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Explaining the Supply-side Constraints to Export-led Growth in Selected Pacific Island Countries

Yenteshwar Ram, Biman Prasad, and Ron Duncan*

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*Yenteshwar Ram, Biman Prasad, and Ron Duncan are postgraduate student and tutor, Associate Professor and Head of the Economics Department, and Professor and Executive Director of the Pacific Institute of Advanced Studies in Development and Governance, respectively, at the University of the South Pacific (USP), Suva, Fiji. The views presented in this paper are those of the authors and do not necessarily reflect the views of ARTNeT members, partners and the United Nations.
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Abstract

Over the past two decades, an integral part of some Pacific island countries (PICs') economic policy rhetoric has been export-led growth. However, despite the policy and technical support provided by many international organizations and bilateral donors, and an abundance of natural resources, their export sectors remain narrow and, with few exceptions, export industries have experienced little growth. Therefore, if these countries are to do better, it is critical to understand the supply- side constraints to export-led growth. Hence, the objective of this study was to identify and subsequently analyse the impact of supply-side constraints on export receipts for selected PICs, using Linear Programming (LP) models of export receipts. The study also provides estimates of the magnitude of the increase in export receipts that may be achieved if some of these constraints are removed. The results show the maximum export receipts that these PICs can achieve, given the supply-side constraints that they face. It is also seen that if some of the supply-side constraints are removed, the increase in exports receipts would be very promising. Finally, the paper provides some policy recommendations for the removal of some of the supply-side constraints.

1. Introduction

Economies of the Melanesian group of the Pacific Island region, namely Fiji, Papua New Guinea (PNG), the Solomon Islands and Vanuatu are relatively less developed than other island economies sharing similar economic characteristics in other parts of the globe. Over the past two decades, an integral part of their economic policy rhetoric has been export-led economic growth. However, despite the policy and technical support provided by many international organizations and bilateral donors, and an abundance of natural resources, their export sectors remain narrow and, with few exceptions, export industries have experienced little growth.

Therefore, if these countries are to have better economic performance, it is critical to understand the supply-side constraints to an expansion of exports. Hence, the objective of the study was to identify and subsequently analyse the impact of supply-side constraints on export receipts of selected Pacific island countries (PICs), using Linear Programming (LP) models of export receipts.

The study was also designed to provide estimates of the magnitude of increases in export receipts that may be achieved if some of the important constraints are removed. Such findings may help to support the implementation of more effective economic reform programs. The findings will also allow policy makers in PICs to identify and compare the supply constraints faced. This could open up the possibility of formulating solutions for joint implementation by PIC governments, which is of relevance in the context of the ongoing development of the Pacific Plan for increased regional integration of the PICs' (PIFS 2005).

The rest of the paper is structured as follows. In the next section, we provide an economic overview of the selected PICs, Fiji, Papua New Guinea, Solomon Islands, and Vanuatu. In the third section, we review past studies done on this topic. The fourth section discusses the methodology used in this study, while the fifth presents the empirical results and discusses them. The sixth section presents conclusions, including policy recommendations, and discusses possible extensions of the study.

2. An Economic Overview of the Selected Pacific Island Countries

2.1 Fiji Islands

The political crisis of 2000 saw the Fiji economy decline by 2.8 per cent in that year. This contraction was accompanied by substantial job losses and migration of skilled and professional workers; the migration is continuing, although the rate is declining. Since 2000, business confidence and private investment have picked up, but not to a point sufficient to drive sustained growth. Skills shortages affect most sectors of the economy, notably the construction industry, which is trying to keep up with the demand for tourist hotel rooms. The economy recorded reasonable growth around 4.0 per cent in the period 2001-04, driven by a resurgent tourism industry. However, real GDP growth in 2005 is forecast at only 1.7 per cent and at 2.0 per cent in 2006, with the slowdown due principally to the termination of preferential trading arrangements for sugar and garments (affecting principally garment exports to the United States), Fiji's major manufacturing and export industries.

With regards to trade, Fiji has a relatively diversified export base. However, in most years imports have exceeded exports and export growth has been poor. A number of reasons have been given for the subdued growth in exports. The substantial decline in world market prices for primary commodities in recent years, adverse weather conditions, and low productivity in the agricultural sector are some of the factors said to be limiting export growth (Narayan and Narayan 2004). Nonetheless, total exports account for around 40 per cent of GDP. The economy relies heavily on export receipts to finance imports of almost all investment goods used in capital formation. Exports are not only the major source of foreign exchange but also an important source of employment.

Foreign exchange reserves have been low over the past three years (at the end of 2004, reserves totalled $786.2 million) compared with the levels achieved in 2000 ($898 million) and 2001 ($846 million), with the Reserve Bank of Fiji attributing the fall to strong demand for imports as economic activity increased. (Reserve Bank of Fiji (RBF) Quarterly Review- March 2005)

In pursuit of economic growth and development, Fiji has been implementing economic reforms since 1980s. Generally, these reforms have taken the following form: deregulation of the economy to bring domestic prices more closely in line with world prices; restraint in the growth of government expenditure (to ensure availability of resources for growth in the private sector); reform of the system of direct and indirect taxation (to minimise market distortions and improve incentives for risk taking and effort); a wage policy that recognizes the paramount importance of maintaining international competitiveness; and the mobilisation of all sectors of the community in support of economic expansion (in particular, increased Fijian participation in commerce and industry (Reddy *et al,* n.d.). Owing to these economic policies, major reforms have occurred in the political structure, in the trade sector, the labour and goods markets, public enterprises, the civil service, agriculture and land, the financial sector, and investment policies (Reddy *et al,* n.d.).

The past decade has seen Fiji adopt an export-oriented approach to trade relations. Import restrictions have been largely lifted in favour of export promotion, and as a result Fiji now has a more open economy, with increased volumes of exports and imports. The more open trading approach has led to increased prosperity and opportunities in the economy, creating thousands of jobs in industries such as garments; but it has also led to greater vulnerability to external shocks (The Republic of Fiji Islands Ministry of Foreign Affairs and External Trade, n.d.).

2.2 Papua New Guinea

After several years of contraction, the PNG economy grew by 2.8 per cent in 2003, and the PNG government has estimated a growth rate of 2.6 per cent in 2004 and 3 percent in 2005. Other macroeconomic indicators have also improved, with inflation rates and interest rates at very low levels. The Kina appreciated against the US dollar for most of 2004, but it has been fairly stable in recent months, trading at around 3 Kina to the US dollar. Against the Australian dollar, however, the Kina has weakened from about 2.5 Kina to the Australian dollar in January 2004 to about 2.3 Kina in July 2005 (Bank of Papua New Guinea *Quarterly Bulletin* – various issues). Despite this more positive outlook, the PNG economy is not growing at rates that yield positive per capita income growth.

Exports of petroleum and agricultural (coffee, copra, cocoa and palm oil), mineral (copper and gold) and timber (logs) exports contribute around 40 percent of PNG’s GDP and account for 90 percent of its exports. However, the contribution of the mining and petroleum sectors to economic growth is likely to decline appreciably over the next decade as production from existing oil fields and mines declines and new large oil fields and mines are not expected to come on-stream during that time. Even if new projects such as the Highlands gas project, the Ramu nickel and cobalt project, and the Kainantu gold project proceed to development they cannot be expected to deliver sustainable, broad-based economic development because of their enclave nature(Bank of Papua New Guinea *Quarterly Bulletin,* various issues)

Similar to other Melanesian countries, PNG has a dual economy, comprising a formal, corporate-based economy and a large informal economy where subsistence farming accounts for the bulk of economic activity. The formal sector provides a narrow employment base, consisting of workers engaged in mineral production, a relatively small manufacturing sector, public sector employees, and service industries including finance, construction, transportation and utilities. Migration to major urban centres over the past decade has contributed to urban unemployment and social problems. Papua New Guinea's social indicators are well below those of most other lower middle income countries, particularly in rural areas (Bank of Papua New Guinea *Quarterly Bulletin*, various issues).

PNG has continued to undertake economic reforms over the past five years. Significant achievements have been made in the areas of central bank independence, financial sector prudential supervision, exchange rate flexibility, labour market reforms, tariff reductions, the sale of the PNG Banking Corporation, and recent moves to partially privatise some key utilities. However, fundamental problems remain, including the management of government finances, maintaining law and order, delivering adequate levels of essential services, maintaining national infrastructure, attracting investment and linking traditional methods of agriculture production in rural areas to modern urban and overseas markets. The population continues to grow rapidly, with an increasing number of people living in poverty. These key challenges need to be addressed quickly if PNG hopes to build on the modest gains of the recent years (Bank of Papua New Guinea *Quarterly Bulletin*, various issues).

2.3 Vanuatu

After negative growth in the early 2000s, the Vanuatu economy experienced real GDP growth in 2004 of 3.2 percent, building on modest growth of 1.4 percent in 2003. Buoyant commodity prices, increased tourism, and a focus on economic and budget management have contributed to economic growth. Inflation was stable in 2004 at 0.8 percent (Reserve Bank of Vanuatu, *Quarterly Bulletin*, various issues).

In 2004, Vanuatu's exports grew by 28.2 percent to 4.2 billion vatu (A$50.2 million) although they still contribute only about 10 percent of GDP. Over 80 percent of Vanuatu's locally-produced exports are agriculture-based, led by coconut oil (31.1 percent), copra (13.5 percent), kava (13.4 percent), beef (8.7 percent) and timber (7.5 percent). The transition to cash cropping from subsistence farming is still at an early stage, although it has been growing strongly over the past two years. A resurgence in copra production, an increase in coconut oil prices, a recovery in kava exports following some lifting of European and US bans, and ongoing development in the root crop and beef sectors have all provided a basis for strong growth. In 2004, the value of coconut oil exports increased by 169 percent (to A$12.3 million), kava by 93 percent (to A$5.3 million) and copra by 58 percent (to A$5.37 million). Exports of root crops including taro, cassava and sweet potato are also growing.

Besides agriculture, the tourism sector is a major foreign exchange earner for Vanuatu and has been recognised by the government as a key sector for development, employing an estimated 1,200 people. Continuing growth in Vanuatu's tourism sector will be crucial to providing employment opportunities for Vanuatu's young and rapidly growing population (60 percent of which is under 25 years). Increasing investment in new boutique-style hotels, refurbishment of larger resorts, stronger interest in locally-owned bungalows, and interest in the backpacker market also point to further growth in this industry (RBV Quarterly Bulletins, various issues).

Overall, however, private sector investment remains subdued, although real estate development has boomed since mid 2004. Political stability and commitments by government to public sector and economic reforms is needed if investor confidence and growth are to occur. (RBV Quarterly Bulletin – various issues)

In response to the economic and political challenges facing the country, successive Vanuatu Governments have pursued a wide-ranging reform program since 1997, with assistance from the Asian Development Bank (ADB) and international aid donors, including Australia. This effort has been guided by the Comprehensive Reform Program (CRP) document, which was developed at a national summit in Vanuatu in June 1997. The CRP provides a blueprint for good governance through institutional renewal; improved service-delivery, particularly to rural areas; the development of a redefined role for the public sector and improved public sector efficiency; private sector-led growth; and improved equity between sections of the population.

Some impatience with the CRP sprang from the lack of economic growth prior to 2003, and in particular, little progress in improvements to service delivery. In a move to prioritise activities under the CRP, the Vanuatu Government developed the Prioritised Action Agenda (PAA) in 2003. The PAA is a development framework whose goal is to formulate medium-term development priorities that will guide policy stability and promote reforms. The five-year Australian-Vanuatu Joint Development Strategy, signed on 31 March 2005, is based on the PAA. Another important Vanuatu Government initiative has been the Rural Economic Development Initiative (REDI), which aims to improve service delivery in rural areas and ensure that economic development is a reality for the majority of the population residing in rural areas. REDI plans are developed and administered at the provincial level and supported at the national level. This usefully hands responsibility for development back to the grass roots. REDI plans have shown results in terms of agricultural production and an increase in the number of small-scale tourist operations starting up throughout the islands. The REDI is being supported by a range of donors, including Australia.

Vanuatu’s economic reform in recent years has led to a major improvement in the management of its public sector finances, with expenditure now more carefully controlled through an accountable and transparent process. Vanuatu adopted a new fiscal format in line with the CRP, part of which was the introduction of a Value Added Tax on 1 August 1998, as well as reform of the tariff structure. A new program budgeting format was also introduced in 1998 and Vanuatu now has an integrated recurrent development budget, incorporating all expenditures funded from domestic and external sources.

The limited revenue base continues to constrain government efforts to deliver services and implement reforms, although the current government is making efforts to increase revenue through tax reform and improvements in tax collection. In recent years, revenue collection has fallen short of projections, making budget management difficult for individual departments and the Government as a whole. A change in revenue forecasting in early 2003 meant that revenue projections for the year were realistic and collections slightly exceeded expectations. Collections improved further in 2004 and predictions are that, with the current Government’s reforms, 2005 will see a significant jump in revenue.

2.4 Solomon Islands

The Solomon Islands economy is estimated to have contracted by 14.3 per cent in 2000, by 9 percent in 2001, and by a further 2.4 per cent in 2002, primarily as a result of the closure of most major industries after June 2000, following severe ethnic conflict since 1999. The long road to economic recovery has, however, begun. Confidence is beginning to return to the local economy due to the improvement in the security environment (with the arrival of the Australian Government-led Regional Assistance Mission to the Solomon Islands-RAMSI) and the timely payment by government for goods and services. Local business confidence is also increasing. The Central Bank of Solomon Islands estimates that the economy grew by 5.6 per cent in 2003 and by 5.5 per cent in 2004, the fastest rates of growth since the logging boom of the early 1990s. The Central Bank projects growth of 4 per cent in 2005 (Central Bank of Solomon Islands (CBSI), *Quarterly Bulletin*, various issues).

The violence associated with the ethnic conflict caused extensive damage to property, transport and communication infrastructure, schools, water supply and sanitation systems, electricity supply, government buildings, and the health sector, all of which were already significantly debilitated due to years of institutional neglect, and forced the closure of both large and small businesses. Full recovery will take a considerable length of time. The reopening of the palm oil plantation, now called Guadalancanal Palm Oil Limited and under Malaysian ownership, is an encouraging development as thousands of jobs could be created. The Gold Ridge mine is likely to reopen in 2006 following its purchase by an Australian consortium. Both projects reflect the greatly improved business environment as a result of the return of law and order. The challenge for the Solomon Islands Government will be to ensure long-term and broad-based economic growth by improving the operating environment for business and through investing in infrastructure.

Export earnings fell sharply from 1999 to 2002 as a result of the steep declines in activity in the country's few major export sectors of fisheries, gold and plantation agriculture. This decline in activity was compounded by falling commodities prices. Merchandise exports grew by almost 60 per cent in 2002, and in 2003 some key commodity prices firmed with growth in exports being driven by the agriculture (particularly copra and cocoa), forestry and fisheries sectors. However, current export levels remain below 1999 levels and are overly reliant on unsustainable levels of logging, which were said to be three times above sustainable levels in 2003.

With inadequate controls to reduce the leakage of public funds, the Solomon Islands Government budget for 2002 was significantly overspent and this continued into 2003. But with RAMSI assistance, the Solomon Islands Government has made significant gains in introducing budget discipline, controlling expenditure, enhancing revenue collection and meeting financial obligations. The Solomon Islands Government also produced realistic and credible 2004 and 2005 budgets (CBSI, *Quarterly Bulletin*, various issues).

Government domestic revenue in 2005 is estimated at SBD$550 million, which is a 50 percent increase on 2003 actual revenue due to increased tax compliance and a growing economy. Budgets are now fully financed without recourse to additional borrowing and at least 15 percent of revenue is allocated to debt service. RAMSI is now working with the Solomon Islands Government to ensure that future budgets are sustainable, reflect government policies and priorities, and are implemented through effective systems. Other priorities are to strengthen economic policy and planning processes, further strengthen revenue collection, implement a comprehensive debt management strategy, and improve the enabling environment for private sector development.

3. Literature Review

Several studies on supply-side constraints to economic growth have been published over the past decade. While most of these studies pertain to the supply-side constraints faced by developing countries in achieving their growth potential, a few have focused on the supply-side problems faced by developed countries. In the following paragraphs, we provide summaries of some of these studies.

I. In 2002, an African Caribbean Pacific (ACP) Ambassador highlighted that in order to be able to take advantage of trade preferences, ACP countries need to be able to produce competitively and get products to the market at a reasonable cost. As the experience under the Lomé Convention has demonstrated, ACP countries face major problems in producing and supplying goods competitively within an increasingly liberalised trading environment.

Some of these problems and challenges are as follows. With many ACP countries being geographically remote, by virtue of their land-locked or island status, getting products to market is not always easy and can be influenced by factors beyond the control of ACP governments. Climatic factors also play a major role. An example is the devastating setback to Mozambique’s development arising from the floods in 2000. To a certain extent, these factors should make one stop and think about the uni-linear vision of development, which underpins so much of Europe’s development policy. The sad reality is that things do not always go forward. Setbacks can occur regardless of the best policies pursued by governments. This needs to be taken into account in developing EU policies towards the ACP.

Moreover, there is a need for a realistic assessment of what governments can influence. Within the global economy, there are now only two major assets which government policy can have a bearing on: the stock of physical infrastructure and capital and the stock of human capital. In both of these areas, ACP countries face major constraints on their ability to produce competitively in the context of moves towards free trade with the EU. Indeed, it is these constraints, which in large part account for their status as developing countries. These constraints are: the unreliable provision of public utilities (electricity and water supply); poor public infrastructure (run-down roads and railways); weak institutional and policy frameworks (leading to fluctuating exchange rates and high inflation and interest rates); and low labour productivity (arising from poor education, health and housing provisions).

In many respects, the situation with regards to human capital, particularly in Southern Africa, has become worse in recent years as a result of the impact of the HIV/AIDS pandemic. People are living shorter lives and often dying as they reach their most productive years. This development has profound implications for labour productivity, the competitiveness of the South African