a Strategic Behavior in International Business*. New York: Routledge.
- Commonwealth Secretariat (1997) A Future for Small States: Overcoming Vulnerability. London: Commonwealth Secretariat.
- Commonwealth Secretariat (2014) *Small States: Economic Review and Basic Statistics, Volume* 17. London: Commonwealth Secretariat.

- Downes, A. S.; Mamingi, N. (2001) "The Measurement of Country Size and Implications for the Survival of Small States in the Global Economy" in ECCB's Fifth Annual Conference on Development. St. Kitts: October 5-6, 2000.
- Easterly, W.; Kraay, W. (2000) "Small states, small problems? Income growth and volatility in Small States" *World Development*. 28 (11), 2013-2027.
- Feeny, S.; Iamsiraroj, S.; McGillivray, M. (2014a) Remittances and Economic Growth: Larger Impacts in Smaller Countries?" *The Journal of Development Studies*. 50(8), 1055-1066.
- Feeny, S.; Iamsiraroj, S.; McGillivray, M. (2014b) "Growth and Foreign Direct Investment in the Pacific Island countries" *Economic Modelling*. 37, 332-339.
- Frankel, J. (2010) "The Natural Resource Curse: A Survey". *Discussion Paper* 2010-21. Cambridge, Mass.: Harvard Environmental Economics Program.
- Frankel, J.A.; Romer, D. (1999) "Does Trade Cause Growth" *American Economic Review*. 89(3), 379-399.
- Furceri, D.; Karras, G. (2007) "Country size and business cycle volatility: Scale really matters" *Journal of the Japanese and International Economies*. 21, 424-434.
- Grier, K.; Tullock, G. (1989) "An Empirical Analysis of Cross-National Economic Growth, 1951-80" *Journal of Monetary Economics*. 24, 259-276.
- Gylfason, T. (2001) "Natural Resources, Education, and Economic Development" *European Economic Review*. 45, 847-59.
- Jayaraman, T. K.; Choong , C.; Kumar, R. (2011) "Role of Remittances in Economic Development: An Empirical Study of World's Two Most Remittances Dependent Pacific Island Economies". *MPRA Paper* 33197.
- Jayaraman, T. K.; Choong, C. (2010) "Contribution of Foreign Direct Investment and Financial Development to Growth in Pacific island Countries: Evidence from Vanuatu". *School of Economics Working Paper* 2010/03.
- Jayaraman, T.K.; Singh (2007) "Impact of FDI on Employment in Pacific Island Countries: an Empirical study of Fiji" *Economia Internazionale*. LX (1), 57-74.
- Jones, C. (1995) "Time series tests of endogenous growth models" *Quarterly Journal of Economics*. 110 (2), 495-525.
- Laurent, Éloi (2008) "Economic consequences of the size of nations, 50 years on". *Collection OFCE/ANR* 6.
- Levine, R.; Renelt, D. (1992) "A sensitivity analysis of cross-country growth regressions" *American Economic Review.* 82(4), 942-963.
- Lockhart, D. G. (1993) "Introduction" in Lockhart, D. G.; Drakakis-Smith, D.; Schembri, J. (eds.) *The Development Process in Small Island States*. London: Routledge, 1-9.
- Narayan, P. K.; Narayan, S.; Prasad, A.; Prasad, B. C. (2010) "Tourism, and economic growth: A panel data analysis for Pacific Island countries" *Tourism Economics*. 16(1), 169-183.

- Parry, T. (1988) "Foreign Investment and Industry in the Pacific Islands" *The Journal of Developing Area.* 22 (3), 381-400.
- Peters, A. (2001) "The Determinants of Growth in the English Speaking Caribbean" *Savings and Development*. 25(3), 313-332.
- Read, R.; Driffield, N. (2004) "Foreign Direct Investment and the Creation of Local Linkages in Pacific Island Economies" *in* ISLANDS of the WORLD VIII International Conference *Changing Islands Changing Worlds*. Taiwan, November 1-7 of 2004.
- Robinson, E.A.G. (eds.) (1960) *Economic Consequences of the Size of Nations*. London: Macmillan.
- Rose, A. K. (2006) "Size really doesn't matter: In search of a national scale effect" *Journal of The Japanese and International Economies*. 20, 482-507.
- Sachs, J. D.; Warner, A. M. (1999) "The big push, natural resource booms and growth" *Journal of Development Economics*. 59, 43-76.
- Sala-i-Martin, X.; Doppelhofer, G.; Miller, R. (2004) "Determinants of Long-Term Growth: A Bayesian Averaging of Classical Estimates (BACE) Approach" The *American Economic Review*. 94(4), 813-835.
- Sala-i-Martin, X; Subramanian, A. (2003) "Addressing the Natural Resource Curse: an Illustration from Nigeria". *NBER*, *Working Paper* 9804.
- Sami, J. (2013) "Remittances, Banking Sector Development and Economic Growth in Fiji" *International Journal of Economics and Financial Issues*. 3(2), 503-511.
- Seetanah, B. (2011) "Assessing the dynamic economic impact of tourism for island economies" *Annals of Tourism Research.* 38(1), 291-308.
- Srinivasan, T. N. (1985) "The Costs and Benefits of Being a Small, Remote, Island, Landlocked or Mini-State Economy". *The World Bank, Discussion Paper, Economics and Research* 2.
- Tumbarello, P.; Cabezon, E.; Yiqun Wu, Y.(2013) "Are the Asia and Pacific Small States Different from Other Small States?". *IMF Working Paper* 13/123.
- Van der Ploeg, F. (2010) "Natural Resources: Curse or Blessing?". CESifo Working Paper 3125.
- Yang, Y.; Chen, H.; Singh, S.; Singh, B. (2013) "The Pacific Speed of Growth: How Fast Can It Be and What Determines It?". *IMF Working Paper* 13/104.