Telecommunications Regulatory Reform in Small Island Developing States: The Impact of the WTO's Telecommunications Commitment

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This Book is dedicated to my wife, Tu’ipulotu,
and daughters, Luseane Salaevalu, Mele Fataimoeloa and Ma’ukakala.

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PREFACE

Why does the government of one small island developing state produce credible telecommunications reform policies while another cannot? While telecommunications reform (competition, privatization and establishment of an independent regulator) is found to enhance the sector's performance and eventual economic growth in developing countries, it is not clear why several small island developing state governments have hindered, amended or reversed pre-announced telecommunications reform policies. The credibility of telecommunications reform therefore demands an in-depth examination, in particular, to examine the impact of the multilateral trade agreement (World Trade Organization, WTO), bilateral investment treaties and independent regulators on the credibility of domestic telecommunications reform in small island developing states.

A mixed-method research design was adopted through comparative case study analyses of Fiji, Papua New Guinea, Samoa, Tonga and Vanuatu. Sixty-four semi-structured interviews of key telecommunications stakeholders were conducted in the capital city of each case study from June to December 2008. Further, multiple regression analyses based on a panel data of 160 developing countries (including 26 small island developing states) covering the period 1995-2006 were undertaken to triangulate the evidence from the fieldwork.

Contrary to conventional findings from the telecommunications and bilateral investment treaty literatures in developing countries, the research found that the establishment of an independent regulator and signatory to Bilateral Investment Treaties instills less pronounced credibility for telecommunications reform in small island developing states, while WTO telecommunications commitment instill stronger credibility. The recent telecommunications reform in the Pacific showed the vulnerability of independent regulators to regulatory capture. The main findings of the research emphasize the importance of considering the disadvantages of smallness when adopting the successful telecommunications policy experiences from larger developing economies into the context of a small island developing state.

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ABBREVIATIONS AND ACRONYMS

ACCC	Australian Competition and Consumer Commission
ADB	Asian Development Bank
ATH	Amalgamated Telecommunications Holdings Limited
AusAID	Australian Agency for International Development
BITs	Bilateral Investment Treaties
CEO	Chief Executive Officer
CPI	Corruption Perception Index
DPEIDC	Department of Public Enterprises, Information and Development Cooperation
DSL	Digital Subscriber Line
ECTEL	Eastern Caribbean Telecommunications Authority
EDC	Export Development Canada
EU	European Union
FDI	Foreign Direct Investment
FINTEL	Fiji International Telecommunications
FITA	Friendly Islands Teachers Associations
FNPF	Fiji National Provident Fund
FPTL	Fiji Posts and Telecommunications Limited
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
GLS	Generalized Least Square (method)
GSM	Global System for Mobile Communications
ICCC	Independent Consumer and Competition Commission
ICT	Information Communication Technology
IFC	International Funding Corporation
IMF	International Monetary Fund
IML	Intercai Mondiale Limited
IPBC	Independent Public Business Commission
ITU	International Telecommunications Union
MA	Market Access
MFN	Most-favored Nations (principle)
MP	Member of Parliament
NEC	National Executive Council
NETCO	Network Company
NFPF	Fiji's National Provident Fund
NGO	Non-government Organization
NICTA	National Information and Communication Technology Authority
NPIC	PNG's National Policy on Information and Communication

NT	National Treatment
OECD	Organization of Economic Cooperation and Development
OLS	Ordinary Least Square (method)
PANGTEL	Papua New Guinea Radiocommunications and Telecommunication Technical Authority
PNG	Papua New Guinea
PTD	Posts and Telecommunications Decree 1989
SERVCO	Service Company
SIDs	Small island developing states
TAF	Telecommunications Authority of Fiji
TCC	Tonga Communications Corporations
TFL	Telecom Fiji Limited
TONFON	Tongan Mobile Phone Operator
TPL	Telikom Papua New Guinea Limited
TSC	Telecom Samoa Cellular
TSL	Telecom Samoa Limited
TTIL	Tonga Telecommunications International Limited
TVL	Telecom Vanuatu Limited
TWAC	Tongan Women's Action for Change
UK	United Kingdom
VIF	Variance Inflation Factor
coup d’etat	The sudden overthrow of a government, sometimes with violence, by a small group of people with political or military power.
ceteris paribus	Assuming all else is held constant
sene	Cent
status quo	The existing state of affairs at a particular time

CHAPTER ONE

INTRODUCTION

The global financial crisis that began in 2008 has reignited debate on how to regulate financial and banking sectors across the globe. In particular, the policy debate on fixed over discretionary regulation has been hotly contested. Discretionary regulation originated from the financial and banking sectors. Governments delegate powers to regulate an industry sector to an independent authority—for example, national reserve banks in the case of the banking sector—to instill long-term regulatory credibility from changes in governments and policies. Fixed regulations, on the other hand, are regulatory policies legislated by Government—for example, domestic legislation or legally binding international treaties—which are often predictable but less responsive to immediate regulatory challenges. The proponents of discretionary policies have argued that delegating power to independent authorities provided the flexibility to make decisions based on the situation at hand. The global financial crisis however, has brought into question the effectiveness of these legal entities and the rules they adhere to which can be influenced by profit driven corporate pressures.

The renewed policy debate on fixed over discretion regulation is increasingly relevant not only in the banking sector but also in other industry sectors including telecommunications. Many developing countries undertook telecommunications reform in the 1990s with varying success. Telecommunications reform is, however, a recent phenomenon in small island developing states (SIDS). Small island developing states comprise a group of sovereign island states with natural characteristics—geographical isolation, high susceptibility to natural disasters and micro-size—hamper their development prospects. The Caribbean region first liberalized its telecommunications market with Jamaica in 2001 and soon, other Caribbean island states followed through. The comparator region, the Pacific island states, began its telecommunications reform with Tonga in 2003, followed by Samoa, Papua New Guinea, Vanuatu and Fiji.

While early signs show a positive relationship between telecommunications reform—commonly understood as the introduction of competition policy, privatization policy and the establishment of an independent regulator—and the sector's performance in small island developing states, regulatory capture may have undermined the credibility of the reforms. What is puzzling is that, if telecommunications reform improves sector performance, it is not clear why small island developing state governments tend to hinder, amend or reverse pre-announced reform policies on telecommunications. Some island states' telecommunications sectors perform better than the sectors in other island states. The underperformance may not be explained by natural disadvantages alone, but also by poor institutions and poor policy (World Bank 2006:24-30).

This puzzling question guides the general path of the research in this book. The research proposes that discretionary policies commonly operationalized by independent entities are vulnerable to regulatory capture and therefore provide limited credibility. Telecommunications regulators in the Pacific case studies were found to be subjected to: heavy political influence from governments (as shown by the regulatory experience from Fiji and Papua New Guinea); frequent amendments to national information and communications technology (ICT) policies (as shown by the regulatory experience of Papua New Guinea); legislation amendment (Samoa); and a general lack of human and financial capacity of Pacific case studies' independent regulators, undermining their overall effectiveness and integrity.

A case is made, therefore, for the role of a fixed-rule policy (WTO telecommunications commitment) to instill credibility which is relatively immune to domestic capture. WTO trade rules can only be amended through negotiations by all members and agreed by consensus. A multilateral consensus around a particular member's interest—for instance, to renege a WTO telecommunications commitment for liberalization—could be costly and time consuming. Further, the financial costs of reneging commitments at the WTO are considerably higher for small island developing states. Possible economic sanctions by the WTO members could affect the economic development of small island economies. In addition, other related costs such as the negative effect to a small island state's international reputation could hinder development assistance and aid programs—something that small island developing states are heavily reliant upon. The comparative case studies from Papua New Guinea and Tonga shed evidence on the crucial role of their WTO telecommunications commitments in limiting policy reversals on telecommunications by strengthening their unilateral reform policy initiatives.

Pacific island case studies

There is perhaps nowhere better to examine the impact of international trade policy[1] on telecommunications regulatory reform in small island developing states than the smallest, most disadvantaged and remote island states of the South Pacific. The recent telecommunications reform in the Pacific therefore provides extremely useful case studies resonating small island developing states' socio-economic and natural characteristics. The timing of this research is equally crucial in rendering an early stock-take analysis of the process and outcome of the impact of an international trade policy mechanism—WTO's telecommunications commitments under the General Agreement on Trade in Services Agreement, (GATS)—on the credibility of telecommunications reform in Pacific islands states.

The credibility of telecommunications reform in small island developing states

The motivation to study the credibility of telecommunications reform in small island developing states is threefold. First, this is a timely study to be conducted in the early phases of telecommunications reform in the Pacific and therefore considered important for recording specific international trade policy initiatives and effects on telecommunications reform in a small island developing states context.

The second issue stems from the policy debate in the telecommunications policy on the limited effectiveness of the discretionary-rules policy mechanism (independent regulator) to instill credibility in telecommunications reforms. It is therefore necessary to examine alternative policy initiatives that may equally or better instill telecommunications reform credibility. Further, the literature on telecommunications policy provides an extremely narrow interpretation

[1] For the purpose of this research, it is understood as the General Agreement on Trade in Services Agreement (GATS) of the WTO.

and academic scholarship in the policy options[2] for instilling credibility in telecommunications reforms (Bertelli and Whitford 2009; Lee and Levendis 2006; Stern and Trillas 2003; Wallsten 2003; Noll 1999; Ros 1997; Melody 1997; Levy & Spiller 1994). Most of these studies focused on domestic regulatory mechanisms including independent regulators and their role on the certainty of telecommunications reform, while no study examines the specific role and effects of external regulatory mechanisms (such as the WTO and Bilateral Investment Treaty) on the credibility of telecommunications reform in a small island developing states' context.

The third motivation which originated as a policy challenge in small island states governments is the fundamental issue whether smallness matters. Can successful telecommunications regulatory policies of developed and larger developing countries be successfully replicated in a small island developing states context? The focus of this study anticipates to contribute to the telecommunications policy literature by examining the effectiveness of commonly prescribed telecommunications reform policies (competition and establishment of an independent regulator) of larger developing countries, in a small island states context.

Overall, the selection of fixed-rules policy is important since, methodologically speaking; fixed-rules policy (WTO telecommunications commitments) can be objectively measured and is easily accessible since it is commonly used in recent empirical studies.[3] The inclusion of this international trade policy variable provides fresh insight into the much debated effects of sectoral trade liberalization in small island developing states.

Research question

Motivated by the renewed global policy debate on fixed-rules over discretionary rules and the recent telecommunications reforms in small island developing states, the research has two objectives. First, this study will examine policy initiatives that promote the development prospects of small island developing states. More importantly, it aims to examine policy prescriptions that overcome the natural challenges impeding their

[2] Existing literature on telecommunications policy in the last 30 years has focused on independent regulators as the most common policy option for instilling credibility. See further discussion in Chapter 2.

[3] See Keck and Djiofack-Zebaze (2009) for a recent empirical study using the WTO telecommunications commitment variable.

development potential (that is, telecommunications reform). Second, the research examines the impact of fixed-rules policy—WTO telecommunications commitments and discretionary rule policy—independent regulators—on the credibility of telecommunications reforms in small island developing states.

Based on these objectives, the main research question posits: Do multilateral policy restraints enhance the credibility of telecommunications regulatory reforms in small island developing states?

The research adopted a mixed-methods approach[4] to examine the effect of different levels of policy restraints on the credibility of telecommunications reform in small island developing states. The qualitative phase examined the hypotheses through comparative case study analyses of five Pacific island states (Fiji, Papua New Guinea, Tonga, Samoa and Vanuatu) drawing from primary fieldwork data collected through semi-structured expert interviews. The quantitative phase triangulated the case study findings by estimating the effectiveness of selected policy restraints on the credibility of telecommunications reform in small island developing states. The quantitative approach was based on estimates from multiple regression analyses of a panel data set of 160 developing countries (including 26 small island developing states) over the period 1995-2006.

Research contributions

This research aims to make four contributions to policy debate on telecommunications reform in small island developing states. First, Telecommunications liberalization is a complex and relatively new process in developing countries (Fink et al. 2003:444). However, this process has just begun in small island developing states. Therefore, the findings of the research provide fresh insights by identifying key regulatory successes and pitfalls that early reformers in the Pacific islands encountered, which provides a wealth of policy lessons for late-adopters

Second, the research linked three strands of literature: telecommunications reform in small island developing states, credibility problem, and multilateral trade agreements, something that contemporary policy debate on telecommunications policy grants lesser attention to. In

[4] Mixed method approach is discussed further in Chapter 3.

particular, this study would examine how technology through telecommunications connects isolated communities. Since remoteness and isolation incur costs on the socio-economic development prospects of island states, the role of technology in the telecommunications sector could contribute positively to small island developing states.

Third, the thesis aims to contribute to the current policy dialogue on trade liberalization in small island developing states. Few studies have comprehensively examined the impact of WTO telecommunications commitment on the credibility of reform policies in a small island developing states context. Using one service sector, the thesis attempts to provide preliminary evidence on the important role of commitments to the WTO on the credibility of telecommunications reform in small island developing states. The research further estimates empirically this relationship, across a panel data set for 160 developing countries, including 26 small island developing states.

Fourth, the early positive outcome of the telecommunications reforms in the Pacific islands provides anecdotal evidence to support sectoral reform over the single undertaking approach. Inserted as Paragraph 47 of the Doha Declaration, the Single Undertaking principle is defined as follows: "virtually every item of the negotiation is part of a whole and indivisible package and cannot be agreed separately" (World Trade Organization 2009). That is, nothing is agreed until everything is agreed upon. The study aims to contribute to the current policy dialogue on trade liberalization and small island developing states by suggesting that sectoral trade reform is easier (politically and economically) to adopt and perhaps sensitive enough to the domestic pressures of island states. On the other hand, a full-fledged and comprehensive trade reform across all sectors has been shown to overwhelm both small island states' government and general public support. Further, it is also anticipated that the findings of this study could contribute to the utilities sector reform literature in island states, by providing important policy lessons from the telecommunications sector that could be replicated in other utilities sectors such as electricity and water.

Research limitations

This research also has several limitations that are important to highlight. The timing of the examination of Pacific islands telecommunications reforms may be argued by some readers as premature.

While this may indeed be true, a comprehensive study of regulatory options undertaken by these Pacific islands at an early stage is equally important to stand as a record for the benefits of other small island developing states who are about to pursue a telecommunications reform program. Also, the study should provide a useful basis of information for future researchers who may attempt to analyze the long-term outcome of such a policy reform program. Without time and financial constraints dictating its boundaries, the study could have undertaken a more comprehensive business opinion survey, in addition to the stakeholder's semi-structured survey. This could have provided a more comprehensive picture of the credibility of domestic investment policies.

Structure of the book

Chapter 1 introduces the book. Chapter 2 sets the theoretical underpinnings while Chapter 3 outlines the methodological design of the research. Chapter 4 provides a first stage analysis of telecommunications reform in the Pacific case studies by conducting an up to date regulatory policy survey on telecommunications policy.

The main bulk of the analytical research conducted is covered in Chapters 5, 6 and 7. Chapter 5 analyzes the impact of a multilateral policy restraint (WTO telecommunications commitment) on the credibility of telecommunications reform in small island developing states, focusing on Tonga and Papua New Guinea. Chapter 6 analyses the impact of domestic policy restraint (independent regulator) on the credibility of domestic telecommunications reform in Fiji, Samoa and Vanuatu. In Chapter 7 the case study findings from Chapter 5 and 6 are triangulated by empirically estimating the effects of multilateral, bilateral and domestic policy restraints on the credibility of telecommunications reforms in small island developing states.

Chapter 8 concludes by linking the case study and empirical findings to the policy debates on the credibility of telecommunication reform in small island developing states and WTO. This chapter also attempts to outline the policy implications of the research findings and their usefulness to various users. Suggestions on issues for future research are also outlined.

Earlier versions of Chapter 4, 6 and 7 have been published in a refereed journal—Pacific Economic Bulletin. Also, an earlier version of

Chapter 5 was published as a book chapter in an Asian Development Bank publication edited by Ronald Duncan (Crawford School of Economics and Government, The Australian National University).

CHAPTER TWO

THE CREDIBILITY OF TELECOMMUNICATIONS REFORM IN SMALL ISLAND DEVELOPING STATES

1.0 Introduction

> "States entering into international agreements have at their disposal several tools to enhance the strength and credibility of their commitments, including the ability to make the agreements formal treaty rather than soft law". (Guzman 2005:579)

The idea that a non-credible investment environment characterized by non-transparent rules and property rights, political instability, high corruption, and frequent policy reversals translates into lower investment and growth is well established (Brunetti et al. 1998). Investors are reluctant to commit large sunk cost resources in an uncertain environment (Dixit and Pindyck 1994). This is particularly valid in the natural monopoly sectors including telecommunications. Levy and Spiller (1996:3) define telecommunications investment as containing three key characteristics. First, often there are only a handful of major telecommunications operators established in a country. A small number of telecommunications operators have implications for potential monopolistic collusion behaviors. Second, the investment's assets are usually non re-deployable with very little technological usability to any other utility sector or industry. Third, the telecommunications service has traditionally been state-owned. Therefore, policies affecting the sector will most often be highly politicized. A fundamental policy challenge therefore is how to develop a regulatory policy reform framework that instills credibility.

This chapter sets the contextual background for the research. I discuss three main strands of literature; telecommunications regulatory reform in small island developing states; the credibility problem; and the policy restraint literatures (multilateral trade agreements, bilateral investment treaties and independent regulators) which map out the theoretical arguments of the research. The structure of the chapter is as follows. Section 2 discusses literature on telecommunications reform in small island developing states. Section 3 discusses the credibility problem, while section 4 discusses policy restraints argued to instill credibility from the multilateral trading agreement, bilateral investment treaties and independent regulators literatures. Section 5 concludes the Chapter.

2.0 Telecommunications Reform in Small Island Developing States

2.1 Small Island Developing States

It is well documented that small island developing states have special characteristics that deter their growth prospects.[1] These characteristics—generally including small size of nations, geographical isolation, high susceptibility to natural disasters[2] and tropical diseases—are argued to limit development potential (Briguglio et al. 2006:13). Chand (2003:121) explained that "most of these disadvantages emanate from the lack of a sufficiently large population and domestic resource base to allow production of goods and services at the minimum efficient scale. Geographical isolation raises transportation costs, imposing a competitive disadvantage on high bulk-to-value exports such as primary commodities." Further, susceptibility of small island developing states to natural hazards such as cyclones, tsunamis and, in the long term, rising sea levels could adversely affect their narrow-based economies.

No defined boundary exists to what exactly the characteristics are of small island developing states.[3] International institutions such as the World Bank, United Nations Conference on Trade and Development (UNCTAD), the Commonwealth Secretariat and WTO have varying interpretations as to who is small and what are the characteristics of

[1] See Kuznets (1960); Robinson (1960); Streeten (1993); Briguglio (1995, 1998); Armstrong and Read (1998); Goetschel (1998); Limao and Venables (2001); Limao and Olarreaga (2006); Srinivasan (1986); Baldacchino (2006); Grynberg (2006); Horscroft (2006); Weatherhead (2006); Winters and Martins (2006) for detailed discussion on the economic characteristics and disadvantages of small states.

[2] The most recent tsunami that destroyed a large part of Samoa, and to a lesser extent American Samoa, and Tonga in September 2009, is a clear example of recent geographical vulnerability in the Pacific islands.

[3] A contentious issue to date in the small island states policy debate.

smallness they possess. Some of these interpretations are anchored in small island developing states' preferences and each institution's overall mandate. Academics alike posit a broad range of interpretations on small states.

Nevertheless, two fundamental criteria emerge out of these interpretations. First, specific to the purpose of this research is the recognition of the sovereignty of smaller island states to determine their own policy fate and consequences. Fully independent and sovereign island states (understood as small island developing states in this context) could differentiate themselves from small island states classified as trusted territories and colonies of developed countries. Such demarcation is crucial to ensure a valid inference is made when discussing policy issues determined by small island developing states themselves and not necessarily influenced by external colonial power. Sovereignty, however, is often used by Pacific island states as a political and economic instrument in regional and international forums for negotiating aid (Sutherland 2009). Second, the special characteristics of small island states are generally accepted as natural features.

A smallness concept could be adopted containing three broad categories. The broad categories are small population size (and land mass), insularity and geographical remoteness, and susceptibility to natural disasters.

Small size

The total number of people (population size) is a common and readily available measure for comparing country sizes. Empirical studies have used population as proxy for size of the market and domestic labor force (Armstrong and Read 1998:566). There have been other measures used such as gross domestic production and land area. A smaller economy puts severe constraints on a country's ability to sustain prolonged economic or political shocks. This line of argument originated from early writings of Kuznets (1960) and Vakil and Brahmananda (1960). Smaller economies suffer from limited capacity to exploit economies of scale, high dependence on a narrow range of export products and limited natural resources. Smaller size also results in higher reliance on imports, a smaller number of businesses leading to limited competition in key service sectors, and limited institutional capacity.

Small island developing states suffer from supply-side constraints, often depending on one commodity for export and a limited skilled labor force to exploit the commodity. Vakil and Brahmananda (1960:133-150) stated that ceteris paribus, “geographical size has significance because of the possibility that a large-sized country may possess a larger quantity of natural resources or a greater diversity in their supply”. Knox (1967:35-44) echoed similar messages, using population size and land area as his distinguishing variables between small and larger nations. Knox emphasized two fundamental issues. First, smaller land area leads to fewer diversified resources than might be found in larger nations. Secondly, the small domestic market deters investors, as costs of doing business are higher. Knox’s comparative findings point to small island states’ heavy reliance on foreign trade, lower diversity of the exports base and a smaller market for investment.

It is often argued that the economic structure of small nations is typically less diversified than that of larger ones (Kuznets 1960:15-18). Kuznets suggested three reasons to explain this phenomenon. The first is the “size” of the area and its limiting effect on the supply of natural resources. Second, the limited size of the nation deters “optimum scale of plant for industries”, which is essential for promotion of growth. Third, there is a danger of high specialization by a small workforce in a few economic activities for they may well concentrate on one valuable resource to the point where there is minimal incentive to pursue new initiatives. Hence, a limited pool of expertise in critical regulatory institutions including telecommunications could affect their overall effectiveness.

Insularity and geographical remoteness

All islands are by definition insular, but not all islands are situated in remote areas (Briguglio 1995:1617). The insularity of smaller states when coupled with their remote geographical locations imposes transportation and communication costs that impede their development prospects. Hausmann (2001) considered two major engines of growth—access to markets and technological progress—to understand why geography matters for economic growth.[4] If specialization increases productivity,

[4] Barro (1996) empirically investigated other major determinants of economic growth based on a panel of around 100 countries from 1960 to 1990 provided evidence that growth rate is enhanced by higher initial schooling and life

Hausmann (2001:47) argued, the gains can only be materialized when producers have access to markets where they can sell these specialized outputs. With multiple international sourcing of raw materials and parts for production, transportation costs play an important role in competitiveness. Unfortunately for remote Pacific island states, transportation costs are often determined by a country's geographical location in the globe.

The impact of geography through a country's location in the earth's latitude is argued to reflect development levels of countries. Gallup et al. (1999:180-181) claim that "nearly all countries in the geographic tropics are poor, and almost all countries in the mid-and high latitudes are rich". They found that among the tropical countries, the simple average GDP per capita in 1995 was US$3,326 [while] among the non tropical countries, it was US$9,027. Gallup et al. (1999) illustrate this point using graphical maps on the distribution of economic wellbeing and tropical disease (Figures 2-19 & 2-20, Appendix A)

The relationship between tropical diseases and development was popularized by Acemoglu, Johnson and Robinson (2001). In an attempt to estimate the impact of institutions on economic performance, Acemoglu et al. (2001) empirically tested mortality rate of early European settlers in the colonies. The authors hypothesized that the prevalence of tropical diseases (mostly malaria and yellow fever) during the colonization era deterred European settlers from fully establishing "neo-European" institutions and societies. "Extractive states" where instead established "to transfer as much resources of the colony to colonizer" (Acemoglu et al. 2001, p. 1370). Consequently, the long-term effect of extractive states institutions on economic performance were detrimental to some developing countries as these poor institutional arrangements remained even after independence. Acemoglu et al. (2001:1376) discussed that as colonies gained their independence, small elite ruling classes stepped in to run governments and preferred to exploit extractive institutions for their own benefits. So, it was a mere change of rent recipients from European Governments to local powerful elites. By contrast, the opposite could be said about Australia, New Zealand, Canada and the United States of America of which early European settlers encountered less mortality rate from diseases and where therefore able to established themselves with

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expectancy, lower fertility, lower government consumption, better maintenance of rule of law, lower inflation, and improvements in the terms of trade.

better structured institutions which led to eventual higher economic performance.

The combined natural characteristics of small island developing states coupled with geographical isolation from major markets ultimately hamper their development prospects. Armstrong and Read (2006[a]:79 & 87) noted that "Pacific islands are extremely remote from global markets…with no fewer than 73 per cent of the small Pacific states being more than 5,000 kilometers from their nearest global market compared with only 37 per cent of the small states taken as a whole". Gibson (2007:83-86) echoed Armstrong and Read's line of argument on Pacific islands' remoteness by stating that "out of the 219 countries…the Melanesian and Polynesian countries have an average rank as the 207th most remote, while Micronesian countries have an average rank of 176th most remote." This figure illustrates how geographical isolation put small island developing states into a uniquely challenging circumstance hampering their development prospects.

Susceptibility to natural disasters

Natural disasters such as tsunamis, cyclones, drought, earthquakes, and floods tend to be more frequent in specific geographical areas, affecting both small and large states. However, larger states have higher resilience to natural shocks compared to small island developing states (Briguglio 1995:1617). Most Caribbean and Pacific island states are concentrated in regions with the highest frequency of natural disasters—within the tropics. The United Nations Disaster Relief Organization has estimated that the impact on the 25 most disaster-prone countries (including 13 small island developing states) has entailed costs between 28 per cent and 1,200 per cent of their annual GDP (Commonwealth Secretariat and World Bank 2000:11). The negative monetary costs of natural disasters experienced by a smaller island state will be larger in damage per unit of area than in a larger state (Briguglio 1995:1617). Also, small island developing states are generally dependent on one or two commodities, often agriculture, fisheries and tourism, which are highly vulnerable to natural disasters. The recent tsunami that devastated coastal communities in American Samoa, Samoa[5] and Tonga in September 2009 reflects the vulnerabilities of Pacific islands to natural disasters.

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[5] Samoa which was the hardest hit lost 170 lives with an estimated damage cost of SA$130 million (Stuff.co.nz online source, 2009).