ECONOMIC IMPACT OF FEDERAL LAWS ON THE COMMONWEALTH OF THE NORTHERN MARIANA ISLANDS

Prepared for:

Office of the Governor

The Commonwealth of the Northern Mariana Islands

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NORTHERN MARIANA ISLANDS

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October 31, 2008

The Honorable Benigno R. Fitial
Governor
Commonwealth of the Northern Marianas Islands
Executive Office Building
Saipan, MP 96950

The Honorable Dirk Kempthorne
Secretary
US Department of the Interior
1849 C Street, N.W.
Washington DC 20240

Re: Contract No. 475322-OC: Comprehensive Assessment of the CNMI Economy

Dear Governor Fitial and Secretary Kempthorne:

We are transmitting our economic forecast and report prepared in accordance with the above contract. This contract was first executed on August 8, 2007, and then revised on May 1, 2008, with a scope of work reflecting recent legislative developments and a six-month extension until October 31, 2008.

We appreciate the funding provided by the Department of the Interior and the opportunity to be of service to the Commonwealth of the Northern Mariana Islands at this difficult time in its history. We hope that our analysis and recommendations will be of assistance to the CNMI Government, the Department of the Interior, other federal agencies, and the United States Congress in responding to the serious economic depression that is currently being experienced by the CNMI. While definitions of recession and depression are somewhat arbitrary, the United States citizens in the Commonwealth are experiencing a worsening depression by any common understanding of the term.

The revised scope of work submitted in May 2008 identified five reasons for conducting this economic study at this time.

First, there has not been any comprehensive and detailed study of the CNMI economy since the 1999 Northern Marianas College study in which we participated.

Second, the circumstances affecting CNMI economic development have changed radically in the last few years, as evidenced by the 2005 change in World Trade Organization rules and federal legislation dealing with minimum wage levels and immigration in the Commonwealth.

Third, the CNMI is currently in its fourth year of economic depression, with serious declines in its two major industries due largely to factors beyond its control.

Fourth, the economic study of the new federal laws will be of assistance to the Commonwealth, Members of Congress, and the federal agencies charged with the implementation (or amendment) of these laws.

Fifth, the Department of the Interior is well aware of the shortage of economic data regularly generated with respect to all the insular areas, and it was anticipated that this report would further document the need for more and better data regarding the insular areas.

The basis for our forecast and the data used in connection with various aspects of the forecast are included in the report. Although the federal government does not provide to the Commonwealth the economic and other data normally available for forecasting in a state, we believe that the methodology is sound and that estimates we have made are within reasonable parameters. We stand ready to be of further assistance in the future.

Respectfully,

Richard S. Conway

Malcolm D. McPhee

Summary and Recommendations

Summary

Chapter 1 Economic and Social Conditions in the CNMI - The CNMI became part of the United States by mutual agreement (Covenant) through an act of Congress in 1976. The Covenant guarantees a unique right of local self-governance to the CNMI. It expressly provides that this right of local self-governance cannot be taken away by the United States.

The Covenant also establishes that the “United States will assist the Government of the Northern Marianas to achieve a progressively higher standard of living for its people as part of the American economic community and to develop the economic resources needed to meet the financial responsibilities of local self-government.” This report suggests that the US has not met this obligation.

The Covenant produced a favorable investment climate by granting the CNMI a strong measure of economic autonomy especially in controlling its own minimum wage and immigration. The Covenant did provide for the federal government to apply the US minimum wage and immigration laws to the CNMI “in the manner and to the extent made applicable to them by the Congress by law.”

The CNMI experienced one of the most successful private sector economic expansions in Pacific island history between 1980 and 2004. Its early economic success was attributable to its own initiatives and the development provisions of the Covenant.

The CNMI is now in the throes of a serious economic depression, which shows no sign of abating or recovering even in the distant future. This depression is due to the lifting of quotas on garment exports to the US which rendered the CNMI’s largest employer, the garment industry, unfeasible.

This was exacerbated by the imposition of federal minimum wage and immigration laws on the CNMI. In applying the minimum wage, the Congress softened the anticipated adverse economic impact to some extent by lengthening the period over which the US minimum would be applied. In applying US immigration law, Congress drastically increased the anticipated adverse economic impact by providing that all foreign workers in the CNMI may be subject to removal by the United States Department of Homeland Security as “illegal entrants and immigration violators.” The law provides that DHS shall administer a local permit system, determining which local businesses and individual employers may employ a foreign worker, and which may not. These represent serious, possibly debilitating, federal intrusions into the CNMI’s economic and local self-governance.

The Covenant worked well in the first several decades for the CNMI. The federal application of the minimum wage and immigration provisions of the Covenant is now destroying the CNMI economy in contravention to the Covenant itself. Obviously, something has gone seriously wrong.

The CNMI could revert in large measure to the subsistence economy it was before the Covenant. Furthermore, after its stunning economic success, the CNMI is now on a path to become one of the lowest standard of living and most federal dependent territories in the US system.

In the 1990s, during the CNMI's rapid economic growth, concerns began to emerge about possible effects on the US domestic garment industry, whether the costs of the industry to the US were greater than the benefits to the CNMI, mistreatment of foreign garment workers, and other concerns.

This led the Department of the Interior, Office of Insular Affairs to conduct a comprehensive study of the CNMI economy which was completed in 1999 by the Northern Marianas College (NMC). This report evaluated the economic impact of the CNMI's garment industry and warned of a serious economic downturn when the CNMI garment industry began to decline, which could happen as early as 2005. This report warned against any change in federal policy regarding immigration and the minimum wage in the CNMI without a clear determination of how such change would affect the CNMI's economy. It stressed the importance of local control over immigration and minimum wage levels in responding to this decline and future economic recovery. The US Government Accountability Office (GAO) published its assessment of the CNMI's economic situation in 2000, essentially citing and agreeing with the NMC study economic impacts.

Despite these serious admonitions, Congress acted to apply the federal minimum wage and immigration laws to the CNMI at the onset of its economic depression. Unfortunately, little thought appears to have been given to the effects of this legislation on the CNMI's economy. Congress requested a GAO study of the impact of the immigration legislation on the CNMI economy but passed that legislation before all study findings and recommendations were available. In the case of the minimum wage legislation, a study was performed by the US Department of Labor after the act was passed. Both included scenarios under which economic disaster could occur in the CNMI. Neither study considered the fact that what was ripping the CNMI economy apart would surely inhibit or prevent its recovery. These efforts to analyze the CNMI economy were hampered by the fact that key economic data, available on a current basis in the States from the federal government, is not collected or published for the Pacific territories.

Chapter 2 The Rise and Fall of the CNMI Economy - The CNMI built a prosperous economy based on the apparel and visitor industries, taking advantage of its trading relationship with the United States, its appeal as a tourist destination, its proximity to inexpensive labor in Asia, and its expanding infrastructure funded in large part by the federal government. Critical to the CNMI's economic success were duty-free access to U.S. markets and local authority over immigration and the minimum wage.

Unable to compete with China's cheap labor, CNMI garment factories began to shut down in 2000. By 2007, the apparel industry had lost more than 11,000 jobs. Total employment in the economy fell to 26,010, a 35.6 percent drop from its peak in 2004. Thus, in the short span of three years, the CNMI lost one-third of its economy, one that took more than twenty years to build.

A second threat to the economy is the policy of "federalization," which has taken away CNMI control over immigration and the minimum wage. Under current law, most foreign workers in the CNMI will be deported by 2014. In the meantime, the minimum wage will double, rising in 50-cent increments until it reaches the federal rate of $7.25 per hour in 2015. The immigration measure could prove troublesome for the visitor industry, now the CNMI's only driving force in the economy, because about 70 percent of its workers are non-U.S. citizens.

The outlook for the CNMI economy is bleak. The last garment factory is expected to close its doors in 2009. After one or two good years, the visitor industry will have to begin grappling with a declining workforce, as foreign workers are forced to leave the islands. Even if local residents are willing to take the low-wage jobs in hotels, restaurants, and retail stores—an assumption with little basis in past experience—the visitor industry will face a labor shortage. Under the best of circumstances, business revenue and employment in the visitor industry will likely decline another 20 percent between 2010 and 2015.

Two future scenarios were constructed for this study.

The first is the "federalization" scenario under which the Commonwealth is forced to proceed according to the dictates of the recently-enacted federalization laws with conservative assumptions as to how the federal authorities will exercise their wide-ranging powers and how the residents of the CNMI will react. The second is the "relief" scenario under which the recently-enacted federalization laws are repealed or substantially modified.

Under the federalization scenario, the CNMI economy stands to lose approximately 44 percent of its real Gross Domestic Product, 60 percent of its jobs, and 45 percent of its real personal income by 2015. Unequivocally, this is a depression of great magnitude. It is equivalent to turning back the clock for the CNMI economy to 1985.

Is there anything that can be done to reverse the disastrous slide? In the legislation restricting foreign immigrants in the CNMI, Congress promised to provide aid and assistance during the period of transition. Short of spending tens of millions of dollars to shore up education, healthcare, and other government functions, there is little that can be done to improve the economy. Indeed, the policy of federalization, which is driving up production costs and capping the supply of labor in the CNMI economy, would appear to preclude any meaningful economic development in the future.

The second is the relief scenario under which the recently-enacted federalization laws are repealed or substantially moderated. It could have a substantially improved impact on the CNMI economy. By 2015 it would show a loss of only 9 percent in employment; it would show gains of approximately 11 percent in real Gross Domestic Product, 7 percent in real personal income, and 21 percent in per capita personal income. These do not represent strong growth rates, but they do not represent an economic depression either. The return to some reasonable measure of local control over immigration and the minimum wage would allow the visitor industry to expand, making up for some of the jobs lost during the downturn of the apparel industry. For example, if the visitor industry grew at a 5 percent annual rate between now and 2015, the economy would have close to 32,000 jobs, about twice the number of jobs in the federalization scenario. The economy would still be about one-fifth smaller than it was at its peak in 2004. But compared to the federalization scenario, the economic and social suffering would be much more manageable under the relief scenario.

There are difficulties with the availability of appropriate and timely data for the CNMI and other Pacific territories as well. Most of the economic data provided by the federal government for all 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands is not provided for the CNMI. Studies referenced in this report by U.S. Government Accountability Office and the US Department of Labor were hindered by the lack of data in their own CNMI studies. The economic impact analysis in this study required the construction of a data base from several disparate sources of information to provide a reasonable assessment of CNMI economic conditions and trends.

Chapter 3 Economic Development Theory and International Practice

New trade and growth theories describe a hierarchy of places from large metropolitan clusters to peripheral rural areas. Some production takes place depending in part on the characteristics of the location (e.g., constant returns, natural resources or rural locations). Other production takes place depending on the scale or specialization requirements of the production process itself (e.g., increasing returns, larger metropolitan markets, and sources of supply). The CNMI does not fit into these categories well. It is more rural than metropolitan, but its small size and isolation place it in an even more vulnerable category. In addition the economic growth process itself, depending as it does upon unending advances in knowledge and technology, will offer some production niches for smaller isolated areas.

Over the years, the general notion of pure competition tended to promote a rigid view of economics that somehow competitive market forces would resolve every economic issue under every economic condition. This view prevails to a large extent today despite much evidence to the contrary including the present world financial crisis. Advances in understanding of the production and development processes suggest important complementary roles for government.

Federal policy makers have had great difficulty in determining what they could or should do to help the territories develop. They are convinced however that the territories should be economically self-reliant or self-supporting. Even, when against all odds, the CNMI was able to establish thriving garment and visitor industries, the federal government acted to decimate them. So in economic development, it is important to include the factor of relative government support for policies that can help development and policies that can avoid harm to development. Government played a critical role in the private sector development success stories of both the CNMI and American Samoa.

Modern economic theory also raises questions about the sustainability of regions. There is great interest in what sustains larger core areas of production, what it takes for peripheral areas to be transformed into core areas of production, and if there is a breaking point for smaller regions. The latter is especially important in the case of the CNMI because prolonging the present depression will eliminate much of the modern public and private infrastructure built up over the years and required for future development.

The economic development issues faced by the CNMI and other small, isolated areas, including other US territories, relate to size, distance, transport costs, trade, labor, land, capital, resources, and public services and facilities. These conditions are especially severe in the case of small remote islands.

Because some of these conditions are so severe in small isolated areas, other countries and international organizations design special programs and priorities for their small island state members. The United States has not seen fit to make this program/policy distinction for its territories. Federal laws and policies are usually applied to territories without consideration of the possible adverse impacts on those territories. It is an important factor in the CNMI's present economic decline.

There is considerable precedent for special consideration, programs and policies in the development of small island states. The United Nations has been in the forefront in designing programs and policies to aid Least Developed Countries (LDCs). The UN has gone even further for Small Island Developing States (SIDS).

UN researchers cite the importance of economic self-government to the development of small, island states. Economic self-government includes some effective level of responsibility for economic policy formulation and implementation. It relates specifically to autonomy over labor or human capital, revenue-raising and expenditure, the regulatory environment, trade, development, and related responsibilities.

In fact the GAO has advocated stronger and more coordinated federal programs for US territories for many years. Despite some progress, very little has been done by the federal government over the years to strengthen, coordinate or take into account the interests of US territories in the design or application of federal laws or policies. Nowhere is this more important than in the availability and cost of labor in small island economies.

Small, remote island areas can do little or nothing about distance, land, natural resources, capital and many other factors that affect prosperity. It is of critical importance that labor is one of the few, if not the only, of these factors, about which something *can* be done by small island states. Many small island states, including the CNMI and American Samoa, have achieved sustained economic growth and relatively high levels of per capita income in spite of their small size and isolation. This resulted from some measure of economic autonomy especially with respect to labor or human capital.

The availability of foreign labor in the development of small island economies is critical. This analysis indicates that the greater the proportion of foreign labor, the greater will be an island economy's per capita income or GDP (a principal measure of economic well-being). A multiple regression analysis of the data from 33 island states has demonstrated that the loss of the CNMI's foreign labor force will likely cost the CNMI a decline of approximately 50 percent in per capita GDP in the years ahead.

Labor mobility is just as essential to economic development and growth as is the mobility of capital, goods and services, and technology. Nowhere is this more evident than it is in small, isolated areas. It might be said that the quickest way to ruin a small, isolated island economy and prevent any real chance of recovery is to cut off its supply of labor. To deny these smaller, isolated areas some latitude or flexibility in access to labor is to condemn them to economic underdevelopment and poverty.

There are implications for a more effective role for government in these improved theories of economic development. This is especially the case in identifying and supporting appropriate development opportunities especially in education and public facilities and services. Over the years, the general notion of pure competition tended to promote a rigid view of economics that somehow competitive market forces would resolve every economic issue under every economic condition. This view prevails to a large extent today despite much evidence to the contrary including the present world financial crisis.

Chapter 4 Deficiencies U.S. Territorial Policy Federal authorities have, over the years, formulated programs that assist small communities in low-income or low-growth areas. Some of these programs, designed for mainland communities, have been extended successfully to the territories. The Economic Development Administration invests in development efforts to make regions competitive in the world economy. The Community Development Block Grant program of the Department of Housing and Urban Development allocates funds to the territories. The Department of Agriculture provides rural enterprise programs and other loan and grant programs. The principal difficulty with these efforts is that the territories are included in programs designed for and with qualifying criteria aimed at mainland U.S. communities.

Since 1995, the Office of Insular Affairs in the Department of the Interior has been assigned the responsibility for coordination of policies and programs with respect to the territories. It has sponsored private sector-led conferences and fellowship research programs with respect to business investment conditions in the territories. However, Congress regularly deals with trade and investment policies in ways that harm the economic development prospects of the territories.

The territories' access to and participation in Executive Branch policy-making is limited and fragmented. The Executive Branch's ability to articulate and follow consistent policies to promote economic development and self-reliance in the territories has been narrow and inadequate to the task at hand. There is strong evidence that the availability and cost of labor is one of the most critical factors in the development of the economies of small, isolated areas but federal policy-making has been unsuccessful in this regard.

Recommendations

Economic recovery from the devastating depression in the CNMI may require decades. In fact full recovery may not occur for the foreseeable future. The loss of the Commonwealth’s largest export industry, the garment industry, and a declining visitor industry will cut the CNMI economy in half, which in itself would have been difficult enough to overcome. When the US Congress federalized the CNMI minimum wage and immigration, they probably killed what little hope there was for some reasonable and timely economic recovery through expansion of the visitor industry and economic diversification. This could decimate the CNMI’s investment climate for years to come. This does not even take into account the instability implicit in the power of the federal government to intervene in the CNMI at will regardless of how the application of federal law might affect economic or investment conditions in the CNMI. Instability is the bane of investment and economic development.

There is a strong possibility that economic distress would remain very high in the CNMI for a long time, evidenced by very high rates of unemployment, business closures or downsizing and precipitous declines in local revenues.

These conditions could have a variety of adverse effects on a community.

1. Declining local revenues for health, education and general public welfare
2. Rising poverty, falling incomes, unemployment and underemployment
3. Declining economic opportunities for youth entering the workforce
4. Rising economic dependence on the federal government
5. Fewer resources to preserve the indigenous culture and the physical environment
6. Increased family and social stress
7. Rising delinquency and crime

This could be an economic, political and social disaster in the absence of some relief from the burdens of the recent federalization of immigration and the minimum wage in the CNMI.

In the longer term the CNMI and the US must consider complete economic recovery. It must also consider what might be done to prevent such tragedies in the future. The CNMI’s prospects for economic recovery are very poor. The garment industry has virtually disappeared in the CNMI. Even if measures were now taken to improve its international competitive position, the federalization of immigration and the minimum wage would prevent reasonable recovery. This federalization will prevent new industries from developing in the CNMI to offset the enormous employment losses anticipated.

All of this was done with the full federal knowledge of the likely adverse economic effects on the CNMI. It appears now that the only real hope is to persuade the federal government, the Congress or the courts that the US must begin taking its territories and its responsibilities to them more seriously. It must remedy what it has done to the CNMI.

Recommendations for action are as follows:

1. **Repeal the Statute Extending the US Immigration Laws to the CNMI -** Substitute a law that recognizes the realities of the CNMI's current economic situation and provides the necessary tools for recovery. Opportunities for amendment include: eliminating requirement to reduce foreign labor to zero; eliminating DHS authority to select occupations and industries for which to recruit foreign workers; use the flexibility in the Covenant by applying federal law "in the manner and to the extent made applicable to them by the Congress;" and not applying U.S. standards for foreign investors on all the existing investors in the Commonwealth (which would make some of them deportable). It is clear that the present law is in conflict with Covenant provisions obligating the US to achieve a progressively higher standard of living for the CNMI as part of the American economic community and to develop the economic resources needed to meet the financial responsibilities of local self-government.

2. **Provide Emergency Financial Assistance to Respond to the Economic Crisis in the CNMI -** The situation will be so onerous economically that the CNMI will not be able to recover without outside help. US aid will be required to: maintain an adequate level of public facilities and services; business and housing loans; and economic recovery and development assistance. The CNMI, with a growing economic depression and declining local revenues does not get a reasonable share of federal expenditures per capita. Furthermore, it is ineligible for some of the most important programs including unemployment compensation. In fact the CNMI was not even included in the US trade adjustment assistance laws to assist companies and workers adversely affected by imports to the US. The CNMI does not have any real form of economic safety net at this time of economic disaster the seriousness of which few areas of the country ever experience.

   Because the CNMI had been so successful in raising local revenues through private sector development, it had depended less on federal revenues per capita than any other US territory. In 2006 per capita federal expenditures in the CNMI at $2145 were far less per capita than all other US territories. In that year, per capita federal expenditures in the CNMI were only 27 percent those of Guam, 50 percent of American Samoa, 52 percent of Puerto Rico, and 37 percent of the Virgin Islands. Economic self-reliance, of course, is one of the federal government's primary objectives for its territories, another confusing aspect of the Congressional federalization of the minimum wage and immigration in the CNMI. In addition, the US average federal expenditure per capita was $8058 in 2006, almost four times that of the CNMI's per capita federal expenditures of $2145.

3. **Data Requirements –** The CNMI could have made a stronger case for more appropriate application of the US minimum wage and immigration systems if better local data had been available. Furthermore, the US Department of Labor and the Government Accountability Office could have produced much more useful work in this regard with better data. It could have been used to demonstrate what was happening to the CNMI economy and to forecast what was likely to happen if those systems were applied in the way they were. The most important requirements are to gather selected information on key economic parameters in as timely a manner as possible and then build a data base as far back as possible for each data series. This need not be more than a few key data sets (e.g., population, employment, wages and salaries, and a few others at some minimal level of industry classification. The federal

government does this and more for the states and some other territories, so they should be persuaded to do it for the CNMI.

4. **Amend the Statute Extending the US Minimum Wage to the CNMI –** This statute requires further analysis which, unfortunately, was not done prior to passage of the legislation. At the present time American Samoa, the CNMI and federal officials are seeking to modify the increases scheduled over the next five years. Among the possibilities are to lengthen the period over which the US minimum wage is increased; to base increases on some objective standard related to worker productivity; or establish an improved special program for increasing the minimum wage such as some form of that which was used in American Samoa for many years.

5. **Provide effective representation in the U.S. Executive Branch** - Now that the Commonwealth will soon have an elected delegate to the U.S. Congress, efforts must continue to get adequate territorial representation in the federal Executive Branch. This might include a separate "representation" mechanism, for example, a strengthened version of the US Interagency Group on Insular Areas (Interior) or a Pacific Islands Regional Commission (Commerce)**.** The federal government does most things on an ad hoc basis in the territories with little or no consideration of their economic or social effects or consistency with their own federal objectives.

6. **Create a Stronger Partnership between the Private and Public Sectors –** There is a natural tension between the public and private sectors. It need not be so taut that development and recovery cannot occur. The CNMI has seemed to do well in this as evidenced by their notable economic success over a long period. The people of the CNMI must understand what is happening to their economy and what needs to be done to deal with it. The government must understand that it has a large role in the recovery. Efficiency in government is translatable to efficiency in the private sector. Moreover, local government financial control problems can directly affect federal funding for economic development projects by delaying or denying funding for such projects. The private sector has a critical role. Most of the ideas, expertise and capital for new development directions will come from the private sector which is in a stronger position to recognize opportunities and to set them on a course to fruition.

7. **Seek Federal Assistance to Small Investors.** The CNMI is likely to experience an exodus of foreign investors. The stock of foreign investment over the longer term is more important than investment over a few recent years. For example, the 2002 CNMI Economic Census demonstrates that approximately two-thirds of all private sector employment in the CNMI is accounted for by foreign or outside owned businesses. The preponderance of this employment is in basic jobs in manufacturing and tourism upon which the rest of the economy depends. The 2007 Census could reflect a significant exodus of outside or foreign investors and owners since 2002 although businesses do not usually depart as quickly as workers. On top of this, the CNMI must still pursue economic recovery with all of the disadvantages referenced earlier of small, isolated areas. The Small Business Administration and other federal agencies should provide specialized assistance to the small businesses in the private sector in the Commonwealth to tide them over the current economic depression and ensure their survival.

8. **Consider Amending the Covenant** - Remove ambiguities about limitations on federal powers. No one could have foreseen the future course of the CNMI economy at the time the Covenant was written. Nor could it have been foreseen how the US would use its discretion under Section 503 of the Covenant with so little consideration for possible adverse consequences of applying the US minimum wage and immigration law to the CNMI. There is a need for the federal government to exercise the discretion called for in the Covenant to apply federal law "in the manner and to the extent made applicable to them by the Congress" so as to meet US Covenant responsibilities "to achieve a progressively higher standard of living for its people as part of the American economic community and to develop the economic resources needed to meet the financial responsibilities of local self-government."

Chapter 1 Background on the CNMI

A Brief History of the CNMI

The Commonwealth of the Northern Mariana Islands (CNMI) became part of the United States by mutual agreement confirmed through an act of Congress in 1976. It is often referred to as a US territory or insular area. The Commonwealth of the Northern Mariana Islands is located in the western Pacific Ocean within a six hundred mile long crescent of islands extending north and south generally between Japan and Guam; more technically between 145° and 146° west longitude and from 14° to 20.5° north latitude. The CNMI is a three-hundred mile archipelago consisting of 14 islands, with a total land area of 183.5 square miles. The inhabited islands are Saipan, Rota, Tinian, Pagan, Alamagan, and Agrigan. Saipan is 3,900 miles from Honolulu; 1,500 miles from Tokyo; 1900 from Seoul; 2100 from Vladivostok, 2100 from Hong Kong; and 7800 miles from Washington D.C. This suggests the importance of these East Asian nations to the CNMI’s economic future.

The first people to inhabit the Marianas arrived over 3500 years ago, probably from Southeast Asia through the Philippines. These ancient people are related to present-day Chamorros. An ancient trading route between the central Carolinian islands brought ancestors of the present-day Carolinians to Saipan. Before contact with the outside world in the sixteenth century, large areas of Micronesia had quite highly organized societies the elements and languages of which remain parts of the cultures to this day. Economies were subsistence based with little external trade.

Spain took possession of the archipelago in 1565 and ruled it for more than 300 years. The first permanent Spanish colony was established in 1668. Spain ceded Guam to the United States following the Spanish-American War. At about the same time, it sold the Northern Mariana Islands to Germany. Germany acquired these islands primarily to increase their international prestige. German economic development was based on the copra industry.

Japan took control of the Northern Mariana Islands in 1914, the first year of World War I. By ratification of the League of Nations in 1920, Japan received a mandate over the islands. The Japanese developed Saipan largely for sugar production and processing using, at the peak, more than 30,000 foreign workers from Okinawa and Korea. By the time World War II came to the Marianas in 1941, the total Japanese, military, and foreign worker population exceeded 80,000[1]. Major American battles occurred in the Northern Marianas in 1944, including the pivotal Marianas campaign which signaled the end of the War in the Pacific. The Emperor of Japan surrendered to the Allied Forces on August 15, 1945, ending World War II, and a U.S. military government was instituted in the Northern Mariana Islands.

In 1947, the Northern Mariana Islands became part of the post-war United Nations' Trust Territory of the Pacific Islands (TTPI). The United States became the TTPI's administering

[1] Mark R. Peattie, *Nan'Yo: The Rise and Fall of the Japanese in Micronesia, 1885-1945.* Pacific Islands Monograph Series, 1988.

authority under the terms of a trusteeship agreement with the United Nations. The Northern Marianas were administered by the military authorities until 1961 when administration was transferred to the Department of the Interior. Under U.S. trust territory administration from 1947 through 1977, the Marianas generally were not permitted to develop the economy through tourism or foreign investment.

In 1976, Congress approved the mutually negotiated Covenant which joined the US and the Northern Mariana Islands in political union.[2] The CNMI Government adopted its own constitution in 1977, and the constitutional government took office in January 1978. The Covenant was fully implemented on November 3, 1986, pursuant to Presidential Proclamation No. 5564, which conferred United States citizenship on legally qualified CNMI residents.

Under the Covenant, in general, Federal law applies to CNMI. However, the CNMI is outside the customs territory of the United States. Under the Covenant, the CNMI was permitted to control its own minimum wage and immigration system, but the federal government reserved the right to impose the federal minimum wage and federal immigration laws in the future. That was done in 2007 and 2008 respectively.

The U.S. citizen population of the Northern Marianas is predominantly of Chamorro cultural extraction, although a number of Carolinians (Chuukese, Kosraeans, Pohnpeians and Yapese) and immigrants from other areas of East Asia and Micronesia have also settled in the islands. English is the official language of the CNMI, but Chamorro and Carolinian are the spoken native tongues. The Spanish culture, which influenced the Chamorro culture for nearly four centuries, is still present today. Japanese is also spoken in many of the hotels and shops, reflecting the important tourism industry.

Covenant Provisions for CNMI Development

The Covenant between the US and the CNMI had important features to foster economic development in the CNMI. The Covenant was quite explicit in the responsibility of the United States to assist in the CNMI's future economic development. Section 701 of Article VII of the Covenant states:

> "The Government of the United States will assist the Government of the Northern Mariana Islands in its efforts to achieve a progressively higher standard of living for its people as part of the American economic community and to develop the economic resources needed to meet the financial responsibilities of local self-government. To this end, the United States will provide direct multi-year financial support to the Government of the Northern Mariana Islands for local governmental operations, for capital improvement programs and for economic development. The initial period of such support will be seven years, as provided in Section 702."

Section 703 (a) obligated the United States to "make available to the Northern Mariana Islands the full range of federal programs and services available to the territories of the United States."

[2] *Covenant to Establish a Commonwealth of the Northern Mariana Islands (CNMI) in Political Union with the United States.* http://cnmilaw.org/covenant.htm.

Section 703 (b) provided that various taxes and fees paid to the United States that were derived from the Northern Mariana Islands would be returned to the Commonwealth.

Other Covenant provisions were aimed at enabling the future Commonwealth to develop an economy that could prosper under the competitive factors that existed in the Western Pacific. Section 603 (a) provided that "The Northern Mariana Islands will not be included within the customs territory of the United States." Under Section 603 (b) the Northern Mariana Islands was given the authority to "levy duties on goods imported into its territory from any area outside the customs territory of the United States and impose duties on exports from its territory." Of particular important to this study was the provision in Section 503 to the effect that several specified federal laws--the immigration and naturalization laws, the minimum wage provisions of the Fair Labor Standards Act, and the coastwise laws--would not apply "to the Northern Mariana Islands except in the manner and to the extent made applicable to them by the Congress by law after termination of the Trusteeship Agreement." The Covenant negotiators recognized that the strict application of the minimum wage and immigration laws could be harmful to or undermine Covenant fundamental objectives.

Development of the Public and Private Sectors

During the Trust Territory Administration from 1947 to 1977, the Northern Marianas had a very small public sector and relatively few public services. Educational and health care facilities were minimal; electricity and water infrastructure dated back to wartime installations; many public roads were not paved; the military had created a large temporary trash dump at water's edge on the lagoon; and unexploded ordinance remained in the jungle areas.

When the Commonwealth government took office, it had to shoulder the burden of all public services. Unlike in mainland United States, there was no burden-sharing between state, county, city, and special district taxing entities. All public services for all the populated islands had to be supplied by the new Commonwealth government. Government employment grew quickly as new schools were built to extend local education through high school; a new hospital was built to provide on-island emergency care; the power and water utilities became local government operations; police, fire, and corrections facilities were expanded and staffed; a new court system was set up; and the local government took over the new functions of registering voters, holding elections, dealing with public lands, licensing professionals, running a civil service and government retirement systems, providing worker compensation, protecting the environment, operating a public library, protecting cultural artifacts in a museum, managing coastal resources, and providing a variety of community assistance programs to residents.

The private sector also developed quickly. The CNMI had economic development potential, but had realized little of that potential under the Trust Territory Administration. The dramatic increase in the CNMI's economic output was largely fueled by foreign investment originating from Asian countries including Japan, Hong Kong (China), and South Korea. The CNMI's early economic success was attributable to its own initiatives and the development provisions of the Covenant which initially produced a very favorable investment climate for the CNMI.

A number of hotels opened to cater to tourists who were arriving in increasing numbers.

Services businesses sprang up to provide restaurants, shopping, tour services, diving and other outdoor sports for tourists. At the same time, light manufacturing, primarily in the apparel industry, began to grow in the Commonwealth. The first manufacturers arrived in 1983 and there were soon dozens of competitors drawn by Saipan's favorable wage rates and tax incentives. Law firms, banks, insurance companies, and other general service businesses began to grow as well. Because the Commonwealth had only a small indigenous population and had not attracted many workers from the U.S. mainland, foreign guest workers provided the manpower for the economic expansion, as they had in Japanese times. The workers came primarily from the Philippines, China, and Korea.

In addition to this private sector development, the CNMI, partly through Covenant funding, met its obligations in providing a full range of public services for the growing Commonwealth. That included basic public infrastructure, education, health and public safety. This is no small achievement in view of the fact that the CNMI government was relatively new at self government. Because of its isolated location, the CNMI had to provide all the health, education, and welfare staffing and programs that in the States are provided by many levels of state and local government. The need for higher levels of federal investment in the CNMI will be addressed in Chapter 4.

Economic Storm Clouds on the CNMI Horizon

During this rapid period of economic growth, concerns began to emerge about the character of this economic expansion. In summary, those concerns were related to possible effects on the US domestic apparel industry, whether the costs of the industry to the US were greater than the benefits, mistreatment of foreign apparel workers, and other concerns.

The federal government believed that legislation to impose the US minimum wage and the US immigration system on the CNMI was necessary to address these concerns. The US Department of the Interior commissioned a study of the costs and benefits of the apparel industry in the CNMI, which was intended to explore whether foreign worker benefits to the CNMI justified the costs to the US in the form of public services for foreign workers.[3]

The Office of Insular Affairs (OIA) then commissioned the Northern Marianas College in 1999 to conduct a more comprehensive economic study of the CNMI economy.[4] This report documented the very substantial growth in the Commonwealth's economy since 1980, describing it as one of the fastest growing economies in the world between 1980 and 1995. It detailed the use by the CNMI of the economic tools provided by the Covenant, especially local control over immigration and minimum wage levels. According to this earlier report, these tools played a critical role in the development of the CNMI's two principal industries – tourism and garment manufacturing – which together accounted directly and indirectly for about 80 percent of all employment in the Commonwealth in 1995. The report concluded that for every two basic jobs performed by foreign labor, another job was generated in the CNMI. The report pointed out that anticipated changes in World Trade Organization rules effective beginning in 2005 presented a

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[3] *CNMI Fiscal Impact Report: The Impact of Non-Residents on the Economy and Public Infrastructure of the Commonwealth of the Northern Mariana Islands,* prepared for the Office of Insular Affairs, U.S. Department of the Interior, by Robert W. Rudolph and James C. Nicholas, January 1999.

[4] Northern Marianas College, Business Development Center. *An Economic Study of the Commonwealth of the Northern Marianas Islands.* Saipan, MP: Northern Marianas College, October 1999.

very serious threat to the Commonwealth's garment industry. It would reduce significantly the competitive advantage then enjoyed by the CNMI-located factories in shipping their finished products to the United States. The report strongly recommended that major efforts be undertaken to develop alternative industries that might over time replace the garment factories, which would most likely phase out their operations in the CNMI under the changed WTO rules.

The NMC report cautioned against any change in federal policy regarding immigration with respect to the CNMI "without a clear determination of how such a change would affect the supply of labor in the CNMI." According to the report,

> "The CNMI's economic recovery and future development could be seriously retarded by an excessively restrictive immigration system. Such a system would deprive the garment industry, the visitor industry, and all future industries of an adequate supply of skilled labor. It is not known exactly what the effects would be of a federal immigration takeover; however, its explicit purpose is to reduce the number of alien workers in the CNMI. What is known for certain is that the CNMI resident labor force is neither large enough nor skilled enough by itself to support the garment industry, the visitor industry, or future development in new industries."[5]

The report further urged policy makers to deal directly and forthrightly with any of the aforementioned concerns on their own merit or lack thereof and not just invoke federalization of minimum wage and immigration which could destroy the private sector.

> "Allegations of industrial or any other wrong doing should be dealt with on their own merit, or lack thereof, as specific violations of local or US law. Proposed federal remedies for these allegations or facts should not be so sweeping or severe that they themselves could cause serious damage to the CNMI economy. The proposed application of federal laws should be evaluated in terms of potential impact at all levels, particularly economic."[6]

Shortly after the Northern Marianas College published its 1999 report the GAO published its assessment of the CNMI's economic situation.[7] GAO substantially agreed with the economic impact estimates of the NMC 1999 report and added the following findings.

1. The garment and tourist industries contribute directly to the CNMI economy by creating jobs and producing goods and services for export. They also contribute indirectly to the economy through purchases of local goods and services and with taxes and fees paid to the government. The garment and tourist industries accounted for about 80 percent of the employment in the CNMI and for over 90 percent of the economy's export income directly or indirectly. This essentially agreed with the NMC 1999 study multiplier impacts (two foreign garment industry workers creating one other job in the CNMI economy).

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[5] Northern Marianas College, Business Development Center, p. 3.
[6] Northern Marianas College, Business Development Center, p. 4.
[7] United States General Accountability Office, *Northern Marina Islands Garment and Tourist Industries Play a Dominant Role in the Commonwealth's Economy*, February 2000, 8-11.

2. These industries also contribute very substantially to the government's total revenue. For example, in 1998, the garment industry directly contributed about $52 million, or 22 percent, of the government's $234 million budget. In 1997 the tourist industry contributed at least $34 million, or 14 percent, of that year's budget of $248 million.

3. The garment and tourist industries are dependent on foreign workers for much of their workforce because the labor pool of local residents, even including those currently unemployed, is insufficient to support an economy of the size and scope that exists in the CNMI. For example, changes that reduced or eliminated the advantages of manufacturing garments in the CNMI might cause some or all of the CNMI garment industry to relocate to other countries, causing job losses among local residents and revenue losses to the CNMI government.

4. The CNMI is more self-sufficient fiscally than any of the other outlying areas, such as Guam, Puerto Rico, the U.S. Virgin Islands, and the Freely Associated States. Between 1994 and 1997, about 87 percent of the CNMI government's general revenue came from local sources rather than from payments from the U.S. Treasury.[8]

Congress Federalizes the Minimum Wage and Immigration

Notwithstanding these analyses and admonitions, Congress acted to apply the federal minimum wage and immigration laws to the CNMI in 2007 and 2008. Congress based its immigration law decision in part on the discredited claim that the extensive use of foreign labor in the CNMI was not creating sufficient private sector opportunities for local residents.

On May 25, 2007, Congress enacted Public Law 110-28, increasing the minimum wage in the CNMI by fifty cents per hour. The act further increases the CNMI minimum wage by fifty cents per year until parity with the projected U.S. minimum wage of $7.25 per hour is reached. For the CNMI, the minimum wage will rise to $7.25 per hour by 2015. The law required an economic impact assessment of the increase by the US Department of Labor.[9]

The US Labor Department stated that its research was limited by the short time frame and lack of timely labor market data. The reporting time-frame specified in the legislation – no later than 8 months from the date of enactment (May 25, 2007) – did not provide sufficient time to observe actual effects of the minimum wage increases over time. The initial increase of fifty cents per hour went into effect on July 25, 2007 in the CNMI. The specified delivery date for this report was January 25, 2008. The period following the initial increase was too short for significant observable effects to materialize. Adjustments of employment arrangements and of patterns of living standards typically do not occur instantaneously following a change in a key economic parameter. Immediate changes may be too small in scale to observe, and it may require the

[8]Another January 1999 study (Rudolph and Nicholas) commissioned by the Department of the Interior concluded that the garment and tourist industries and the workers they employ require government spending for services and infrastructure that exceeds what they contribute to the CNMI economy. However, because that study had a number of methodological weaknesses (in particular, understating the contributions made by the garment and tourist industries to the economy and overstating the industries' impact on government spending), GAO believed that this conclusion is questionable.

[9] U.S. Department of Labor, *Impact of Increased Minimum Wages on the Economies of American Samoa and the Commonwealth of the Northern Mariana Islands,* Office of the Assistant Secretary for Policy January 2008.

passage of many months or several years before cumulative effects become large enough to observe. In particular, lack of significant observed adverse employment effects in the months since the initial increase is not indicative that such effects will not emerge in the future – especially as subsequent increases are implemented over time. On top of this, even if there had been sufficient time to observe such effects, the data would not have been available to measure them. As the report stated:

> "The Bureau of Labor Statistics (BLS) does not collect monthly (or other period) data describing labor market conditions in either American Samoa or the CNMI. In contrast, the monthly survey of employers in the rest of the United States (the BLS Current Employment Statistics program) provides detailed monthly information by industry sector regarding the total level of payroll employment, payroll hours of production and non-supervisory workers, and hourly and weekly earnings of production and non-supervisory workers. This survey provides national estimates as well as estimates for all 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and over 400 metropolitan areas and divisions. The monthly survey of households (the Current Population Survey (CPS), a joint program of BLS and the Census Bureau) provides detailed national estimates of labor force participation, employment and unemployment. The CPS also collects data on wage and salary workers' median usual weekly earnings and publishes quarterly earnings estimates."[10]

Nevertheless, the Department of Labor report concluded that:

> "With both of its major industries declining simultaneously, the CNMI economy is in overall decline, and its current economic situation makes it especially vulnerable to additional shocks. While data are not available to precisely quantify the impact of the recent and scheduled future increases in the minimum wage, it seems likely that the current economic decline may be made worse. General experience in the U.S. and elsewhere has shown that potential adverse employment effects of minimum wage increases can be masked or offset to some degree by an expanding economy that is generating net employment growth. No such offsets can be expected in a declining economy. The proportion of wage and salary employees potentially affected by the minimum wage increases provides an indicator of the potential labor market impact. Data from the CNMI 2004 household and expenditure survey shows that 68.2 percent of wage earners in CNMI earned no more than $4.99 per hour and that 79.5 percent earned no more than $7.99 per hour. The scheduled increase in the minimum wage to $7.25 (by 2015) will likely affect at least 75 percent of wage and salary workers in CNMI. By comparison, in order to directly affect 75 percent of U.S. hourly workers, the minimum wage would need to be raised to $16.50, the 75th percentile mark for wage and salary workers who are paid hourly rates."[11]

The US Department of Labor came to approximately the same conclusion concerning American Samoa's vulnerability to minimum wage increases in the same study.

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[10] U.S. Department of Labor, *Impact of Increased Minimum*, p. 3.

[11] U.S. Department of Labor, *Impact of Increased Minimum.* P. 38.

On May 8, 2008, the president signed PL 110-229 applying the US immigration law to the CNMI. This act goes beyond the application of federal immigration laws to the CNMI in several important respects.

> First, the law provides that after the transition period begins on June 1, 2009, all aliens in the CNMI may be subject to removal by the United States Department of Homeland Security as "illegal entrants and immigration violators." Aliens legally entitled to remain in the Commonwealth may do so for up to two years. The act further provides that at the conclusion of the transition period all foreign workers shall be eliminated from the CNMI unless they qualify for a visa under federal immigration laws. Most of the CNMI's foreign workers would not be eligible for work visas under the narrow and specialized classifications of the federal immigration laws.
>
> Second, the statute requires that upon the commencement of the transition period, Homeland Security shall take over the administration of all foreign workers presently in the CNMI. The law provides that DHS shall administer a local permit system, determining which local businesses and individual employers may employ a foreign worker, and which may not. The law requires that the number of permits will be reduced to zero by Dec. 31, 2014 unless the Secretary of Labor grants an extension of the transition period.

The Congressional deliberations and committee reports reflect no serious consideration of the effects of these two laws on the CNMI's economy. This is especially disappointing because Section 503 of the Covenant contemplates such a quantitative analysis in order to determine "the manner" and "the extent" to which immigration and minimum wage laws should be applied to the CNMI. Congress requested two studies of the impact of this immigration legislation on the CNMI.

In the March 28, 2008 report, GAO found as follows:

> Federal agencies have some flexibility in preserving the CNMI's access to workers, tourists, and foreign investors as it transitions to a federal system. However, without implementing regulations, key details remain unknown.
>
> During the transition period, foreign workers may be admitted to the CNMI through exemptions from caps that restrict the number of U.S. visas for nonimmigrant workers. During and after the transition period, CNMI employers also can petition for nonimmigrant and employment-based permanent immigration status for workers under the same procedures as other U.S. employers.
>
> The pending legislation establishes a joint visa waiver program by adding the CNMI to an existing Guam visa waiver program. The program exempts tourism and business visitors from certain countries to the CNMI and Guam from the standard U.S. visa documentation requirements. Until the joint program's implementing regulations are established, GAO cannot determine whether the program will be more or less restrictive than the current CNMI and Guam waiver programs.
>
> After federal immigration law applies, new CNMI foreign investors must meet federal law's more stringent investment requirements to obtain immigrant investor status, which

> allows investors to petition for U.S. permanent resident status that is currently unavailable in the CNMI. New investors also could apply for nonimmigrant treaty investor status.[12]

While the GAO focuses on federal agency flexibility in applying the law, the CNMI questioned some of these interpretations of the law by GAO. The second GAO report (August 2008) deals with managing the potential economic impact of the proposed law on the CNMI.[13] GAO reviews how the federalization of immigration may affect the CNMI economy as follows:

> The United States enacted legislation in May 2008 applying federal immigration law to the Commonwealth of the Northern Mariana Islands subject to a transition period. The Secretary of Homeland Security, in consultation with the Secretaries of the Interior, Labor, and State, and the Attorney General, has the responsibility to establish a transition program.
>
> The potential impact on the CNMI's labor market of the recent U.S. immigration law will largely depend on decisions that the U.S. Departments of Homeland Security and Labor make in implementing a required permit program for foreign workers. Given foreign workers' prominence in key CNMI industries, any substantial and rapid decline in permits for foreign workers would have a negative effect on the CNMI economy. However, federal agencies may reduce permits more modestly, resulting in minimal effects on the economy. At the same time, continuing declines in the garment industry, challenges to the tourism industry, and the scheduled increases in the minimum wage may reduce demand for foreign workers, lessening any potential adverse impact of the legislation on the economy.
>
> Any impact of the recent legislation on the CNMI's tourism sector will depend largely on federal regulations specifying the countries to be included in a joint CNMI-Guam visa waiver program required by the legislation. For countries that may not be part of the joint visa waiver program, possibly including China and Russia, applying for a visa from U.S. embassies or consulates will likely be more costly and more time-consuming than obtaining a visitor entry permit under CNMI immigration law. To the extent that any increase in the cost and time required to obtain a visa discourages tourists from visiting the CNMI, the legislation could negatively affect CNMI tourism.
>
> The recent legislation's impact on CNMI foreign investment will depend in part on DHS decisions regarding the application of U.S. nonimmigrant treaty investor status—"grandfathering"—for investors with CNMI foreign investor entry permits. However, lack of data on foreign investment in the CNMI makes it difficult to assess the likely impact of these decisions and may hamper DHS's ability to make informed decisions.[14]

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[12] US Government Accountability Office, March 28, 2008. p. "Highlights."

[13] US Government Accountability Office, *Commonwealth of the Northern Mariana Islands: Managing Potential Economic Impact of Applying U.S. Immigration Law Requires Coordinated Federal Decisions and Additional Data* GAO-08-791 August 4, 2008.

[14] US Government Accountability Office, August 4, 2008. p. "Highlights."

It is difficult to read these GAO reports and not conclude that applying the US immigration law, with the onerous additions contained in PL 110-229, will do severe damage to the economy of the CNMI. The GAO found that the impact analysis was limited because key details remained unknown without implementing regulations. The potential impacts on the CNMI will largely depend on how the foreign worker program is implemented by federal agencies. In addition the lack of timely CNMI data will continue to thwart the federal agencies in policy and program evaluation and formulation.

In Table 1 the GAO estimates a range of economic impacts ranging from 21 - 98 percent of what GDP would be without the federalization of immigration. The first scenario is the most likely without some change in the law. CNMI GDP in 2021 would be 21-73 percent of what it would have been without immigration federalization. In Chapter 2 of this report our independent economic impact analysis indicates that CNMI GDP would fall 60 percent between 2005 and 2015 under a scenario of federalization of immigration and the minimum wage in the CNMI.

Table 1
EFFECTS OF REDUCTIONS IN FOREIGN WORKERS ON CNMI GDP IN 2021

Scenarios	Foreign Labor Reduction	GDP as Percent of What It Would Have Been Without Foreign Labor Reductions
First	20,000 to 1,000	21 – 73
Second	20,000 to 8,000	64 - 85
Third	20,000 to 17,000	92 - 98

Source: Commonwealth of the Northern Mariana Islands: *Managing Potential Economic Impact of Applying U.S. Immigration Law Requires Coordinated Federal Decisions and Additional Data*, GAO-08-791 August 4, 2008.

The GAO states that a precipitous decline in permits for foreign workers could have a negative effect on the economy, but that the actions of regulatory agencies could result in minimal effects on the economy. It is imprudent to assume that the implementing agencies will interpret the will of Congress as permitting an indefinite transition period and regulatory flexibility. This is a very questionable assumption, especially considering GAO's own economic impact analysis, the gravity of the situation in the CNMI, and the practice of agencies to eschew discretionary flexibility. While the GAO report stresses the flexibility in the immigration federalization law, the inclination, willingness or ability of federal agencies to use this flexibility to the CNMI's economic advantage is highly speculative.

GAO has argued that the impacts of immigration federalization would be lessened by the fact that other adverse forces are affecting the economy, primarily the demise of the garment industry. It is not just this decline that is important to the people of the CNMI. The recovery is even more important. Just as the federalization of immigration will be a large contributor to the decline, so too will it slow or prevent full recovery. Furthermore, the federal government negotiated the international trade agreements that resulted in the demise of the CNMI's garment industry.

The GAO found that the impact analysis was limited because key details remained unknown without implementing regulations. The potential impacts on the CNMI will largely depend on how the foreign worker program is implemented by federal agencies. In addition the lack of timely CNMI data will continue to thwart the federal agencies in policy and program formulation.

These GAO reports, fairly read, conclude that the federalization of immigration in the CNMI will do little but worsen the economic disaster now playing out in the CNMI and curtail economic recovery indefinitely.

Chapter 2 The Rise and Fall of the CNMI Economy

After years of rapid growth, the economy of the Commonwealth of the Northern Mariana Islands (CNMI) is now contracting at an alarming rate. The immediate cause of the decline has been the loss of 15,000 jobs in the apparel industry, which has been unable to compete with low-wage garment producers in China. The CNMI lost its competitive advantage when China became a member of the World Trade Organization in December 2001 and was granted duty-free access to U.S. markets in 2005.

Adding to the distress of the CNMI economy over the next few years will be the adverse consequences of "federalization." Mandated by Congress, this policy will gradually raise the minimum wage and restrict the use of foreign labor in the CNMI until they conform to mainland standards. This could have a devastating effect on the tourist industry, because approximately 70 percent of its workers are non-U.S. citizens. Federalization could also preclude any meaningful economic recovery in the foreseeable future.

The objective of this study is to document the rise and fall of the CNMI economy. Following a brief comment on methodology, the study is divided into four parts: (1) an analysis of the growth of the CNMI economy between 1980 and 2005, focusing on the roles of the apparel and visitor industries; (2) an assessment of the 2004-07 contraction precipitated by the shutdown of the garment factories; (3) projections of the CNMI economy under two alternative sets of assumptions regarding federalization and its impact on the visitor industry; and (4) a discussion of the potential obstacles to future economic growth, specifically federalization, the financial viability of government, outmigration, and foreign investment.

The study draws upon the analysis of the CNMI economy conducted by the authors in 1999 ("An Economic Study for the Commonwealth of the Northern Mariana Islands"). In particular, the current study makes use of the 1995 input-output model constructed for the 1999 study. Despite the passage of time, the input-output model continues to be a useful tool for portraying the structure of the CNMI economy, explaining its past growth, and forecasting its future, as evident in the following analysis.

Methodological Note

Data - It is important at the outset of this study to say a few cautionary words about the data and the input-output model used in the analysis.

Studies of the CNMI economy related to the impact of federalization have been conducted in 2008 by the U.S. Government Accountability Office ("Commonwealth of the Northern Mariana Islands: Managing Potential Economic Impact of Applying U.S. Immigration Law Requires Coordinated Federal Decisions and Additional Data") and the U.S. Department of Labor ("Impact of Increased Minimum Wages on the Economies of American Samoa and the Commonwealth of the Northern Mariana Islands"). Both agencies pointed out that their ability to conduct a thorough study was hampered by the scarcity of economic data. In the words of the

Department of Labor (page 35), "the information vacuum continues to be an obstacle to an objective and comprehensive assessment of the economy and its productive capacity."

Building the requisite data base for an analysis of the CNMI economy is challenging but not impossible. The principal task is reconciling information from disparate sources. For example, the estimates of employment used in this study are constructed from five data sources: the economic census; W-2 reports; the census of population and housing; the household, income, and expenditures survey, and various industry and government tabulations. Two other important data sources used in this study are the CNMI income and product accounts (Rubin, 2007) and a quarterly publication of the Department of Commerce entitled "Economic Indicator." A list of the primary data sources can be found at the end of this report.

As with virtually all economic data, the estimates made in this study are subject to measurement error. Nevertheless, taken as a whole, the information presented here paints a pretty clear picture of where the CNMI economy has been and where it is headed.

Input-Output Model - The 1995 input-output table built for the 1999 analysis of the CNMI economy serves three purposes. First, it is a set of accounts that shows transactions among industries, government, households, and the external sector. In this respect, the input-output table portrays the structure of the CNMI economy and provides important measures of economic activity, such as Gross Domestic Product. Second, the input-output data constitute the factual basis for estimating long-run output, income, and employment multipliers. Used in impact analyses, multipliers are estimates of how the economy responds to a change in the activity of an industry, such as an expansion or contraction of its exports. Third, when augmented with final demand and population sub-models, an input-output model can be used to prepare economic and demographic projections.

Rather than constructing a new input-output model, which was an infeasible task due to time constraints, this study has resurrected the 1995 model. One concern is whether the model, which is now thirteen years old, is outdated. The central issue has to do with the temporal stability of the apparel and visitor industry multipliers derived from the model. As long as the multipliers continue to be relatively constant over time, the model remains an effective tool for analyzing the growth of the CNMI economy as well as for preparing economic projections.

As the following analysis shows, the long-run multipliers apparently have been fairly stable over time. In light of the relatively simple structure of the CNMI economy, this finding is not surprising. It is also consistent with the results of earlier research on the stability of input-output models (Conway, 1977 and 1980). Nevertheless, the results of the analysis (i.e., the economic impacts and projections) should be viewed as "reasonable estimates" rather than exact measures.

Additional information on the input-output model and its application to impact analysis and forecasting can be found in the 1999 study by the authors (Malcolm D. McPhee and Associates, October 1999).

The Rise of the CNMI Economy

Period of Rapid Expansion: 1980-1995 - The ability of the CNMI to sell goods and services to people and businesses beyond its borders is a key determinant of its economic growth and welfare. Conceptually, economic activity can be divided into two parts: basic activity and non-basic activity. Basic activity brings new money into the economy and supports non-basic activity (principally, activity in trade, services, and local government) through the multiplier or re-spending process. Basic activity can take many forms, including merchandise exports, tourism, military facilities, and retirement communities. Such sources of new money are critical to the health of the economy. Indeed, without basic activity the economy would wither and die.

Table 2
CNMI EMPLOYMENT AND POPULATION

	1980	1995	2005	Average Annual Percent Change 1980-95	Average Annual Percent Change 1995-05
Employment	5,420	32,760	35,960	12.7	0.9
Population*	17,440	58,130	70,200	8.4	1.9

*Mid-year estimate.

In 1980, two years after the establishment of the Commonwealth, the CNMI economy was small and undeveloped. According to the population census taken in that year, 17,440 people lived on the islands (Figure 1 and Table 2).[15] There were 5,420 jobs, implying that the economy was "fully employed." However, relatively few people worked in basic (export-producing) activities. About four-fifths of the jobs were in non-basic sectors, including construction, retail and wholesale trade, services, and government (public administration and education). In contrast, there were only 110 jobs in manufacturing and fewer than 1,000 jobs in the visitor industry.[16]

[15] The estimates of population and employment for 1980, 1990, and 1995 are slightly different than those shown in the 1999 study. In the current study, population is a mid-year estimate based on April 1 counts—as well as counts at other times—reported by the Census Bureau. The employment series have been reconstructed to be consistent with the employment estimates published in the economic census for 2002, the last year for which there are reliable employment data by industry.

[16] The CNMI had other sources of new money that supported the economy in 1980. These included the federal government, which helped pay for government operations and capital projects, and outside investors, who financed private construction.

Figure 1

CNMI EMPLOYMENT AND POPULATION

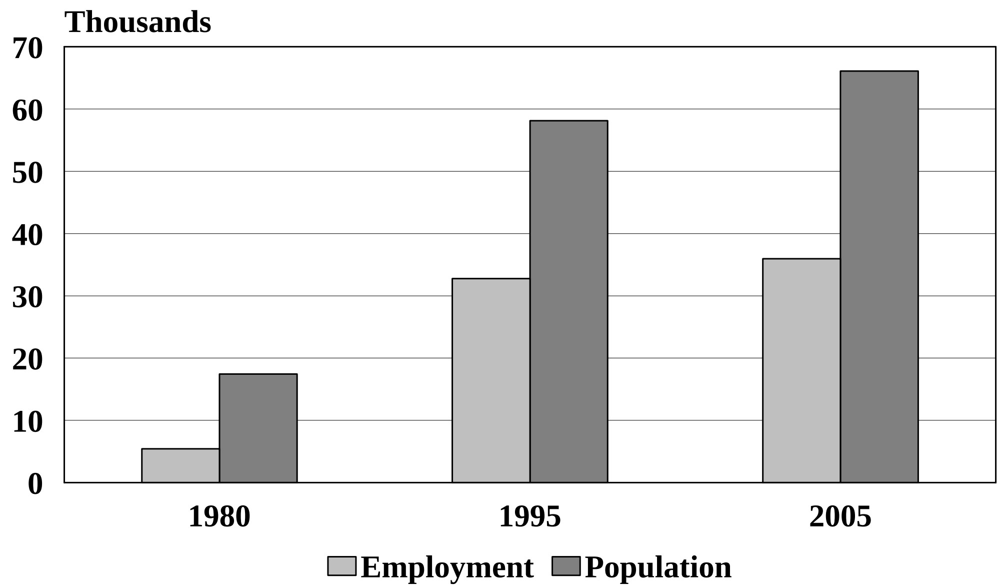
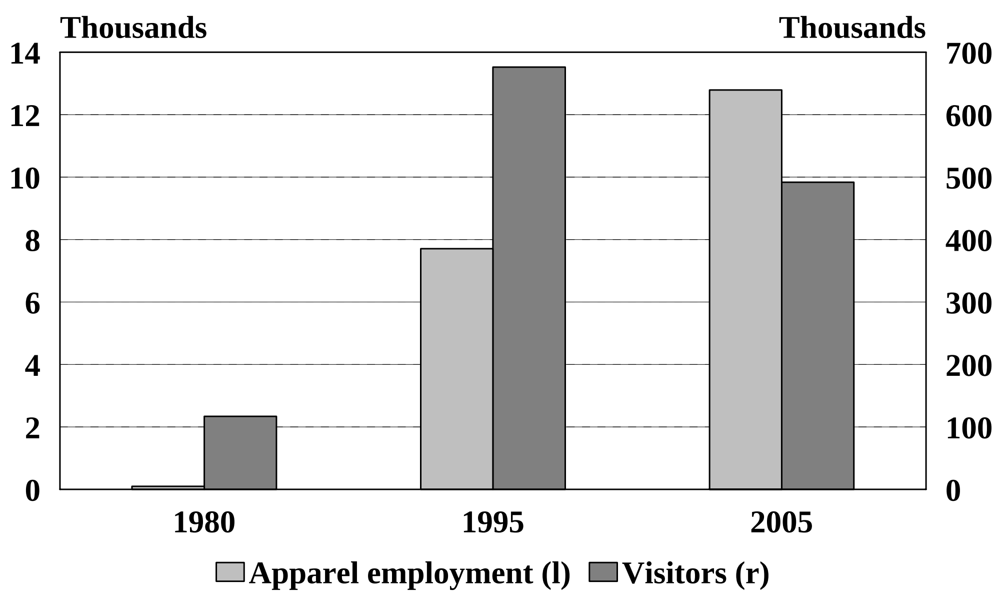


Figure 2

CNMI APPAREL EMPLOYMENT AND VISITORS



Over the next fifteen years, because of the rapid expansion of the visitor industry and the establishment of a highly successful apparel industry, the economic landscape of the CNMI changed dramatically. Between 1980 and 1995, the number of tourists and other travelers to the CNMI increased seven-fold, rising to nearly 700,000 and boosting visitor industry employment to an estimated 9,570 (Figure 2). At the same time, the number of jobs in the apparel industry climbed from almost nothing to 7,710.

After surging at an average annual rate of 12.7 percent, one of the highest growth rates in the world, CNMI employment reached 32,760 in 1995. During this fifteen-year period of rapid expansion, the economy added 27,340 jobs, of which approximately 16,280 were in basic industries (8,570 in the visitor industry and 7,710 in the apparel industry) and 11,060 were in non-basic sectors, including government. Presuming that the economy was driven primarily by the visitor and apparel industries, the implied employment multiplier during this period was 1.68 (=27,340/16,280).[17]

The expansion of the CNMI economy was made possible by a four-fold increase in population, much of it due to a wave of migrants from Asia looking for work. After advancing at an average annual rate of 8.4 percent for fifteen years, CNMI population hit 58,130 in 1995. By then, nearly one-half of the population was foreign workers, many of them employed in the visitor and apparel industries.

Indicative of the vastly improved economy, the CNMI employment rate (total employment as a percent of total population) rose from 31.1 percent in 1980 to 56.4 percent in 1995. This helped boost average household income from $12,859 to $29,946, a 139.2 percent gain, according to census money income estimates. The average income of households headed by Chamorros went from $11,464 to $39,750, an increase of 244.2 percent. Adjusted for inflation, the income of all households increased 10.9 percent. But the income of Chamorro households jumped 65.1 percent.[18] Clearly, the economic boom left the residents of the CNMI much better off.

Five factors accounted for the rapid expansion of the CNMI economy between 1980 and 1995: duty-free access to U.S. markets, which was granted as part of the Covenant; CNMI's attractiveness as a tourist destination; use of inexpensive foreign labor; federal financial aid to expand infrastructure; and openness to outside investment. With regard to low-cost foreign labor, perhaps the key to the economy's success, the CNMI had local authority over immigration and the minimum wage, although the federal government could have revoked it at any time by an act of Congress.

Structure of the CNMI Economy - As noted previously, the principal tool of analysis in the 1999 study of the CNMI economy was the 1995 input-output table. Among other things, it displays the structure of the economy in considerable detail. It reported, for example, that

[17] In this case, the employment multiplier is measuring the total jobs created in the economy between 1980 and 1995 per new job in the basic sector.

[18] Household income is deflated by the CNMI consumer price index to obtain an estimate of real household income. Historically, the consumer price index has overstated inflation, which is evident by comparing the U.S. consumer price index with the U.S. deflator for personal consumption expenditures. Thus, between 1980 and 1995, real household income in the CNMI most likely increased even more than these calculations indicate.

personal consumption expenditures ($373.4 million) accounted for 46.9 percent of CNMI Gross Domestic Product ($796.7 million).[19]

The composition of Gross Domestic Product (GDP) reveals the high degree to which the CNMI economy depends upon external trade. In 1995, visitor expenditures, apparel exports, and other exports amounted to $962.1 million or 120.8 percent of GDP. By comparison, exports accounted for only 11.0 percent of U.S. GDP. On a per capita basis, CNMI exports were more than five times greater than U.S. exports. Of course, this kind of dependency is a two-edged sword, since it implies that many of the forces determining the fate of the CNMI economy lie beyond its control.

The multipliers derived from the input-output model are summary measures of an industry's impact on the economy. A multiplier is defined as the ratio of the industry's total impact to its direct impact. There are three principal types of multipliers: (1) an output multiplier (total dollars of output generated in the economy per dollar of output in the industry); (2) an employment multiplier (total jobs generated in the economy per job in the industry); and (3) an income multiplier (total labor income generated in the economy per dollar of labor income in the industry). Labor income includes wages, salaries, proprietors' income, and other labor income (non-wage benefits).

Table 3
APPAREL AND VISITOR INDUSTRY MULTIPLIERS, 1995*

	Output Multiplier	Employment Multiplier	Income Multiplier
Apparel industry	1.32	1.50	1.80
Visitor industry	1.34	1.79	2.10

*From 1995 CNMI input-output model.

According to the input-output model, the apparel industry employment multiplier in 1995 was 1.50 (Table 3). Noting that the multiplier includes the original job, this meant that each apparel worker supported the equivalent of 0.50 other jobs in the economy.

The visitor industry employment multiplier was 1.79 in 1995. The visitor industry multiplier was higher than the apparel multiplier primarily because the visitor industry makes greater use of local labor. On average, local labor earns a much higher income than foreign labor. Local labor also tends to spend a greater share of its income in the CNMI economy.

Multipliers can be used to measure the contribution that an industry makes to the economy (Table 4). The apparel industry employed 7,710 workers in 1995, including both local and

[19] While a strict comparison cannot be made, it appears that the estimates of personal consumption expenditures and Gross Domestic Product in the 1995 input-output table are somewhat lower than what one would expect based on the 2000-05 estimates published in the recently completed CNMI income and product accounts. Much of the difference stems from the fact that the 1995 estimates exclude the imputed value of rent for owner-occupied housing and the imputed value of products for self-consumption.

foreign labor. Taking into account its indirect impact on the economy, the industry supported 11,570 (= 1.50 x 7,710) jobs. This represented 35.3 percent of the Commonwealth's jobs.[20]
The visitor industry is not a single industry. Rather it is a collection of industries, such as hotels and lodging and eating and drinking places, which serve tourists and other travelers. In 1995, an estimated 9,570 people were employed in the visitor industry, including 950 in transportation services, 1,420 in eating and drinking places, 1,880 in other retail trade, 2,520 in hotels and lodging, and 2,620 in other services, according to the input-output data. Taking into account its multiplier effect, the visitor industry supported 17,120 (= 1.79 x 9,570) jobs or 52.3 percent of total CNMI employment.

Table 4
EMPLOYMENT IMPACT OF APPAREL AND VISITOR INDUSTRIES, 1995

	Apparel Industry	Visitor Industry
Industry employment	7,710	9,570
Employment multiplier	1.50	1.79
Total employment impact	11,570	17,120
Percent of CNMI employment	35.3	52.3

Together, the apparel and visitor industries accounted for nearly nine out of every ten jobs in the economy. The remaining jobs were supported by other exports, federal expenditures and transfer payments, retirement income, and remittances.

The Two-Tiered Economy - Another noteworthy feature of the CNMI economy is the extent to which it relies upon foreign labor (Table 5). In 1995, two-thirds of the working population consisted of foreign workers, mostly guest workers from the Philippines and China. Foreign workers constituted nearly three-fourths of the employment in the visitor industry. In contrast, the CNMI government employed primarily U.S.-qualified residents.[21]

[20] The estimated fraction of the economy dependent upon the apparel industry in 1995 is higher than that reported in the 1999 study. This is due to a reduction in the estimate of total CNMI employment in 1995.
[21] In the 1999 study, permanent residents referred to people who had a right to live permanently in the CNMI. They included U.S. citizens, Freely Associated State citizens, and U.S. green card holders, among others. Temporary residents referred to people who had no such right. Since this terminology is confusing in the context of U.S. immigration law, the remainder of the paper will instead use the terms U.S.-qualified residents (permanent residents) and foreign workers (temporary residents).

Table 5
CNMI EMPLOYMENT AND AVERAGE ANNUAL LABOR INCOME BY SELECTED INDUSTRY AND RESIDENCE STATUS, 1995

	Employment	Percent of Industry	Average Annual Labor Income
Apparel industry	7,710	100.0	$9,440
U.S.-qualified residents	510	6.6	24,560
Foreign workers	7,200	93.4	8,370
Visitor industry	9,570	100.0	$10,550
U.S.-qualified residents	2,650	27.7	20,190
Foreign workers	6,920	72.3	6,860
Other industries	10,460	100.0	$10,480
U.S.-qualified residents	2,790	26.7	21,130
Foreign workers	7,670	73.3	6,610
Government	5,020	100.0	$27,850
U.S.-qualified residents	4,810	95.8	28,650
Foreign workers	210	4.2	9,520
Total	32,760	100.0	$12,917
U.S.-qualified residents	10,760	32.8	24,423
Foreign workers	22,000	67.2	7,292

As a result of a large number of foreign workers, the CNMI economy has developed a two-tiered structure. The upper tier is comprised of high-wage workers, most of which are U.S.-qualified residents employed in government and various private businesses. The lower tier is comprised of low-wage workers, most of which are foreign workers employed in the apparel and visitor industries.

In 1995, the average annual labor income in the CNMI was $12,917. But the income of U.S.-qualified residents was more than three times that of foreign workers. On average, local workers earned $24,423 per year, compared to only $7,292 for foreign workers.[22] While the incomes of foreign workers were well below the average income, they were high compared to what the workers would have earned back home.

[22] Because of data revisions, these estimates are close but not equal to those given in the 1995 input-output table.

Table 6
EMPLOYMENT IMPACT OF APPAREL AND VISITOR INDUSTRIES BY INDUSTRY AND RESIDENCE STATUS, 1995

	U.S.-Qualified Resident Employment	Foreign Worker Employment	Total Employment	Percent of Industry Employment
APPAREL INDUSTRY				
Apparel	510	7,200	7,710	100.0
Other manufacturing	50	140	190	14.8
Wholesale and retail trade	210	380	590	10.2
Other industries	500	1,540	2,040	15.7
Government	990	50	1,040	20.7
Total	2,260	9,310	11,570	35.3
VISITOR INDUSTRY				
Hotels and lodging	580	1,990	2,570	98.1
Eating and drinking places	220	1,380	1,600	88.9
Wholesale and retail trade	1,060	1,670	2,730	68.9
Other industries	2,470	6,070	8,540	65.7
Government	1,610	70	1,680	33.5
Total	5,940	11,180	17,120	52.3

*Includes eating and drinking places.

The labor income of U.S.-qualified residents, especially those employed in government, approached mainland standards. The $28,650 average annual income of the 5,020 government employees was fourth-fifths the average labor income for all workers in the United States ($34,690). Considering the CNMI's short history as a market economy and its geographical isolation, the high incomes of U.S.-qualified residents was a remarkable achievement.

The two tiers of the economy are distinctly different but very much interdependent. Most U.S.-qualified residents owe their high-wage jobs to the apparel and visitor industries, which in turn rely on low-wage foreign workers (Table 6). In 1995, of the 7,710 persons directly employed in the apparel industry, only 510 (6.6 percent) were U.S.-qualified residents. But, as a consequence of its indirect impact on the rest of the economy, the apparel industry supported an additional 1,750 jobs held by U.S.-qualified residents in the economy, including 990 jobs in government. Directly and indirectly, the visitor industry supported 5,940 jobs for U.S.-qualified residents in 1995.

Altogether the apparel and visitor industries provided 8,200 jobs for U.S.-qualified residents. This represented 76.2 percent of the 10,760 jobs held by U.S.-qualified residents in 1995. Thus, the loss of these two industries would have a calamitous effect on not only foreign workers but also on local workers in the CNMI.

Period of Maturation: 1995-2005 - While the 12.7 percent employment growth rate between 1980 and 1995 was extremely high, it was not unusual for a “take-off” economy, one in its early stages of development. Palau, for example, experienced a similar growth rate at about the same time. Moreover, as history has shown, these high growth rates are not sustainable in the long run. As predicted in the 1999 study (page 32), “the CNMI economy will slow down or even fall into recession.” In fact, signs of moderating growth were already evident between 1990 and 1995, as the average annual employment growth rate slipped to 6.7 percent.

Unlike the period of rapid growth (1980-95), in which the CNMI economy advanced on all fronts, the period of maturation (1995-05) saw a twenty-year expansion give way to recession (Table 7). Indeed, as the years unfolded, it became increasingly clear that the loss of the apparel industry due to its inability to compete with Chinese garment factories could lead to depression.[23]

Growing at a 4.0 percent annual rate, the CNMI economy added slightly more than 7,000 jobs between 1995 and 2000. Although this was still healthy growth, the economy began to develop cross-currents. The apparel industry put another 9,070 people to work, more than doubling its payroll. The visitor industry created 2,780 new jobs.[24] But the economy was held back by a sharp decline in construction activity.

In the 1980s, the fast pace of the CNMI economy gave a big boost to the building industry. At one point, the industry engaged approximately 5,000 workers, according to Census reports. They built houses, factories, hotels, stores, roads, and other infrastructure. Since then, as the economy has slowed and the demand for new capital has declined, employment in the construction industry has fallen. Between 1995 and 2000, the industry cut an estimated 2,080 jobs.

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[23] A depression is a prolonged period of low output, high unemployment, and widespread business failures. For purposes of this study, a depression is defined as a 25 percent or more loss of real Gross Domestic Product. During the Great Depression in the United States, real Gross Domestic Product declined 30 percent between 1929 and 1933.

[24] The only comprehensive estimate of visitor industry employment comes from the 1995 input-output table. It showed that hotels and lodging accounted for 27.4 percent of the total jobs in the visitor industry. Using this percentage and reported hotel and lodging employment, it is possible to estimate visitor industry employment for other years.

Table 7
CNMI EMPLOYMENT AND POPULATION

	1990	1995	2000	2005
Resources	500	560	560	600
Construction	4,310	3,800	1,720	1,280
Apparel	5,150	7,710	16,780	12,790
Other manufacturing	1,090	1,280	620	770
Transportation, communications, and utilities	1,200	1,540	1,500	1,510
Wholesale and retail trade	2,310	3,960	3,700	2,830
Finance, insurance, and real estate	520	820	880	980
Hotels and lodging	1,810	2,620	3,380	2,480
Eating and drinking places	1,060	1,800	1,550	1,300
Other services	2,250	3,650	4,100	5,710
Government	3,510	5,020	5,000	5,710
Total	23,710	32,760	39,790	35,960
Population	44,120	58,130	69,700	70,200

Led by a downturn in the apparel industry, the CNMI economy began to tip over in the early years of this decade. Between 2000 and 2005, the apparel industry eliminated 3,990 jobs. This time, however, there was no offsetting support from either the visitor industry or the construction industry. Due to a drop in Japanese tourism because of flight cancellations by JAL, the visitor industry lost 3,290 jobs. At the same time, builders continued to pare payrolls, slashing another 440 jobs. Overall, the economy shed 3,830 jobs or 9.6 percent of the total employment that it had in 2000. Were it not for the on-going momentum in the economy built up in the 1980s and 1990s, the damage would likely have been much greater.

As garment factory workers began to return home, population growth slowed to a crawl. After expanding at an average annual rate of 9.7 percent in the 1980s and 4.7 percent rate in the 1990s, population grew at a negligible 0.1 percent rate between 2000 and 2005. Given the high birth rate in the CNMI, this meant that hundreds of non-U.S. citizens left the islands during the five-year period.

Analysis of Employment Change - Table 8 presents an analysis of the source of employment change in the CNMI during the period of rapid expansion (1980-95) and the period of maturation (1995-05). Although other factors were also at work, three industries largely dictated the course of the economy over the two and one-half decades: the apparel industry, the visitor industry, and the construction industry.[25]

[25] In general, construction is not an independent factor in the CNMI economy. It is primarily determined by the growth of jobs, income, and population associated with the expansion and contraction of the apparel and visitor industries. However, due to the complexity of its behavior, construction is not adequately depicted by the input-output model. Unlike other economic variables, it depends not only on the level of economic activity but also the change in economic activity. Thus, in order to properly assess the role of the building industry in the economy, we

Table 8
CNMI EMPLOYMENT CHANGE

	1980-95	Percent of Total Change	1995-05	Percent of Total Change
Attributable to apparel industry	11,560	42.3	7,620	238.1
Apparel industry	7,710	28.2	5,080	158.7
Supporting industries*	3,850	14.1	2,540	79.4
Attributable to visitor industry	15,340	56.1	-910	-28.4
Visitor industry	8,570	31.3	-510	-15.9
Supporting industries*	6,770	24.8	-400	-12.5
Attributable to construction industry	970	3.5	-4,760	-148.7
Construction industry	590	2.2	-2,900	-90.6
Supporting industries*	380	1.4	-1,860	-58.1
Attributable to other sectors	-530	-1.9	1,250	39.1
CNMI employment	27,340	100.0	3,200	100.0

*The analysis assumes constant employment multipliers over the two time periods: the apparel industry (1.50), the visitor industry (1.79), and the construction industry (1.64). These multipliers are derived from the 1995 input-output model.

The apparel and visitor industries were responsible for virtually all of the 27,340 new jobs created during the period of rapid expansion, according to the input-output analysis. Taking into account the multiplier effect, the apparel industry added an estimated 11,560 jobs to the economy, while the visitor industry generated 15,340. These jobs represented 42.3 percent and 56.1 percent, respectively, of the total employment change between 1980 and 1995. Together, the two industries accounted for 98.4 percent of the job growth. Indirectly, the apparel and visitor industries led to 1,900 new employment opportunities in the construction industry, which overall added 2,490 jobs. The 590 new construction jobs not supported by the apparel and visitor industries resulted in a contribution of 970 jobs (3.5 percent of total employment gain) to the economy after considering the indirect impact. A negligible loss of 530 jobs (-1.9 percent) was attributable to the remaining sectors of the economy.

The period of maturation, which resulted in only 3,200 new jobs, was a more complicated matter. Even though the apparel industry began to collapse at the end of the period, it still made a positive contribution to growth between 1995 and 2005, accounting for 7,620 new jobs. The visitor industry, on the other hand, was responsible for a loss of 910 jobs. But the biggest drag on the economy was the construction industry. After netting out the change in jobs attributable

have to treat any change in construction employment not predicted by the model (i.e., not related to activity in the apparel and visitor industries) as an independent factor.

to the apparel and visitor industries, construction employment declined by 2,900. This in turn led to the loss 1,860 jobs in supporting industries and government. Other sectors of the economy contributed an estimated 1,250 new jobs to the economy.

Three conclusions can be drawn from this analysis. First, over the past twenty-five years, the CNMI economy has been largely driven by the apparel and visitor industries. Even the jobs in the construction industry, which in part had to be treated as an independent factor in the employment change analysis, are mostly tied in one way or the other to CNMI's two major exporting industries. Second, the structure of the CNMI economy has remained relatively simple and stable. Since 1980 the CNMI economy has had only two significant basic industries. Moreover, the input-output links of the apparel and visitor industries to the rest of the economy have remained relatively unchanged. This contention is evident in the fact that it only takes three employment multipliers (apparel, visitor, and construction) estimated in 1995 to effectively account for all of the CNMI employment change between 1980 and 2005. Third, the apparent stability of the multipliers over time implies that the 1995 input-output model continues to be a useful methodology for impact analysis and forecasting.

The 2004-2007 Contraction

The Turnaround - The CNMI economy peaked in 2004, although it showed signs of weakness much earlier (Table 9). The visitor industry wobbled but lost only a few hundred jobs between 2000 and 2004. At the same time, the apparel industry, which had finally surpassed the visitor industry as the biggest source of jobs in the economy, came to a lurching halt. After a twenty-year run, apparel employment reached 16,780 in 2000. It fell to 15,470 in 2003 and then bounced back to 16,820 in 2004, the all-time high.

Table 9
CNMI ECONOMY 2000-2007

	2000	2001	2002	2003
Employment	39,790	39,440	38,610	38,550
Apparel	16,780	16,410	16,350	15,470
Hotels	3,380	3,000	2,790	2,870
Other industries	14,640	15,030	14,370	14,880
Government	5,000	5,000	5,100	5,330
Wages and salaries (mils. $)	607.8	609.6	595.9	600.1
Apparel	190.4	186.3	185.6	175.6
Hotels	29.2	25.9	24.1	24.8
Other industries	244.2	253.4	239.3	246.2
Government	144.0	144.0	146.9	153.5
Personal income (mils. $)	894.9	898.1	880.4	882.5
Wages and salaries	607.8	609.6	595.9	600.1
Other personal income	287.1	288.5	284.5	282.4
Per capita personal income ($)	12,839	12,491	12,417	12,518
Personal income (mils. $2000)*	894.9	905.3	900.2	898.7
Per capita personal income ($2000)	12,839	12,592	12,697	12,747
Gross Domestic Product (mils. $)	1,438.5	1,423.8	1,473.4	1,442.4
Per capita GDP ($)	20,638	19,803	20,781	20,460
Gross Domestic Product (mils. $2000)	1,438.5	1,413.9	1,515.7	1,519.4
Per capita GDP (mils. $2000)	20,638	19,665	21,378	21,552
Consumer price index (2003.1=100)	101.4	100.6	100.8	99.8
GDP deflator (2000=1)	1.000	1.007	0.972	0.949
Personal consumption deflator (2000=1)	1.000	0.992	0.978	0.982
Population (mid-year)	69,700	71,900	70,900	70,500
U.S. citizens	30,300	30,900	31,000	31,000
Non-U.S. citizens	39,400	41,000	39,900	39,500

*$2000 signifies that personal income and Gross Domestic Product are measured in constant 2000 dollars.

Table 9 (continued)
CNMI ECONOMY 2000-2007

	2004	2005	2006	2007
Employment	40,420	35,960	30,460	26,010
Apparel	16,820	12,790	8,790	5,280
Hotels	3,110	2,480	3,200	3,090
Other industries	15,060	14,980	13,200	12,870
Government	5,430	5,710	5,280	4,780
Wages and salaries (mils. $)	625.3	575.6	492.6	435.4
Apparel	190.9	145.2	99.8	59.9
Hotels	26.9	21.4	27.6	26.7
Other industries	251.1	244.6	213.1	211.1
Government	156.4	164.4	152.1	137.7
Personal income (mils. $)	924.3	849.0	726.6	642.2
Wages and salaries	625.3	575.6	492.6	435.4
Other personal income	299.0	273.4	234.0	206.8
Per capita personal income ($)	13,111	12,094	11,009	10,633
Personal income (mils. $2000)	935.5	858.3	697.9	577.1
Per capita personal income ($2000)	13,270	12,226	10,573	9,555
Gross Domestic Product (mils. $)	1,519.4	1,413.9	1,305.6	1,123.9
Per capita GDP ($)	21,552	20,141	19,782	18,608
Gross Domestic Product (mils. $2000)	1,530.4	1,420.8	1,246.8	1,040.6
Per capita GDP (mils. $2000)	21,708	20,239	18,891	17,229
Consumer price index (2003.1=100)	100.7	100.9	106.2	113.5
GDP deflator (2000=1)	0.993	0.995	1.047	1.080
Personal consumption deflator (2000=1)	0.988	0.989	1.041	1.113
Population (mid-year)	70,500	70,200	66,000	60,400
U.S. citizens	31,000	31,000	31,000	31,000
Non-U.S. citizens	39,500	39,200	35,000	29,400

In response to the generally sidewise movement of the apparel and visitor industries, the economy flattened out, creating just a handful of jobs. Total CNMI employment, rising at a sluggish 0.4 percent annual rate, increased from 39,790 in 2000 to 40,420 in 2004. Two-thirds of the 630 new jobs were in government. In response to the deteriorating economic climate, population growth abruptly decelerated. The population gain over the four years amounted to only 800 people.

Apart from the impending downturn, which by then was widely anticipated, the CNMI economy in 2004 was something worth celebrating. Indeed, 2004 could well turn out to be the best year ever for the economy. Gross Domestic Product amounted to $1,519.4 million, according to the CNMI income and product accounts. With 40,420 jobs, CNMI workers earned $625.3 million in wages and salaries. Annual pay averaged $15,470. The exact figure is not known, but the average income of U.S. citizens was about $30,000. On a per capita basis, personal income totaled $13,111, the highest on record.

The seeds of the downturn were sown when China entered the World Trade Organization in 2001 and obtained access to American markets in 2005. Up to that time, CNMI garment factories competed successfully in the U.S. apparel market because of the Commonwealth's relatively low minimum wage and access to foreign labor. But in competition with China's extremely low wage rates and greatly underemployed population, there was no way that the CNMI could maintain its advantage. The first garment factory closed its doors in 2000. Of the thirty-four factories operating in 2000, only three remain today, according to a September 2008 count.

In 2007, apparel jobs dropped to 5,280, less than one-third the number at the industry's height in 2004. As a consequence, total CNMI employment plunged from 40,420 in 2004 to 26,010 in 2007, a 35.6 percent decline. Thus, in just three years the CNMI lost one-third of its economy, one that took more than twenty years to build.

Other statistics paint the same distressing picture. Adjusted for inflation, Gross Domestic Product (GDP) fell 32.0 percent and personal income declined 38.1 percent over the three-year period. Real per capita personal income decreased 28.0 percent. These deep slumps in real GDP and personal income are symptoms of an economy in depression.

There are no statistics on unemployment, but there is little doubt that the jobless rate soared. One indicator of conditions in the job market is the employment rate, which is defined as CNMI employment as a percent of population. It dropped precipitously from 57.1 percent in 2000 to 43.1 percent in 2007. In 2000, the Census Bureau estimated that the CNMI unemployment rate was a rock-bottom 3.9 percent. Back-of-the-envelope calculations based on the unemployment rate reported in 2000 and the change in the employment rate between 2000 and 2007 suggest that the unemployment rate approached 25 percent in 2007.

Illustrating the fact that the impact of the apparel downturn is not limited to foreign workers, the CNMI government had to eliminate more than 600 jobs in response to a shortfall in tax revenue.

Table 10
SELECTED CNMI ECONOMIC INDICATORS

	Business Gross Revenue (mils. $)	Percent Change	General Fund Revenue (mils. $)	Percent Change	Bank Loans (mils. $)	Percent Change
2000	2,255	na	230.2	na	na	na
2001	2,117	-6.1	222.6	-3.3	na	na
2002	1,869	-11.7	187.9	-15.6	1,062.7	na
2003	1,914	2.4	209.8	11.6	919.0	-13.5
2004	2,034	6.3	217.9	3.9	818.4	-10.9
2005	2,020	-0.7	210.3	-3.5	798.9	-2.4
2006	1,829	-9.5	192.0	-8.7	734.8	-8.0
2007	1,672	-8.6	163.0	-15.1	674.3	-8.2
2008*	1,599	-4.4	155.4	-4.7	597.6	-11.4
2004-08	---	-21.4	---	-28.7	---	-27.0

*Estimates for 2008 are preliminary.

Table 10 (continued)
SELECTED CNMI ECONOMIC INDICATORS

	Residential Telephone Lines (number)	Percent Change	Auto Sales (number)	Percent Change	Residential Building Permits (number)	Percent Change
2000	11,113	na	1,581	na	186	na
2001	11,322	1.9	1,457	-7.8	124	-33.3
2002	11,525	1.8	1,298	-10.9	160	29.0
2003	11,645	1.0	1,692	30.4	160	0.0
2004	11,803	1.4	1,992	17.7	195	21.9
2005	11,201	-5.1	1,885	-5.4	186	-4.6
2006	10,092	-9.9	1,352	-28.3	167	-10.2
2007	9,381	-7.0	1,101	-18.6	120	-28.1
2008*	8,068	-14.0	1,080	-1.9	77	-35.8
2004-08	---	-31.6	---	-45.8	---	-60.5

*Estimates for 2008 are preliminary.

Other economic indicators reflect the widespread impact of the downturn (Table 10). Based on preliminary data, gross revenue of CNMI businesses fell 21.4 percent between 2004 and 2008 and 29.1 percent between 2000 and 2008. As tax collections dwindled over the last four years, general fund revenue for government operations declined 28.7 percent. The volume of bank loans decreased 27.0 percent in part because of a 45.8 percent drop in auto sales. Over the same period, the loss of 10,000 CNMI residents led to a 31.6 percent decline in the number of residential telephone lines and a 60.5 percent fall-off in the number of residential building permits.

Analysis of the Contraction - The downturn in the apparel industry is having a major impact on the CNMI economy. But is it what one would have predicted based on past behavior? More specifically, is there evidence that the apparel industry long-run employment multiplier continues to be about 1.5? This is an important question because of its implications for forecasting.

Between 2004 and 2007, the CNMI economy lost 14,400 jobs, including 11,540 in the apparel industry. Despite a decline in visitor arrivals, hotel and lodging employment remained relatively constant over this period, indicating that the visitor industry had little effect on job growth. Assuming that the apparel industry accounted for the entire job loss at the time, the implied employment multiplier is 1.25 (=14,400/11,540), which is smaller than the 1.50 estimate derived from the 1995 input-output model. Whereas the latter estimate is a long-run multiplier, the former estimate is a short-run multiplier. But is it still reasonable?

Simulations with complex models in Washington State indicate that, in response to a change in an industry's employment in a given year, about 30 percent of the indirect impact takes place in that same year, 40 percent in the next year, 20 percent in the third year, and 10 percent in the fourth year.

Assume that the apparel industry eliminates one job in 2005 and its long-run multiplier is 1.50. This means that the long-run indirect job loss in the CNMI economy is 0.50 jobs. But only 30 percent of the indirect job loss will take place in 2005. This amounts to 0.15 (30 percent of 0.50) jobs. The economy will lose another 0.20 (40 percent of 0.50) jobs in 2006 and another 0.10 (20 percent of 0.50) jobs in 2007 because of the loss of the apparel job in 2005. Thus, in 2007, the total indirect job loss is 0.45 (=0.15+0.20+0.10) jobs. Even after the third year, this is still less than the long-run indirect impact of 0.50 jobs.

To date, the apparel industry has eliminated 4,300 jobs in 2005, 4000 jobs in 2006, and 3,510 jobs in 2007 (Table 11). Applying the above calculations to these direct job losses yields an expected indirect impact of -3,740 jobs and a total impact of -15,280 (=-11,540 -3,740) jobs. The implied multiplier is 1.32 (=-15,280/-11,540).

Table 11
EXPECTED APPAREL INDUSTRY
SHORT-RUN EMPLOYMENT IMPACT

	Apparel Employment Change	Indirect Employment Change 2005	2006	2007	Total Employment Change
2005	-4,030	-600	-810	-400	---
2006	-4,000	---	-600	-800	---
2007	-3,510	---	---	-530	---
Total	-11,540	-600	-1,410	-1,730	-15,280

The observed multiplier of 1.25 is still less than the expected multiplier of 1.32. But they are close enough to support the contention that the long-run multiplier is about 1.5. This implies that the eventual loss of 16,800 apparel jobs could ultimately cost the CNMI economy 25,200 jobs, approximately three-fifths of its peak employment in 2004.

CNMI Economic Projections

Federalization Scenario - One thing is certain: the CNMI economy will continue to head down.[26] The apparel industry, which has only a few factories still operating, will likely pull up stakes in 2009. All else being equal, the end of garment-making will cost the economy more than one-half of its jobs, taking into account the repercussions on other businesses and government.

Much less predictable is how the visitor industry will adjust to the policy of federalization, which has revoked the CNMI's authority over the minimum wage and immigration. Particularly onerous is the restriction on foreign workers, since they comprise about 70 percent of the visitor industry workforce. The central issue is the extent to U.S.-qualified residents of the CNMI will be willing to fill the visitor industry jobs vacated by deported aliens.

The "federalization" scenario shows how the CNMI economy would cope with a much reduced labor supply (Tables 12 and 14). Bear in mind that this is not the worst case scenario, as the next section on obstacles to growth argues. The federalization scenario, which might also be called the "make do" scenario, is based on three assumptions:

1. **Apparel industry**. The latest industry report showed that only three garment factories with 1,751 employees were still operating on July 1, 2008. These factories will close in 2009 and their so-called ripple effects on the rest of the economy will dissipate by 2012.

[26] These projections are intended to portray two distinct but plausible scenarios for the economy over the next seven years. The scenarios are based on a set of explicit assumptions, which are described in the following paragraphs. The projections are developed with the assistance of the CNMI input-output model and analyzed for reasonableness.

2. **Federalization policy**. The policy of federalization will be strictly enforced. This means that the federal government will have total control over the minimum wage and immigration in the CNMI. The minimum wage, which is now $4.05 per hour, will increase in 50-cent increments each year until it reaches the federal minimum wage of $7.25 per hour in 2015.

   Applying federal immigration laws will result in the deportation of most of the foreign workers in the CNMI. This will affect not only the visitor industry but every business that employs aliens. At the peak of the economy in 2004, foreign workers accounted for about 70 percent of the CNMI workforce. Starting in 2009, deportation will proceed in steps until the process is completed in 2014.

3. **Available labor force and outmigration.** If the federal government deports three out of every four workers in the visitor industry, who will make the beds, serve food, and mow the lawns? Some of the labor shortage will be made up by U.S.-qualified residents. Higher pay by the visitor industry, boosted in part by a rising minimum wage, should help in this objective.

   How many workers will be available to the economy? In 2005, U.S.-qualified residents held 12,600 jobs. In general, however, the U.S.-qualified resident population was underemployed, particularly among people born in the CNMI. Only 57 percent of the CNMI-born population 16 years of age and older participated in the labor force and 23 percent of them were unemployed, according to the 2005 survey of households. If one assumes that, in a labor-strapped economy, the CNMI-born labor force participation rate rises to 65 percent (still less than the 74 percent rate for other U.S.-qualified residents, as estimated by the 2005 survey of households) and the overall unemployment rate drops to 5 percent, the economy will have at its disposal an additional 3,000 workers. Add another 1,000 foreign workers who qualify for work visas and the potential employment in the CNMI approaches 17,000.

   An implicit assumption in this scenario is that the U.S.-qualified resident population will remain relatively constant between 2005 and 2015. Thus, natural changes in the population (births less deaths) will be offset by changes due to migration. More specifically, this scenario does not assume a significant decline in population caused by an outmigration of people in response to deteriorating economic conditions. This is an arguable assumption, as discussed in the next section on obstacles to growth. If U.S.-qualified residents instead choose to migrate to the states, it will only aggravate economic conditions in the CNMI. As noted previously, the federalization scenario is, in this sense, an optimistic prognosis.

After the economy peaks in 2004, it falls steeply into a depression, according to the federalization scenario. On top of the 4,460 jobs lost in 2005, the economy will shed another 16,730 jobs between 2005 and 2010. The total decline will amount to 52.4 percent of the employment in 2004. Between 2004 and 2010, real Gross Domestic Product (measured in constant 2000 dollars) will plunge 36.2 percent, while real personal income will plummet 35.0 percent.

The downturn in the economy during this period is solely attributable to the closure of the apparel industry. Still unaffected by foreign labor restrictions, the visitor industry will continue to expand, providing a small offset to the slump. Taking into account the multiplier effects, the arithmetic of the employment slide between 2004 and 2010 is approximately as follows: a loss of 23,000 apparel industry-related jobs, offset by a gain of 2,000 visitor industry jobs, yields a net loss of 21,000 jobs for the CNMI economy.

Table 12
CNMI ECONOMIC PROJECTIONS
Federalization Scenario

	2005	2010	2015
Gross Domestic Product (mils. $2000)	1,420.8	976.2	852.1
Employment	35,960	19,590	16,270
U.S.-qualified residents	12,600	9,970	15,270
Foreign workers	23,360	9,620	1,000
Personal income (mils. $2000)	858.3	608.5	515.7
Wages and salaries	581.9	395.5	324.9
U.S.-qualified residents	374.4	291.6	304.9
Foreign workers	207.5	103.9	20.0
Other income	276.4	213.0	190.8
Per capita personal income ($2000)	12,226	11,666	12,740
Population	70,200	52,160	40,480
U.S.-qualified residents	39,400	39,400	39,360
Foreign workers	30,800	12,760	1,120
Apparel employment	12,790	0	0
Visitor industry employment	9,050	10,510	8,370

There are two noteworthy characteristics of the depression during the initial phase. First, the decrease in real GDP and personal income is much smaller than the decline in employment. This is due to the fact that a large number of the jobs lost during the downturn, especially in the apparel industry, are low-value added jobs that pay minimum wages. For example, as shown in the income and product accounts, the apparel industry, with 35.6 percent of CNMI employment, accounted for only 22.7 percent of GDP in 2005. Second, while the employment impact falls heavily on low-wage jobs held by aliens, it also leads to the loss of 2,630 high-wage jobs held by U.S.-qualified residents, roughly one-fifth of their total jobs in 2005. Published reports show that the CNMI government, which almost exclusively hires U.S.-qualified residents, eliminated 870 jobs between 2005 and 2007.

The story of the depression between 2010 and 2015 revolves around the visitor industry and its need for labor. In 2010, as the unemployment rate for U.S.-qualified residents soars above 30 percent, many of them will become desperate for jobs. Assuming no significant outmigration to mainland United States, they will have to turn to the visitor industry for work. At the same time, the visitor industry will begin to lose its foreign employees to federally-mandated deportation. In an effort to survive, establishments in the visitor industry will start offering significantly higher wages to attract the much needed workers. At the same time, these businesses will try to figure out ways of improving the efficiency of their operations. With a rising minimum wage, wages and salaries throughout the economy will increase, thereby enticing more people in the existing population to enter the labor force.

Not all efforts to stay in business will be successful. As a consequence, visitor industry employment will decline from 10,510 in 2010 to 8,370 in 2015. This will cause total employment in the CNMI to fall to 16,270, about the number of jobs that the economy supported in 1985. In 2015, one year after the last foreign worker is deported, CNMI population will total 40,480. This will include approximately 27,000 people born in the CNMI and 13,000 other U.S. citizens or U.S.-qualified residents, including 1,000 aliens with U.S. visas.

The losses during the 11-year depression will be staggering: a 59.7 percent decline in jobs, a 44.3 percent fall in real GDP, and 44.9 percent drop in real personal income. With no garment factories, a smaller visitor industry, a much reduced number of government workers, and a shortage of well-paying jobs, the CNMI economy will be hardly recognizable.

The economy, however, will finally level off and stabilize in 2015. At that time, the population will be fully employed and the last of the deported aliens will have left the islands. The visitor industry as well as the rest of the economy will then be constrained by a relatively fixed labor force. Thus, the economy will be neither falling nor rising at any appreciable rate.

How will the depression affect the economic welfare of the CNMI people, as measured by the unemployment rate and per capita income? With a fully employed population, the unemployment rate will fall to about 5 percent, significantly lower than the 16.6 percent jobless rate estimated in 2005. Measured in 2000 dollars, per capita income peaked at $13,270 in 2004. In 2015, it will decline to $12,740, a 4.0 percent decrease. But this relatively small drop is deceiving, since the per capita income of U.S.-qualified residents in 2004 amounted to $15,190. Thus, the 11-year decline in real per capita income for U.S.-qualified residents will be 16.1 percent. In short, U.S.-qualified residents of the CNMI will be working much harder to make less money than they did in 2004, according to the federalization scenario.

The projections of employment for U.S.-qualified residents in the federalization scenario may seem counter-intuitive and require further explanation. The full impact of the apparel industry shutdown is felt in 2010. This costs U.S.-qualified residents 2,630 jobs, not only in the apparel industry but also in trade, services, and government, as total U.S.-qualified resident employment falls from 12,600 to 9,970. Without new job openings in the visitor industry—its alien workforce is still largely in tack—the unemployment rate among U.S.-qualified residents soars.
But, as foreign workers are deported and the visitor industry fights for survival, thousands of jobs for U.S.-qualified residents become available by 2015. The rising minimum wage increases their attractiveness. Assuming that U.S.-qualified residents want to remain in the CNMI, the visitor industry and its multiplier effect on the rest of the economy create enough job opportunities to not only take care of the previously unemployed U.S.-qualified residents but also to draw many new people from the existing population into the labor force. Thus, the

number of working U.S.-qualified residents rises to 15,270 in 2015, much higher than ever before.

Why would so many people want to work? It is an attempt to maintain their previous standard of living. Despite a higher minimum wage, most of the jobs offered in the transformed economy will pay lower wages than U.S.-qualified residents have come to expect. In cases like this, people tend to work more to make up the difference. This is why the scenario is also called the "make do" scenario.

Finally, it should be pointed out that if the period of deportation were extended another five years, it would not significantly affect the depth of the depression. Ultimately, the distance that the CNMI economy falls is determined by how many people are available for work after the aliens are deported. The only benefit to prolonging the deportation process is that it gives some people more time to adjust to the catastrophic changes in the economy.

Relief Scenario - The "relief" scenario assumes that the federal government gives back control of the minimum wage and immigration to the CNMI (Tables 13 and 14). With no restrictions on the use of foreign labor, the visitor industry will be able to expand as much as market conditions permit:

Table 13
CNMI ECONOMIC PROJECTIONS
Relief Scenario

	2005	2010	2015
Gross Domestic Product (mils. $2000)	1,420.8	1,189.9	1,579.3
Employment	35,960	23,880	31,840
U.S.-qualified residents	12,600	11,800	13,100
Foreign workers	23,360	12,080	18,740
Personal income (mils. $2000)	858.3	740.3	916.0
Wages and salaries	581.9	481.2	613.7
U.S.-qualified residents	374.4	368.5	429.9
Foreign workers	207.5	112.7	183.8
Other income	276.4	259.1	302.3
Per capita personal income ($2000)	12,226	13,458	14,839
Population	70,200	55,010	61,730
U.S.-qualified residents	39,400	40,000	41,200
Foreign workers	30,800	15,010	20,530
Apparel employment	12,790	0	0
Visitor industry employment	9,050	13,060	16,670

1. **Apparel industry**. Even in this optimistic scenario, there is little hope of survival for the apparel industry.

2. **Federalization policy**. Recognizing the hardship that the policy of federalization would cause, Congress reverses its position and returns control of the minimum wage and immigration to the CNMI. The minimum wage remains at $4.05 per hour, at least for two or three years.

3. **Visitor industry**. With no restrictions on foreign labor, the visitor industry will not be constrained by a shortage of labor. As a consequence, the industry, with the support of government, embarks on an aggressive program to double visitor arrivals by 2015. The chief aim is to try to fill the hole in the economy left by the apparel industry, thereby reducing the economic suffering.

Assuming a successful promotion effort, visitor industry employment will rise to 13,060 in 2010. The lift from the industry will be sufficient to bring a halt to the economic slide. At the bottom of the depression, total employment will reach 23,880, down 40.9 percent from the peak in 2004. As a result of the lay-offs directly and indirectly tied to the apparel industry, the number of jobs held by U.S.-qualified residents will decline from 12,600 in 2005 to 11,800 in 2010. The outmigration of aliens who worked in the garment factories lowers CNMI population to 55,010 in 2010.

After hitting bottom in 2010, the economy will begin a period of recovery. As the visitor industry continues to expand at a 5 percent annual rate, it will add another 3,610 workers to its payrolls between 2010 and 2015. Total CNMI employment will climb to 31,840 in 2015, up 33.3 percent from the trough of the depression. This will still fall 21.2 percent short of peak employment in 2004.

Table 14
CNMI ECONOMIC PROJECTIONS
Average Annual Percent Change

	2005-10	2010-15
FEDERALIZATION SCENARIO		
Gross Domestic Product ($2000)	-7.2	-2.7
Employment	-11.4	-3.6
Personal income ($2000)	-6.6	-3.3
Population	-5.8	-4.9
RELIEF SCENARIO		
Gross Domestic Product ($2000)	-3.5	5.8
Employment	-7.9	5.9
Personal income ($2000)	-2.9	4.4
Population	-4.8	2.3

U.S.-qualified residents in the CNMI will fare reasonably well. New jobs in the tourist industry will more than make up for the losses in apparel industry and government. Employment among

U.S.-qualified residents will rise to 13,100. In constant dollars, per capita personal income will amount to $16,304, an increase of 7.3 percent since the prior peak in 2004. Reflecting the two-tiered economy, U.S.-qualified resident per capita income will exceed foreign worker per capita income by more than one-third, according to relief scenario.

It is possible to conceive of many scenarios for the CNMI economy. But the federalization scenario and the relief scenarios represent the two principal alternative futures for the economy. In other words, the most important economic issue facing the CNMI is the future stance of the U.S. Congress with regard to federalization. As these two scenarios clearly show, life in the CNMI would be much better without federalization.

Obstacles to Growth

Federalization - The policy of federalization, which raises the minimum wage and restricts the use of foreign labor, will exacerbate the current economic problems in the CNMI, as shown by the above projections. By hindering the growth of the visitor industry, it will deepen and prolong the depression caused by the loss of the apparel industry.

Federalization will also preclude significant economic growth in the long run. The downfall of the apparel industry has already demonstrated the inability of the CNMI to compete with China in manufacturing, even when the minimum wage is $3.05 per hour. Under current law, the minimum wage will jump to $7.25 in 2015 (Table 15). Coupled with its small size and geographical isolation, the CNMI will have great difficulty producing exportable goods and services at competitive prices. The fact that the CNMI currently has no exporting industry of consequence, with the exception of the apparel and visitor industries, is evidence of the great challenge ahead.

Table 15
CNMI MINIMUM WAGE SCHEDULE
Dollars per Hour

	Minimum Wage
May 2006	3.05
May 2007	3.55
May 2008	4.05
May 2009	4.55
May 2010	5.05
May 2011	5.55
May 2012	6.05
May 2013	6.55
May 2014	7.05
May 2015	7.25

By raising the minimum wage, federalization is in effect placing the burden of economic growth on the shoulders of the visitor industry. As the same time, however, by deporting all but a few aliens by 2014, the policy is also putting a cap on the size of the industry's workforce. Thus, the policy is putting the CNMI economy in a box. As indicated by the federalization scenario, once the visitor industry employs about 8,000 people, it will be unable to grow, which in turn will cause the CNMI economy to stagnate.

Government Services and Infrastructure - Government plays an important role in the CNMI economy. In FY 2007, the CNMI government spent nearly $300 million and employed about 5,000 people (Table 16). More than one-half of the spending went for education, healthcare, and safety. Government wages and salaries were among the highest in the economy, averaging about $29,000 per year.

In recent years, however, government revenues have been falling. Since 2004 general fund revenues have declined about 30 percent. Despite attempts to trim the budget, including eliminating the jobs of 1,000 workers, the CNMI government continues to run a deficit. In FY 2007, the deficiency amounted to $55.5 million, more than one-fifth of total revenues.

Table 16
CNMI GOVERNMENT STATEMENT
OF ACTIVITIES, FY 2007
Millions of Dollars

	Activities	Percent of Total
REVENUES		
Program revenues	110.7	45.3
Taxes and other general revenues	133.6	54.7
Total revenues	244.3	100.0
EXPENSES		
Education	54.1	18.0
Health	64.9	21.6
Public safety and law enforcement	41.8	13.9
Community and social services	22.2	7.4
General government	21.6	7.2
Capital projects and public works	23.2	7.7
Other expenses	72.0	24.0
Total expenses	299.8	100.0
NET DEFICIENCY		
Net deficiency (percent of revenues)	-55.5	-22.7

Clearly, government revenues are following the downward path of the economy. According to the above projections, both of which depict deep depressions, the CNMI government could eventually be faced with the task of cutting its budget by one-half.

What happens then to education, healthcare, and safety? How will the government maintain roads and other infrastructure? Of particular concern is the impact of falling revenues on schools, since the school-age population, consisting mostly of U.S.-qualified residents, is unlikely to decline sufficiently to offset the drop in government revenue during the depression. The federal government, which has expressed a willingness to provide assistance during this period of transition, could make up the difference, but the bill would amount to $100 million or more. If economic conditions force the CNMI government to make significant cuts in spending, it will lower the quality of education, impair the health and safety of the population, and jeopardize the islands' infrastructure. This in turn will further damage the economy.

Outmigration - Despite the unpleasant portrayal of the economy, the federalization scenario is predicated on one hopeful assumption: the U.S.-qualified resident population will remain relatively constant. If there is no significant outmigration, the economy will eventually settle down to a workable size, supporting about 16,000 jobs. However, with no ability to expand its workforce beyond that number, it will ultimately stagnate. The only growth will come from increased labor productivity. Considering the industrial make-up of the economy, economic growth will probably amount to less than one percent per year, according to the scenario.

But is the assumption of no significant outmigration a good one? In light of the lack of jobs, a decline in the standard of living, a deteriorating public sector, and the right to move freely to the states, which offer much higher paying jobs, it would be surprising if a substantial number of U.S.-qualified residents did not leave the CNMI (Table 17).

Because of distance and cultural differences, CNMI residents may be less inclined to move away from home than people in the rest of the United States. But it should be pointed that for years there has been a steady stream of American Samoans migrating to the states in search of better jobs and schools. Moreover, as Samoans have built communities in the states, it appears that the process of leaving home has become easier.

Indeed, there is preliminary evidence that perhaps as many as 4,000 U.S.-qualified residents have already moved to the states in response to the economic downturn in the CNMI. Like the American Samoans, people originally from the CNMI have established substantial communities on the mainland, particularly in the western states.

The loss of local residents would further damage the economy in two ways. First, it would reduce the number of people available for the labor force. With no ability to replace those workers, the economy would slump even more. Second, since people who migrate tend to be young and educated, the CNMI would lose its "best and brightest," thereby further reducing its chances for economic advancement in the future.

Table 17
CNMI AND U.S. AVERAGE PAYROLL, 2002
Dollars per Year

Industry	CNMI Average Payroll	U.S. Average Payroll
Construction	11,155	35,352
Apparel	10,874	21,700
Other manufacturing	11,864	39,615
Wholesale and retail trade	10,120	27,368
Transportation and warehousing	15,016	31,770
Information	21,895	52,105
Financial activities	14,819	51,365
Accommodations	12,585	19,277
Food services and drinking places	8,053	11,146
Other services	12,873	35,425
Government	28,804	36,319

Foreign Business Ownership and Investment - Like labor, capital is mobile and tends to go where the best economic opportunities are found. During the period of rapid expansion in the CNMI, millions of dollars were invested in the economy to build factories, hotels, retail stores, and housing. Given the relatively poor state of the economy at the time of the Covenant, it is not surprising that most of the financial capital came from external sources.

One manifestation of the degree to which the CNMI depends upon outside financing is the number of business establishments operated by non-CNMI born owners (Table 18). In 2002, about 80 percent of CNMI businesses were under foreign or non-CNMI born U.S. ownership, according to the economic census. It also appears that these businesses employed about 80 percent of the workers in the private sector. Due to non-reporting establishments, it is impossible to get more exact counts.

When an economy falls into recession or depression, investment often dries up due to shrinking prospects. It typically returns when business conditions improve or new economic opportunities present themselves. Given the constraints put on the CNMI economy, it may never develop a good investment climate again, certainly nothing like the period of rapid growth. Consider what the CNMI now has to offer potential investors: small size, geographic isolation, a plummeting economy, potential long-term stagnation, high and rising wages, a limited supply of labor, degenerating public services, and, down the road, a crumbling infrastructure.

Table 18
CNMI BUSINESSES BY OWNERSHIP STATUS, 2002

	Establishments	Employment	Percent of Total
United States, CNMI born	220	5,939	18.0
United States, other	226	5,168	15.7
Japan	138	3,601	10.9
Philippines	38	250-499	0.8-1.5
Korea	122	4,972	15.1
Multiple citizenship	105	1,567	4.8
Other	129	5,000-9,999	15.2-30.3
Not reported	298	na	na
All establishments	1,276	32,989	100.0

Conclusion

For nearly a quarter of a century, the Commonwealth of the Northern Mariana Islands sustained one of the fastest growing economies in the world. Advancing at an 8.7 percent annual rate, employment soared from 5,420 in 1980 to 40,420 in 2004. In response to the booming economy, population quadrupled, rising from 17,400 to 70,500. The expansion clearly benefited the U.S.-qualified residents of the CNMI. Adjusted for inflation, the income of Chamorro households increased more than two-thirds over the period.

This achievement was all the more remarkable because of the CNMI's small size and geographical isolation. Many island states languish in similar circumstances, seemingly powerless to improve their economic lot in life.

The CNMI built a prosperous economy based on the apparel and visitor industries, taking advantage of its trading relationship with the United States, its appeal as a tourist destination, its proximity to inexpensive labor in Asia, and its expanding infrastructure funded in large part by the federal government. Critical to the CNMI's economic success were duty-free access to U.S. markets and local authority over immigration and the minimum wage, which were granted by Congress when the Commonwealth was established in 1978.

Despite a robust economy, the CNMI has remained vulnerable to forces beyond its control. The turning point for the economy took place when China became a member of the World Trade Organization in December 2001 and obtained the right to enter U.S. markets in 2005. Unable to compete with China's cheap labor, CNMI garment factories began to shut down in 2000. By 2007, the apparel industry had lost more than 11,000 jobs. Total employment in the economy fell to 26,010, a 35.6 percent drop from its peak in 2004. Thus, in the short span of three years, the CNMI lost one-third of its economy, one that took more than twenty years to build.

A second threat to the economy is the policy of "federalization," which has taken away CNMI control over the minimum wage and immigration, giving it back to the federal government. Under current law, most foreign workers in the CNMI will be deported by 2014. In the meantime, the minimum wage will double, rising in 50-cent increments until it reaches the federal rate of $7.25 per hour in 2015. The immigration measure could prove troublesome for the visitor industry, now the CNMI's only driving force in the economy, since about 70 percent of its workers are non-U.S. citizens.

The outlook for the CNMI economy is bleak. The last garment factory is expected to close its doors in 2009. After one or two good years, the visitor industry will have to begin grappling with a declining workforce, as foreign workers are forced to leave the islands. Even if local residents are willing to take the low-wage jobs in hotels, restaurants, and retail stores—a strong assumption—the visitor industry will face a labor shortage. Under the best of circumstances, business revenue and employment in the visitor industry will likely decline about 20 percent between 2010 and 2015.

As a result of the demise of the apparel industry and the expected decline of the visitor industry, the CNMI economy stands to lose approximately 44 percent of its real Gross Domestic Product, 60 percent of its jobs, and 45 percent of its real personal income by 2015, according to the "federalization" scenario. Unequivocally, this is a depression of great magnitude. It is equivalent to turning back the clock for the CNMI economy to 1985.

It is comparatively simple to estimate what happens to jobs and income when an economy falls apart. Much more challenging is predicting the social consequences of the resulting recession or depression. Will there be a significant increase in crime, divorce, domestic abuse, alcoholism, and mental illness? Undoubtedly, the slumping economy will aggravate social problems. At the same time, local government will lose much of its ability to provide assistance to people in distress. In the federalization scenario, CNMI government revenue in constant dollars will decline about 45 percent, following the drop in real personal income. The financial shortfall will make it extremely difficult to run schools, operate medical facilities, keep law and order, and maintain roads.

The federalization scenario is predicated on the assumption that U.S.-qualified residents will not only remain on the islands but also participate in the labor force in much greater numbers than they have in the past. However, in reaction to the collapsing economy and deteriorating public services, especially education, healthcare, and safety, some local residents will decide to pack up and leave the CNMI. If the stream of outmigration is significant enough, it will cause the economy to spiral down even more.

Is there anything that can be done to reverse the disastrous slide? In the legislation restricting foreign immigrants in the CNMI, Congress promised to provide aid and assistance during the period of transition. Short of spending tens of millions of dollars to shore up education, healthcare, and other government functions, there is little that can be done to improve the economy. Indeed, the policy of federalization, which is driving up production costs and capping the supply of labor in the CNMI economy, would appear to preclude any meaningful economic development in the future.

On the other hand, if the policy of federalization were reversed, it could have a substantial impact on the CNMI economy, as illustrated by the "relief" scenario. The return to local control over the minimum wage and immigration would allow the visitor industry to expand, making up for some of the jobs lost during the downturn of the apparel industry. If the visitor industry grew at a 5 percent annual rate between now and 2015, the economy would have close to 32,000 jobs, about twice the number of jobs in the federalization scenario. The economy would still be about one-fifth smaller than it was at its peak in 2004. But compared to the federalization scenario, the economic and social suffering would be much more manageable.

Chapter 3 Economic Development Theory and International Practice

Chapter 2 described the deepening depression in the vulnerable CNMI economy and the dismal prospects for economic recovery. It described a depression as a prolonged period of low output, high unemployment, and widespread business failures. For purposes of this study, a depression was defined as a 25 percent or more loss of real Gross Domestic Product. During the Great Depression in the United States, real Gross Domestic Product declined 30 percent between 1929 and 1933. There are different definitions of economic downturns; however, the *Economist* magazine glossary provides a typical example. A textbook definition of a recession, it suggests, is two consecutive quarters of declining output. A slump is where output falls by at least 10 percent; a depression is an even deeper and more prolonged slump.

These definitions refer to larger industrialized states which generally have many modern monetary, fiscal, regulatory, financial, and trade tools at their disposal to remedy economic problems. But less developed and smaller, isolated areas often do not. Developing areas and small, isolated areas are vulnerable even if the industrialized world is depression free. This was the case when the garment industry began its decline and the US minimum wage and immigration laws were applied to the CNMI.

Nevertheless, the history of the U.S. depression suggests some lessons that recessions do not. First, depressions can be unpredictable and troublesomely protracted. The dismantling of smaller, isolated economies can leave them without the resources to recover. Second, the economy could conceivably fall below some critical mass into a "recovery trap," not unlike the liquidity trap that characterized the depression of the 1930s in which financial institutions seized up and produced a liquidity trap. As the flow of labor dries up, the flow of capital and production is likely to follow in the CMNI.

Chapter 2 also explained and measured the response of the CNMI economy to external forces. This Chapter examines what we know about how economic development works and especially the global context in which the CNMI and other small, isolated areas must operate. It is intended to establish a framework for effective approaches and policies to guide economic recovery in the CNMI.

The State of Economic Development Theory

Economic development is recognized as extraordinarily difficult in many underdeveloped areas of the world, especially smaller areas. Historically, many reasons have been put forward for this including natural resources, distance, size, education, public services, culture, legal parameters, economic systems, political stability and many other conditions. Undoubtedly, these issues bear on the performance of an economy. Nevertheless, economists seemed perplexed about the inability of competition to act as a greater leveling force in the location of economic activity and income throughout the world. Even after decades, there was little real improvement in the condition of poorer areas or countries, while the economic growth of developed countries, for the most part, continued unabated.

Advances in economic theory are helpful in this regard. Typically, regional economic development has been regarded primarily as matter of promoting a region's advantages and incentives to attract manufacturers or tourists. Economic development is still regarded as largely a matter of regions getting the word out about their location advantages to attract direct investment. Economists tended to downplay this approach on the grounds that competitive economic forces would prevail over such "marginal" efforts. They were thinking of competition for labor, natural resources, markets and sources of supply, and other basic factors that would influence the decisions of businesses in their location analyses. They knew that their assumptions about the extent of competition were affected by such issues as increasing returns to scale of operation, market size or distance, technology, the collateral benefits of larger areas and other issues. However, these issues were difficult to explain and even more difficult to measure. The lack of convincing evidence or theory in support of either side left policy makers with little guidance as to what they could or should do. It turns out that there was a certain amount of validity in both arguments. Governments were correct in thinking that they could adopt policies that advanced their own industries or economies, and economists were correct that the forces of competition did no account for all economic growth.

In recent years, economists have been getting a better understanding of the economic growth process. One of the most important advances in this regard was made by Princeton Professor and New York Times columnist, Paul Krugman. He is also a recent recipient of the Nobel Prize in economics for work on an improved explanation and modeling of international trade and economic geography. He created a formal explanatory theory which was able to take into account or measure things that were known to influence our assumptions about competition but had previously defied reasonable measurement (i.e., increasing returns, consumer preferences for product diversity and others). He, therefore, provided a better basis for policy formulation.

Krugman describes his award winning work as being about a "new trade theory" and a "new economic geography." He argues that the "old trade theory" relied upon the observation that countries traded because they had different levels of productivity and different resource bases. It was usually acknowledged that this was less than a perfect explanation of the bases for international trade, and caveats were usually added to the old trade theory that analyses could be affected in ways that could not be measured. Krugman did not deny that this previous way of looking at international trade accounted for some of it but certainly not all of it, maybe not most of it and certainly not the fastest growing segment of it. Much of the unaccounted for part was the trade among countries of similar economic size and characteristics and trade among countries in the same products (e.g., similar European countries in the first case and, say, motor vehicles in the second.).

The reasons for this are that sometimes economies of scale dictate that some products be produced in a relatively few places in the world, usually large well developed areas that offer other important advantages. In addition, even if they are capable of being produced in several or many locations, consumers might purchase motor vehicles from another country even when motor vehicles are manufactured in their own countries. Previous theories of trade relied more on pure competition, which implied "constant returns to scale." However, trade patterns and trends suggested "increasing returns to scale." Depending on the industry, the larger is the scale, the higher the returns. The new trade theory regarded increasing returns as a motive for specialization and international trade independent of comparative advantage. It is not as though the old theory knew nothing about this, it just did not know how to assess, evaluate or measure this. Measuring is critical because without it there is no way to gauge a factor's importance.

Krugman summarizes:

> "But who gets the aircraft factories, or the factory producing a specialized kind of machine tool, or the plant producing a particular model of car that selected consumers all over the world want? The answer of new trade theory – and it was a tremendously liberating answer – is that it doesn't matter. There are many economies-of-scale goods; everyone gets some of them; and the details, which may be largely a story of historical accident, aren't important. What matters, instead, is the overall pattern of trade: the broad pattern of what countries produce is determined by things like resources and climate, but there's a lot of additional specialization due to economies of scale, and there's much more trade, especially between similar countries, than you would expect from a purely resource-based theory."[27]

The above quote concerns trade theory, but as can be seen, it has direct application to economic geography by raising the question of the location or distribution of production. The choice of geographic location is determined by the same factors that influence trade, economies of scale and specialization some of which require few locations and those that do not. Those that require large scale operations will likely choose larger market areas for the benefits of the market per se or the multifarious supply benefits of large or metropolitan locations. Because these are areas in which producers have already built up, Krugman suggests a cumulative process of strong growth leading these areas to the status of world production centers with the rest of the world on the periphery. That includes underdeveloped areas of the world and certainly small, distant islands.

> "(The) basic problem with doing theory in economic geography has always been the observation that any sensible story about regional and urban development must hinge crucially on the role of increasing returns…. Nonetheless, the dramatic spatial unevenness of the real economy -- the disparities between densely populated manufacturing belts and thinly populated farm belts, between congested cities and desolate rural areas; the spectacular concentration of particular industries in Silicon Valleys and Hollywoods -- is surely the result not of inherent differences between locations but of some set of cumulative processes, necessarily involving some form of increasing returns, whereby geographic concentration can be self-reinforcing."[28]

There have been and continue to be many theories of economic growth. It is quite clear that there are important applications of this new trade theory and new economic geography to other areas of economics including economic growth theory. More recent contributions to economic growth theory also take into account increasing returns. In other words, it does not rely exclusively on

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[27] Paul Krugman, "About the Work" *The New York Times*, October 15, 2008.

[28] M. Fujita, P. Krugman, and A.Venables, *The Spatial Economy: Cities, Regions, and International Trade.* MIT Press, Study summary from http://web.mit.edu/krugman/www/fkvintro.html, 1999.

assumptions of pure competition. For example, education and technology have been long known to have a great influence on economic growth. However, there was never a very clear idea of how they worked or how to account for or measure them. Previously, economic development was viewed in a highly physical sense as in the use of land, labor and capital in the production of goods and services. Typically, the process was governed by competition, comparative advantage, and diminishing returns, all of which remain important to an extent. Increasingly, however, economists are coming to realize that while these concepts apply reasonably well to the production of goods, they apply less well to the faster growing sectors of the economy, which are technology and knowledge-based goods and services.

The new technology and knowledge-based activities defied older notions of diminishing returns. It became clear that innovation could provide what appeared to be almost unlimited growth potential. This notion has been called "New Growth Theory". According to a leading exponent, Paul Romer, "new technologies like biotech help demolish the old specter of diminishing returns, which led economic thinkers such as Ricardo and Keynes to suppose that growth had its limits. Instead, these new technologies create increasing returns, because new knowledge, which begets new products, is generated through undiminished research."[29]

"The centerpiece of New Growth Theory is the role knowledge plays in making growth possible. Knowledge includes everything we know about the world, from the basic laws of physics, to the blueprint for a microprocessor, to how to sew a shirt or paint a portrait. Our definition should be very broad including not just the high tech, but also the seemingly routine." In other words, knowledge includes everything from the most sophisticated technological advances to the everyday innovations of millions of workers. "Recent economic developments have underscored the relevance of increasing returns in the world of business. Software and the Internet, both relatively new inventions, have very high initial or fixed costs (the cost of developing the first disk or initially programming a website) but very low (or nearly zero) costs of serving an additional customer or user. The first copy of Microsoft windows might cost tens of millions of dollars to make, but each additional copy can be made for pennies."[30]

Economic growth has traditionally been defined as more people producing more goods and services of the same form and by the same means. However, the New Growth Theory recognizes that economic growth also occurs when people (a larger or smaller number) produce more goods and services by more efficient means. In other words, it has been and to a certain extent remains fashionable to speak uncritically of the limits to growth. There certainly are limits to space and materials, but there is no limit to the ideas upon which production is based. New Growth Theory has much to say about how to succeed in an economy based extensively on knowledge and innovation.

Obviously, these leaders in economic thought were considering these issues in a quite broad or global sense, but like all economics, regions should be able to sense how and where they fit into prevailing theory or the general economic scheme of things. So there are a few conclusions to be made from this about the CNMI. Some of these conclusions have been suggested by the previously cited authors of these new economic theories themselves. Others have not been.

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[29] Kevin Kelly. "The Economics of Ideas," *Wired.* (http://www.wired.com/wired/archive/4.06/romer.html) (Chicago: June 1996)

[30] Joseph Cortright. *New Growth Theory, Technology and Learning: A Practitioners Guide.* (Economic Development Administration, US Department of Commerce. 2001).

1. New trade and growth theories describe a hierarchy of places from large metropolitan clusters to peripheral rural areas. Where some production takes place depends in part on the characteristics of the location (e.g., constant returns, rural locations). Where other production takes place depends on the scale or specialization requirements of the production process itself (e.g., increasing returns, larger metropolitan locations.) This helps explain why growth rates are higher in the larger areas and lower in the rural areas and why income or production convergence is not occurring as previously anticipated. The CNMI does not fit into these categories well. Obviously, it is more rural than metropolitan, but its small size and isolation places it in an even more vulnerable category.

2. There are implications for a more effective role for government in these improved theories of economic development. This is especially the case in identifying and supporting appropriate development opportunities especially in education and public facilities and services. Over the years, the general notion of pure competition tended to promote a rigid view of economics that somehow competitive market forces would resolve every economic issue under every economic condition. This view prevails to a large extent today despite much evidence to the contrary including the present world financial crisis.

3. Policy makers have had great difficulty in determining what they could or should do to help the territories develop. They are convinced however that the territories should be economically self-reliant or self-supporting. Even, when against all odds, the CNMI was able to establish a thriving garment industry and a growing visitor industry, the federal government acted to decimate them. So in economic development, it is important to include supportive government policies. The government should do what it can to help; and it must also do what it is able to prevent economic harm. Government played a critical role in the private sector development success stories of both the CNMI and American Samoa.

4. Economic growth is not necessarily tied to population growth, nor does it rely on continued access to declining natural resources. This is especially important to small island areas that must be concerned about their physical size limitations. Because economic growth today is largely knowledge based, higher income growth rates without a growing population can be achieved. Knowledge-based economic growth that can produce more and more with less and less through unending innovations in the private sector and in the public sector.

5. Modern economic advances also raise questions about the sustainability of regions. There is great interest in what sustains larger areas, what it takes for a peripheral area to be transformed into a core area of production, and if there is a breaking point for smaller regions. The latter is especially important in the case of the CNMI. The concern is that the present depression will eliminate much of the modern public and private infrastructure required for sustainability and future development in the CNMI. However, the rise of technology and innovation holds some hope for smaller isolated areas in carving out niche operations.

Economics of Small, Isolated Areas

The development issues faced by small, isolated areas have almost arisen to the status of cliché. They are difficulties related to size, distance, transport costs, land, capital, resources, public services and facilities, and labor.

The report of the joint Commonwealth Secretariat/World Bank Task Force sets out a framework of problems peculiar to small states. The following is a paraphrasing of the Commonwealth Secretariat/World Bank Task Force report.[31]

The report concludes that developing small states do share a number of characteristics that pose special development challenges. Specifically, the following characteristics define the special development challenges and vulnerabilities that many small states face.

1. **Remoteness and isolation -** Of the developing small states, three out of four are islands and in some cases widely dispersed multi-island states. Others are landlocked, and some of them located far from major markets. For many small states, like those in the Pacific, high transport costs make it harder for them to turn to world markets to compensate for the drawbacks of the small size of their domestic markets.

2. **Openness –** Economic openness is usually applied to trade. However, it applies as well to labor, capital, foreign direct investment and technology which can be just as important. A high degree of openness to the rest of the world brings extraordinary benefits. But it also means that small economies are heavily exposed to events in global markets, and developments in the global trade regime, over which they have little if any influence.

3. **Susceptibility to natural disasters and environmental change** - Most small states are in regions susceptible to natural disasters such as hurricanes, cyclones, drought and volcanic eruptions, which typically affect the entire population and economy. Some are threatened by global environmental developments.

4. **Limited diversification -** Because of their small domestic markets, many small states are undiversified in their production and exports. Where one dominant activity has declined, it has tended to be replaced with another. This adds to vulnerability to changes in the external economy.

5. **Poverty** - There is some evidence that poverty levels tend to be higher, and income distribution more uneven, in smaller than in larger states. Where this is so, income volatility can create additional hardship as the poor are less able to weather negative shocks to their incomes.

6. **Limited capacity -** While weaknesses in both public and private sector capacity are a key problem for most developing countries, smallness of size adds a further dimension to the challenge. This is further compounded in states, like the Pacific islands, where the internal

[31] Commonwealth Secretariat/World Bank Joint Task Force on Small States *Small States: Meeting Challenges in the Global Economy.* (Washington DC: 2000) pp. i-ii.

distances are large and the population is scattered. In the public sector small states face diseconomies of small size in providing public services and in carrying out the business of government, and tend to have relatively larger public sectors than other developing countries. As they face the challenges and opportunities of globalization small states are also finding they do not have sufficient institutional capacity to participate fully in international finance and trade negotiations—the outcomes of which can profoundly affect their economies.

7. **Access to external capital -** Access to global capital markets is important for small states, and is one way to compensate for adverse shocks and income volatility. But the evidence is that private markets tend to see small states as more risky than larger states.

Openness is Key to Modern Economic Development

Of all of the above forces affecting economic development in small island economies, labor is one of the few, if not the only of these factors, about which something *can* be done by a small island state. Small, remote areas can do little or nothing about distance, land, and natural resources, capital and other factors. Even public infrastructure depends to an extent on rising development transfers from larger nations. In fact, a study demonstrated that per capita GDP of small island economies, and its growth through time, are explained to a large extent by two variables: the closeness of the political linkages tying each island to a corresponding metropolitan patron in the core of the world system, and the level of per capita GDP in the metropolitan patron economy.[32] This seems to be quite reasonable since such relationships would naturally provide economic opportunities as well as high rates of transfer payments to the small island economies. However, there is little that small island economies can do about their patrons or the per capita GDP of those patrons.

Many small states, both developed and developing, have achieved sustained economic growth and relatively high levels of per capita incomes in spite of their small size. This is thought to be the result of wise use of their economic autonomy and often the largess of their patrons especially for dependent territories. Small size does not have to be insurmountable to healthy economic growth as has been demonstrated in the CNMI, American Samoa and elsewhere.

The importance of openness and human capital has important ramifications for the growth of small states. This raises the concept of economic autonomy as contrasted with political sovereignty. Economic autonomy is primarily concerned with the effective level of responsibility for economic policy formulation and implementation. Economic autonomy therefore relates specifically to autonomy over revenue-raising and expenditure, the regulatory environment and the determination of monetary, fiscal, trade, development and immigration policies. The issue of economic autonomy is extremely important as has been demonstrated by the extreme restrictions of the CNMI's economic autonomy resulting from the federalization of the minimum wage and immigration.

[32]Geoffrey Bertram. *On the Convergence of Small Island Economies with Their Metropolitan Patrons. World Development*, Victoria University of Wellington, (Wellington, New Zealand: 2004).

Nowhere is this more damaging than in the matter of labor. Small island economies can do something about their labor supply and skills through training or attracting foreign labor. Because some skills require such protracted and specialized training, temporary or even longer term outside labor is the only practical solution not only in the private sector but government as well. However, in order to do this, small island states require some reasonable latitude or authority to do this.

Labor mobility is just as essential to economic development and growth as is the mobility of capital, goods and services, and technology. Nowhere is this more evident than it is in small, isolated areas. It might be said that the quickest way to ruin a small, isolated island economy and prevent any real chance of recovery is to cut off its supply of labor. To deny these smaller, isolated areas some latitude or flexibility in access to labor is to condemn them to economic underdevelopment and poverty.

Importance of Foreign Labor to Small Island Economies

The analysis below demonstrates that the percentage of foreign population (as a proxy for foreign labor) is also a very reliable predictor of small island states' per capita GDP. The loss of the CNMI's foreign labor force will likely cost the CNMI very dearly in the years ahead as described in Chapter 2.

The availability of foreign labor in the development of small island economies is critical. This analysis indicates that the greater the proportion of foreign labor, the greater will be an island economy's per capita income or GDP (economic well-being). A regression analysis of 33 island states has demonstrated that the loss of the CNMI's foreign labor force will likely cost the CNMI a decline of approximately 50 percent in per capita GDP in the years ahead.

There are two regression equations in Appendix B. Neither population nor distance from a continental metropolitan area is a significant variable in any of the formulations, as evidenced by absolute t-values of less than two. In other words, they do not explain any of the variation in per capita GDP across the island states.

It is easy to see from the data why the distance variable does not perform as expected. Of the nine island states far from the mainland, two have very high per capita incomes (French Polynesia and the Cook Islands). At the same time, the five island states with the lowest per capita incomes are close to the mainland.

On the other hand, the percent of population that is foreign born is a significant variable explaining per capita GDP. In fact, it has a high t-value in each of the formulations. The regression coefficient in the log model, which has a t-value of 5.4, is the estimated elasticity (0.862). It indicates that a 10 percent increase in the percent of population that is foreign born--meaning that the foreign born population increases from, say, 20 percent of total population to 22 percent--will increase real per capita GDP by 8.6 percent, all else being equal. This demonstrates that the percentage of foreign born is a very strong predictor of per capita GDP in these smaller, distant island states.

Even as large and economically advanced as the US is, it still had a foreign born population of 11.7 percent in 2003.[33] This is true of the European Union as well. According to official national statistics and estimates, the total number of non-nationals living in the European Union in 2004 was around 25 million, just below 5.5 percent of the total population. The data for the period 2000-2004 indicate that the non-national population varied from less than 1 percent of the total population in Slovakia to 39 percent in Luxembourg, but in the majority of countries the figure was between 2 and 8 percent.[34] Not surprisingly, it was the states with smaller populations that had the largest percentages of foreign born.

Labor mobility to a large extent is as essential to economic development and growth as is the mobility of capital and goods and services. Nowhere is this more evident than it is in small, isolated areas.

The previously referenced Commonwealth Secretariat/World Bank report listed economic openness as one of the foremost important requirements for economic advancement in small island states. This includes openness in the flow of labor, goods and services, capital, and technology. This is especially true for small isolated areas simply because of their size and remoteness. However, it is extremely important to large areas as well. There are no better examples than the recent explosive economic growth of China and India. Both opened up their economies to foreign investment, trade and technology and, yes, labor to support this openness.

International Experience with Small, Isolated Economies

There are a number of international organizations that recognize the special economic development needs and problems of small, isolated areas. Among them are the United Nations, the World Bank, the World Trade Organization and others.[35] This provides some base of knowledge and experience in dealing with smaller, isolated areas throughout the world. US territories are generally higher in per capita income than LDCs but substantially lower than the US and other developed countries.

The United Nations has been foremost in designing programs and policies to aid Least Developed Countries (LDCs). United Nations criteria for defining LDCs are low income, low gross national income per capita (under $750), human resource weakness and economic vulnerability. Special programs have been instituted for these areas. They include development financing from bilateral, regional, and multilateral donors and financial institutions, including grants and loans at very favorable terms; benefits in the multilateral trading system in the form of special concessions under several Agreements in the World Trade Organization and preferential

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[33]US Bureau of the Census, *Current Population Survey, Annual Social and Economic Supplement.* (Washington DC: 2003).

[34]Office for Official Publications of the European Communities. *Statistics in focus - Population and Social Conditions* (Luxembourg: August 2006).

[35] Central Statistics and Information Retrieval Branch, UNCTAD's Division on Globalization and Development Strategies. *Development and Globalization: UN Facts and Figures.* UNCTAD/GDS/CSIR/2004/1, United Nations (New York and Geneva: 2004).

market access by several trading partners; and technical assistance, including priority programs in the United Nations. Of course, many small, remote areas and island states discussed earlier are among the list of LDCs.

While the CNMI would not be considered to be at the economic level of an LDC, it suffers from many of the same conditions that smaller island states endure across the globe. Furthermore, many LDCs could be regarded as being in protracted states of economic depression. Therefore, UN experience and that of other international development organizations could be very valuable to the US in dealing with its own territories.

The UN uses categories within the LDC classification including land locked countries (LLDCs) that suffer from low per capita GDP. They reflect a wide range of development constraints, including small domestic markets, high vulnerability to economic shocks and natural disasters, low levels of human resources development, and limited domestic savings capacity. LLDCs are often situated more than 1,000 kilometers from maritime ports.

However, these international organizations have gone even further for Small Island Developing States (SIDS). The United Nations has recognized the specific problems of these small island developing states since 1994. These islands are considered at greater risk of marginalization from the global economy than are many other developing countries. This risk results mainly from the combined adverse consequences of their remoteness from large markets, their high transport costs, their small size, and their acute economic vulnerability to external shocks. With their exceptionally fragile ecosystems, small island economies are also highly vulnerable not only to domestic pollution factors but also to globally induced phenomena beyond their control, such as rising sea levels.

The United Nations does not have formal criteria for qualifying small island developing states. In the absence of official criteria and for analytical purposes, the UN uses the membership of the Alliance of Small Island States. This alliance is a coalition of small island states and includes several US territories as observers. Included are most of those listed in Appendix B and several other island states. The UN examines the impact of globalization and trade liberalization on the economies of small island developing States. No special treatment has so far been granted by development partners on grounds of this UN status. However, the World Bank Group has been implementing a “small island exception” in its policy of eligibility for International Development Association concessionary treatment. In the World Trade Organization, proposals particularly relevant to small island members have been considered under the Work Program on Small Economies.

So there is considerable precedent for special consideration, programs or policies in the development of small island states. In fact the US Government Accountability Office has advocated stronger and more coordinated federal programs for US territories for many years.

Chapter 4 Deficiencies in US Territorial Policy

US Experience with Small Area and Isolated Economies

Over the years, the US federal government has devised economic development programs to assist small, low income or low growth areas. Most of these programs have been applied to the US territories as well. The first modern rural economic development program was enacted in 1961. It was the US Area Redevelopment Administration. It became the Economic Development Administration (EDA) in 1965.

The CNMI is familiar with and has benefited from the EDA programs. EDA has remained much the same since 1965, but there have been many improvements, including the requirement for the preparation of Comprehensive Economic Development Strategies for communities and jurisdictions. On the other hand, the focus of the program has shifted over the years from areas of very high unemployment to a more generalized concern with the unemployment and income levels in most areas of the country. EDA has been sensitive over the years to the territories and has even considered special programs and funding arrangements for the territories.

EDA's mission today is to lead the federal economic development agenda by promoting innovation and competitiveness, preparing American regions for growth and success in the worldwide economy. Its investment focus is on long-term, coordinated and collaborative regional economic development approaches. It also focuses on improvements in innovation and competitiveness and entrepreneurship. EDA assists communities and regions expand and upgrade their physical infrastructure; design and implement strategies to diversify economies, and offer leading-edge economic development technical assistance. EDA also invests in long-term development planning efforts, and assists producers affected by increased imports prepare and implement strategies to guide their economic recovery.

The US Small Business Administration offers financial assistance for business development, a variety of forms of business technical assistance (e.g., the Northern Marianas College, Small Business Development Center), international trade, government contracting, disaster assistance and a variety of other business assistance programs.

The Community Development Block Grant (CDBG) program of the U.S. Department of Housing and Urban Development (HUD) annually allocates seven million dollars of CDBG funds to the US territories in proportion to the populations of the eligible territories. The CDBG insular areas program provides grants for economic development, housing rehabilitation, public facilities rehab, construction or installation for the benefit of low to moderate income persons, or to aid in the prevention of slums. The HUD idea of designing a special program for the territories is not the federal norm. In general, US territories have to find ways to fit into the requirements of these large and often complex federal programs.

The US Department of Agriculture has several private sector community based economic development programs. They include guaranteed business loans, rural enterprise grants, economic development loans and grants, and community support facilities grants and loans. However, these programs must stretch limited resources over the entire nation. Furthermore, they must cover many areas of the country and not just low income or isolated areas. In addition the CNMI has benefited from the Departments of Agriculture, Education, Health and Human Services, Interior, Transportation and many others.

The US Department of the Interior, Office of Insular Affairs, is responsible for ensuring that the responsibilities of the Secretary of the Interior regarding the territories and freely associated states of the United States are carried out. This includes serving as a focal point for the coordination of the development and implementation of policies pertaining to the territories and providing financial oversight to ensure that federal funds provided to the territories are used consistent with their authorized purposes. This is spelled out in the executive order establishing OIA in 1995.[36]

This executive order called attention to the meagerness of the resources dedicated by the federal government to the development of the US territories or the insular areas. Currently, the Department of the Interior has administrative responsibility for coordinating federal policy in the territories of American Samoa, Guam, the U.S. Virgin Islands, and the Commonwealth of the Northern Mariana Islands, and oversight of federal programs and funds in the freely associated states of the Federated States of Micronesia, the Republic of the Marshall Islands, and the Republic of Palau.

OIA has taken a more active and direct role in territorial development in recent years. It has sponsored private sector-led economic development trade and investment missions and conferences for the territories. OIA also sponsors fellowship research programs which have dealt with general business and investment climate conditions in the territories. OIA also funds technical assistance grants for a variety of development purposes. OIA serves as liaison to the Congress, the four territorial and three freely associated state governments, other federal agencies, the media and the public.

While short term results for these programs are often difficult to evaluate, such programs do enhance networking and contacts with the private sector and encourage territorial governments to prepare economic location information and meet the needs of prospective investors.

While per capita federal expenditures in all territories except Guam are well below the US average, all of the territories do quite well when it comes to federal grants as opposed to federal payrolls, retirement, procurement and other categories. Per capita federal grants to territories in 2006 were quite comparable to the US per capita level.[37]

Because the CNMI had been so successful in raising public revenues through private sector development, it had depended less on federal revenues per capita than any other US territory (Table 19). Economic self reliance, of course, is one of the federal government's primary

[36] Secretary of Interior Order No. 3191. Subject: "Abolishment of the Office of Territorial and International Affairs and Establishment of an Office of Insular Affairs." (August 4, 1995)
[37] Consolidated Federal funds report

objectives for its territories, another confusing aspect of the Congressional federalization of the minimum wage and immigration in the CNMI.

Table 19
PER CAPITA FEDERAL EXPENDITURES IN US TERRITORIES, 2000 AND 2006 ($)

US Territory	2000	2006
American Samoa	1749	4258
Guam	5523	8071
Northern Marianas	1012	2145
Puerto Rico	3178	4133
Virgin Islands	4071	5718

Source: U.S. Census Bureau. *Consolidated Federal Funds Report (Fiscal Years 2001 and 2007),* U.S. Government Printing Office, (Washington, DC: 2008). Note that the population numbers on which the per capital calculations are made include all segments of the population. For the CNMI, the population includes foreign

The CNMI is not in a strong position to respond to a serious economic depression. As noted in Chapter 2, CNMI local revenues are falling commensurately with private sector losses. The CNMI like all the US Pacific territories is not covered under the federal unemployment compensation program. In addition, US territories are not eligible for US Trade Adjustment Assistance programs that might have been helpful to affected CNMI businesses and workers at the beginning of the garment industry's fateful decline.

The CNMI is the only US territory covered by the Supplemental Security Income program but not eligible for programs other territories are entitled to in lieu of the SSI program. Nevertheless, the US average federal expenditure per capita was $8058 in 2006 almost four times that of the CNMI's per capita federal expenditures (Table 20).

Table 20
PER CAPITA FEDERAL EXPENDITURES FOR THE CNMI AND THE US, 2006 ($)

Expenditure Category	CNMI	US
Total	2145	8058
Retirement/Disability	329	2446
Other Direct Payments	165	1887
Grants	1532	1630
Procurement	22	1301
Salaries and Wages	97	794

Source: U.S. Census Bureau. *Consolidated Federal Funds Report for Fiscal Year 2006,* U.S. Government Printing Office, and Washington, DC: 2008.

Not only is federal support per capita for the CNMI only one-quarter that of the US average, it is only close to the US average in Grants. All other categories are vastly lower per capita in the CNMI including Retirement/Disability, Other Direct Payments, Procurement, and Salaries and Wages.

The CNMI, with a growing economic depression and declining local revenues does not get a reasonable share of federal expenditures per capita. Furthermore, it is ineligible for some of the most important programs including unemployment compensation. The CNMI does not have any real form of economic safety net at a time of economic disaster that few areas of the country ever experience. In addition, relocating to another labor market, especially to the US, is no simple or inexpensive matter. There is the question of competing in the US market which many Pacific Islanders have had difficulty with in the past.

The Seattle Times reported that local Pacific Islanders are more likely than other local ethnic groups to smoke, to have babies who are premature and unhealthy, lack medical insurance, live in poverty, and to die young. This was a study by the County Public Health department. It was the first to study the county's 15,000 Pacific Islanders as a distinct group. Previously, they were categorized with all Asians, which researchers said tended to bury the alarming figures.[38] Previous studies of Pacific Islanders residing in the states showed lower than US per capita income and education levels as well. Hence, moving to the States is not just costly and inconvenient; it often just presents a new set of serious issues for the unemployed of the CNMI.

Federal Role in Territorial Development

There is one serious economic development deficiency that OIA, the territories, other federal agencies and the Congress have not been able to deal with effectively. That is the problem of adverse influences on the territories of federal legislation, policies and programs. The problem has included US trade and investment policies which have erased some territorial economic advantages in favor of vastly larger and lower cost developing countries. More recently, the US Congress has legislated to remove federal corporate tax incentives and raise the minimum wage in American Samoa and the CNMI.

This problem has been referenced for decades in studies of the territories. In 1985 a GAO reported was prepared on issues affecting US territorial development.[39] It concluded the following:

1. A US Policy for the Territories - U.S. policy should be more clearly defined, particularly for economic development and treatment of territories under federal laws and programs. GAO found the issues involving federal territorial relations, such as appropriate levels of representation, treatment under federal laws and programs, and economic and social development strategies, are becoming increasingly complex with no simple or ready-made solutions.

2. Increased Territorial Self-reliance - The United States has helped to finance and build schools, hospitals, housing, roads, utilities, and other infrastructure and provided health, educational, and other social services which have enhanced the well-being of territorial residents. Notwithstanding these efforts, most of the territories have made little progress toward becoming economically self-reliant and remain highly dependent on federal assistance. Most of the territories face many indigenous constraints --such as geographic

[38] Isaac Arnsdorf, “Grim Statistics on King County's Pacific Islanders.” *The Seattle Times.* (August 10, 2008).
[39] US Government Accountability Office. *Issues Affecting US Territorial and Insular Policy.* NSIAD-85-44. Washington DC: February 7, 1985.

isolation from U.S. and world markets, limited natural and manpower resources, small land areas, limited infrastructure to support development and attract investment, and large public sectors which make economic self-reliance an unlikely prospect for the foreseeable future.

3. Consideration of the Territories in US Trade Policy - GAO found that there is no federal policy which details how the territories should be treated in formulating and extending laws and programs. Territory officials identified instances when federal policies, laws, and programs have constrained economic and social development because they were inconsistently applied, insensitive to unique territorial circumstances and needs, or inappropriate for local conditions. Examples cited included the Caribbean Basin Initiative provisions affecting the rum industry and the tuna industry in the Virgin Islands and American Samoa, respectively.

4. Territorial Advocacy at the Federal Level - Many territory officials criticize the institutional capacity of the Department of Interior to meet their needs. For example, they believe Interior does not have sufficient influence to represent them in the budget agencies. Within Interior, there is some disagreement on its role vis-à-vis the territories in terms of federal oversight, program and policy coordination, and territory advocacy.

5. A High Level Federal Interagency Group for the Territories - Many support the concept of a high-level interagency group to handle policy-related matters and to address major territorial concerns. This could be a formal interagency policy group authorized to address major policy matters in a comprehensive fashion or a legislatively authorized office attached to the White House.

Interior supported GAO's conclusion in general that its role as a direct authority over territorial government has diminished, and that its role is primarily as a provider of technical assistance and territorial advocate.

GAO believes policymakers in Congress and the executive branch are likely to face greater pressure from the territories to establish a policy framework which addresses these issues. However, they believe better federal policy coordination is needed to systematically address development needs when formulating individual agency policies.

In 1994 GAO was even more forceful about federal policy toward the insular areas.

> “Although federal funding supports actions designed to enhance economic development in the insular areas, the federal government has not articulated a clear policy about the goals it wants to achieve in the areas and does not always coordinate activities among agencies. We endorse the creation of an interagency committee charged with, among other things, (1) defining U.S. goals and objectives in the insular areas and developing an overall insular area strategy to guide federal activity toward achieving its goals, including supporting economic development and self-sufficiency and (2) establishing a mechanism to coordinate federal activity, including consolidating data on economic development expenditures in the insular areas….US policy overall is to support the economic development of the insular areas. However, the U.S. government has no specific objectives for its development programs; no clear overall strategy to achieve its goals;

and no formal mechanism for coordinating the activities of the numerous federal agencies with programs in the islands…. The Secretary of the Interior has proposed establishing an interagency committee that would coordinate federal policy and activities. We believe an interagency group focusing on policy, strategy, and U.S. government coordination could play an important role in helping to improve economic conditions in the insular areas and U.S. government management of resources provided to the areas." [40]

The GAO appears to have got it right on almost all counts. While economic, political and social conditions undoubtedly have improved, concern remains about federal policy and the territories. GAO issued a report in 2006 documenting how the territories are being adversely affected by federal actions concerning federal taxes and trade. It refers specifically to the loss of the possessions tax credits Under IRS Section 936, international trade and investment agreements reducing tariffs or quotas on garments and tuna canneries. The federalization of immigration and the minimum wage in the CNMI demonstrates that the interests of the territories were sacrificed at almost every turn regarding these issues.

This is not to say that territorial representatives did not do everything humanly and practically possible to prevent or mitigate the effects of these actions. They may just have been overpowered politically. Nevertheless, the issue of involving the voice of the territories in such negotiations is still unresolved. OIA may have been right that "there is no federal policy which details how the territories should be treated in formulating and extending laws and programs."

Indeed an Interagency Group for Insular Affairs was created in 2003, but it does not yet appear to have the authority envisioned by GAO as "authorized to address major policy matters in a comprehensive fashion or a legislatively authorized office attached to the White House."

In 2006 and 2007 GAO seemed to take a new tack in focusing more on fiscal issues rather than economic development issues.[41] GAO continued in its view that the U.S. insular areas of American Samoa, the Commonwealth of the Northern Mariana Islands, Guam, and the U.S. Virgin Islands, face long-standing economic, fiscal, and financial accountability challenges. The economic challenges stem from dependence on a few key industries, scarce natural resources, small domestic markets, limited infrastructure, shortages of skilled labor, and reliance on federal grants to fund basic services. To help diversify and strengthen their economies, OIA sponsors conferences and missions to the areas to attract U.S. businesses; however, there has been little formal evaluation of these efforts.

This GAO report recommended that the Secretary of the Interior direct the Deputy Assistant Secretary for Insular Affairs to:

1. Increase coordination activities with officials from other federal grant-making agencies on issues of common concern relating to the insular area governments, such as late single audit reports, high-risk grant designations, and deficiencies in financial management systems and practices.

[40] US Government Accountability Office. *US Insular Areas Development Strategy and Better Coordination Among US Agencies Needed.* GAO/NSIAD-94-62. Washington DC: 1994 (pp 1and 6).
[41] US Government Accountability Office. *US Insular Areas: Economic, Fiscal, and Financial Accountability Challenges.* (GAO-07-119). (Washington DC: 2006).

2. Conduct formal periodic evaluation of OIA's conferences and business opportunities missions, assessing their impact on creating private sector jobs and increasing insular area income.

3. Develop a framework for OIA employees to use in conducting site visits to help ensure objectives are achieved, to assure that relevant information is shared with the responsible officials, and to allow more efficient and effective monitoring of issues.

4. Develop and implement procedures for formal evaluations of progress made by the insular areas to resolve accountability findings and set a time frame for achieving clean audit opinions.

5. The GAO, at least in this report, focuses primarily on administrative matters rather than the substantive economic development issues it has stressed over the last few decades.

The GAO has studied this matter over the years, and the US Department of the Interior has generally agreed with the overall need. In fact OIA has made some progress in mobilizing federal coordination and cooperation especially in economic development. However, it is no easy task.

The fact is that the CNMI's worsening economic problems are due in large part, if not exclusively, to issues that were not adequately considered by the federal government as to their potential impacts on the Commonwealth. Those issues are the phasing out of US quotas and tariffs on apparel products and the federalization of immigration and the minimum wage in the CNMI. For these reasons, it is necessary to revisit this issue of federal-territorial coordination, cooperation and consultations.

A Formal Federal Role in Territorial Development - A formal federal role in territorial development should be considered in view of the massive influence of the federal government on territories as evidenced by the CNMI's current economic situation. This is needed to guide in the formulation, application and implementation of federal laws, policies and programs affecting the US territories. The U.S. government has no specific objectives for its territorial development programs; no clear overall strategy to achieve its goals; and no formal mechanism for coordinating the activities of the numerous federal agencies with programs in the territories.

The Form this Formal Federal Role Could Take - Examples include an enhanced Office of Insular Affairs in the Department of the Interior; a restructured Pacific Basin Development Council; or a restructured Interagency Group for Insular Affairs. Others might include a legislatively authorized office attached to the White House, some form of Regional Commission (e.g., Appalachian Regional Commission), or a new organization specifically designed for this purpose.

Establish the Agenda and Work Program for this Federal Effort - Clearly define U.S. goals and objectives in the insular areas and develop an overall insular area strategy to guide federal activity toward achieving its goals, including supporting economic development and greater economic autonomy and self-sufficiency.

Issues that might be addressed include federal taxes and incentives, immigration and customs, minimum wage, international trade, transportation, federal grant requirements, federal laws and programs, consolidating data on federal economic development expenditures in the insular areas, and others. Procedures should be developed for formal evaluations of progress made by the insular areas in economic development programs. The greatest need is for better and timelier economic data for the territories comparable to that which the federal government now provides for the fifty states and a few territories.

Reference has been made to the particularly precarious conditions which small, isolated states endure from an economic development standpoint. There is very strong evidence that the availability and cost of labor is one of the most critical location factors in the development of all economies but especially the economies of small, isolated areas.

Short and Intermediate Term Recovery

Economic recovery from the devastating depression in the CNMI may require decades. It may not achieve full recovery for the foreseeable future. The loss of the Commonwealth's garment industry will cut the CNMI economy in half which in itself would have been difficult enough to overcome. When the US Congress federalized the CNMI minimum wage and immigration, they may have killed what little hope there was for some reasonable and timely recovery. This imposed rising wages and the elimination one-half the workforce of the CNMI over the next few years. This would mean that the CNMI would be facing rising wages and a declining labor force at a time when they would be negotiating with prospective investors to foster economic recovery. To add this to an already vulnerable CNMI economy could decimate its investment climate for years to come. This does not even take into account the instability implicit in the power of the federal government to intervene in the CNMI's economic affairs at will regardless of how the application of federal law might affect economic conditions in the CNMI. Instability is the bane of investment and economic development.

Longer Term Economic Recovery and Stability

In the longer term the CNMI and the federal government must strive for at least a return to some reasonable form of economic equilibrium with complete economic recovery a distant goal. It must also consider what might be done to prevent such tragedies in the future. As previously noted, the UN, the World Bank and other international organizations have programs designed for underdeveloped, land-locked and small island development. It is worthwhile to consider the experience and research of these organizations in addressing small remote island economic development in the US.

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Appendices

Appendix A CNMI Economic Data

Table 1-1
CNMI Employment and Population*

	1990	1995	2000	2005
Total employment	23710	32760	39790	35960
Resources	500	560	560	600
Construction	4310	3800	1720	1280
Apparel	5150	7710	16780	12790
Other manufacturing	1090	1280	620	770
Transportation, communications, and utilities	1200	1540	1500	1510
Wholesale and retail trade	2310	3960	3700	2830
Finance, insurance and real estate	520	820	880	980
Hotels and lodging	1810	2620	3380	2480
Eating and drinking places	1060	1800	1550	1300
Other services	2250	3650	4100	5710
Government	3510	5020	5000	5710
Population (mid-year)	44120	58130	69700	70200

* Includes wage and salary employment and self-employed workers

Table 2-1
CNMI Employment*

	2000	2001	2002	2003	2004	2005	2006	2007
Total wages and salaries	39794	39440	38609	38553	40422	35961	30463	26014
Apparel	16775	16414	16352	15471	16819	12793	8793	5277
Hotels	3380	2998	2790	2871	3114	2477	3195	3091
Other industries	14639	15028	14367	14881	15059	14981	13195	12866
Government	5000	5000	5100	5330	5430	5710	5280	4780
Public schools	1170	1170	1180	1170	1140	1160	1140	1100
Other CNMI government	3440	3440	3530	3770	3900	4160	3750	3290
Other governments	390	390	390	390	390	390	390	390

* Includes wage and salary employment and self-employed workers

Table 2-2
CNMI Personal Income (mils. $)

	2000	2001	2002	2003	2004	2005	2006	2007
Total wages and salaries	607.8	608.1	594.5	599.9	622.8	575.6	492.6	435.4
Apparel	190.4	186.3	185.6	175.6	190.9	145.2	99.8	59.9
Hotels	29.2	25.9	24.1	24.8	26.9	21.4	27.6	26.7
Other industries	244.2	251.9	237.9	246.0	248.6	244.6	213.1	211.1
Government	144.0	144.0	146.9	153.5	156.4	164.4	152.1	137.7
Public schools	33.7	33.7	34.0	33.7	32.8	33.4	32.8	31.7
Other CNMI government	99.1	99.1	101.7	108.6	112.3	119.8	108.0	94.8
Other governments	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2

Table 2-3
CNMI Personal Income

	2000	2001	2002	2003	2004	2005	2006	2007
Personal income (mils. $)	894.9	898.1	880.4	882.5	924.3	849.0	726.6	642.2
Wages and salaries	607.8	609.6	595.9	600.1	625.3	575.6	492.6	435.4
Wages and salaries (table 2)	607.8	608.1	594.5	599.9	622.8	575.6	492.6	435.4
Discrepancy	0.0	1.5	1.4	0.2	2.5	0.0	0.0	0.0
Other personal income	287.1	288.5	284.5	282.4	299.0	273.4	234.0	206.8
Per capita income ($)	12839	12491	12417	12518	13111	12094	11009	10633
Personal income (mils. $00)	894.9	905.3	900.2	898.7	935.5	858.3	697.9	577.1
Per capita income ($00)	12839	12592	12697	12747	13270	12226	10573	9555

Table 2-4
CNMI Gross Domestic Product

	2000	2001	2002	2003	2004	2005	2006	2007
Gross Domestic Product (mils. $)	1438.5	1423.8	1473.4	1442.4	1519.4	1413.9	1305.6	1123.9
Per capita Gross Domestic Product ($)	20638	19803	20781	20460	21552	20141	19782	18608
Gross Domestic Product (mils. $)	1438.5	1413.9	1515.7	1519.4	1530.4	1420.8	1246.8	1040.6
Per capita Gross Domestic Product ($00)	20638	19665	21378	21552	21708	20239	18891	17229

Table 2-5
CNMI Price Indexes

	2000	2001	2002	2003	2004	2005	2006	2007
Gross Domestic Product deflator (2000=1)	1.000	1.007	0.972	0.949	0.993	0.995	1.047	1.080
Personal consumption deflator (2000=1)	1.000	0.992	0.978	0.982	0.988	0.989	1.041	1.113
Consumer price index (2003.1=100)	101.4	100.6	100.8	99.8	100.7	100.9	106.2	113.5

Table 2-6.
CNMI Population

	2000	2001	2002	2003	2004	2005	2006	2007
Population (mid-year)	69700	71900	70900	70500	70500	70200	66000	60400
U.S. citizens	30300	30900	31000	31000	31000	31000	31000	31000
Non-U.S. citizens	39400	41000	39900	39500	39500	39200	35000	29400

Table 3-1
CNMI W-2 Returns

	Total W-2 Returns	Percent Change	Garment Industry W-2 Returns	Percent Change	Hotel Industry W-2 Returns	Percent Change	Other W-2 Returns	Percent Change
2000	59382	na	na	na	na	na	na	na
2001	57464	-3.2	21313	na	3025	na	33126	na
2002	56532	-1.6	21066	-1.2	2914	-3.7	32552	-1.7
2003	56845	0.6	20370	-3.3	2757	-5.4	33718	3.6
2004	58330	2.6	21236	4.3	2798	1.5	34296	1.7
2005	54655	-6.3	17688	-16.7	2232	-20.2	34735	1.3
2006	48945	-10.4	14074	-20.4	2776	24.4	32095	-7.6
2007	40750	-16.7	7331	-47.9	2795	0.7	30624	-4.6
2004-07	--	-30.1	--	-65.5	--	-0.1	--	-10.7

Table 3-2
CNMI W-2 Wages and Salaries

	Total W-2 Wages (mils. $)	Percent Change	Garment Industry W-2 Wages (mils. $)	Percent Change	Hotel Industry W-2 Wages (mils. $)	Percent Change	Other W-2 Wages (mils. $)	Percent Change
2000	607.8	na	na	na	na	na	na	na
2001	608.1	0.0	186.3	na	25.9	na	395.9	na
2002	594.5	-2.2	185.6	-0.4	24.1	-6.9	384.8	-2.8
2003	599.9	0.9	175.6	-5.4	24.8	2.9	399.5	3.8
2004	622.8	3.8	190.9	8.7	26.9	8.5	405.0	1.4
2005	575.6	-7.6	145.2	-23.9	21.4	-20.4	409.0	1.0
2006	492.6	-14.4	99.8	-31.3	27.6	29.0	365.2	-10.7
2007	435.4	-11.6	59.9	-40.0	26.7	-3.3	348.8	-4.5
2004-07	--	-30.1	--	-68.6	--	-0.7	--	-13.9

Table 3-3
CNMI Economic Indicators

	Business Gross Revenue (mils. $)	Percent Change	General Fund Revenue (mils. $)	Percent Change	Exports (mils. $)	Percent Change	Imports (thous. Tons)	Percent change
2000	2255	na	230.2	na	1017.0	na	712.9	na
2001	2117	-6.1	222.6	-3.3	925.7	-9.0	695.5	-2.4
2002	1869	-11.7	187.9	-15.6	831.3	-10.2	639.7	-8.0
2003	1914	2.4	209.8	11.6	792.1	-4.7	682.5	6.7
2004	2034	6.3	217.9	3.9	826.0	4.3	666.4	-2.4
2005	2020	-0.7	210.3	-3.5	650.8	-21.2	605.5	-9.1
2006	1829	-9.5	192.0	-8.7	486.5	-25.2	540.2	-10.8
2007	1672	-8.6	163.0	-15.1	307.6	-36.8	439.4	-18.7
2008	1599	-4.4	155.4	-4.7	125.3	-59.3	379.5	-13.6
2004-8	--	-21.4	--	-28.7	--	-84.8	--	-43.1

Note: Estimates for 2008 are preliminary

Table 3-4
CNMI Garment Industry Indicators

	Sales (mils. $)	Percent Change	Garment Certification Fee (mils. $)	Percent Change	Employment	Percent Change
2000	1017.0	na	38.6	na	16780	na
2001	925.7	-9.0	35.8	-7.3	16410	-2.2
2002	831.3	-10.2	30.9	-13.6	16350	-0.4
2003	792.1	-4.7	29.3	-5.2	15470	-5.4
2004	826.0	4.3	30.6	4.3	16820	8.7
2005	650.8	-21.2	24.1	-21.2	12790	-24.0
2006	486.5	-25.2	18.1	-25.0	8790	-31.3
2007	307.6	-36.8	11.4	-37.0	5280	-39.9
2008	125.3	-59.3	4.6	-59.6	1750	-66.9
2004-08	--	-84.8	--	-84.9	--	-89.6

Note: Estimates for 2008 are preliminary

Table 3-5.
CNMI Visitor Industry Indicators

	Visitor Arrivals	Percent Change	Hotel Occupancy Rate (%)	Percent Change	Hotel Room Rate ($ per day)	Percent Change	Hotel Occupancy Tax (mils. $)	Percent Change
2000	528597	na	61	na	88	na	6.1	na
2001	444281	-16.0	54	-11.5	89	1.1	6.1	0.0
2002	475169	7.0	63	16.7	81	-9.0	4.9	-20.2
2003	459457	-3.3	65	3.2	78	-3.7	5.4	11.5
2004	589224	28.2	72	10.8	80	2.6	6.0	9.8
2005	491701	-16.6	70	-2.8	83	3.8	6.5	9.1
2006	435494	-11.4	62	-11.4	90	8.4	5.5	-14.8
2007	389261	-10.6	59	-4.8	92	2.2	4.9	-11.0
2008	408459	4.9	62	5.1	98	6.5	5.3	7.5
2004-8	--	-30.7	--	-13.9	--	22.5	--	-11.1

Note: Estimates for 2008 are preliminary

Table 3-6
CNMI Miscellaneous Economic Indicators

	Bank Deposits (mils. $)	Percent Change	Bank Loans (mils. $)	Percent Change	Commercial Telephone Lines	Percent Change	Residential Telephone Lines	Percent Change
2000	na	na	na	na	13777	na	11113	na
2001	na	na	na	na	13984	1.5	11322	1.9
2002	2268.1	na	1062.7	na	15195	8.7	11525	1.8
2003	2214.0	-2.4	919.0	-13.5	18102	19.1	11645	1.0
2004	2233.5	0.9	818.4	-10.9	19722	8.9	11803	1.4
2005	2194.4	-1.8	798.9	-2.4	20551	4.2	11201	-5.1
2006	2062.5	-6.0	734.8	-8.0	20592	0.2	10092	-9.9
2007	2083.9	1.0	674.3	-8.2	20058	-2.6	9381	-7.0
2008	1995.5	-4.2	597.6	-11.4	20234	0.9	8068	-14.0
2004-8	--	-10.7	--	-27.0	--	2.6	--	-31.6

Note: Estimates for 2008 are preliminary

Table 3-7
CNMI Miscellaneous Economic Indicators

	Auto Sales	Percent Change	Residential Building Permits	Percent Change	Non-Residential Building Permits	Percent Change	Consumer Price Index (2003.1=100)	Percent Change
2000	1581	na	186	na	134	na	101.4	na
2001	1457	-7.8	124	-33.3	120	-10.4	100.6	-0.8
2002	1298	-10.9	160	29.0	160	33.3	100.8	0.2
2003	1692	30.4	160	0.0	163	1.9	99.8	-1.0
2004	1992	17.7	195	21.9	157	-3.7	100.7	0.9
2005	1885	-5.4	186	-4.6	164	4.5	100.9	0.2
2006	1352	-28.3	167	-10.2	125	-23.8	106.2	5.2
2007	1101	-18.6	120	-28.1	121	-3.2	113.5	6.9
2008	1080	-1.9	77	-35.8	119	-1.7	118.0	4.0
2004-8	--	-45.8	--	-60.5	--	-24.2	--	17.2

Note: Estimates for 2008 are preliminary

Appendix B Regression Analysis of Per Capita GDP and Proportion of Foreign Labor in Small Island Economies

Following are two of the regression equations. The second one, which is expressed in log form, is the best of the lot. But the first regression equation is indicative of the general findings.

Neither population nor distance from the mainland is a significant variable in any of the formulations, as evident by absolute t-values of less than two. In other words, they do not explain any of the variation in per capita GDP across the island states.

It is easy to see from the data why the distance variable does not perform as expected. Of the nine island states far from the mainland, two have very high per capita incomes (French Polynesia and the Cook Islands). At the same time, the five island states with the lowest per capita incomes are close to the mainland.

On the other hand, the percent of population that is foreign born is a significant variable explaining per capita GDP. In fact, it has a high t-value in each of the formulations. The regression coefficient in the log model, which has a t-value of 5.4, is the estimated elasticity (0.862). It indicates that a 10 percent increase in the percent of population that is foreign borne--meaning that the foreign born population increases from, say, 20 percent of total population to 22 percent--will increase real per capita GDP by 8.6 percent, all else being equal.

Regression results 1

Dependent Variable: GDPPERCAPITA
Method: Least Squares
Date: 09/02/08 Time: 21:11
Sample: 1 33
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3440.176	1892.501	1.817793	0.0794
POPULATION	0.057437	0.501194	0.114601	0.9096
FOREIGNBORN	509.3839	122.3957	4.161781	0.0003
DISTANCE	-2299.137	2495.875	-0.921175	0.3646

R-squared	0.403269	Mean dependent var	6935.545
Adjusted R-squared	0.341538	S.D. dependent var	7575.566
S.E. of regression	6147.245	Akaike info criterion	20.39861
Sum squared resid	1.10E+09	Schwarz criterion	20.58000
Log likelihood	-332.5770	F-statistic	6.532694
Durbin-Watson stat	2.177656	Prob(F-statistic)	0.001641

Regression results 2

Dependent Variable: LOG(GDPPERCAPITA)
Method: Least Squares
Date: 09/02/08 Time: 21:23
Sample: 1 33
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.010916	0.892758	6.732973	0.0000
LOG(POPULATION)	0.161655	0.127248	1.270397	0.2137
LOG(FOREIGNBORN)	0.862113	0.160963	5.355979	0.0000

R-squared	0.535575	Mean dependent var	8.095477
Adjusted R-squared	0.504613	S.D. dependent var	1.394791
S.E. of regression	0.981706	Akaike info criterion	2.887458
Sum squared resid	28.91240	Schwarz criterion	3.023504
Log likelihood	-44.64306	F-statistic	17.29798
Durbin-Watson stat	2.445549	Prob(F-statistic)	0.000010

Population, Foreign Born and Per Capita GDP in 33 Island Nations and States, 2006

State	Region	Distance*	Population (000)	Foreign Born (% Population)	Per Capita GDP ($)
Antigua/ Barbuda	Caribbean	0	81	22.1	10,507
Aruba	Caribbean	0	99	23.3	22,696
Bahamas	Caribbean	0	327	9.9	18,168
Barbados	Caribbean	0	270	9.2	11,116
Cape Verde	West Africa	0	519	2.4	2048
Comoro	East Africa	0	798	2.6	477
Cook Islands	Oceana Polynesia	1	18	2.8	10,201
Dominica	Caribbean	0	79	4.8	3580
Dominican Republic	Caribbean	0	9021	1.2	3272
Fiji	Oceana Polynesia	1	854	1.8	3536
French Polynesia	Oceana Polynesia	1	260	13.2	20,998
Grenada	Caribbean	0	103	9.8	4415
Guinea-Bissau	West Africa	0	1634	1.4	188
Guyana	South America	0	752	0.2	1046
Haiti	Caribbean	0	8650	0.3	455
Kiribati	Oceania-Micronesia	1	84	2.9	721
Maldives	South-central Asia	0	337	1.1	2338
Marshall Islands	Oceania-Micronesia	1	62	3.2	1791
Mauritius	Eastern Africa	0	1256	1.3	5052
Nauru	Oceania-Micronesia	1	10	37.4	4068
Netherlands/Antilles	Caribbean	0	184	26.4	17,540
New Caledonia	Oceania-Melanesia	0	241	21.9	18,328
Palau	Oceania-Micronesia	0	20	13.6	6150
Papua New Guinea	Oceania-Melanesia	0	6001	0.4	905
Saint Kitts/Nevis	Caribbean	0	43	10.2	10/612
Saint Lucia	Caribbean	0	162	5.0	5292
Samoa	Oceania-Polynesia	1	186	4.6	2196
Sao Tome/Principe	Middle Africa	0	160	4.9	464
Singapore	South-eastern Asia	0	4380	17.6	26,997
Solomon Islands	Oceania-Melanesia	1	490	1.5	626
Timor- Leste	South-eastern Asia	0	1007	0.8	374
Trinidad and Tobago	Caribbean	0	1309	3.2	11 ,311
Vanuatu	Oceania-Melanesia	1	215	1.6	1405

Source: Computed from Department of Economic and Social Affairs Statistics Division data, Series V No. 31 *World Statistics Pocketbook Small Island Developing States* United Nations, New York: 2007.

*0= Less than 1000 miles from closest developed mainland; 1= More than 1000 miles from developed mainland (approximations).