Federated States of **Micronesia**

March, 2020

ECONOMIC REVIEW

FSM
FY 2018

FULL REPORT

Graduate School USA

EconMAP
ECONOMIC MONITORING & ANALYSIS PROGRAM

March, 2020

ECONOMIC REVIEW

FSM Fiscal Year 2018

Abbreviations

ADB	—	Asian Development Bank
amended Compact	—	second phase of the Compact, FY2004–FY2023
BGRT	—	business gross receipts tax
BoP	—	balance of payments
c.i.f.	—	cost, insurance and freight
COLA	—	cost-of-living adjustment
CoM	—	College of Micronesia
Compact	—	FSM Compact of Free Association with the United States
Compact I	—	first 17 years of the Compact, FY1987–FY2003
CPI	—	consumer price index
CTA	—	Customs and Tax Administration
CTF	—	Compact Trust Fund
DSA	—	Debt Sustainability Analysis
FAA	—	Federal Aviation Administration
FDI	—	foreign direct investment
FDIC	—	Federal Deposit Insurance Corporation
FMIS	—	financial-management information system
FSM	—	Federated States of Micronesia
FSMa	—	Federated States of Micronesia arrangement
FSMTF	—	Federated States of Micronesia Trust Fund
FY	—	fiscal year
GDE	—	gross domestic expenditure
GDP	—	gross domestic product
GNDI	—	gross national disposable income
GNI	—	gross national income
GRT	—	gross receipts tax
GSUSA	—	Graduate School USA
ICT	—	information and communication technology
IDA	—	International Development Association
IDP	—	Infrastructure Development Plan
IMC	—	investment-oriented major corporation
IMF	—	International Monetary Fund
ITF	—	Investment Trust Fund
JEMCO	—	Joint Economic Management Committee
LTEFF	—	long-term economic and fiscal framework
LTFF	—	long-term fiscal framework
MOU	—	memorandum of understanding
NFA	—	net financial assets
NORMA	—	National Oceanic Resource Management Agency [FSM]
NSO	—	National Statistics Office
PEFA	—	Public Expenditure and Financial Accountability
PFM	—	public financial management
PFTAC	—	Pacific Financial Technical Assistance Center
PMU	—	project-management unit
PNA	—	Parties to the Nauru Agreement
PNG	—	Papua New Guinea
PSRP	—	Public Sector Reform Program
PUC	—	Pohnpei Utilities Corporation
RFP	—	request for proposals
RIF	—	reduction in force
RUS	—	Rural Utility Service
SEG	—	Supplemental Education Grant
SOE	—	state-owned enterprise
TA	—	technical assistance
URA	—	Unified Revenue Administration
YSPSC	—	Yap State Public Service Corporation

NOTE: The FSM government's fiscal year (FY) ends on September 30.

CURRENCY EQUIVALENTS

Currency unit: United States dollar (US$)

Table of Contents

List of Tables

List of Figures

Disclaimer

The views, thoughts and opinions expressed in this review are those of the authors and represent an independent assessment of the economic performance of the Federated States of Micronesia (FSM). This document does not necessarily represent the views of the government of the FSM, Graduate School USA, nor any other organization, committee, group or individual, real or implied.

Foreword

This review has been prepared to assist both the FSM and US governments in fulfilling their respective obligations under the Compact of Free Association with the United States. In the case of the FSM, the amended Compact states, under Title One, Section 214, that

> *the Government of the Federated States of Micronesia shall report annually to the President of the United States on the use of United States sector grant assistance and other assistance and progress in meeting mutually agreed program and economic goals. The Joint Economic Management Committee shall review and comment on the report and make appropriate recommendations based thereon.*

The president of the United States is required to submit to Congress a report on similar developments in the FSM. Title One, Section 104.h of the amended Compact contains the following requirement:

1. *REPORT BY THE PRESIDENT. Not later than the end of the first full calendar year following enactment of this resolution, and not later than December 31 of each year thereafter, the President shall report to Congress regarding the Federated States of Micronesia and the Republic of the Marshall Islands, including but not limited to—*

   A. *general social, political, and economic conditions, including estimates of economic growth, per capita income, and migration rates;*

   B. *the use and effectiveness of United States financial, program, and technical assistance;*

   C. *the status of economic policy reforms, including but not limited to progress toward establishing self-sufficient tax rates;*

   D. *the status of the efforts to increase investment including: the rate of infrastructure investment of US financial assistance under the US-FSM Compact and the US-RMI Compact; non-US contributions to the trust funds, and the level of private investment; and*

   E. *recommendations on ways to increase the effectiveness of United States assistance and to meet overall economic performance objectives, including, if appropriate, recommendations to Congress to adjust the inflation rate or to adjust the contributions to the trust funds based on non-US contributions.*

This review has been prepared under a grant from the Department of the Interior and administered by Graduate School USA. However, it is not intended to directly fulfill the reporting requirements of the FSM and US governments, but rather to provide an independent assessment of the FSM's economic performance and policy environment and a set of economic statistics. Much of the material will be directly relevant to the two reports. However, the reporting requirements of the two governments are different; thus, not all the material will be relevant to both reports.

The review and statistical appendix have been prepared by a team: Mark Sturton, who developed the economic review, and Glenn McKinlay, who jointly compiled the statistics with Sturton. The team worked closely with the Office of Statistics. Special thanks go to Brihmer Johnson and Sharon Pelep, who provided invaluable support for the exercise. Discussions were held with many officials in government, state-owned enterprises (SOEs) and public entities and with representatives from the private and banking sectors and many other people.

This review is available online at **http://econ.pitiviti.org**.

Mark Sturton

Summary

A. Economic Performance

ECONOMIC PERFORMANCE

Economic growth in the FSM has displayed significant volatility during the amended Compact. After experiencing strong growth in FY2015 of 4.6 percent, economic growth weakened in FY2016 to 0.9 percent, improved in FY2017 to 2.7 percent and slipped during the last period to just 0.4 percent. The component of FSM gross domestic product (GDP) resulting from domestic purse-seine fishing operations adds considerably to the volatility of year-to-year growth rates. Excluding those domestic purse-seine fishing operations, and despite continuing issues with the use of the Compact infrastructure grant, the FSM's domestic economy grew by a respectable 2.3 percent in FY2015, 2.7 percent in FY2016 and 3.5 percent in FY2017, but weakened in FY2018 with modest growth of 0.8 percent.

During the first six years of the amended Compact, economic performance was weak in the FSM because of difficulties adjusting to the new Compact terms. However, the following four years saw improvement, in large part resulting from the strong demand for infrastructure. The poor results in the following period (FY2012–FY2014) reflect management issues with the use of the Compact infrastructure grant. With agreement on construction management and procurement procedures settled in mid-2017, it was hoped that the large backlog of infrastructure funds remaining under the amended Compact would spur investment spending and underpin a sustained higher growth trajectory. However, despite a large number of approvals of infrastructure projects by the Joint Economic Management Committee (JEMCO), groundbreaking on the new projects has been slow.

EMPLOYMENT

After a period of declining and stagnant employment conditions reflecting the weak economy from FY2011 to FY2014, conditions improved in the domestic economy and led to employment growth of 2.0 and 2.0 percent in FY2016 and FY2017, with a reduced rate of 1.2 percent in FY2018. Private sector employment was the driving force. It grew by 7.3 percent over the three-year period—although jobs in the public sector also increased by 2.5 percent, reflecting growth in the size of the national-government public service. Since the start of the amended Compact, private sector employment has remained largely flat while public sector employment has declined by 14 percent. FSM governments have downsized to adjust to reductions in the real value of Compact funding. Overall, jobs have fallen by 5 percent since FY2003.

INFLATION

With the prior decline in world oil prices coming to a halt and with oil prices rising modestly in FY2018, inflation rose by 1.7 percent. The main contributing factor to inflation continued to be declining food prices, which fell by 1.5 percent, offsetting rises in fuel, alcohol, tobacco and other prices.

WAGES

Wages have grown modestly in the FSM by 1.4 and 1.9 percent per annum in the private and public sectors, respectively, since FY2003. However, once inflation has been taken into account, real wages have fallen in both sectors by 1.7 and 1.1 percent, indicating declining standards of living.

B. The Financial Sector

BANKING

The deposit base in the FSM banking system ($320 million in FY2018) has grown significantly, reflecting a sound financial system. However, lending performance in the commercial private sector has been weak and represents only 12 percent of the deposit base, one of the lowest ratios in the region. The resulting surplus liquidity, now over $264 million, is invested offshore in low-yielding assets. The low rate of domestic lending reflects the perceived high risk of lending in the FSM and "lack of bankable projects." Overall, the inability of businesses to prepare credible business plans and financial statements, lack of collateral, limited ability to use land as security, and inadequate provisions to secure transactions have inhibited development of the financial sector. With limited opportunities, commercial banks have preferred to invest their assets offshore in less risky and more secure markets.

EXTERNAL DEBT

The FSM's external debt, at 22 percent of GDP and 16 percent net of offsetting assets (sinking fund), is one of the lowest in the region. Debt service of 4 percent of national-government domestic revenues remains well within the capacity of the national government to service and does not present any threat of debt stress. A recent review by the FSM public auditor revealed many weaknesses in the FSM's external debt management. As a result, a debt-management bill has been drafted but has yet to be acted upon by the FSM Congress.

While this analysis indicates that the FSM is not at risk of debt stress, the standard World Bank/International Monetary Fund Debt Sustainability Analysis (DSA) places the FSM at risk of high debt stress. The DSA analysis assumes that large fiscal shortfalls projected after FY2023 and periodic climate events or natural disasters would be financed through grants and (hypothetical) concessionary external borrowing. However, the FSM does not have access to the assumed persistent borrowing from donors, especially to maintain operational expenditures. While the assumptions of the World Bank/International Monetary Fund (IMF) may differ from what would transpire if the FSM experienced a severe post-FY2023 fiscal shock, the consequence of the DSA is that the FSM has been accorded "grant only" status for access to resources. Under the current round of World Bank International Development Association 18 funding, the FSM is thus not eligible for loan finance, but it does qualify for up to $25–$30 million of grants annually. In addition, with increased grant allocations from the Asian Development Bank (ADB) ($10–$15 million) and other major donors, the FSM is currently benefiting from a large increase in external aid compared with historical levels.

SOCIAL SECURITY SUSTAINABILITY

As of January 2017, an actuarial assessment of the FSM Social Security Fund indicated an unfunded liability of $286 million compared with assets of $51 million, a funded ratio of 18 percent—similar to that of the RMI. However, unlike the RMI's fund, the fund is not under imminent threat of collapse. Contributions to the fund in FY2018 were 89 percent of benefit payments. The fund was drawn upon in the amount of $3.0 million to meet payment needs and suffered a market loss of $3.1 million. Thus, the annual $1 million in support from the national government only provided a modest buffer against the $5.5 million decline in value of the Social Security Administration fund from $55.2 million at the end of FY2017 to $49.7 million at the end of FY2018.

The investment rate of return on the portfolio was reported in the audit as −6.21 percent, a puzzling result for FY2018 given positive equity returns in virtually all asset classes and an index return of −1.22 percent on the Barclays aggregate fixed-income index during FY2018. Long-run projections indicate benefits rising faster than contributions, and further reforms to the system will likely be needed. While the contribution from the national government is welcome, in the long run the fund should achieve self-sufficiency without the need for government intervention.

FSM DOMICILE FOR JAPANESE COMPANIES

In 2005 the FSM passed corporate tax legislation that enabled the creation of an overseas domicile that has primarily been targeted at Japanese companies. The law provides for a corporate tax rate of 21 percent, and through differential tax rates, the FSM host environment provides an attractive domicile for Japanese captive-insurance companies and other corporations. The benefit of these arrangements has been a steadily growing stream of revenues to the national government now averaging $6 million in recent years from captive-insurance companies and occasional capital-gains-related tax revenues from overseas investment companies. In FY2014 the government collected an unusually large receipt of $28 million, reflecting a large declaration of capital gains by one company. In FY2017 it collected a further large receipt of $23 million by that same parent corporation. In FY2018 it received $77 million from a different Japanese organization, and in early FY2019 it received $50 million. Although large payments can be expected periodically, FY2018 and FY2019 were exceptional.

A particular area of concern has been compliance with the Global Forum on Transparency and Exchange of Information for Tax Purposes. The Global Forum is a group of 146 members that are working under guidance of the OECD to create a transparent environment among nations to share information in the tax area; the FSM is not currently a member. As a result of phase 1 of the first round of peer reviews in 2015, the FSM was deemed noncompliant. In June 2016 a front-page article in the Nikkei Shimbum reported that Panama, Micronesia and Indonesia would be blacklisted by the Global Forum. The implications of being placed in the same group as Panama would be damaging to the FSM's reputation, and inclusion on this list could have catastrophic impact on the FSM domicile and captive-insurance industry.

As a result of Global Forum noncompliance, the FSM enhanced its efforts and passed legislation on transparency and exchange of tax information. In 2016 the Global Forum undertook a fast-track process, and countries were designated either compliant, largely compliant, partially compliant, or noncompliant. Following the review, the FSM was designated as largely compliant, thus alleviating the fears arising from the Nikkei Shimbum article. A second-round peer review was also undertaken, and the FSM was rated as largely compliant. Earlier concerns have thus been largely addressed, and the FSM has even stated that it intends to join the Global Forum as a member to maintain its good standing into the future.

Additional risks to the industry have resulted from changes in Japanese corporate law concerning tax-haven status. In addition to requiring foreign jurisdictions to have an income tax burden in excess of 20 percent, foreign-domiciled companies are required to display substantial business activity rather than functions of a paper, or cashbox, type. The exact nature of displaying substantial business activity is not yet known, but it will require a physical office and an administrator for each Japanese subsidiary in the FSM.

At present the industry resides in Pohnpei, although corporate taxes generated from the FSM domicile are not treated as subject to FSM revenue sharing, and thus they only generate direct revenue to the national government. However, should the current arrangements be contested by the state governments and the issue taken to court, it could lead to a loss of confidence among Japanese companies and a loss of revenue for the FSM. Business performs well in an environment of stability and predictability; forces that jeopardize or undermine the current status quo should be strongly discouraged.

C. Fiscal Performance and Policy

FISCAL OUTTURN

The overall fiscal balance recorded a record surplus in FY2018 of $102 million, or 29.3 percent of GDP. This was a significant increase from the large surpluses attained in FY2015 through FY2017 of 10.5, 7.4 and 14.9 percent of GDP, respectively. Revenues during the FY2015–FY2018 period were up in a series of different categories from an additional $80 million in corporate taxes from the offshore FSM domicile for Japanese companies (an exceptional year), an additional $17 million in foreign grants (including initiation of receipts from the World

Bank) and an increase of $7 million in fishing fees. While expenditures grew (reflecting the large fiscal space), they did not keep pace with revenues. Major increases in expenditures were on use of goods and services ($27 million) and nonfinancial assets or infrastructure funded through FSM congressional-district public projects (additional $16 million).

However, the fiscal outturn differed significantly between the FSM national and state governments. The national government ran a surplus of $97.9 million, while the states recorded a surplus of $3.9 million, the largest recorded and only the second time when the states achieved a surplus during the amended-Compact period. The FSM state governments, where service delivery occurs, have been constrained by the declining real value of Compact grants, while the national government has benefited from a boom in revenues from fishing fees and the offshore domicile for Japanese corporations.

TAX REFORM

In the mid-2000s the FSM embarked on a lengthy process of tax reforms, which after many years of donor support and hard work has not yet led to adoption. With a tax/GDP ratio of 12 percent (ignoring FSM-domicile corporate taxes), FSM revenue effort has been low and presents an opportunity to adjust to future fiscal shocks and to create an efficient tax environment that supports private sector development. Two of the four FSM states (Chuuk and Kosrae) supported the tax-reform initiative. Yap State, while expressing no objection to the reforms, indicated that the proposal was unconstitutional and thus declined to participate. There was some renewed recent interest from Pohnpei State, where a disproportionate benefit from tax reform would accrue, but this now appears to have waned. While there is clearly little incentive for additional revenue effort at the national-government level, the need at the state level to achieve greater autonomy over fiscal policy going into to the post-amended-Compact period is strong.

STRUCTURAL SURPLUS AND CONTRIBUTIONS TO THE FSM TRUST FUND

The boom in national-government revenues derived principally from fishing fees but also from large periodic gains from corporate taxes from FSM-domiciled Japanese companies has led to large fiscal surpluses at the national-government level. In FY2015 national-government domestic revenues were close to $90 million, a level sustained in FY2016; they rose rapidly in FY2017 and in FY2018 to $180 million (reflecting a large cyclical receipt of corporate tax). In FY2015 the national government ran a fiscal surplus of $35 million, or 11 percent of GDP, which rose to $98 million, or 28 percent of GDP, in FY2018.

While revenues have grown rapidly, the increase in fiscal space afforded by the increase has also enabled a large increase in expenditures on use of goods and services and congressional-district public projects. From an average of $19 million from FY2009 to FY2013, the use of goods and services has risen to $46 million, and outlays on public projects have risen from an average of $3.3 million during the first nine years of the amended Compact to $24 million in FY2018. Taking these rapid increases into account, a measure of the structural fiscal surplus at the national-government level can be estimated. It rose from $5 million, or 1.7 percent of GDP, in FY2011 to $121 million, or 37 percent of GDP, by FY2018.

The national government has been allocating a significant part of the fiscal surplus to the FSM Trust Fund (FSMTF), and the corpus stood at $214 million at the end of FY2018. Under a series of public laws, and in particular PL18-107 and PL20-134, the national government has specified annual commitments to the fund. Under PL18-107, the national government allocated 20 percent of its share of domestic taxes to the states (approximately $6 million). Under PL20-134, it allocated 50 percent of the earnings of corporate taxes from the captive-insurance and large-corporation sector to the FSMTF (approximately $6 million in normal years). It further allocated 20 percent of fishing-fee revenue to the fund (approximately $12 million). In total, the national government has legislated to contribute on a conservative basis $24 million annually to the FSMTF. That number will rise substantially in years with large receipts from FSM-domiciled companies.

Clearly, the contributions to the FSMTF to provide a pool of resources for future generations are highly desirable. However, there is considerable scope to increase the contribution level in normal years to the order of between $40 million (the average structural surplus in FY2015 and FY2016 ignoring corporate taxes) and $60 million (average FY2017–FY2018). Such saving would materially reduce the risks arising from projected fiscal shortfalls for the state governments of the FSM as early as FY2024 and thereafter.

LONG-TERM PLANNING

In 2012 the FSM initiated an exercise to plan for transition to the post-amended-Compact era after FY2023, known as the 2023 Action Plan. The plan, while focusing on the post-2023 era, also addressed the use of the emerging national-government structural fiscal surplus. However, since 2015 the 2023 planning effort and the issue of sovereign-wealth management have not been active on the policy agenda. While the FSM Congress has acted responsibly in legislating a process of formulaic contributions to the FSMTF, there remains a lack of a cohesive and rational approach to planning and to the allocation of the remainder of the structural surplus, especially the allocation of large periodic windfall gains from the FSM domicile for Japanese companies.

Clearly, there is a need for a rational approach to economic management and allocation of significant sovereign resources. The former 2023 Action Plan established a useful framework for resource allocation and a renewed focus on private sector development and selective policy reforms. As the FSM embarks with a new administration, the government would be well advised to revisit the current approach, if not the precise content, to ensure the best use of readily available funds to address the FSM's future needs. Put simply, the FSM's fiscal situation begs for a profound and long-term restructuring of national and state fiscal operations, a task that has been understandably difficult to even discuss—much less achieve—in the presence of post-FY2023 uncertainty.

D. Public Financial Management

PUBLIC EXPENDITURE AND FINANCIAL ACCOUNTABILITY (PEFA)

In 2010 the FSM conducted a PEFA self-assessment, a scored system of public financial management (PFM) established by the World Bank. After little action in the subsequent years, a renewed self-assessment was conducted in 2016 with the support of Pacific Financial Technical Assistance Center (PFTAC), which led to development of the "Road Map." The Road Map provides a list of targets for reform against which progress can be monitored. Progress in this area is a standard condition of eligibility for budgetary support from some donors such as the European Union and the World Bank. Since preparation of the Road Map, the FSM has focused on a set of key areas, including implementation of a new financial-management information system (FMIS) and financial-management procedures. To be of value FSM-wide, the PEFA exercise needs to be rolled out to each of the FSM states, where most of the public expenditures take place. To this end, the EU is providing technical assistance (TA) support to develop PEFAs for each of the four governments.

FMIS

The FMIS in the FSM is nearing the end of its effective life because the responsible software company is ceasing to support a declining user base. With donor grant support from the World Bank, a replacement system is being pursued. A project manager has been hired, and consultants have been selected to guide the FSM through needs assessment, development of an RFP, and selection of suitable software. However, implementation is likely to take place over a period of years. Enhanced reporting and a well-formulated chart of accounts should enable improved information for fiscal management and performance budgeting.

In addition to procuring a new FMIS, the FSM requested support from the World Bank to implement a new revenue-management system to interface with the FMIS. The initial phase of the RMS will be to establish a tax register of business and issue Tax Identification

Numbers. A project manager has been hired, and an IT expert will be recruited shortly. The intention is to issue an RFP by year end and for implementation to follow shortly thereafter and before the FMIS. The new RMS will greatly assist in the provision of GDP-by-industry statistics, a topic that is discussed below.

PUBLIC SECTOR PAYROLL

With public payroll representing a high proportion of GDP, 18 percent in FY2018, careful monitoring of trends is warranted with anticipation of an uncertain level of resources after FY2023. The proportion of public sector payroll has been slowly declining since the start of the amended Compact from 21 percent of GDP in FY2004. This reflects the substantial RIFs in Chuuk and Kosrae and recent growth in the economy at a rate greater than the increase in public sector payroll. From the start of the amended Compact in FY2003 through FY2018, the number of public servants has declined by 6 percent. However, the wage bill increased by 20 percent during this period, reflecting a 1.6 percent annual average increase in nominal wage rates. It is unclear whether the FSM (at least at the state level) can sustain this rate of increase in the wage bill without further fiscal adjustment given the relatively stagnant economy and the static nature of nominal Compact sector grants.

E. SOE Performance and Reforms

POWER SECTOR

The FSM has managed to operate the SOE sector without the need for large subsidies. However, weak pricing policies in the utility area have led to inefficient operations and lack of replacement of capital. While in Chuuk the supply of electricity is now 24 hours a day and the sewer and water-treatment system improved, Pohnpei has suffered from load sharing while central components of its sewer system need rehabilitation. In Yap, the utility charges the government twice the normal price to maintain a positive cash flow. Moves are underway at Pohnpei Utilities Corporation (PUC) to reform the ailing utilities along the lines of the Chuuk initiative through a jointly financed reform program with the World Bank, ADB, and US (Compact) funding. Current indications are that the key parties in Pohnpei State are prepared to endorse and fully implement the comprehensive reforms and practices that resulted in success in Chuuk State.

TELECOM AND ICT REFORMS

The World Bank is supporting information and communication technology (ICT) reform through a series of reforms and grants. The initial phase of the project has been to lay a fiber connection ($47.5 million) to Yap and Chuuk. The reforms have required a new law permitting competition in the ICT market, the establishment of the Telecom Regulatory Authority, and the creation of an open-access entity (OAE) to own and operate the new fiber asset. All three components have now been operationalized, and the TRA has issued draft regulations for comment. The ICT reform process envisages open access to the fiber network to all potential service providers to enable the onset of a competitive market.

While the conditions have now been met, the project has been fraught with issues and resistance to reform. An initial lack of agreement on the terms of access to the existing HANTRU cable (providing access between Pohnpei and Guam) was eventually resolved through the issue of an Indefensible Right of Use, guaranteeing the OAE access to the new cable at no cost. Clearly, the most efficient and effective solution is ownership of all submarine cables by one entity. At present the fiber connections are owned and managed by two separate entities: FSM Telecom and the OAE. The new cable connections to Yap and Chuuk are now operational.

A second World Bank regional project agreed by the bank's board is to connect Kiribati, Nauru and Kosrae to the Pohnpei HANTRU spur. A third phase currently under design and known as Digital FSM is designed to enhance internet use in education and health and will provide fiber connectivity to target locations and homes. In all, the FSM will be the beneficiary of a total of over $100 million for enhanced ICT connectivity. The envisaged connectivity to the home, operationalized by the OAE, coupled with a requirement that FSM Telecom must provide access to third parties to its cell-tower network, lays the foundation for new entrants to enter the market. While the ICT law requires that new entrants must provide services to all four states if they wish to operate in Pohnpei or Chuuk, the provision of low-cost infrastructure financed through World Bank grants should, even in a small marketplace, provide a commercial environment attractive to foreign investors.

FSM PETROCORP AND COCONUT PRODUCTS FOR EXPORT

FSM PetroCorp was created in 2007 to take over the operations of the departing supplier, Mobil. The transfer proceeded well, and FSM PetroCorp has achieved an annual return on capital of 10 percent since its commencement and has now opened operations in Guam and Nauru. It is one of the rare cases of a well-run SOE.

However, recent plans to open a coconut-processing facility in Tonoas, Chuuk, threaten to blemish the good record. While the project has been well designed and researched, investment costs are likely to escalate. Clearly this activity falls under the domain of venture capital, and it must be questioned whether high-risk projects are an appropriate use of public funds. For an industry that in the Pacific has been in decline for many years, with labor in short supply in similar low-wage activities and a declining raw material supply (due to aging coconut trees), the odds of success are not favorable. While technology has changed in the copra sector with potential for processing the whole product and production of virgin oil, the market is dominated by the Philippines, which provides 70 percent of world supply at low cost.

In the interests of transparency and accountability, it is important that information about each PetroCorp project be isolated in the financial accounts as a separate cost center—specifically to allow for identification of cross subsidization, and more generally to allow for careful monitoring.

F. Private Sector Developments

FISHERIES AND THE DOMESTIC FLEET

After a period in the early 1990s when the FSM invested heavily in the fishing industry, nearly all commercial ventures have either failed or are now under private management. There are two companies with government ownership (partial or full) that operate 8 vessels under private management. A further 3 major companies operate 16 vessels, and 3 other vessels are individually owned that have been flagged in the FSM. Overall, 27 vessels have been flagged by the FSM. Fishing in the region now effectively comes under the Parties to the Nauru Agreement (PNA)—a cartel of nine Pacific Island states, including PNG, that has led to a remarkable and sustained increase in member-country revenues from the sale of vessel-days. The PNA has led to a fivefold increase in revenues for the FSM since the start of the amended-Compact period. Daily fishing rates average close to $12,000 per vessel-day and the FSM received $72 million of revenues, or 21 percent of GDP, in FY2018.

The “domestic” fishing fleet comes under a regional arrangement among Pacific nations known as the FSM arrangement (FSMa), whereby the owners pay a reduced daily rate negotiated between the host nation and the respective operators. The FSMa was established to encourage the development of the local fishing industry. However, it is debatable whether the 27 domestically flagged vessels make substantially greater contributions to the economy than third-country fishing vessels operating without a discount.

Preliminary indications from an ongoing study of the fisheries sector by the Graduate School USA (GSUSA) suggest the additional benefits to the FSM from domestic vessels compared with bilateral vessels is close to $700 per day. This means discounts to domestic vessels that exceed $700 per day may cause the economy to suffer substantial losses. However, estimating the costs and benefits is complicated by the need for domestically flagged vessels to pay transfer fees to other participant FSMa members when fish are caught in their waters. The analysis also needs to include estimates for inbound transfers from other-country FSMa vessels fishing in FSM waters. The preliminary results from the GSUSA study suggest it is most probable the FSM has incurred significant losses through participation in the FSMa scheme.

Alternative arrangements to address the inefficacies of the FSMa have been proposed and implemented. In PNG, discounts are provided in proportion to demonstrated and proven benefits and provide a more economically efficient method to encourage development of the domestic fishing industry. A further alternative is for the FSM to charge the full economic price to participating FSMa companies and for the issuing agency (NORMA) to pay any transfer fess to other FSMa members.

THE WORLD BANK'S EASE OF DOING BUSINESS SURVEY

The World Bank's Doing Business Survey paints a discouraging view of the environment for private sector growth in the FSM. Out of 190 countries, the FSM currently scores 160th, 84 percent down the list and indicating much room for improvement. The FSM fares worse than Palau and the RMI, which are ranked 133rd and 150th, and is substantially below most of the South Pacific nations. Samoa is ranked 90th, Tonga 91st, Vanuatu 94th, Fiji 101st, and PNG 108th. Overall, the FSM's scores are generally weak. Registering property, protecting investors, and enforcing contracts all score between 184th and 187th, some of the worst scores of all countries surveyed by the World Bank. Slightly higher up the list, the FSM registers its best score at 61st for trading across borders and 90th for obtaining credit.

FOREIGN DIRECT INVESTMENT

The existing foreign direct investment (FDI) regime in the FSM, established as part of a set of reforms sponsored by the ADB in the late '90s, provides for a two-part system that assigns jurisdiction for investments of a national character to the national government and all others to the state governments. However, the system is cumbersome and results in a complex licensing process. In 2016 further reforms were introduced in the FSM Congress to modify the 1997 FDI Act by bringing all foreign investment under the jurisdiction of the national government. The reforms effectively claim that all foreign investment is, by its very nature, of national character. While the reforms would streamline the FDI process and should be supported, they have so far failed to pass through congressional-committee review to be considered for enactment. Overcoming reluctance to conceding jurisdiction in an area formerly under state control will take considerable effort.

G. Compact Issues

THE FSM COMPACT TRUST FUND

The FSM CTF experienced market gains during FY2018 of 6.8 percent; together with a scheduled contribution from the US of $30.8 million at the outset of the fiscal year, those gains enabled the fund to grow by $71.1 million to an end-of-FY2018 balance of $636 million. During the period of investment since the outset of FY2007, the annualized rate of return has been 6.9 percent.

The fund would need to grow at 16.7 percent annually from FY2019 to FY2023 to achieve a level sufficient to provide a smooth transition to CTF distributions from FY2024 onward at the real value of FY2023 sector grants ($81.39 million). Such an unlikely result is all the more concerning as this "simple" sustainability estimate relies upon performance during the distribution period at a 5.0 percent real rate of return and does not allow for market volatility. The GSUSA has modeled outcomes in the presence of market volatility under the CTF distribution rules. The model's results for the FSM indicate a high probability of periodic fiscal shocks, including years in which zero dollars are legally available for distribution. Notably, over the period from FY2024 to FY2063, fully 89 percent of cases show one or more years of zero distribution.

No distribution rules would simultaneously allow for (i) protecting the real value of the CTF corpus, (ii) ensuring distributions at or near the real value of the FY2023 grants, and (iii) avoiding year-to-year volatility of distributions. However, recent independent studies have shown that technical improvements to the existing rules could provide objectively better results at no extra cost. A key empirical finding is that once market volatility is accounted for, the size of the CTF would need to be approximately 1.67 times larger than estimated using a simple fixed rate of return with no market volatility. For the FSM, achieving this "SAFER" sustainability estimate implies a CTF value at the end of FY2023 of $2.76 billion. The median expected value of the FSM CTF at the end of FY2023 is $1.049 billion.

Making substantial improvements to the terms of the CTF Agreement would require mutual agreement by the original parties, which for the US entails both executive and congressional approval.

INFRASTRUCTURE AND THE ECONOMY

Use of the infrastructure grants was slow in implementation at the start of the amended Compact because of capacity constraints on implementing the projects. However, by FY2012 implementation issues had been overcome and expenditures exceeded that year's grant allocation of $22 million by $5 million. Improved performance was short-lived, and a series of issues plagued implementation, with utilization falling to $7 million in FY2017. Out of a total estimated allocation of $350 million since the start of the amended Compact, the FSM has only been able to use approximately $150 million, leaving approximately $200 million, or 58 percent of GDP, of unspent resources.

Project-management issues, lack of clear priorities, disputes between and national and state governments, the JEMCO requirement to prepare an updated Infrastructure Development Plan (IDP), inability or unwillingness to provide professional engineers and to hire contract management staff to the level required, and a perception within the FSM national government that requirements to proceed apace were either unclear or changing over time resulted in further delays. By 2016 an IDP was prepared to set priorities, but project-management issues remained. After further delays, in June 2017 a resolution between the US and the FSM was reached to remove the suspension of the grant, while the contractor managing the project-management unit (PMU) was terminated and replaced for an interim period by the US Army Corps of Engineers.

The failure to implement the infrastructure grant has been very costly to the FSM in lost opportunities and in growth. GDP shrunk in the three years FY2012–FY2014, with the economy contracting by 8 percent. While much of the loss was due to the decline in the use of infrastructure-grant funding, the earlier completion of large Federal Aviation Administration (FAA) airport-improvement projects also resulted in a subsequent decline in economic activity. The large reservoir of unspent resources presents an opportunity to reinvigorate the FSM economy in the remaining years of the amended-Compact period. However, care should be taken to ensure that resources are spent evenly, perhaps even well into the FSM Trust Fund period, to prevent the boom-and-bust cycle that has afflicted the FSM recently.

POST-AMENDED-COMPACT UNCERTAINTIES

The annual sector grants, infrastructure grants and disaster assistance are set to expire in FY2024. The loss of approximately $80.8 million annually is targeted to be replaced through funding provided from distributions from the Compact Trust Fund (CTF); however, there is considerable uncertainty over the continuation of many other special and federal programs and services the FSM receives from the US. In particular, the FSM benefits from the Supplemental Education Grant (SEG), which was cashed out from former federal programs provided in the original Compact. Funding is provided through annual congressional appropriations whose continuation after FY2023 will end under current law. There are many further US federal programs, such as postal services, the Federal Deposit Insurance Corporation (FDIC), the National Oceanic and Atmospheric Administration, Pell grants, the FAA, and health programs, that are subject to congressional authorization. While the shortfall in fully sustainable distributions from the CTF is estimated to be $47 million after FY2023, the range of possible values in the loss of federal programs may, in the worst case, be a further $35 million or more (the sum in FY2017 of the SEG, federal programs and Pell grants). In the remaining years of the amended Compact through FY2023, clarity is required on the status of these programs so that the FSM can effectively plan for the arrival of the CTF distribution period.

While the shortfall in fully sustainable distributions from the CTF is estimated to be $50 million after FY2023, the range of possible values in the loss of federal programs may, in a truly severe case, be a further $33 million or more (the sum in FY2018 of SEG, federal programs and Pell grants). Combining the reductions in sustainable drawdowns from the CTF and potential loss of federal programs and services indicates a truly severe outcome of a reduction in grants of $83 million, or 24 percent of GDP. While such a result is deemed highly unlikely by informed observers in the US government, the scale of US assistance to the FSM in relation to its economy begs for sensitive and sound policy pronouncements. In the remaining years of the amended-Compact period through FY2023, clarity is required on the status of these programs and services so that the FSM can effectively plan for the arrival of the CTF distribution period.

H. Other Issues

STATISTICAL ISSUES

In former Gradual School USA reviews of the FSM, statistical availability has been accorded a high score. Since the start of the amended Compact, the FSM has developed a full range of statistics on which to monitor economic performance. However, in a 2017 IMF Article IV staff review, the IMF indicated that "data provision has serious shortcomings that significantly hamper surveillance." While the ranking of statistical adequacy in the IMF reviews is not transparent, it appears timing and frequency are the major areas of concern. The FSM set of economic statistics is prepared 11 months after the end of the fiscal year. No quarterly estimates are prepared, tough such a practice is becoming an international standard. Coverage does not seem to be an issue. The annual statistical update in the FSM is timed to coincide with the release of the government audits and in time for the annual JEMCO meeting. More frequent estimates, such as quarterly ones, would not seem essential in an economy such as the FSM where trends are slow moving. However, availability of provisional estimates earlier in the year to coincide with budget preparation would be a priority.

Of more concern has been the recent action by the FSM Department of Finance to cease sharing tax information with the National Statistics Office (NSO) reportedly because of the need for compliance with Global Forum requirements. Given these new constraints on sharing of tax information, key data relating to business gross receipts, which formed the basis of the GDP-by-industry estimates, was unavailable to the NSO from FY2016 through FY2018. To address this matter, FSM Finance committed to assisting in the provision of data required to maintain the GDP series by way of a new process requiring a complex back-and-forth flow of information between the respective departments. The suggested new process has not led to a resolution of the issue, and the FSM remains unable to adequately compile statistics on GDP by industry. The new revenue-management model discussed above will provide an enhanced source of information with improved data integrity. Until then, and even thereafter, a basis for exchange of information within the national government needs to be re-established as allowed for in law while also meeting Global Forum requirements.

I. Economic Outlook

After a weak year in FY2018, the economy is expected to improve in FY2019 because of a return to a more normal level of the fisheries catch, greater use of the Compact infrastructure grant, and the observed growth in the public sector. In FY2020 these trends will continue except that the state governments are required to adjust to the combined fiscal drag of the annual decrement and lack of full indexation. In FY2021 the contractionary forces of the fiscal drag are projected to be less severe and the economy projected to grow by 2.4 percent. In FY2024 the economy is projected to decline by 0.8 percent as the national government cuts back expenditures in order to transfer revenues to keep the state governments open. During the remainder of the projection period, the economy is expected to stagnate. At the state level, Pohnpei State is projected to grow by 2.2 percent during the remainder of the amended Compact, while the other three states—Chuuk, Kosrae and Yap—barely keep their heads above water. While downward adjustment in FY2024 is confined to Pohnpei, all states will stagnate through FY2030.

Employment is projected to grow during the remainder of the amended Compact by 1.4 percent per annum, reflecting greater capacity utilization of the infrastructure funds. While there will be a loss of jobs in FY2024 with the redirection of national funds to assist the states, employment remains largely stagnant through FY2030. With the largely benign changes in employment, migration is not projected to accelerate during the Trust Fund era. Rather, the constant annual rate of migration that is part of the basic structure of the FSM economy is projected to continue at close to the historical rate of 1.6 percent of the population.

On the fiscal side, the national government continues to run large fiscal surpluses but needs to make an adjustment to maintain the legislated allocations to the FSMTF. Meanwhile the state governments are each projected to maintain a slight fiscal surplus despite the challenge of declining fiscal envelope. In FY2024 with the switch to reliance on FSMTF drawdowns, a series of adjustments will be required. Drawdowns from the Compact Trust will fall to $31 million, down from the $82 million projected level of normal sector grants. However, the FSMTF will also provide a source of funds of $14 million to compensate. The national government, through cutting back on its level of legislative projects and use of goods and services to the real levels prevailing in FY2014 can effectively reallocate the prior fiscal surplus by transferring roughly $35 million to keep the state governments open. At this level of funding, the state governments will avoid the need for massive fiscal adjustment and be able to maintain essential services. The overall result is that both levels of government, national and state, can maintain fiscal balance and stability.

The projections outlined indicate that while an improved performance may result in the remainder of the amended-Compact period, the economy is likely to stagnate in the Trust Fund era. Clearly, the uncertainty over the likely outcome of the coming negotiations with the US make planning difficult. However, consideration of reform in the FSM has largely gone on the back burner during the amended Compact with focus directed to adjustment to the amended Compact and decrement management. However, there is no doubt the FSM could do better, and once the outlook becomes clearer the nation might well be advised to look once again at reform potential. With the multilateral donors paying closer attention to the nation and with commitment, there is considerable scope for donor support to implement reform and improve on the past performance.

1. Review of Economic Developments

Taking the first 15 years of the amended Compact as a whole, the size of the economy was only 1.3 percent larger in FY2018 than it was at the start in FY2003. This is a very disappointing performance. Economic performance has been dominated by the largely contractionary forces of a declining public sector, large fluctuations in the private sector and volatility in the demand for infrastructure.

- Development of those sectors considered to be the FSM's comparative advantage—agriculture, fisheries and tourism—has failed to replace the public sector as the engine of growth. While fisheries production has improved, it has been the exploitation of natural resource rents through the PNA that has provided significant new resources. Tourism, despite its potential, has failed to develop, because of structural constraints and a weak regulatory environment.
- Over the long term, from FY1986 to FY2018, real GDP per capita expanded by an average rate of 0.5 percent in each year. In FY2018 gross national income (GNI) per capita was $3,953, which places the FSM just barely in the World Bank's upper middle-income range for 2018, $3,896–$12,055.
- Population in the FSM historically grew at very high rates, averaging 3 percent. This pattern had changed radically by 2010, with the census indicating the population was declining by 0.4 percent, a consequence of a reduction in fertility rates and the emergence of large out-migration to neighboring US territories, Hawaii and the US mainland.
- During the amended Compact, employment declined by an average 0.2 percent annually or about 585 jobs annually. While employment levels in the private sector have grown modestly by 410 jobs or 0.4 percent p.a., employment in the public sector has fallen by 1.0 percent p.a., with a loss of 1,204 civil service jobs.
- Wages have grown modestly in the FSM by 1.4 and 1.9 percent per annum in the private and public sectors, respectively, in the amended Compact since FY2003. However, once inflation has been taken into account, real wages have fallen in the two sectors by 1.7 and 1.1 percent, indicating declining standards of living.
- After a period of stagnant and negative inflation in FY2015–FY2016 with falling world oil prices, inflation grew modestly in FY2017 by 0.7 percent and returned to a more normal rate of 1.7 percent in FY2018.

1. Review of Economic Developments

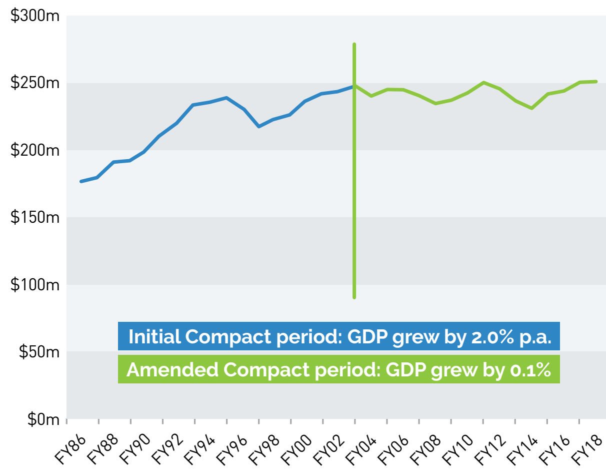
A. Gross Domestic Product, Growth and Structural Change

TRENDS IN ECONOMIC ACTIVITY

Long-run economic performance has been disappointing: Long-run trends in the FSM economy are displayed in figure 1 and indicate that since FY1987, economic growth has averaged 0.7 percent per annum. While the FSM economy is constrained by a limited resource base and geographical remoteness, performance has been largely similar to that of both the RMI and Palau: economic growth averaged 1.0 percent in the RMI during the same period and 0.8 percent in Palau since FY2000. However, performance during Compact I compared with the amended Compact is strikingly different: during Compact I, growth averaged 1.5 percent, while in the amended Compact it averaged a mere 0.1 percent.

Economic performance during Compact I satisfactory despite the large adjustment required in the late 1990s: During Compact I, the FSM economy grew at the more rapid rate of 1.5 percent but was punctuated by a sharp acceleration in growth in the mid-'90s. Between FY1986 and FY1995, the economy grew by an average of 3.4 percent, reflecting the onset of large resource transfers and modernization of the economy. The original Compact was structured into three 5-year periods of grants, and the ends of the first two periods were accompanied by large step-downs. During the first two periods, the economy was ramping up the new level of US grants, but by FY1997 expenditures had caught up with revenues and the second step-down precipitated the need for a large adjustment. A public sector reform

Figure 1
FSM economy grew by 0.7% p.a. during Compact era



program was executed with ADB support, entailing a large reduction in the number of civil servants, which, while restoring fiscal stability, led to economic contraction. After completion of the last 5-year period, a final 2 years were programmed at the average level of grants during the first 15 years. Once the adjustments to the second step-down were complete, economic performance during the final years of the amended Compact was satisfactory.

Economy contracts at start of amended Compact: At the start of the amended Compact, the economy went into recession as Compact receipts fell to the new, lower-negotiated levels—a reduction from $84 million (the Compact I level without bump-up) to $76 million. A series of other factors also had strong negative impacts on the economy: (i) the loss of the Compact I energy grant; (ii) absorptive-capacity constraints in the use of the new Compact sector grants; and (iii) the failure to use the infrastructure grant. Projections in the FSM Strategic Development Plan had anticipated a reduction in GDP of 6 percent in FY2004, but the actual outcome revealed a decline of 3.1 percent. The initial transition to the amended Compact thus turned out not to have been as severe as anticipated.

Adjustment to amended Compact has negative impact on the economy: While the economy fell sharply, by 3.1 percent, in FY2004 with the reduction in Compact funding (figure

Figure 2
GDP growth, constant prices FY2004

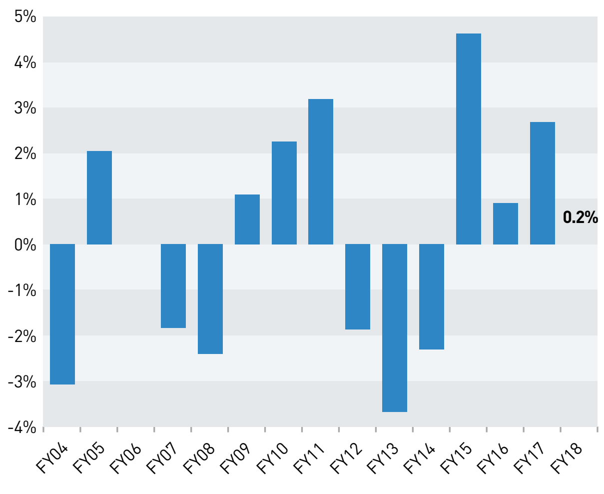
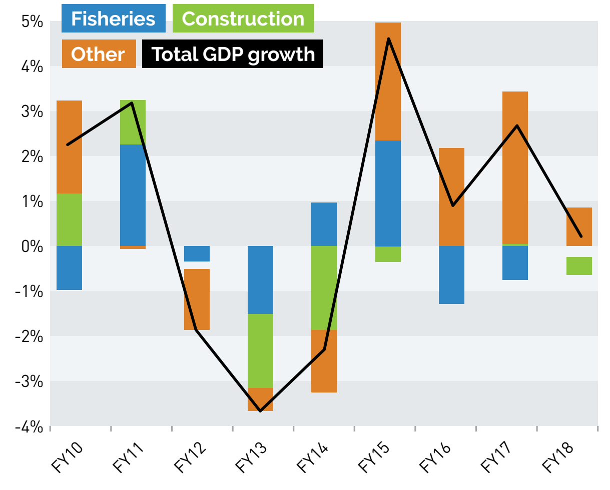


Figure 3
Contribution to economic growth by major industry



2), some of the lost ground was recouped the next year. However, growth turned negative in the following three years, FY2006–FY2008, with GDP falling by 4.3 percent during the period. In FY2007 Chuuk and Kosrae were each required to implement a sizeable reduction in force (RIF), among other measures, to restore fiscal balance as the use of the capacity-building sector grant for nonconforming purposes was phased out, and the economy contracted by 1.8 percent. By FY2008 the negative shock of the world recession had a strong impact on the state economies, higher fuel and food prices eroded real incomes, and GDP fell by a further 2.4 percent.

Infrastructure projects result in improved performance: While the international economic conditions remained adverse in FY2009, strong growth in construction from airport renovation funded by the FAA resulted in a return to positive growth of 1.1 percent. FY2010 turned out to be a good year for the FSM economy. This reflected continuing expansion in construction as use of the infrastructure grant picked up momentum and the FAA projects injected additional funds. After several years of fiscal consolidation, FY2010 saw a return to growth, and the economy expanded by 2.3 percent overall. These trends continued to exert themselves in FY2011, and the economy grew by 3.2 percent.

Downturn in infrastructure ushers in period of contraction: FY2012 ushered in a period of declining economic activity, reversing the gains of the previous three years. Construction activity plateaued as a large increase in the use of the infrastructure grant was offset by a fall in FAA expenditures, and GDP fell by 1.9 percent. Both FY2013 and FY2014 were terrible years for the FSM economy. In FY2013 the economy fell by 3.7 percent, with both construction and fisheries declining, while in FY2014 low construction output was the main culprit behind the 2.3 percent drop in GDP. Construction output tumbled by 27 and 40 percent in the two years with the completion of the FAA projects and with disagreement over the disbursement requirements of the infrastructure grant. Infrastructure-grant disbursements plunged from $29 million in FY2012 to $5 million in FY2014.

Improved performance in last four years: Economic performance during the last four years has been volatile but displayed a positive trend growth with an annual average of 2.1 percent. Both the main drivers of growth, fisheries and construction, remained weak, contributing −0.1 and −0.7 percent, respectively. The improved performance was propelled by positive growth in retailing, transport, finance and business services—all nontraded-goods sectors of the economy. This reflects the impact of booming sovereign rents and expanded fiscal position of the national government. Public services in administration, education and health were stagnant during the period, indicating the impact of the fiscal stimulus was focused on demand for private services.

Fisheries growth volatile but positive over the long term: Figure 3 indicates the influence of the major drivers of the economy during the FY2010–FY2018 period.[1] The domestic fishing industry has had a significant and volatile impact on the economy as fishing arrangements have changed and boats have entered and been withdrawn from the fleet for dry docking. In FY2015 GDP grew by 4.6 percent, of which the fisheries sector was responsible for 2.4 percent. In FY2016 the impact was in the opposite direction: the economy grew by 0.9 percent, of which fisheries was responsible for −1.3 percent. In FY2017 the economy grew by 2.7 percent, with fisheries responsible for −0.8 percent. However, despite the volatile short-term trend of the fisheries sector, over the long term the trend has been positive, with fisheries growing by an average 1.7 percent since FY2010.

Construction exerts strong influence during different phases of the cycle: Construction has been a major influence during the various phases of the economic cycle. In the period of the FAA and improving infrastructure-grant usage, FY2008–FY2011, construction was the dominant influence on growth. However, during the next three years through FY2015, construction had a strong contractionary impact. Over the last few years, construction activity has reverted to levels at the start of the amended Compact and has had little economic impact.

Overall trends in economic growth during the amended Compact have been very disappointing: Taking the first 15 years of the amended Compact as a whole, the size of the economy was only 1.3 percent larger in FY2018 than it was at the start in FY2003. This is a very disappointing result. During the last few years, the economy has been supported by growing national-government expenditures. While there is fiscal space for continued expansion, restraint is preferred as the resources represent a potential loss of scarce funds to support adjustment to the post-amended-Compact period. Agreement between the FSM and US was reached in FY2018 on the framework for the use of the infrastructure grant, but this has yet to be reflected in any increased investment. It is to be hoped that the existing capacity limitations can be overcome and that enhanced construction activity can replace the use of scarce public funds to support an improved performance during the remaining years of the amended Compact.

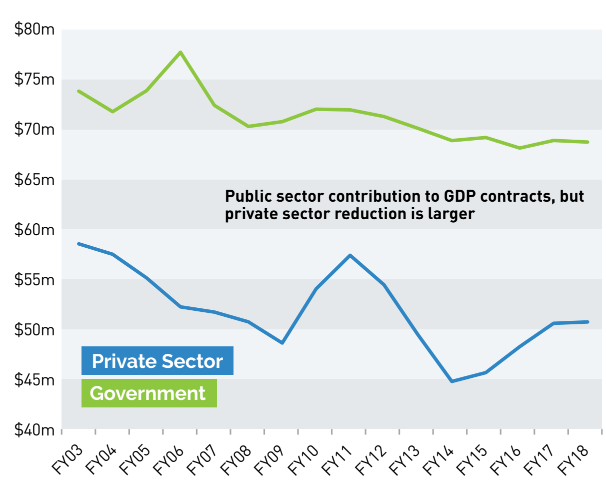
1 From FY2016 through FY2018, lack of provision of administrative data on the BGRT prevented us from reliably estimating GDP by industry. The discussion on this in this section thus needs to be viewed with cau tion. See appendix 2 for greater detail.

GDP BY INSTITUTIONAL SECTOR

Government contribution to GDP declines: Figure 4 provides further information on recent economic developments by institutional sector. After an initial decline in FY2004, the government sector expanded surprisingly in FY2005 and FY2006. The increased funding in education and health spurred growth in these activities, before adjustment was made for the lack of funding in others. This expansion was mirrored in additional hiring in Chuuk and Pohnpei, with Yap taking on additional staff in FY2005 for cyclone recovery. Thereafter, the government sector contracted, between FY2007 and FY2008, resulting from phasing out the use of the capacity-building sector grant to fund nonconforming activities in Chuuk and Kosrae. Both states implemented RIFs and made big cuts in public expenditures. With the contraction in Chuuk and Kosrae complete, government-sector services stabilized; they have shown a slowly declining trend since FY2010.

Private sector activity contracts strongly in the early amended Compact; government contribution to GDP declines: Figure 4

Figure 4
GDP growth by sector, constant prices, FY2004



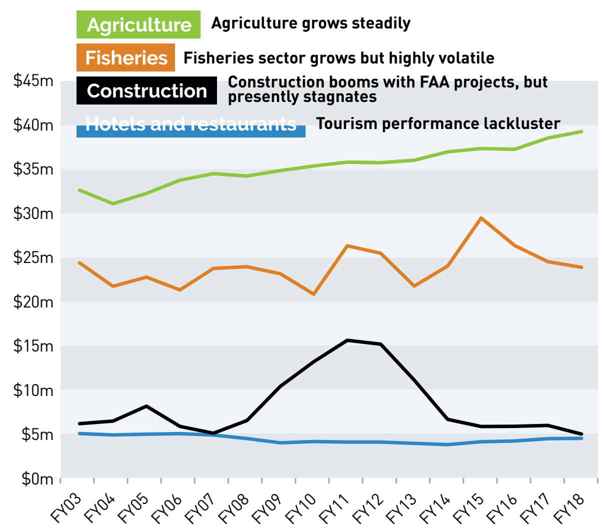
illustrates the negative growth in the private sector in each of the first six years of the amended Compact through FY2009. Overall, the private sector contracted by 17 percent, or an annual average of 3.1 percent, reflecting the drop in demand in the economy. This lower demand resulted from reduced levels of the Compact sector grants, failure to implement the infrastructure grant, and, from FY2008 to FY2009, the impact on real incomes of the world recession and higher food and fuel prices.

Since FY2010 private sector activity has been highly volatile: expanding during periods of investment boom, contracting on the downside and expanding with fiscal expansion: In FY2010 and FY2011 with the passing of the recession, lower levels of inflation, greater use of the infrastructure grant, and large volumes of FAA Airport Improvement Program projects, the private sector rebounded and grew by 18 percent over the two years. In FY2012 the private sector contracted as output in construction and other parts of the economy declined. In FY2013 and FY2014 private activity declined further, with reductions in construction being the dominant force. In the last four years, FY2015 through FY2018, the private sector has been a positive force for growth, expanding by 13 percent. The source of this growth has not been fisheries or construction; rather, it indicates a general improvement in the economy and reflects expansionary fiscal policy at the national level.

GDP BY INDUSTRY

Basis of the estimates: The absence of information on the business gross receipts tax (BGRT) at the industry level has removed an important source of information for estimating GDP at that level. However, many of the industry estimates do not rely on this source, and given the long-run nature of the analysis of this section, over the amended-Compact period industry estimates based on Social Security information have been used to fill in the gaps (see appendix 3 for further analysis). The estimates for agriculture, fisheries, electricity, finance, government, education and health are less reliant on the BGRT data, whereas manufacturing, construction, retailing and transport are more dependent. Trends in these industries should be viewed with caution.

Figure 5
GDP by industry, constant prices FY2004



Agriculture: Review of the economy by industrial sector provides further information on recent developments. Estimates for agriculture (largely for home consumption) indicate a long-run upward trend of 1.4 percent per annum, which, after allowing for the recent decline in population growth of 0.2 percent, will come as a surprising development. The agricultural estimates are based on the two most recent household-income and household-expenditure surveys and are interpolated on the basis of population growth and adjusted for weather conditions. The implication is that in the absence of gainful economic opportunities or emigration, households have returned to subsistence production to support themselves. While this is a significant result, consistent with a decline in the modern sector of the economy, one should be cautious of overreliance on the statistical surveys upon which the estimates are based.

Fisheries: After the withdrawal of the public sector from the fisheries industry, the industry has displayed a rising trend of 1.1 percent per annum (see figure 5).[2] While growth has been significant and is consistent with the economy's comparative advantage, it has yet to provide a sufficient source of growth to lift the economy

2 GDP fisheries estimation is now based on volume indicators of catch and has been revised from the estimates provided in earlier reviews.

onto a higher trajectory. Caroline Fisheries Corporation (CFC) expanded its fleet of three purse seiners to five during the latter part of FY2015. Output peaked in FY2016, reflecting the enlargement of the fleet, but contracted in the following two years. In the case of the other domestic operator, Yap Diving Seagull, which operates two vessels, output and catch have been highly volatile. Combining the catch for the two corporations, the trend has been upward but highly volatile. Output in the last two years has been depressed.

Manufacturing: In the case of manufacturing, activity fell sharply during the initial years of the amended Compact with the closure of the Yap garment factories. Since that time, production has focused on the home market and manufacturing output has remained largely stagnant.

Electricity generation trended downward during the initial years of the amended Compact, resulting from increases in price per kilowatt. The increases were due not only to rapidly rising energy prices during this period but also to the loss of the Compact I energy-sector grant. Between FY2009 and FY2015 electricity production stabilized, but it has risen in the last three years. Given the frequent power outages caused by highly inefficient generation, it is difficult to assess the underlying trend.

Construction activity was largely static in the early years of the amended Compact, but it grew rapidly between FY2007 and FY2011 because of the FAA-financed airport renovation and enhanced capacity use of the infrastructure grant. As already noted, the rapid rise in construction peaked in FY2012, and output declined precipitously in FY2013 and FY2014, by 27 and 40 percent, respectively, as the FAA projects came to an end and as utilization of the infrastructure grant was held up because of the moratorium placed on disbursements. By FY2015 construction output had bottomed out, and it has remained largely unchanged since that date despite an agreed framework with the US for the release of funds under the infrastructure grant. Construction output is now at a level below that prevailing at the start of the amended Compact.

The wholesale and retail sectors have declined by an average annual rate of 0.7 percent, reflecting the weak conditions of demand in the FSM and lack of competition. That said, the estimates for the last three years (based on Social Security data) indicate some resurgence reflecting the expansion in fiscal policy of the national government. The variety of goods on store shelves is highly restricted compared with neighboring islands, such as Majuro, where market entry is less restricted, although prices in Majuro are considerably higher.

Hospitality sector: Value added in the hotel-and-restaurant sector has fallen by an average annual rate of 1.2 percent during the amended Compact, although, as in the case of retailing, there has been some improvement in the last three years. This is a disappointing result, given that tourism has been identified as a sector with the potential for major development.

Finance: The finance sector, comprising the commercial banking sector and the local domicile for offshore captive insurance and major Japanese corporations, has been a small, rapidly growing sector. The industry has grown by an average of 6.6 percent during the amended Compact, with both components expanding rapidly. Corporate tax receipts by the FSM national government have risen massively since its inception. While the onshore component and contribution to GDP is small and growing, the major impact is on government revenues through the secondary-income element of the balance of payments (BoP).

Public administration: In the public sector, provision of general government services fell significantly, by an annual average rate of 5.9 percent between FY2003 and FY2008, reflecting the adoption of the sector-grant approach to grant disbursement. The FSM was required to execute RIFs in Kosrae and Chuuk to phase out the use of the capacity-building grant for nonconforming purposes and to reduce payroll levels to fit within the fiscal envelope. Apart from the minor sector grants in capacity building, private sector development and the environment, the resources for general government have been severely constrained. While the early period of the amended Compact saw a reduction in public administration, administrative services have grown by 0.6 percent during the remainder of the amended Compact over the FY2008–FY2018 period.

Education and health: In the case of education, there was rapid growth in the first three years of the amended Compact, followed by a leveling off and a subsequent decline since FY2009 as teacher-certification and accreditation issues have reduced service delivery. Delivery of education services in FY2018 is now below the level at the start of the amended Compact. Health services, on the other hand, have expanded at a largely consistent rate each year, averaging 2.9 percent per annum.

Contributions to growth: Figure 6 summarizes the contributions of the various industries in the FSM to the overall increase in GDP of 1.3 percent during the amended Compact (FY2003 to FY2018). Agriculture has grown, reflecting increasing household nonmarket production, while fisheries output over the period has been largely stagnant. Manufacturing output has declined, reflecting the closure of the Yap-based garment factories. After the completion of the FAA projects and collapse in the use of the infrastructure grant, construction activity is now below where it was in FY2003. The small decline in the wholesale and retail trade reflects the general adverse conditions prevailing during the period. Finance has made a significant contribution to growth, reflecting both increases in the commercial banking sector and FSM domicile for Japanese corporations. The contraction in public administration was responsible for the major part of the overall decline in GDP. While education services have remained largely unchanged through the amended Compact, growth in health services financed through the Compact sector grant has been a positive force.

THE STRUCTURE OF THE ECONOMY

Share of public sector declines: The economy has been dominated by a large public sector, with a dependent private sector producing nontraded goods and services to the government and its employees (figure 7). The share of government has fallen significantly, by 15 percent, since the beginning of Compact I. This decline reflects three major forces: (i) a reduction in the size of government because of the lower levels of assistance at the end of Compact I; (ii) the restructuring of the public sector through the creation of SOEs; and (iii) adjustments required to conform to the new structure and lower levels of grants in the amended Compact. An increase in the share of SOEs of 3.2 percent in the initial period reflects the creation of utility services in power and telecommunications and the creation of fishing enterprises. By the mid-1990s, the growth in SOEs largely ran its course, and inefficient fisheries are now mostly defunct or consolidated under private sector management. However, with the successful creation and operation of the FSM Petroleum

Figure 6
Contributing industries to GDP during amended Compact

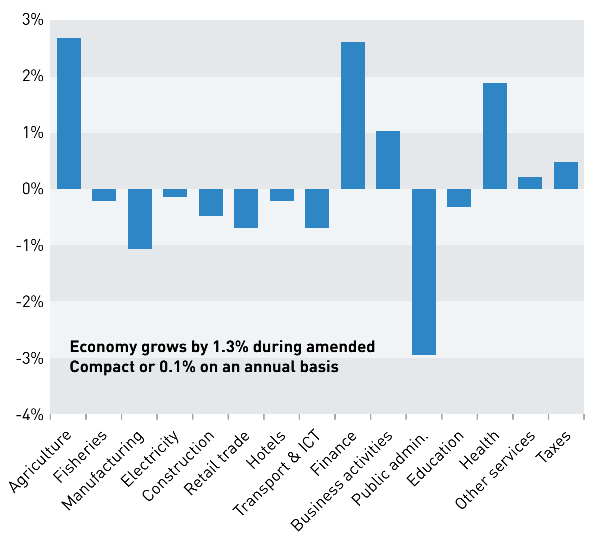
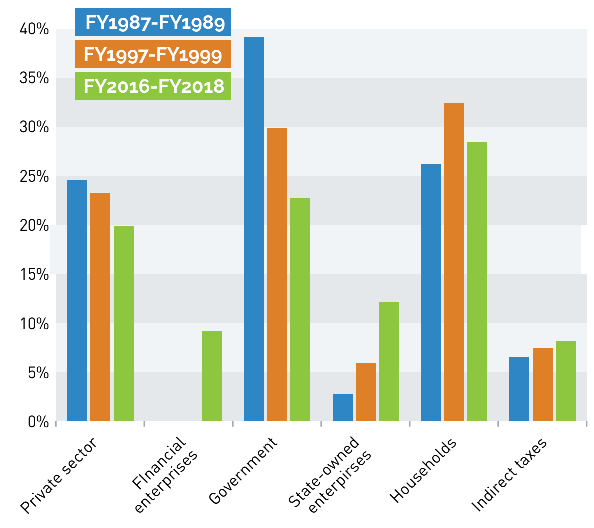


Figure 7
Institutional structure of the FSM economy



Corporation (FSM PetroCorp) in 2008, the share of the SOE sector has expanded by a further 6.2 percent since the late 1990s. Overall, combining the government and SOEs, the contribution of the public sector at large has fallen by 7.0 percent since the start of the Compact.

Decline in private sector's contribution compensated by increase in households: With a decline in the public sector, it might be imagined that there would be a compensating offset and increase in the share of the private sector, but this did not happen. The 25 percent share of the private sector in 1987, at the start of Compact I, has now been reduced by 4.6 percentage points. Rather, the offset to the public sector decline has been an increase in the share of households, which has grown by 2.3 percent. This sector includes market production of commodities, nonmarket production (subsistence), and homeownership. In essence, the failure of the private sector to become the engine of growth has forced households to fall back on their own resources and devote more effort to subsistence production.

Indirect taxes grow: In addition to households and the private and public sectors, indirect taxes form a significant proportion of the economy, increasing by 1.6 percent over the Compact period. This development reflects three trends. First, reform of the national customs-tax structure under the ADB Public Sector Reform Program (PSRP) broadened the tax base by subjecting all sectors in the economy to the same tax rates. It changed the valuation of duties from a free-on-board basis to a cost, insurance and freight (c.i.f.) basis as well. Second, indirect tax rates at the state and national levels rose through the amended Compact to offset the declining grants. Lastly, discretionary changes to taxes on tobacco increased rates.

B. Sector Developments

AGRICULTURE

High labor costs in the FSM discourage agricultural production: Data on the primary economic sectors of the FSM are weak. There have been no indicators for agricultural production, although the recent agricultural census will hopefully improve the situation once the results are released. Subsistence agricultural activities make a substantial contribution to GDP, while production for either the domestic or export market is surprisingly small. The perception persists among local growers that returns from agriculture are low and slow to materialize compared to other activities, such as nontraded services and government employment. Compact assistance has exerted upward pressure on wages, turning the terms of trade against agriculture and making agricultural production unattractive.

Copra production in the FSM, as in many other Pacific Island nations, has all but disappeared because of inefficiencies and low prices, but profitable export opportunities exist in niche agricultural products. The former Coconut Development Authority was transferred to FSM PetroCorp, an SOE, with the intention of producing coconut-based products. A large-scale coconut-processing facility is being set up on the island of Tonoas in Chuuk State by FSM PetroCorp. The project is relying on collection of available coconuts (essentially lying unused on the ground) by the islanders. However, whether the islanders will find this an attractive occupation is yet to be established. Experience elsewhere in the Pacific has been a secular decline in the coconut-and-copra industry with low-wage competition from the Philippines, which controls 70 percent of the market. The basic economics are unfortunately not favorable despite the large volume of available raw material. Further discussion of this topic is found in the section of this review on SOEs and FSM PetroCorp.

The Pohnpei pepper industry provides a good example of a high-quality, internationally recognized product that was not able to achieve commercial viability, given the high costs of production in a labor-intensive activity. The Majuro fish-loining plant in the Marshall Islands, engaging in an activity relying on low-skilled wage employment, also attests to the problems of establishing industries in the islands where migration to the US affords more lucrative opportunities.

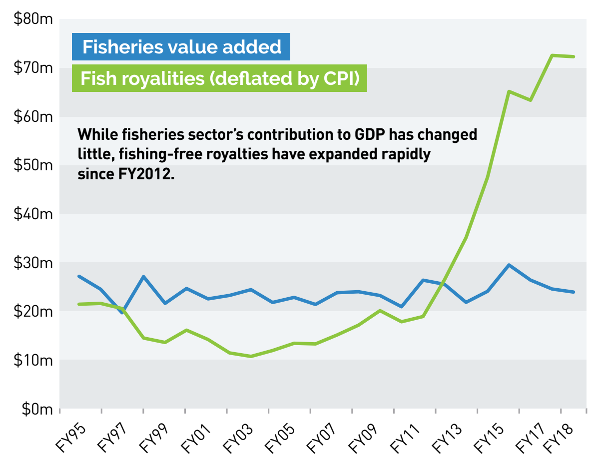
FISHERIES

Divestment in fisheries: With the vast marine resource under FSM jurisdiction, it might be anticipated that fisheries would be a well-developed sector making a significant contribution to GDP. However, the sector has failed to achieve the anticipated growth. In the early 1990s, in an attempt to develop the economy, the FSM embarked on a strategy of substantial public sector investment in fisheries facilities and enterprises. Joint ventures with foreign partners in purse-seine fishing operations were initiated. While there was awareness that the public sector should not be involved in the productive sectors of the economy, it has taken a long time for this policy to be implemented. The two remaining businesses, CFC (now with six purse seiners) and Diving Seagull (with two purse seiners), formerly SOEs but now under private management or ownership, make a substantial contribution to GDP, but this varies significantly from one year to the next depending on catch and prices. As indicated in the earlier discussion, CFC has recently expanded its fleet, with two new vessels beginning operations in late FY2015 and a further seiner in FY2019.

Parties to the Nauru Agreement: The main benefit of the fisheries resource has been the annual rents earned from fishing access fees; these make a substantial contribution to national-government revenues. After a prosperous period in the mid-1990s, when annual fishing royalties averaged $21 million, receipts fell by about 50 percent during the initial years of the 2000s (see figure 8). During recent years, this trend has reversed, and in FY2018 fishing fees exceeded $72 million, or 19 percent of GDP, reflecting the new arrangements under the PNA and under the implementation of the VDS. The cost of a day's fishing has risen from a PNA minimum rate of $5,000 introduced in 2012 and is currently close to $12,000. The increase in fishing revenues has generated a significant structural fiscal surplus at the national-government level and raises important issues about distribution between the national government and FSM states. These issues are taken up in later sections of the review.

The domestic fishing fleet: Though established to encourage the development of a local fishing industry, the operation of the FSMa, whereby

Figure 8
Fisheries value added and fishing royalties



domestic fishing vessels pay a lower daily rate, has encouraged a large number of overseas operators to establish local operations. In essence, these ventures set up an office in the domestic economy and pay lower fees on the justification of developing local industry. However, skipjack tuna is a migratory species, and fishing occurs where the fish are located. While transshipment through the home base of operations may result in greater domestic content, significantly increasing local value added is not a realistic proposition unless fishing results in onshore processing. Two foreign operators, Kasar and Taiyo, teamed up with the National Fisheries Corporation and set up a local office. While they pay dividends based on local ownership, they effectively operate no differently than any other foreign fishing entity. Koos Fishing Company, which operated 6 seiners in the RMI, relocated 4 vessels to the FSM, now operating under CityPro, to gain more favorable daily rates. A further 2 seiners are operating as domestically flagged vessels. In total, nonresident purse seiners operating under the FSMa (excluding Diving Seagull and CFC, which have a significant local presence) now number 15.

Early results from GSUSA study indicate $700 per day economic benefit from the FSMa, suggesting a significant loss to the FSM economy: Preliminary indications from an ongoing study of the fisheries sector by the GSUSA suggests the additional benefits to the FSM from domestic vessels compared with bilateral vessels is close to $700 per day.

This means discounts to domestic vessels that exceed $700 per day may cause substantial losses to the economy. However, estimating the costs and benefits is complicated by the need for domestically flagged vessels to pay transfer fees to other participant FSMa members when fish are caught in their waters. The analysis also needs to include estimates for inbound transfers from other countries' FSMa vessels fishing in FSM waters. The preliminary results from the GSUSA study suggest it is most probable the FSM incurred significant losses through participation in the FSMa scheme.

Alternative arrangements to address the inefficacies of the FSMa have been proposed and implemented: In PNG, discounts are provided in proportion to demonstrated and proven benefits and provide a more economically efficient method to encourage development of the domestic fishing industry. A further alternative is for the FSM to charge the full economic price to participating FSMa companies and for the issuing agency (NORMA) to pay any transfer fees to other FSMa members. This avoids operators' capturing sovereign rents while fishing in the home territory.

TOURISM

Declining trend in tourism: Information on visitor arrivals from immigration sources is considered unreliable and has deteriorated in recent years. However, the data suggest tourist arrivals have remained virtually stagnant since the start of the amended Compact, and the national accounts indicate a trend reduction of 1.2 percent per annum of the hotel-and-restaurant sector over the same period. Despite the weaknesses in the data, it is clear that the performance has been lackluster and well below the potential for an industry designated as a—if not the—major growth sector of the FSM economy.

Weak regulatory environment for tourism development: Many factors currently hinder the development of a vibrant tourism industry. The climate for FDI was streamlined during the PSRP. Additional improvements were carried out during the Private Sector Development Program, which was also initiated with ADB loan financing and intended to rectify many of the weaknesses. The foreign-investment boards in Pohnpei and recently in Yap have hindered the development of a predictable and transparent FDI environment. Further initiatives have been proposed to bring FDI under the control of the national government but have not been supported at the state level. According to the World Bank's Ease of Doing Business Survey, the FSM ranks 160th out of a total of 190 nations surveyed in 2018, clearly indicating that further reform must be completed before an attractive climate for private sector investment can be established. Difficulties in obtaining secure, long-term land leases are an impediment.

Missed opportunities: Until recently, growth in demand has been hampered by reliance on a single carrier operating high-priced flights to and from a remote geographical location. The addition of two further carriers, Air Nauru and Air Nuigini, is welcome, and in the latter case the addition provides access to visitors from Australia for diving in Chuuk and surfing in Pohnpei. These operations are subsidized by the national government, and whether this is sustainable remains to be seen. Hotels currently operate at low capacity levels, but most, if not all, of the facilities offer a standard of accommodation that is unattractive to international travelers. While these factors have discouraged tourist development, the FSM has much potential, particularly as a niche market in ecotourism and diving. However, the current, generally low quality of tourism facilities and infrastructure is unlikely to attract any but the most hardened of travelers.

C. Population, Incomes and Migration

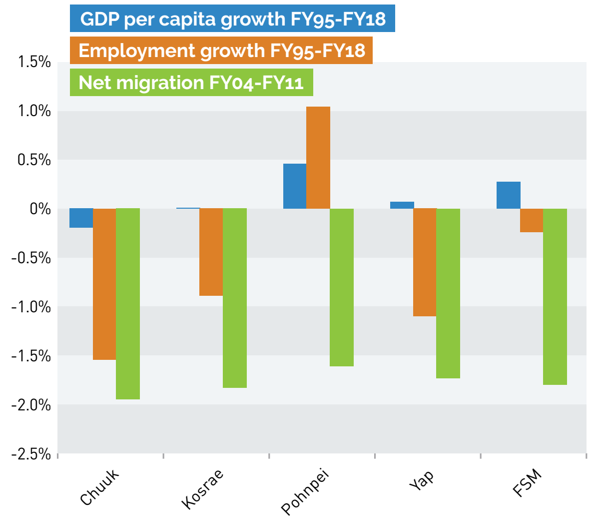
POPULATION AND MIGRATION

Emerging trend of depopulation: At the beginning of the Compact, population growth, as recorded between the 1986 and 1989 censuses, was rapid, at 3 percent per annum (table 1). Between 1989 and the next count in 1994, the rate fell to 1.9 percent, reflecting lower fertility rates and modest rates of emigration. However, between the 1994 and 2000 censuses, the population growth rate fell significantly to 0.2 percent, and the 2010 census indicated the population was falling annually by 0.4 percent. Population dropped in both Chuuk and Kosrae, while Pohnpei and Yap saw small but positive increases. While fertility rates fell, the majority of the decline reflected outward migration to neighboring US territories, Hawaii and the US mainland under the migration provisions of the Compact. Clearly, the negative economic growth rates in the FSM at the end of Compact I and RIFs in Chuuk and Kosrae resulted in large-scale migration to seek employment opportunities and better rates of remuneration in the US. In the long run, migration plays an equilibrating role: as incomes fall, outward migration compensates, improving average income levels for those remaining. Outward migration will have a distorting impact on the local economy, however, if it is achieved through a loss of the economically active and skilled individuals. This loss of human capital will reduce the long-term productive potential of the economy.

Out-migration averages 1.8 percent per annum: Figure 9 indicates the rates of change in real incomes, employment and migration in the four FSM states during the amended Compact. GDP per capita has changed little over the period in all four states. Employment opportunities have fallen in Chuuk, Kosrae and Yap, averaging −1.2 percent, but employment in Pohnpei has averaged a positive 1.0 percent during this period. The rate of out-migration, as measured by net movements of air passengers leaving the FSM between 2004 and 2011, has been remarkably similar in all FSM states, averaging 1.8 percent. The figure suggests that while migration rates have little direct relation with changes in GDP per capita, they might correlate significantly with employment, although the lack of association in Pohnpei opposes that view.

Association between employment change and migration: Figure 10 provides an interesting comparison of annual net migration

Figure 9
GDP per capita, migration, and population growth (annual averages)



and the annual change in employment. The association and direction of change is similar in the two series, although clearly the level of migration is much larger than the change in employment. While migration would thus appear to be associated with employment opportunities, there also appears to be a constant rate of migration, regardless of employment conditions. It is worth noting that a similar study in the Republic of the Marshall Islands found no such relationship. Clearly, the lack of economic opportunities in the FSM and the attraction of higher wages in the US provide strong incentives to migrate. From the start of the amended Compact through FY2011, it is estimated some 14,845 people migrated, which is approximately 15 percent of the FY2011 population—a large percentage by any standard.

Table 1 Population by state and annual average growth rates

	Population					Annual average growth			
	1980	1989	1994	2000	2010	1980-89	1989-94	1994-00	2000-10
Chuuk	37,488	47,871	53,319	53,595	48,654	2.7%	2.2%	0.1%	-1.0%
Kosrae	5,491	6,835	7,317	7,686	6,616	2.4%	1.4%	0.8%	-1.5%
Pohnpei	22,080	30,669	33,692	34,486	36,196	3.7%	1.9%	0.4%	0.5%
Yap	8,100	10,365	11,178	11,241	11,377	2.7%	1.5%	0.1%	0.1%
FSM	73,159	95,740	105,506	107,008	102,843	3.0%	1.9%	0.2%	-0.4%

Figure 10
Net migration and employment change

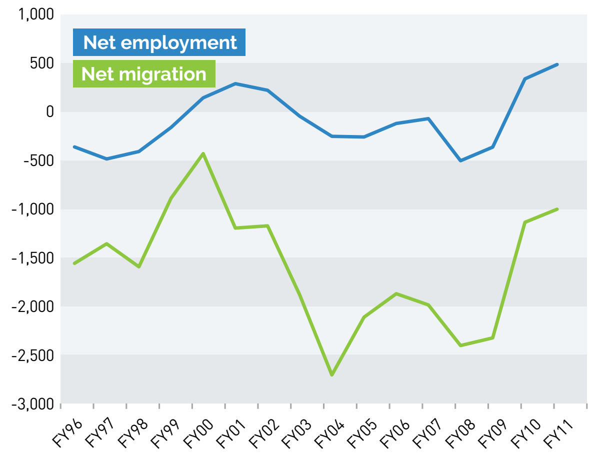
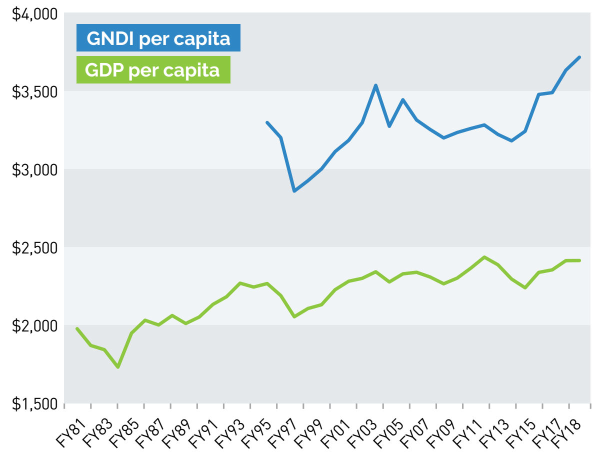


Figure 11
GDP and GNDI per capita, constant prices FY2004



REAL INCOMES

GNDI per capita significantly above GDP per capita: Figure 11 indicates the changes in constant-price GDP and real gross national disposable income (GNDI) per capita in 2004 prices. The constant-price GDP estimates are derived from chaining the prior GDP series to the current national-accounts series. Real GNDI includes the primary and secondary incomes received and paid to the rest of the world from the BoP. The major differences between the two estimates are the inclusion of fishing fees, earnings on foreign investments, transfers from overseas households, and grants received from the US and other donors. The data for the GNDI estimates begin in FY1995 and indicate a far higher level of disposable incomes when the additional flows are taken into account. In FY2018 GNDI per capita in current prices was over $5,818—51 percent higher than the current-price GDP per capita figure of $3,854.

GDP per capita has gradually improved during the Compact period since FY1987: Figure 11 provides a clear message about the developments in average real incomes (discussion is based on the GDP series). The advent of the Compact saw a large improvement in income levels in the run-up to the Compact. This improvement was sustained until the adjustment in the late 1990s, when Compact grant levels fell. While this triggered a significant shock, income levels gradually improved during the remainder of Compact I, and by FY2001 per capita incomes had surpassed the then-record level (FY1993). The implementation of the amended Compact caused a reduction in incomes as the economy adjusted to the new regime. Incomes recuperated in the following two years but then fell with the need for a second round of adjustments and the international recession taking hold. During the FY2008–FY2011 period, incomes regained the lost ground and attained the highest level ever recorded. After FY2011, per capita GDP fell, reflecting the weak economic performance, but from FY2015 through FY2018 it improved and surpassed the level attained at the start of the amended Compact in FY2004, although it remained below the peak attained in FY2011.

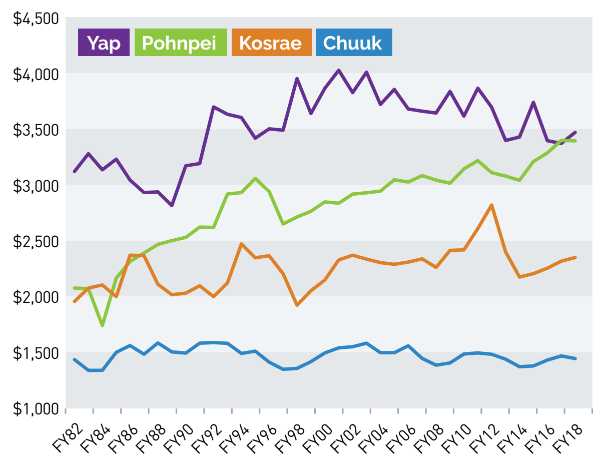
Strong growth in GNDI in last four years: Since the start of the amended Compact, real GDP per capita has grown marginally, by 0.2 percent per annum, in comparison with stagnation in real GDP. The difference in rates of change has in part been achieved by out-migration, which has sustained the average living standards of those remaining behind. The per capita GNDI series, although reflecting the same trends in GDP, tells a different story. Real disposable per capita incomes rose strongly after the second step-down in funding under Compact I, but with the advent of the amended Compact, incomes fell as grant levels declined and the economy deteriorated. After FY2008 real disposable incomes per capita remained relatively flat, but they have risen significantly in the five years following FY2013, reflecting the rapid increases in fishing fees and corporate tax receipts from the FSM domicile for Japanese corporations. In comparison with real GDP per capita of 0.2 percent per annum, real GNDI has risen by an average of 0.6 percent.

STATE-LEVEL INCOMES

Large disparities in state income levels: Analysis at the state level tells an interesting story, in terms of both growth and income differences between the states. Current GDP per capita in Pohnpei is $6,204, 207 percent higher than the average income level of $2,018 per capita in Chuuk. Average income is $3,376 in Kosrae and $4,510 in Yap, 67 percent and 123 percent higher than in Chuuk, respectively. Attributions of the differences are complex and reflect many factors. Under the Compact's revenue-sharing formula among the states, the smaller receive a higher proportion. On this basis, Kosrae should top the list for revenue received, but, in fact, it achieves third place. The remoter location and particularly the smaller size impose special constraints. Pohnpei benefits significantly from being the host of the capital, and with the rapid growth of the domicile for Japanese corporations in the last two years, it now surpasses Yap. Growth and development policies have obviously played an important part in the explanation of the different income levels.

Significant disparities in growth performance: While the disparities were less pronounced at the start of the Compact, higher growth rates have enabled states to improve living standards (see figure 12). In Chuuk, per capita real incomes have declined by 0.4 percent over the amended-Compact period. In Kosrae, there was a large spike in FY2011 and FY2012,

Figure 12
GDP per capita in Chuuk, Kosrae, Pohnpei and Yap, constant prices FY2004



reflecting the FAA airport-renovation project; incomes fell in the following two years, then improved since FY2014, but there has been no growth since FY2004. In Pohnpei, the trend indicates a clear and substantial improvement in living standards, with GDP per capita growing by an annual average of 0.8 percent. In Yap, after being one of the best-performing states during Compact I, living standards have declined by an average 0.7 percent. Yap in fact has recorded the worst performance of all the FSM states.

D. Employment

EMPLOYMENT

Significant job loss: Table 2 indicates that from FY1995 to FY2018, formal-sector employment contracted by an annual average rate of 0.4 percent (an 8 percent decline over the period) and was unable to provide enough opportunities

Table 2 Employment growth rates by sector and state (annual averages)

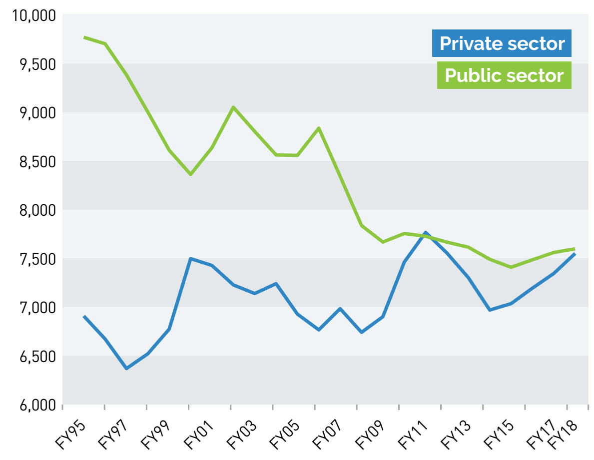
	FY95-FY18			"2nd step-down FY95-FY99"			"Final phase Compact I FY99-FY03"			Amended Compact FY04-FY18"		
	Total	Gov	Private	Total	Gov	Private	Total	Gov	Private	Total	Gov	Private
Chuuk	-1.6%	-2.9%	-0.1%	-4.4%	-5.2%	-3.8%	0.9%	0.4%	2.5%	-1.5%	-3.2%	0.3%
Kosrae	-0.4%	-1.3%	1.1%	-0.3%	-2.3%	4.8%	1.6%	-0.9%	5.3%	-0.9%	-1.1%	-1.0%
Pohnpei	0.4%	0.1%	0.8%	-1.5%	-1.4%	-2.0%	0.2%	1.3%	-0.5%	1.0%	0.2%	1.9%
Yap	-0.2%	-0.3%	-0.3%	1.5%	-2.5%	5.7%	1.4%	-0.2%	2.7%	-1.1%	0.3%	-2.6%
FSM	-0.4%	-1.1%	0.4%	-1.9%	-3.1%	-0.5%	0.8%	0.6%	1.5%	-0.2%	-1.0%	0.3%

for new job seekers. During the period, some 1,913 jobs were lost in Chuuk (31 percent of those employed in FY1995). Kosrae suffered a loss of 112 (8 percent of those employed in FY1995), and Yap lost 132 (5 percent of those employed in FY1995). Pohnpei generated 604 new jobs, representing some 11 percent of those employed in FY1995. Public sector employment contracted overall and in all states except Pohnpei, reflecting the downsizing of the public sector at the end of Compact I and the completion of the RIFs in Chuuk and Kosrae in FY2007. Private sector employment grew in Kosrae and Pohnpei, remained stationary in Chuuk and contracted in Yap. The general results are very disappointing, and the lack of job creation clearly reinforces the already-strong incentive to emigrate and seek employment opportunities in the US.

Large reduction in public sector employment: Figure 13 represents long-term trends in private and public sector employment since FY1995. Employment in the public sector contracted severely at the end of Compact I, reflecting a major fiscal adjustment. The ADB-financed PSRP enabled the FSM to implement an early-retirement program that facilitated the needed compression to restore fiscal balance. Employment in the public sector fell from 9,762 in FY1995 to 8,357 in FY2000, a 14 percent reduction. However, in the following period, FY2000–FY2018, public sector employment continued its downward trend but with periodic spikes corresponding to the fiscal position in different states. A lack of discipline in Chuuk in FY2002 and FY2006 is reflected in sharp increases in total FSM public sector employment levels. However, with the need to compress expenditures—a result of the phase-out of the use of the capacity-building grant to fund government operations in both Chuuk and Kosrae—public employment had fallen by FY2018 by a further 763 (9 percent) below what it was at the height of public sector reforms in FY2000.

Erratic trends in private sector employment: Private sector employment contracted between FY1995 and FY1997, reflecting the reduction in the public sector, but rose strongly between FY1997 and FY2000. During these years, the FSM economy improved after the adjustment at the end of Compact I was completed and the earlier financial crisis in Chuuk was resolved. However, from FY2000 to FY2008, private sector employment declined significantly, by 756 jobs, or 10 percent, as Compact I came to an end and adjustments were made during the initial three years of the amended Compact. During the FY2008–FY2011 period, private sector employment grew strongly, fueled by the need for additional jobs in construction, and an additional 1,024 jobs were created. However, as construction peaked and subsequently contracted, private sector employment fell between FY2011 and FY2014, and many of the newly created jobs were lost. In the last four years, as the economy has grown private sector employment has picked up; it is closing in on the record level of FY2011.

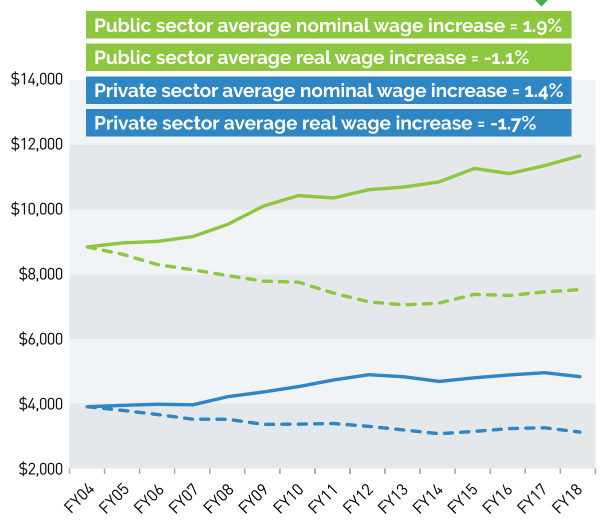
Figure 13
Employment by sector



WAGES

Minimum wages: The labor market in the FSM is relatively free from regulatory distortions and institutional rigidities. Pohnpei is the only state to impose a minimum hourly wage ($1.75) for the private sector. While the minimum wage may not affect the demand for skilled workers, it may be an active constraint in labor-intensive activities, although private sector operators do not suggest that this is the case. All the FSM governments have set minimum hourly wages for government employment ($2.00 for Pohnpei, $1.25 for Chuuk, $1.42 for Kosrae, $1.60 for Yap and $2.65 for the national government), but these levels coincide with the lowest step on the public-servant pay scale and are thus redundant.

Figure 14
Nominal and real wages (FY2004 prices), private and public sectors



There are currently no unions in the FSM, and there is no indexation of wage rates.

Large public–private wage differential: However, while the labor market is relatively free from imposed regulatory restrictions, it is distorted by high public sector wage rates, the ease of migration and the availability of higher wages in Guam and other US labor markets. Table 3 illustrates the level of real wages by state and compares the private and government sectors. Average wages between FY2016 and FY2018 for the FSM as a whole were 238 percent higher in government than in the private sector. While the skill mix of the two activities affects the differential, the public sector clearly exerts upward pressure on wages and influences the allocation of labor among the sectors.

Unfortunately, policy makers are constrained in their ability to influence distortions in the labor market. Unrestricted external migration is part of the basic rights of FSM citizens under Title Three of the Compact. However, during the Second Economic Summit, the FSM adopted a policy to reduce the differences in wage rates between the private and public sectors. Data in table 3 indicate that this objective has been achieved in Yap and that the difference remained little changed in Kosrae and Pohnpei but that in Chuuk the disparity has increased. Figure 14 indicates recent developments in nominal and real wages in the private and public sectors. Nominal wages have grown on average by 1.6 and 1.9 percent in the private and public sectors, respectively. However, in real terms, wages, after adjustment for inflation, have declined by 1.7 and 1.1 percent in the two sectors, respectively, indicating a decline in living standards.

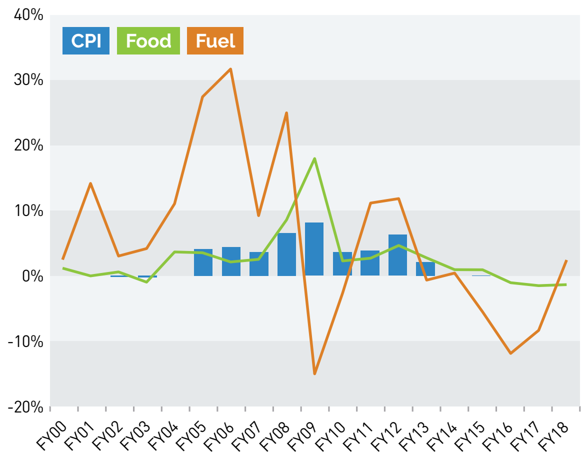
E. Prices

CPI records low level of inflation in last few years: Figure 15 provides information on the annual rate of change in the FSM consumer price index (CPI), including food and energy prices. In the early 2000s inflation was mild, and during the initial years of the amended Compact it was moderate—averaging 2.1 percent through FY2007. However, in FY2008 and FY2009, with the onset of the world recession, inflation peaked, reaching 6.6 and 8.2 percent, respectively. While inflation has moderated during the remainder of the amended Compact, it recorded a high rate in FY2012 of 6.3 percent. In FY2015 the CPI recorded no change, and in FY2016 the FSM entered a deflationary period as the CPI turned negative, reflecting the impact of rapidly falling fuel prices and to a lesser extent moderation in food prices. In FY2017 prices rose modestly by 0.7 percent; the rise returned to

Table 3 Real wages and differentials by sector and state

	Real Public Sector Wages (2004 US$)		Real Private Sector Wages (2004 US$)		Differentials	
	"Average FY95-FY97"	"Average FY16-FY18"	"Average FY95-FY97"	"Average FY16-FY18"	"Average FY95-FY97"	"Average FY16-FY18"
Chuuk	6,399	5,978	3,239	2,431	198%	246%
Kosrae	8,161	5,726	3,236	2,215	252%	259%
Pohnpei*	11,682	8,102	4,651	3,251	251%	249%
Yap	10,205	5,519	3,790	2,852	269%	194%
FSM	8,728	6,905	4,006	2,901	218%	238%

Figure 15
Change in consumer price index, food and energy groups (year-on-year)



a more normal rate of 1.7 percent in FY2018. During the last three years, food and fuel prices have fallen and moderated inflation.

Causes of inflation: The main forces influencing the rate of inflation have been (i) increases in imported-food prices in FY2009; (ii) soaring utility prices at the start of the amended Compact because of the loss of the Compact I energy grant; and (iii) surges in world petroleum and utility prices in FY2011 and FY2012 and large reductions from FY2015 through FY2017.

Food prices moderate and fall in the last three years: Imported-food prices rose sharply in FY2008, reflecting the disequilibrium in world markets. Given the significance of food in the FSM CPI (37 percent), the 18 percent jump in food prices in FY2009 had a large impact on the overall CPI and cost of living. Since that time, food prices have moderated and recorded negative inflation in the last three years, reducing pressure on real incomes.

After significant increase in inflation, fuel prices fall: The Compact I energy grant was used in Chuuk and Kosrae to subsidize utility prices, and its loss compelled both states to raise electricity tariffs. In Pohnpei and Yap, the state governments had adopted a cost-recovery price basis of production and had, in the mid-1990s, ceased to use the energy grant to subsidize prices. However, the impact of the loss of the energy grant was compounded throughout the period by rising world petroleum prices, which not only pushed up prices of gasoline at the pump but also required further increases in utility tariffs in all states. At the end of 2009, world energy prices began to moderate, and the energy section of the CPI fell by 15 percent during the fiscal year. In 2011 energy and utility prices again started to rise rapidly, reaching 11.1 percent in FY2011 and 11.7 percent in FY2012. During the next five years, fuel prices fell on average by 5.3 percent per annum but rose modestly by 2.3 percent in FY2018.

2. The External Sector

Deficits on goods and services are matched by positive outcomes on the primary and secondary income accounts. In essence, the imports of goods and services are financed out of positive receipts from fishing-fee royalties and current Compact and other aid transfers. The balance on current account was in deficit, averaging 17 percent of GDP from the start of the amended Compact through FY2013. Subsequently, the large increase in receipts from fishing fees and the domicile for Japanese corporations resulted in a positive current-account balance.

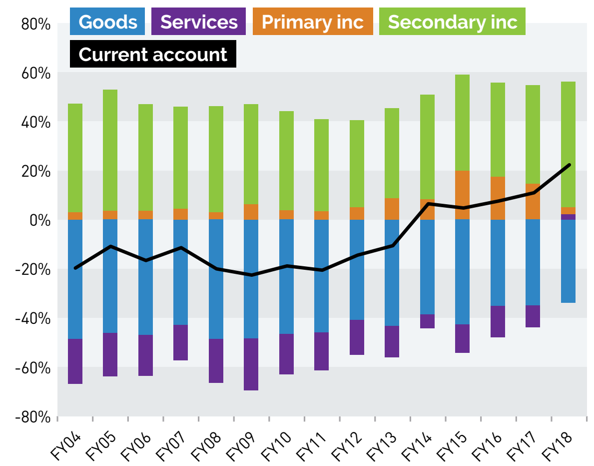
- From the start of the amended Compact through FY2007, the real effective exchange rate (REER) went largely unchanged, but with a significant increase in inflation in the FSM due to rising fuel and food prices at the time of the global financial crisis, the REER spiked in FY2008, resulting in loss of competitiveness. The REER subsequently further appreciated as the US dollar strengthened but depreciated after FY2015 as FSM inflation turned negative.
- FSM external debt has declined in recent years, and at 22 percent of GDP (16 percent net of offsetting assets) with debt service at 4 percent of national-government domestic revenues, it is projected to be sustainable.
- However, a recent IMF/World Bank debt-sustainability analysis (DSA) suggests the FSM is at risk of high debt stress due to emerging fiscal shortfalls and natural disasters after FY2023. The result follows from the standard DSA model, which assumes that fiscal shortfalls result in a mix of grants and debt financing. However, the FSM has no access to international financial markets and cannot finance deficits through external borrowing.
- As a result of the DSA analysis and being designated at “high risk of debt distress,” the FSM has now been accorded “grant only” status by the World Bank and ADB and is no longer eligible for concessionary-loan finance. This has both benefits and costs, but it has ushered in a period of booming multilateral grant programs and declining a debt-to-GDP ratio as existing loans are repaid.
- An audit of the FSM’s debt management, undertaken by the FSM public auditor with support from the ADB, identified a series of debt-management issues. A series of reforms were proposed, which were subsequently drafted into a debt-management reform bill. The draft bill was introduced in the FSM Congress; however, it has now lapsed.

2. The External Sector

A. Balance of Payments

THE CURRENT ACCOUNT

Figure 16
Balance of payments, current account: % GDP



Trade account runs significant deficit: The trade account of the BoP (see table 4 and figure 16) is composed of imports and exports and runs a significant deficit, reflecting the excess of imports over exports. Exports currently include fish, re-exports of fuel and a small quantity of agricultural produce. While small volumes of inshore reef fish are exported to neighboring islands, fish exports are mostly tuna caught by local purse-seine and longline vessels operated by enterprises with joint private–public ownership but private management. Most of the fish caught in FSM waters are, however, caught by foreign vessels under license, and the associated fishing access fees are treated as a primary income in the BoP.

Import growth reflects economic activity: Imports dominate the trade account, and their growth reflects the level of activity in the economy. Overall imports have grown by an annual trend rate of 2.5 percent. This is slightly below the rate of growth of nominal GDP (3.2 percent) and that of both GNI (3.9 percent) and GNDI (3.6 percent). The most noticeable development has been the large reduction in fuel imports, 46 percent since FY2012, reflecting the recent reductions in fuel prices. Imports of construction materials have followed a path directly related to the level of construction activity, but, since FY2016, imports of construction materials have risen while construction activity has stagnated. This suggests the rapid increase in national-government legislative projects has spurred the demand for construction materials on own account, rather than increasing the demand for the building industry. Use of intermediate goods has generally stagnated through the amended Compact while investment in machinery and transportation equipment has risen.

Services account: The services account comprises several major items: receipts from travel (tourism), “other” services, and payments for transport of freight and passengers. The demand for tourism/travel has grown modestly in nominal terms during the amended Compact. Business services include receipts by Micronesia Registration Advisors (MRA) for services provided to Japanese corporations. This item can be large when Japanese corporations declare large taxable profits, and it was exceptionally large in the last two years (see below). Services imports are dominated by the cost of freight and reflect the level of imports of goods into the FSM. Travel (including medical referrals) is also significant. Construction services provided by nonresident producers are also important and peaked in the FY2008–FY2010 period, reflecting the buildup in FAA grants for airport improvements and Compact infrastructure projects. They weakened subsequently as the projects neared completion and Compact infrastructure grants were reduced; construction services currently remain at low levels. “Other” services imports are large in total but comprise a host of smaller items.

Fishing royalties dominate the primary income account: The primary income account comprises fishing access fees, earnings of dividends and interest on overseas investments, payment of dividends, and payment of interest on debt. Fishing-fee earnings have shown a positive trend since FY2001 and in FY2018 attained a level of $70 million. The FSM governments including Yap State have maintained a sizeable level of foreign investments. The level of FSM investments was largely stable through the initial part of the amended Compact but has risen significantly in the last two years as additional revenues from fishing fees and earnings from the FSM domicile have accumulated in the FSMTF. However, returns on investments have been modest, reflecting an inactive investment strategy. Commercial bank earnings on foreign assets and earnings on Social Security funds are also important. On the payment side, dividend payments on foreign investments are the major item. These grew strongly in FY2017 and FY2018, reflecting repatriation of profits from MRA. The low level and concessional nature of the FSM's external debt have held debt-service obligations in check.

Current grant receipts are a declining share of current-account receipts: After the trade account, the most notable component of the BoP is the secondary income account, which includes Compact transfers and other aid flows. Compact flows comprise the sector grants while

Table 4 FSM balance of payments, current account

(US$ millions)	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Current-account balance	-52.1	-60.0	-44.4	-31.5	19.5	14.1	23.8	37.7	84.6
Goods-and-services balance	-173.5	-178.9	-168.8	-166.4	-134.7	-161.9	-150.6	-150.7	-120.2
Goods balance	-128.4	-134.0	-125.4	-128.8	-117.5	-127.9	-110.3	-120.2	-128.5
Exports of goods	31.6	40.5	57.8	50.2	38.2	39.9	49.7	55.3	47.2
Fish	19.0	27.7	39.7	28.3	21.2	22.5	33.3	39.0	31.7
Other	12.7	12.8	18.1	21.9	17.0	17.4	16.5	16.3	15.5
Imports of goods	160.0	174.4	183.2	178.9	155.7	167.7	160.0	175.4	175.7
Services balance	-45.1	-45.0	-43.4	-37.7	-17.3	-34.1	-40.3	-30.5	8.3
Exports of services	38.7	36.5	40.0	46.3	63.4	45.8	42.2	54.6	95.4
Travel	24.5	21.8	22.3	26.8	28.8	25.4	23.5	23.7	24.7
Other	14.2	14.7	17.7	19.4	34.7	20.4	18.7	30.9	70.8
Imports of services	83.8	81.4	83.4	83.9	80.7	79.8	82.5	85.1	87.1
Transport	41.3	43.9	47.0	44.7	42.1	42.4	44.2	47.7	47.9
of which: passenger services	15.6	15.4	17.2	16.8	16.7	17.4	17.9	18.8	19.0
of which: freight and postal services	25.6	28.4	29.7	27.8	25.4	24.9	26.3	28.8	28.8
Construction services	14.4	9.2	9.7	10.9	11.0	11.0	10.8	10.6	10.9
Other	28.2	28.4	26.7	28.2	27.6	26.5	27.4	26.8	28.2
Primary-income balance	10.6	9.6	15.4	25.5	25.4	59.4	54.7	49.9	10.3
Receipts	23.5	23.7	31.4	39.9	52.8	72.5	70.6	76.5	78.6
Fishing license fees	17.7	18.7	26.3	34.9	47.4	64.4	61.7	70.1	70.0
Other (mainly dividends and interest)	5.8	5.0	5.1	5.0	5.4	8.1	8.9	6.5	8.6
Payments	12.9	14.2	16.1	14.4	27.4	13.1	15.9	26.6	68.4
Secondary-income balance	110.9	109.4	109.1	109.4	128.9	116.7	119.6	138.5	194.5
Receipts	126.2	124.9	124.8	125.0	144.2	132.7	136.0	156.9	211.9
Budget grants	83.2	82.5	80.3	78.4	74.4	77.6	76.8	84.6	80.8
Compact current grants	65.9	66.7	65.1	63.0	59.0	62.4	60.7	67.5	63.6
Other budget grants	17.4	15.8	15.2	15.4	15.4	15.2	16.2	17.1	17.2
Off-budget grants	6.9	6.8	6.8	6.8	6.8	14.8	14.8	10.8	8.8
College of Micronesia	16.3	13.4	13.7	12.8	11.5	11.3	12.3	11.4	9.0
Corporate tax from nonresident companies	0.8	2.1	2.6	4.4	27.6	4.1	6.0	22.7	84.5
Other (mainly households)	18.9	20.1	21.4	22.6	23.8	24.8	26.0	27.3	28.8
Payments (mainly households)	15.3	15.5	15.8	15.6	15.3	16.0	16.4	18.4	17.4

other budget grants include federal and special programs. Off-budget grants reflect additional receipts from the US and other donors, while the College of Micronesia's receipts include Pell grants. While current grants remain a very important item in the FSM economy, they have been declining as a share of current-account receipts; they fell from 60 percent of current-account receipts at the start to 20 percent at the end of the amended Compact.

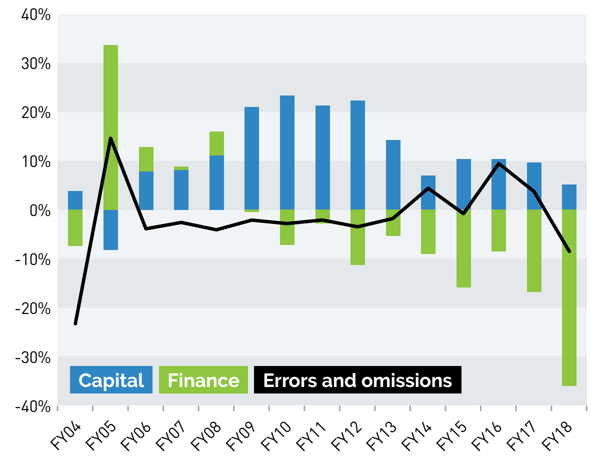
Domicile for Japanese corporations attracts large receipts: A new item in the BoP is corporate taxes received through the FSM domicile for Japanese corporations. The lower tax rate, 21 percent, in the FSM is attractive to Japanese companies and has resulted in a growing level of receipts in recent years. In FY2014 a very large payment was received, reflecting tax payment by an individual company declaring a large capital gain. In FY2015 and FY2016 payments reverted to more normal levels, but in FY2017 and FY2018 very large payments were again received. While in normal years receipts from this source are modest, periodic large payments can be expected from time to time. The FSM domicile is managed by a private corporation (MRA) that receives a fixed percentage of the tax take and is reflected in the services account.

Migrants' remittances: Inward private remittances have been relatively small in the FSM compared with other Pacific Island nations which also have large migrant communities living in neighboring metropolitan nations. However, the BoP has estimated this item to be rising strongly by over 6 percent per annum during the amended-Compact era as a result of the large out-migration in previous years and the subsequent associated flows back home. Outward payments of remittances from households reflect transfers from foreign workers living in the FSM and are also significant; they are estimated to have grown on average by over 4 percent.

THE CAPITAL AND FINANCE ACCOUNTS

Compact infrastructure and FAA grants dominate capital account: Table 5 and figure 17 provide details of the capital and financial accounts of the BoP. The major items in

Figure 17
Balance of payments, capital and finance account: % GDP



the capital account include Compact capital transfers (infrastructure-sector grant) and other capital transfers (FAA airport-improvement grants). Drawdowns under the infrastructure grant grew significantly through FY2012 once the FSM was able to meet the conditions of the grants. However, as noted in numerous other places in this review, grant disbursements dropped by half in FY2013 and fell to low levels from FY2014 through FY2018, reflecting project-management weaknesses and inability to fulfill grant conditions. While the issues have been resolved, the impact has yet to be reflected in the figures. Other capital transfers grew strongly during the initial years of the amended Compact, mirroring the large FAA contributions, but declined significantly from FY2012 through FY2014 as the projects came to a close. While there is a major airport renovation in Chuuk, which boosted levels of other capital grants in FY2016 and FY2017, the pipeline of FAA projects is otherwise empty.

Large increase in FSM portfolio balances: The main items in the financial account are FDI, portfolio investment and other investments. While FDI has been small, reflecting low levels of FDI in the FSM, portfolio investment has been a significant component of the BoP. Portfolio investment comprises the foreign assets of the various governments, the FSMTF and public sector entities. Public sector investments represent the pooled reserves managed by the national government including the FSMTF and

Table 5 FSM balance of payments, capital and finance accounts

(US$ millions)	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Capital-account balance	64.2	62.0	68.3	42.2	21.2	30.9	32.4	33.0	19.6
Compact capital grants	16.3	19.2	28.5	16.5	4.9	7.3	7.2	5.2	2.4
Other	47.9	42.7	39.8	25.7	16.3	23.6	25.3	27.9	17.2
Capital outflows (contributions to CTF)	~	~	~	~	~	~	~	~	~
Net lending/borrowing (curr + cap)	12.1	2.0	23.9	10.7	40.7	45.0	56.2	70.7	104.2
Financial-account balance	-19.9	-8.2	-34.6	-16.0	-27.4	-47.4	-26.7	-57.9	-136.4
Direct investment	0.7	0.8	0.9	0.6	0.3	0.2	0.2	0.2	0.2
Portfolio investment (increase in assets: -)	-8.5	0.2	-1.0	-3.6	-7.1	-40.7	3.3	-15.6	-113.1
Assets	-8.8	1.4	-0.4	-4.7	-7.0	-42.5	2.9	-16.5	-113.8
Liabilities	0.3	-1.2	-0.6	1.1	-0.0	1.8	0.4	0.9	0.8
Other investment (increase in assets: -)	-12.2	-9.1	-34.5	-13.0	-20.6	-6.9	-30.1	-42.5	-23.5
Assets (mainly bank deposits)	-12.5	-12.5	-35.2	-13.0	-21.6	-4.9	-26.8	-38.2	-19.1
Liabilities (public sector loans)	0.3	3.4	0.7	-0.0	0.9	-1.9	-3.3	-4.3	-4.4
Reserve assets	~	~	~	~	~	~	~	~	~
Errors and omissions	-7.8	-6.1	-10.7	-5.3	13.3	-2.4	29.5	12.8	-32.3

the Yap State Trust Fund. In FY2015 and again in FY2017–FY2018, the large savings from fishing-fee income coupled with the exceptional FY2014 and FY2017–FY2018 FSM-domicile tax receipt resulted in large increases in FSM offshore investments.

Commercial bank excess liquidity deposited offshore: Other investments include changes in the levels of foreign assets of the commercial banks and external-debt drawdowns and repayments. The significant growth in commercial bank deposits coupled with a low loans-to-deposit ratio has resulted in a large buildup of excess liquidity in foreign assets. However, the accumulation of national-government fiscal surplus and irregular investment offshore results in periodic large shifts in commercial bank foreign assets. External-debt drawdowns and repayments have generally been small but were large in the FY2008–FY2009 period, reflecting the drawdown of the FSM Telecom fiber optic loan. With the designation of the FSM as grant only and non-eligibility for future borrowing from multilateral donors, FSM external debt is set to fall as old debt is steadily repaid.

Errors and omissions generally within acceptable levels: Over the FY2006–FY2015 period, the errors and omissions in the BoP have generally been negative and within 5 percent of total imports and exports of goods and services, which represents a satisfactory outcome. However, in FY2016 and FY2018 errors and omissions stepped outside this range, although the average over the last four years of 1 percent suggests the majority of the error is probably in timing issues reflecting the unusual and large receipts of windfall gains from the offshore FSM domicile for Japanese corporations.

Attaining self-reliance major challenge facing FSM economy: The analysis and structure of the BoP clearly indicate the dependent nature of the FSM economy. Attainment of the Compact goal of economic self-sufficiency and replacement of official transfers with funds from other foreign-exchange-earning sources will be a long-term process and presents perhaps the major and most difficult challenge facing the FSM economy.

B. Gross National Disposable Income

GNI and GNDI important indicators: In most economies, analysis focuses on GDP since this indicator most accurately reflects the economic circumstances of the country under investigation. However, in the FSM the large inflows of primary and especially secondary incomes from the rest of the world have a significant impact on aggregate demand and indicate that analysis should also feature changes in GNI and GNDI. In the FSM, GNI and GNDI were 3 and 51 percent higher than GDP (nominal values) in FY2018. In analyzing the results, it is useful to single out developments in constant-price changes in primary and secondary incomes, which are provided in figure 18. Both the primary and secondary incomes in the BoP have been deflated by a composite index of the CPI and GDP deflator.

Significant improvement in primary incomes: While several factors influence primary income, the most important have been changes in fishing-fee royalties and dividend outflows resulting from the FSM domicile for Japanese corporations. Fishing fees have risen through the amended Compact, rising rapidly between FY2011 and FY2018. While dividend and interest receipts are generally minor, the overall trend in primary-income receipts has been significant growth. On the payment side, dividend and interest outflows rose rapidly in FY2014, FY2017 and FY2018, reflecting dividend outflows resulting from the large earnings of the FSM domicile for Japanese corporations. The overall trend on primary income account has thus been rising, reflecting increased earnings from booming fishing fees. However, this is periodically offset when large receipts are received from the FSM domicile, precipitating dividend outflow.

Secondary incomes display secular decline in real terms: Secondary incomes are dominated by Compact and other grant flows. These include the operational Compact sector grants, other budget and off-budget grants from a variety of donors, and significant grants to the College of Micronesia (CoM) (Pell grants). Most of these grants, especially the Compact grants, are static in nominal values. The other major categories of the secondary income account, receipts and payments of household remittances, show a rising trend but tend to offset each other. The overall impact of these forces is that the secondary-income series, while remaining stationary in nominal values, displayed a marked downward trend in constant prices through FY2013. In FY2014 and again in FY2017–FY2018, the series showed a sharp uptick reflecting the extraordinary receipts from the FSM domicile (see figure 18), but in FY2015 and FY2016 the series reverted to trend.

GNI diverges from GDP, reflecting rising fishing royalties: Once the positive balance on the primary income account in constant prices is added to GDP, the resulting series for GNI lies above GDP. From FY2004 to FY2011, the GNI curve mirrored that of GDP. However, from FY2012 onward rising fishing-fee incomes exerted an upward divergence of the series from GDP. This continued through FY2018 but was offset by the large payments arising from the FSM domicile (see figure 19).

GNDI grew very rapidly in last four years: In the early part of the amended Compact, GNDI showed a declining trend as both GDP and secondary incomes fell.[1] From FY2008 through

1 In FY2005 Federal Emergency Management Agency receipts for cyclone rehabilitation led to a significant departure from this trend.

Figure 18
Primary and secondary incomes, constant prices FY2004

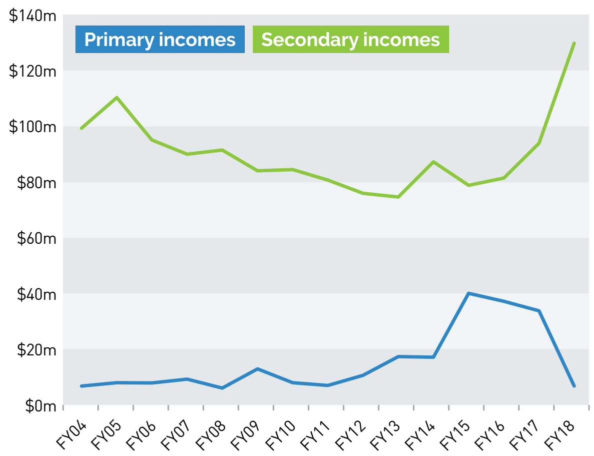
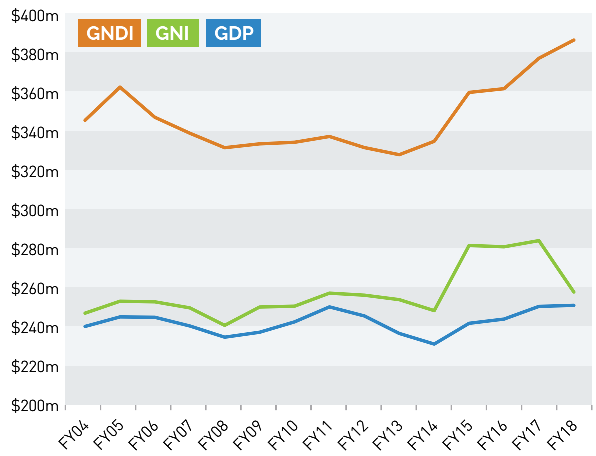


Figure 19
GDP, GNI and GNDI, constant prices FY2004



FY2011, the rising level of GDP came into play, offsetting the decline in secondary incomes, and GNDI remained stagnant. However, in FY2012 and FY2013, the decline in GDP was offset by rising fishing-fee income (primary incomes), which helped stabilize GNDI. In the final phase, FY2014 through FY2018, the large receipts from both fishing fees (primary incomes) and the FSM domicile for Japanese corporations (secondary incomes) resulted in a very large increase in GNDI.

C. International Investment Position

FSM portfolio investments represent major source of national savings: The FSM international investment position is presented in table 6. The data provide stock positions at the end of each year corresponding to the financial account of the BoP (note the CTF is treated as a nonresident international unit). While there is no available record of FDI, the table provides an important indication of the FSM's portfolio investments. The state and national governments of the FSM pool their investments, which are maintained by the national government. In FY2010 Yap State decided to withdraw $30 million of its resources from the FSM pooled investments and set aside the funds in a separate trust for future generations of Yapese. The remaining FSM investments stood at $282 million at the end of FY2018, including a further $16 million of Yap's investments, resources for ADB loan repayment (the PSRP, Private Sector Development Program and Basic Social Services loans) and the FSMTF. The FSM Social Security Administration, FSM Development Bank and FSM Telecom also hold significant portfolio investments.

Table 6 FSM international investment position

(US$ millions)	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
TOTAL STOCKS, NET	***182.6***	***185.1***	***225.3***	***263.8***	***302.7***	***338.5***	***383.8***	***466.5***	***618.2***
Direct investment, net	***n.a.***	***n.a.***	***n.a.***	***n.a.***	***n.a.***	***n.a.***	***n.a.***	***n.a.***	***n.a.***
Portfolio investment, net	***153.7***	***146.3***	***151.3***	***174.3***	***192.1***	***213.0***	***228.0***	***269.7***	***397.1***
Assets	160.6	152.0	156.4	180.6	198.4	221.0	236.4	278.9	407.1
Investment portfolio, government	72.4	67.5	65.7	75.2	84.4	112.6	123.0	151.1	281.5
Yap investment trust fund	31.7	30.5	35.7	40.0	43.0	42.5	46.2	52.3	56.8
Social Security	36.9	35.2	37.2	43.7	45.3	43.0	43.7	50.0	43.3
Development Bank	9.5	9.6	11.3	14.4	15.6	14.7	14.9	15.0	14.2
Telecommunications Corporation	5.5	4.6	1.3	1.4	1.6	1.5	1.6	1.8	2.0
Other	4.6	4.7	5.2	5.9	8.4	6.7	6.9	8.6	9.3
Liabilities	6.9	5.7	5.1	6.2	6.2	8.0	8.4	9.3	10.0
Equity: capital and retained earnings of foreign-owned banks	6.9	5.7	5.1	6.2	6.2	8.0	8.4	9.3	10.0
Debt: medium-term notes	~	~	~	~	~	~	~	~	~
Other investment, net	**26.7**	**36.6**	**71.9**	**85.7**	**106.8**	**120.0**	**150.0**	**192.4**	**216.8**
Assets	111.8	124.3	159.5	172.4	194.0	198.9	225.7	263.9	283.1
Deposits	111.8	124.3	159.5	172.4	194.0	198.9	225.7	263.9	283.1
Other assets, accounts receivable	~	~	~	~	~	~	~	~	~
Liabilities: loans	85.1	87.6	87.5	86.7	87.2	78.9	75.7	71.5	66.2
Government	50.6	54.6	56.3	57.3	57.0	50.7	49.5	47.7	44.5
Public corporations	34.5	33.0	31.2	29.4	30.2	28.3	26.2	23.8	21.8
Reserve assets	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**	**2.1**
SDR	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
Memorandum item									
FSM Compact Trust Fund	177.2	198.5	257.3	323.1	380.9	397.3	467.1	564.3	636.2

Commercial bank foreign assets grow significantly: "Other" investments include commercial bank foreign deposits and represent that portion of bank deposits not loaned out in the FSM. These stood at $282 million at the end of FY2018. Finally, the external debt of the governments of the FSM and public corporations represents the major external liability of the nation. Debt to public corporations grew with the extension of the Rural Utility Service (RUS) loan in FY2009 to FSM Telecom for the fiber optic cable.

D. Nominal and Real Effective Exchange Rates

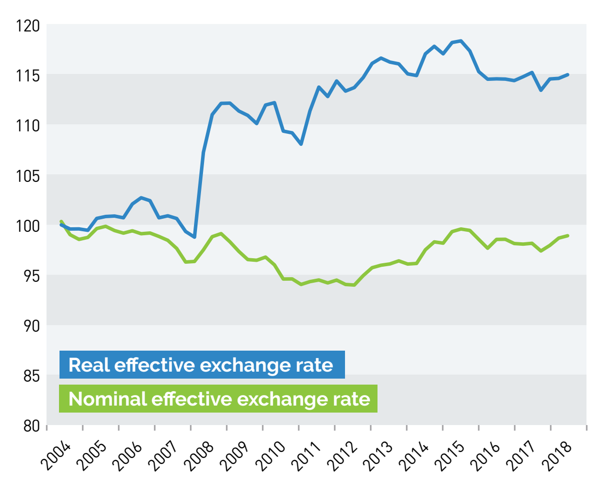
Trends in the NEER: The nominal effective exchange rate (NEER) is a trade-weighted index of the exchange rates at which the FSM engages in trade in goods and services. The currency composition of the FSM's trading relations has been estimated through analysis of the origin of imports and estimation of exports of both goods and services. Given the FSM's historical relationship with the US, the US dollar dominates and accounts for 70 percent of international trade. Considering that the FSM uses the US dollar as its currency of exchange, the NEER is essentially a trade-weighted index of the US dollar against the FSM's trading partners. Figure 20 indicates that the NEER depreciated during much of the amended Compact, mirroring the weakening of the US dollar. However, after the end of 2012, the NEER appreciated as the dollar has gained strength, but it peaked at the end of FY2015 and has subsequently stabilized.

Large increase in REER in FY2008 at the time of the global financial crisis: The real effective exchange rate (REER) is a measure similar to the NEER, but currency movements are adjusted for changes in the respective countries' CPIs. It is thus a proxy for gains or losses of international competitiveness. From the start of the amended Compact through FY2007, the REER went largely unchanged. However, after that point, with the significant increase in inflation in the FSM because of rising fuel and food prices, the REER spiked, resulting in a loss of competitiveness. Through mid-2011, the REER depreciation reflected the low rate of inflation in the FSM, but in the following period, FY2012 through FY2015, the REER appreciated, largely reflecting the appreciation of the US dollar. From FY2015 through FY2018, the FSM's inflation rate flattened and turned negative, resulting in a depreciation of the REER. Taking the period as a whole, the data suggest doing business in the FSM is now about 15 percent more costly than at the start of the amended Compact.

E. External Debt

FSM external-debt structure: The FSM has adopted a prudent external-debt-management strategy during the amended-Compact era, and external borrowing has been modest. The current portfolio of government external debt is represented by debt to the ADB. Loans were contracted during the late 1990s for fisheries and water sanitation (outstanding debt for both loans is $10 million). In FY1997 the FSM underwent a period of fiscal adjustment resulting from reductions in Compact transfers. A PSRP was initiated with ADB support to finance an early-retirement program (outstanding debt is $13 million). There were no further commitments until loan effectivity of the private sector development program in FY2003 and the Basic Social Services loan in FY2004. Drawdowns under both programs were not extensive, as several of the FSM states failed to qualify for the loans or meet the conditions for second-tranche drawdown (outstanding debt under both loans is $8 million). In FY2008 the FSM made the first

Figure 20
Nominal and real effective exchange rates, FY2004 = 100

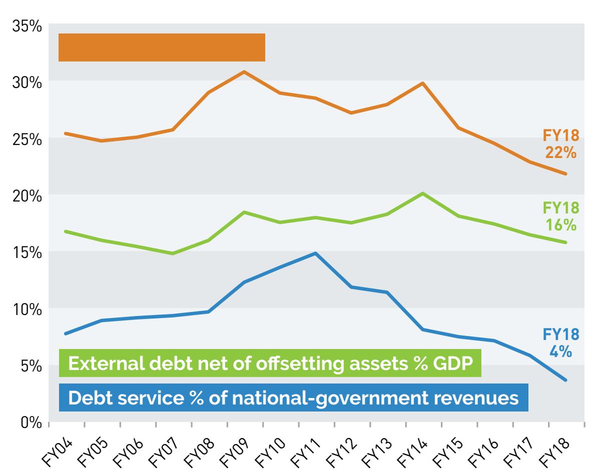


drawdown under the omnibus infrastructure loan to finance specific infrastructure projects in the FSM states (outstanding debt is $14 million). In FY2014, Yap State drew down its first tranche of a utilities loan to finance a variety of energy projects (outstanding debt is $8 million).

Large debt to FSM Telecom: For government-guaranteed debt, the main item is finance provided by the RUS to FSM Telecom. This stood at $23 million in FY2008, but in FY2009 it rose significantly with the drawdown of $12.1 million to finance the installation of a fiber optic cable connection to the US backbone (outstanding debt is $20 million). Both the FSM Development Bank and PUC have low levels of external debt.

Very favorable and declining external-debt profile: The FSM external-debt level has shifted from a position that during Compact I was quite adverse to one that is now very favorable (see figure 21). With a debt-to-GDP ratio of just 22 percent in FY2018, the FSM's debt level is low by Pacific Island standards. However, the FSM holds a sinking fund established in the late 1990s to pay down the PSRP loan, which was subsequently extended to include repayment of the development loans to the basic social-services sector and private sector. Netting out the value of the sinking fund, external debt falls to 16 percent of GDP. (While most external debt has been on-lent to the state governments, the liability rests with the national government.) Debt service as a percentage of national-

Figure 21
External debt ratios



government domestic revenues (excluding grants) was 4 percent in FY2018.

IMF, World Bank classify FSM as at high risk of debt distress: While the analysis of the FSM's external profile presents a favorable view, a recent DSA conducted by the IMF and World Bank[2] has classified the FSM as being at "high risk of debt distress." The result follows from the standard DSA model, which assumes that any fiscal shortfall is managed by debt financing, including even for special risks that arise from climate change and natural disasters. The projections are based on insufficient yields from the CTF after FY2023 to support prevailing levels of public-service delivery and the need to respond to periodic natural disasters equivalent to 0.5 percent of GDP per annum. As a result, large fiscal deficits require both grant and debt financing.

Standard IMF/World Bank DSA based on dubious assumptions: While the FSM may be subject to large fiscal shocks after FY2023 and those arising from natural disasters, the nation has no recourse to international capital markets or persistent borrowing from donors and therefore would not be able to finance fiscal shortfalls by incurring unsustainable levels of external debt. Indeed, the DSA itself and designation of grant-only status precludes additional borrowing except on highly concessional terms. Fiscal adjustment would be unavoidable, even if accompanied by transient borrowing to mitigate either the FY2024 problem or climate events. The ensuing fiscal compression would present a serious challenge, but not through the channel of debt distress.

Grant-only status: As a result of the DSA, the FSM has been declared as "grant only," indicating that the FSM is only eligible for grants and not loans from the donor community. While the basis of the grant-only status may be dubious, there is no question it has been highly beneficial and has led to a massive increase in grant funding to the FSM. World Bank ICT projects total about $100 million, and annual World Bank grant streams are on the order of $25–$30 million. In response, the ADB has also upped its grant availability to the FSM, which is now

2 Staff report for the 2017 Article IV consultation—Debt Sustainability Analysis, International Monetary Fund, August 2017.

about $10–$15 million annually. The order of magnitude of these projects was unheard of a few years back. While there are large benefits to having grant-only status with increased funding, there are also costs of ineligibility for loan funding of large infrastructure projects.

Long-term fiscal outlook has improved, shifting the basis of grant-only status: Since the FY2017 IMF DSA, the fiscal outlook of the FSM has improved significantly with the boom in fishing fees and periodic large receipts from the FSM domicile. While the fiscal gap now projected for FY2024 remains significant, if well managed and if current intentions of the US for a Compact extension remain, it no longer represents the looming economic crisis projected a few years back (see chapter 9, "Long-Term Economic Outlook"). This said, it is understood that the basis of the DSA for low-income countries such as the FSM is under review. Loss of grant-only status would change the outlook after FY2023.

F. Debt Reform

Weak public-debt management identified in audit: While a well-specified assessment of the FSM's external debt would find that the FSM is not at risk of debt stress, a recent audit conducted by the FSM public auditor with support of the ADB[3] found the absence of a public-debt and debt-management policy far from satisfactory. The goal of the audit was as follows:

> *To enhance transparency and accountability in FSM's management of public debt and assist the policy makers institute necessary and legal and institutional reforms in order to strengthen public debt management, enhance the sustainability of public debt and reduce its vulnerability to international financial shocks.*

The debt audit concluded that the "FSM's legal and institutional framework lacked permanent and necessary provisions to implement adequately the system of debt management."

Audit findings: The audit established a series of weaknesses that included the following:

1. Out of the FSM's external debt of $90 million, a significant amount—$21 million—had been spent on failed or only partially successful projects.
2. No assessment was regularly made of the sufficiency of the sinking fund established to repay government debt.
3. The legal system lacked provisions to enable the FSM to implement a sound debt-management system.
4. Institutional capacity to implement an effective debt-management system was limited.
5. There was no risk analysis of debt guaranteed by the national government.
6. Public information on public debt and borrowing activities was lacking.

Audit recommendations: Given the findings, the auditor made a series of recommendations. These included the following:

1. Improve management functions in project appraisal and implementation.
2. Improve the management of the sinking fund.
3. Improve the legal framework for debt management in part by developing a debt-management strategy.
4. Improve the institutional framework for debt management in part by creating a debt-management advisory committee.
5. Limit states' and SOEs' debt.
6. Enhance transparency and accountability in debt management in part through reporting and publication.

Need for debt-management strategy and monitoring: In other words, the ADB-supported audit recommended a thorough overhaul of the legal and institutional framework governing how external debt is incurred and managed. While this review has argued that external-debt sustainability in the financial sense is not an issue of immediate concern, the recommendations of the ADB-supported audit are fully endorsed. The absence of a debt-management strategy and project-appraisal capacity has led the FSM

3 National Public Auditor, "Audit of the Public Debt and In stitutional Framework," Report No. 2014–07, Palikir, Pohnpei, FSM, 2012.

to incur debt that would probably not have been incurred otherwise, despite the ADB's having recommended much of the debt in the first instance. The inadequacy of the FSM external-debt sinking fund likely would not have arisen if proper rules and reporting on the management of the fund had been in place. A debt-management advisory committee was recommended by the audit and was subsequently created. In response, the ADB funded follow-up technical assistance to further develop the legal and institutional reforms required.

Public-debt-management bill drafted: A bill was drafted in 2015 entitled the FSM Public Debt Management Act, whose main purpose was to promote sound PFM to ensure debt sustainability, transparency and accountability. The bill provides authority to the FSM Congress over sovereign debt, which includes direct loans to the national government, guaranteed debt and on-lent loans primarily to state governments. Borrowing is to be restricted to revenue-generating capital projects for priority infrastructure and development initiatives. Debt to fund budget deficits is prohibited unless exceptional circumstances defined in the act are met. A sinking fund is to be set for the repayment of debt. The secretary of finance of the national government would be responsible for implementing the bill.

Bill establishes sound basis for debt management: The bill provides for formally establishing the Debt Management Advisory Group, which will comprise civil servants, but representation of financial institutions will be absent. The responsibilities of the group are to provide technical discussion of each proposed borrowing, provide quality assurance and review the DSA, drawing on experts if required. In general, the bill seems to remedy the deficiencies of the public auditor's report and establish a sound basis for external debt management. Implementing the new bill will require significant capacity building in the Ministry of Finance and should be supported by technical assistance in the early phases to ensure sound procedures and regulations are established. The original bill lapsed and was subsequently reintroduced in the FSM Congress in May 2017, but it has once again lapsed.

3. Fiscal Developments

The FSM and US governments' adoption of the amended Compact, which became effective in FY2004, initiated a new fiscal framework for the FSM. The new structure entailed a series of sector grants earmarked for education, health, private sector development, capacity building, infrastructure and the environment.

- The innovative element of the amended Compact was the introduction of a trust fund, which was designed to provide a yield sufficient to replace the annual grants after 20 years. The corpus of the CTF stood at $636 million at the close of FY2018.
- Fiscal performance in the FSM has been mixed, starting with a severe contraction in the early stages of the amended Compact as the economy adjusted to the new structure and deficits were recorded. After a period of stabilization, the last five years have seen booming revenues from fishing royalties and the domicile for Japanese corporations, leading to large fiscal surpluses that were in FY2018 in excess of 28 percent of GDP.
- However, there has been significant divergence between fiscal performance at the national and state levels. While the booming revenues and fiscal surplus were achieved at the national level, the state governments remained tightly constrained, though they have nonetheless achieved small deficits or even balance.
- The tax regime in the FSM is based on a tax system inherited from—and largely unaltered since—Trust Territory days. The major sources of tax revenues include a tax on wages, the gross receipts tax (GRT) and customs duties. While revenue collections have improved, the FSM tax regime is in need of reform and displays a lack of buoyancy and fails to provide a growing source of revenues over time.
- Under a tight fiscal envelope at the state level and declining grant levels in real terms, public expenditures have declined in relation to GDP. However, the large fiscal space at the national-government level has encouraged an increase in expenditures on use of goods and services and legislative projects.
- An important success story has been the establishment of the FSMTF, which recorded a level of $214 million at the end of FY2018. However, while the boom in revenues has in large part been saved, it has also encouraged significant growth in expenditures. Given the looming adjustments that may be necessary after FY2023, this represents a significant opportunity cost.

3. Fiscal Developments

A. Fiscal Framework

Amended-Compact grants split between annual sector grants and CTF: The amended Compact by the FSM and US governments became effective in FY2004 and initiated a wholly new fiscal framework for the FSM. The structure entailed a series of sector grants earmarked for education, health, the environment, private sector development, capacity building and infrastructure. The innovation in the amended Compact was a trust fund designed to provide a yield sufficient to replace the annual grants after 20 years. Table 7 shows the aggregate structure of the annual Compact grants and the contribution to the CTF. Over a 20-year period, the US was to contribute to the FSM $92 million, partially adjusted for inflation. The inflation-adjustment factor remains as in the original Compact. The annual sector grants started at $76 million in FY2004 but were to be annually reduced by $0.8 million from FY2007 onward. The difference between the total contribution and the annual sector-grant levels is deposited in a trust fund to accumulate over the 20-year Compact period.

Original Compact step-downs replaced with annual decrement: In comparison with the original Compact, the new regime avoids the need for large fiscal adjustments every five years. However, to establish the viability of the trust fund, the US instigated the annual decrement. While avoiding large shocks to the system, the decrement requires an annual compression of expenditures from FY2007 onward. This compression, coupled with the lack of full inflation adjustment, means an annual reduction in real resources of about 2 percent. In the initial years of the amended Compact, attention was focused on more immediate adjustment problems, but the issue subsequently became more important and is described in greater detail below.

Table 7 Review Tab: US annual Compact grants and contributions to the trust fund (US$ millions)

	Annual grants	Turst Fund contributions	Total contributions
FY04	76.0	16.0	92.0
FY05	76.0	16.0	92.0
FY06	76.0	16.0	92.0
FY07	75.2	16.8	92.0
FY08	74.4	17.6	92.0
FY09	73.6	18.4	92.0
FY10	72.8	19.2	92.0
FY11	72.0	20.0	92.0
FY12	71.2	20.8	92.0
FY13	70.4	21.6	92.0
FY14	69.6	22.4	92.0
FY15	68.8	23.2	92.0
FY16	68.0	24.0	92.0
FY17	67.2	24.8	92.0
FY18	66.4	25.6	92.0
FY19	65.6	26.4	92.0
FY20	64.8	27.2	92.0
FY21	64.0	28.0	92.0
FY22	63.2	28.8	92.0
FY23	62.4	29.6	92.0

The JEMCO allocations process: The annual budget allocations are awarded through JEMCO. The US has three members and a controlling influence, and the FSM has two. Each year, the FSM presents its annual sector-grant submissions to the US in advance of the JEMCO meeting, which is convened in late August to make the annual budget allocations before the new fiscal year starts October 1. While most JEMCO resolutions are agreed upon by consensus, some are subject to 3–2 votes.

Sector grants imposed funding shortfalls for nonapproved sectors: The sectoral structure of the amended Compact presented a special problem. In the FY2004 budgets, the altered fiscal framework resulted in funding shortages for the operations of government not covered under the sector grants. To address the shortfall, JEMCO permitted the FSM to utilize the capacity-building sector grant for this purpose—provided that the FSM agreed that it would, over a five-year period, phase out the use of the grant for "nonconforming" purposes. Under duress, the FSM had no alternative but to concede. While the operation of the FY2004 budgets was not affected, the transition requirements became binding in FY2007 and required both painful expenditure cuts and a modestly increased revenue effort.

Thirty percent of sector grants reserved for infrastructure: At the FY2005 JEMCO meeting in August 2004, it was resolved that the FSM must allocate at least 30 percent of Compact sector grants to the infrastructure grant, effective FY2006. The FY2005 infrastructure requests were considered substantially below desired levels, and JEMCO felt that a floor should be established to ensure that public investment was maintained at levels sufficient to support the development of the economy as aggregate Compact resources declined. Access to federal programs has continued during the amended Compact, with the exception of certain education programs, which were "cashed out" and have been replaced through the SEG. Finally, implementation of the amended Compact entails a whole new accountability regime specified in the Fiscal Procedures Agreement. Taken as a whole, the fiscal arrangements of the amended Compact have had a wide-ranging impact on the conduct of fiscal policy and management in the FSM.

Fiscal policy is formulated independently by the national and state governments, with separate expenditure and revenue policies in the absence of significant coordination. With respect to revenue policy, the national government has the power under the constitution to collect import and income taxes, and all remaining taxes are reserved for the states. Through its taxing powers, the national government collects about three-fourths of all domestic taxes. In FY2018 national taxes (excluding corporate taxes received from the FSM domicile) amounted to $33.1 million. The four states, with widely varying levels of tax effort, collect the remaining one-fourth of domestic taxes, $11.8 million, primarily through general sales taxes and excise taxes on alcohol, tobacco and other goods.

Establishment of domicile for Japanese corporations: In 2006 the FSM Congress enacted legislation (modified in 2009) to establish an FSM domicile for Japanese corporations. In essence, the law provides lower tax rates than those in Japan and provides an incentive for firms to register in the FSM. In FY2009 the FSM collected its first receipts under the system. It raised $4.4 million in FY2013, with large payments of $22.7 million in FY2017 and $84.5 million in FY2018. Collections under the domicile are shared 60:40 (in favor of the government) with the company responsible for administering the scheme, Micronesia Registration Advisors. In FY2014 an extraordinary receipt greater than $20 million was received, and again large payments were received in FY2017 and FY2018. In FY2015 and FY2016 revenues reverted to more normal levels, although, periodically, large windfalls as in FY2014, FY2017 and FY2018 can be anticipated.

Domestic tax sharing between national and state governments: By constitutional mandate, at least 50 percent of the nationally imposed taxes (and 80 percent of the fuel-import tax) must be shared with the state in which the taxes were collected. In the case of the FSM domicile, the revenues are not collected in the FSM, and the tax is not subject to revenue sharing. Overall tax effort remains low relative to other Pacific Islands, and in FY2018 tax revenues collected in the FSM equated to 13 percent of GDP. There have been minor changes to the tax regime over time including changes to the import tax that shifted the base from free on board to c.i.f., rate increases on beer and tobacco (effective FY2005) and the new FSM domicile scheme in FY2009. These increases were offset in FY2007 by deductions from the GRT for payroll costs. It is likely that collection performance has improved modestly; however, tax administration and, in particular, compliance and audit functions still need strengthening.

Large growth in fishing royalties: Nontax revenues continue to be dominated by fishing access fees, which averaged 45 percent of all domestic revenues over the FY2015–FY2018 period (including revenues from the FSM domicile). The national government manages the tuna resources and keeps all revenues from the licensing fees. Revenue from penalties and fines is shared with specific states and, in some cases, local governments. The fishing access fee as a source of revenue grew rapidly, from less than $4 million in FY1987 to a peak of $21 million in FY1995. After an extended period of decline, fishing access fees have grown strongly in recent years, and $72.6 million was collected in FY2018. The recent rapid rises reflecting increasing Vessel Day Scheme (VDS) rates are set to stabilize going forward, although they may be expected to rise over time with inflation and the state of the fishing industry.

Grant sharing with states: The national government has acted as an agent in distributing to each government, according to mutually agreed-upon formulas, the grant funding received from the US under the Compact. Up until FY2014, the national government received 10 percent of grants, and the remainder was distributed to the states, based on a formula that splits roughly 30 percent of funding evenly among the four states and the remaining 70 percent according to population. As part of the FY2014 JEMCO budget allocations, the national government relinquished part of its share. The existing support provided through the sector grant for the CoM was to fall by $700,000 a year until $1 million remained; this has now been achieved. The funds relinquished were allocated to the states.

Balanced-budget requirement: On the expenditure side of fiscal policy, the five governments all operate within balanced-budget requirements based on either constitutional or statutory provisions. However, the definition of a balanced budget is not restricted to the operations of a single budget year. Funds unexpended in one year are reported as revenues in the following year. The use of this so-called carryover component in revenue projections tends to cloud fiscal management and can mask the onset of significant structural imbalances. The vulnerability to fiscal imbalance is compounded by delays in financial reporting and expenditure controls; consequently, legislative bodies must make appropriations without an accurate appraisal of each government's true fiscal position.

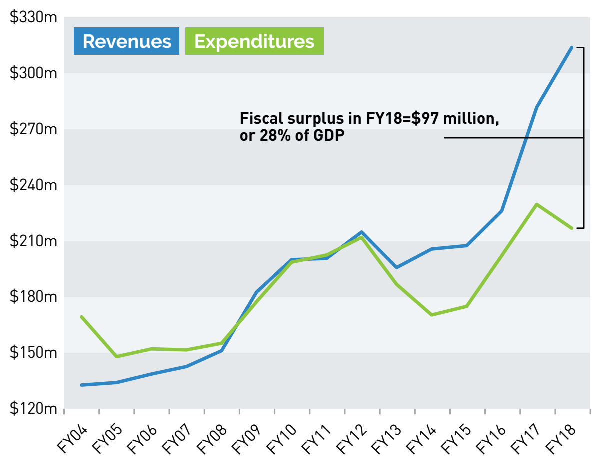
Implication of fund accounting for fiscal policy: The national and state governments conduct budgetary operations through a series of separate funds, the most important of which is the general fund. Expenditures from the general fund are largely unrestricted in nature, but there is limited flexibility or authority to use resources from the other funds. Under Compact I, a major part of the external assistance provided revenue to the general fund. Under the amended Compact, all such receipts are recorded as special funds and are restricted in nature.

B. Recent Fiscal Performance

FY2004–FY2013: A PERIOD OF FISCAL ADJUSTMENT

Large fiscal adjustment required in early years of amended Compact to correct structural imbalances: The first five years of the amended Compact witnessed a difficult period of fiscal adjustment because the nation was forced to adapt to the new arrangements (figure 22). At the start of the amended Compact in FY2004, the FSM recorded a deficit of $39 million (15 percent of GDP). This deficit reflected both the need to transfer $30 million to the CTF and Compact funding at levels below those prevailing at the end of Compact I. In the subsequent years of FY2005 and FY2006, deficits of $14 million in each year, 6 and 5 percent of GDP, respectively, were recorded. The amended Compact restricted the use of resources to specified sectors and prohibited their use to fund the general government. To ease the adjustment, the US permitted the use of the capacity-building grant to fund general activities, provided these were transitioned out

Figure 22
FSM consolidated revenue and expenditures



over a five-year period. There was a gradual improvement in the fiscal position in FY2007 and FY2008 because the nation adjusted to the new requirements and implemented RIFs in Chuuk and Kosrae.

Large growth in FAA- and infrastructure-grant expenditures while balance maintained: By FY2009, the adjustment to the new sector-grant approach was complete, and the FSM recorded a surplus ($5.3 million, or 1.9 percent of GDP) for the first time in the amended-Compact period. In FY2009 the FSM received significant FAA grants for airport improvement, which pushed up both revenues and expenditures significantly. In FY2010 there was further FAA infrastructure investment, and a slightly smaller surplus of $1.7 million was achieved, representing 0.5 percent of GDP. In FY2011 the expansion in airport renewal was maintained, and the nation began to make significant use of the Compact infrastructure grant. However, the nation recorded a small deficit of $1.2 million, or 0.6 percent of GDP.

National government starts to generate surplus with large increase in VDS rates while states run deficits: In FY2012 the FAA projects began to decline, but the decline was offset by a further increase in use of the infrastructure grant. The FSM also experienced the benefits of the PNA through the Vessel Day Scheme (VDS), and the national government was the beneficiary of a large fiscal surplus of $8 million. With all FSM states running small fiscal deficits with the exception of Kosrae, an overall FSM-wide surplus of $3.0 million was achieved, or 0.9 percent of GDP.

FAA- and infrastructure-grant-funded projects came to a close: In FY2013 both expenditures on FAA projects and use of the Compact infrastructure grant fell dramatically. While the FAA projects were nearing completion, the use of the infrastructure grant was constrained by project-management issues, lack of clear priorities, disputes between the national and state governments, and the JEMCO requirement to prepare an updated IDP. A perception within the FSM national government that requirements to proceed apace were either unclear or changing over time resulted in further delays. Meanwhile, fishing-fee revenues continued to rise. As state governments continued to run small deficits, the national government ran a surplus of $12 million and the FSM recorded an overall surplus of $10 million, or 2.9 percent of GDP.

FY2014–FY2018: THE EMERGENCE OF A STRUCTURAL SURPLUS

Booming revenues: The following five years, FY2014–FY2018, ushered in a totally different fiscal environment: from a constrained position to one of structural surplus. Fishing fees rose to $43 million in FY2014 and continued to rise in FY2015 and FY2016, reaching record levels in FY2017 and FY2018 of $72.6 million and $72.3 million, respectively. In FY2014 there was a windfall of $23 million of receipts from the FSM domicile program for Japanese corporations, but this fell back to more normal levels of $4.1 million and $6.0 million in FY2015 and FY2016, respectively. In the following two years, there were again further large windfalls from the corporate sector: $22.7 million in FY2017 and a massive $84.5 million in FY2018.

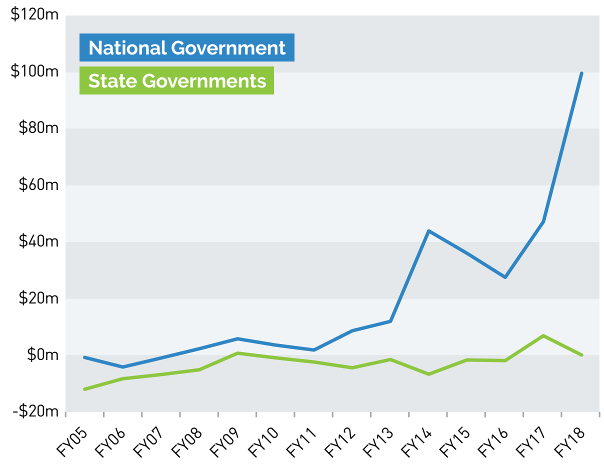
Recurrent expenditures on goods and services rise rapidly: On the expenditure side, with the collapse in FAA- and infrastructure-grant-funded projects, expenditures on nonfinancial assets fell from $70 million in FY2012 to $22 million in FY2015. However, with the Chuuk airport renovation in FY2016, expenditures on capital assets rose to $39 million and then to $55 million in FY2017, reflecting the first expenditures on the World Bank ICT project. In FY2018 capital expenditures fell back to $33 million after completion of the Chuuk runway-improvement project. The period also saw increases in outlays on recurrent expenditures by the national government. While payroll grew gradually, the use of goods and services increased rapidly. From a level of $54 million in FY2013, use of goods and services had risen to $95 million in FY2018, a large 77 percent increase, reflecting the changed fiscal environment.

Large discrepancies between state and national fiscal outturns: The FSM as a whole recorded a surplus rising sharply from 11 percent of GDP in FY2014 to 15 percent in FY2017 and achieving the highest on record at 28 percent of GDP in FY2018. However, the overall levels of surplus at the national and state levels have been widely divergent. While the state governments have struggled to maintain fiscal balance, recording an average 0.5 percent deficit-to-GDP ratio during the FY2014–FY2018 period, the national government has recorded a surplus very close to the FSM average. In other words, the fiscal outcome has been dominated by the outturn at the national government.

Large fiscal imbalances between state and national governments likely to remain through end of amended Compact: Figure 23 indicates the emerging trend and discrepancy between the national and state governments' fiscal positions. During the first five years of the amended Compact, the fiscal outturn of the national and state governments improved. From FY2011 onward, the position of the state governments has remained weak, as the real value of the sector grants has declined, but the national government has benefited from rising fishing revenues and receipts from the FSM domicile. This outcome is likely to continue through the remainder of the amended Compact, with a sustained fiscal surplus at the national-government level as fishing-fee royalties stabilize at about their current levels.

Booming revenues of the national government encourage erosion of surplus: However, the significant rise in recurrent expenditures beyond operational needs encouraged by booming revenues is eroding the potential surplus and is an issue of concern. At the same time, the states continue to experience mounting fiscal pressure. This introduces the question of the best means to limit the erosion of the surplus and its allocation between state and national government to maintain basic social services and to shore up the CTF to reduce adjustments after FY2023. These issues are addressed in the following chapters.

Figure 23
Fiscal balance state and national governments



THE FISCAL STRUCTURE

Tax revenues from traditional sources stagnate, but revenues from the Japanese domicile are buoyant: Figure 24 displays long-run trends in tax and grant revenues. It indicates a small but significant boost in tax effort in the late 1990s, reflecting reforms in the import-tax regime, but during the next decade, tax effort was flat in proportion to GDP. Reflecting the growth in the domicile for Japanese corporations, from FY2012 onward, tax effort started to rise, especially in the spikes in FY2014 and FY2017–FY2018, reflecting large periodic payments. However, setting aside corporate tax revenues, taxation from traditional taxes remains largely unchanged.

Long-run trend decline in grants: During the original Compact, grants in proportion to GDP declined, reflecting the three step-downs. In the FY2002–FY2003 period, there was a brief surge in grants, reflecting the "bump up" funds specified in the Compact: the level of grants

Figure 24
FSM tax effort and grants, % GDP

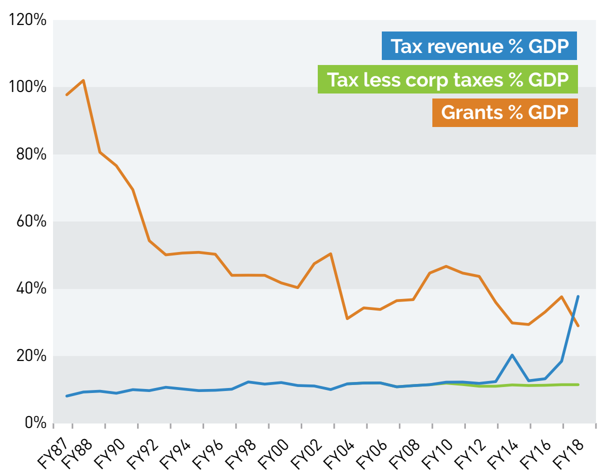
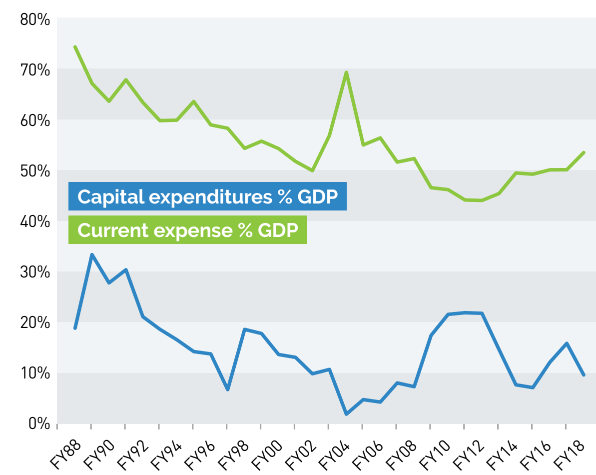


Figure 25
FSM current and capital grants, percent GDP



pertaining to the middle period. At the start of the amended Compact, there was a large drop in grant usage. However, this was remedied as the FSM adjusted to the new regime from FY2009 to FY2011 and made use of the large FAA capital grants and Compact infrastructure sector grants. In FY2011 capital-grant use began falling as the FAA projects wound down and the moratorium was placed on the use of the infrastructure grant. However, agreement has been reached between the parties on the use of the infrastructure grant, and that, coupled with the recent large increase in donor-funded projects, means capital grants are likely to rise. Overall, the level of dependency of the FSM economy on grants is thus likely to rise in the near term although the long-run trend will fall.

Public expenditures/GDP ratio displays long-run decline, but recent increases at the national-government level are of concern: Figure 25 displays the structural transformation in the share of public expenditures to GDP. Clearly, there has been a large reduction in current government expenditures relative to GDP since the start of the original Compact in FY1987. Consistent with the design of the original Compact and large step-downs, current expenditures declined through the period. At the end of the original Compact, there was a spike in expenditures as the FSM benefited from the "bump up" funds provided in FY2002 and FY2003 and the need to allocate these funds to the new CTF. However, after that time, expenditures as a percentage of GDP continued to decline through FY2012, reflecting a series of factors: phasing out the use of Compact sector grants to fund general government and associated RIFs in Chuuk and Kosrae; the need for consolidation in the education sector; and the reductions in allocation of Compact grants to the national government. In the last five years, FY2013 through FY2018, the ratio of current expense to GDP has risen from 45 to 53 percent of GDP; 6 percentage points of the increase were at the national-government level while the state share rose by 2 percentage points. The large increase in fiscal space at the national-government level has provided scope for a significant increase in expense. The trend of rising expenditures as fiscal shortfalls loom on the horizon after FY2023 is of concern and discussed in greater detail below.

Volatile trend in capital expenditures: Use of capital funds mirrors the level of capital grants and displays a volatile picture: an initial reduction from the high levels at the start of Compact I; a large reduction at the start of the amended Compact; greater use in the FY2009–FY2011 period with improved access to the infrastructure grants and FAA projects; collapse in FY2014 and FY2015 as FAA projects are completed and use of the infrastructure grant is put on hold; and improvement in FY2016 and FY2017 with the FAA-financed Chuuk runway and large donor-funded projects.

STRUCTURE OF THE FSM TAX SYSTEM

FSM tax system displays lack of buoyancy: The tax regime in the FSM is based on a tax system inherited from, and largely unaltered since, Trust Territory days. There are three major taxes: wages tax, BGRT, and import duties, which all collect very similar levels of revenue. Taxes (excluding the corporate taxes collected from the FSM domicile) have grown by an annual average of 2.8 percent over the amended Compact, less than the rate of nominal GDP growth of 3.2 percent. This represents an overall buoyancy ratio [1] of 0.89, revealing the inefficiencies of the current regime, and indicates the need for tax reform.

Wages tax provides buoyant source of revenues: Wage earners pay 6 percent of incomes, up to a threshold of $11,000, and above that, 10 percent. Those earning less than $5,000 have a tax-free threshold of $1,000. In FY2018 the wages tax collected $9.1 million. It has grown by an annual average of 2.2 percent during the amended Compact. Estimates of the wage-tax buoyancy indicate a ratio of 1.23 compared to the tax base of compensation of employees.

Gross receipts tax distortionary and displays lack of buoyancy: The GRT is levied at 3 percent of business turnover and is intended as a proxy income tax, although the incidence is comparable to that of a sales tax. In FY2018 the tax raised $11.2 million. It has grown by a trend annual average of 2.9 percent during the amended Compact. The tax suffers from the well-known cascading effect, such that each sale from one business to another multiplies the tax yield and distorts resource allocation. As part of the PSRP in the late 1990s, exports were exempted from the tax. In 2007 the government implemented tax measures to provide relief to the private sector by allowing firms to offset payroll costs in the calculation of the gross revenue tax. The impact of the reductions on tax effort was minor. During the last two years, unusually large GRT collections were received owing to the large revenues earned by MRA, the company supporting the FSM domicile. Estimates of the GRT buoyancy in relation to nominal GDP (monetary component only) indicate a ratio of 0.86 (without adjustment for the payroll offsets or MRA unusual receipts).

Compliance with regulations has improved, but customs duties remain a weak source of revenue: Customs duties are the remaining category. They have generally mirrored the growth in imports through the amended Compact, averaging 2.5 percent per annum over the period, and collected $12.9 million in FY2018. The general rate of import taxes is 4 percent, while food is subject to a lower rate of 3 percent. Gasoline and diesel fuel are subject to 5 cents per gallon, while alcohol and tobacco are subject to the usual higher rates. In early 2005, to enhance revenue effort, legislation was passed to implement additional tax measures to increase revenues on beer and tobacco. During the last three years, import taxes have grown significantly, by over 42 percent, reflecting both the growth in imports and improved compliance. The estimate of the buoyancy ratio for customs duties (in relation to total imports c.i.f.) has improved to 1.0. This is a significant improvement over an estimated buoyancy ratio of 0.46 in FY2016.

Tax regime needs modernization: The preceding suggests that tax administration and collection efficiency has improved. The wages tax has performed well in revenue terms, but the GRT has proved inelastic when it should have grown in parallel to growth in the cash economy, and it suffers from well-known deficiencies. Customs-tax performance has improved, but the underlying buoyancy of the tax, ignoring the recent improvements in compliance, has been weak. The distortionary nature of the GRT and the inherent inefficiencies of the border taxes indicate the need for replacement with a modern tax system such as the value-added tax; this is discussed in chapter 4.

C. Fiscal Performance of the National Government

REVENUES

Relations with the states: As a result of the reduced level of grants negotiated for the amended Compact, the FSM states pressed for a greater share of Compact revenues to

1 Estimates of tax-buoyancy ratios are derived from log-linear estimation of the growth in tax collections divided by the growth in the tax base over the amended-Compact era. These ratios are based on a limited number of observations and should be considered indicative only.

compensate. At a leadership meeting in FY2003, the share of the national government was reduced from 13.3 percent to 8.65 percent, effective FY2004. To restore the loss, the Congress of the FSM authorized restoring to the national government the 20 percent revenue share given to the states in FY1999, thus reducing the states' share from 70 to 50 percent. At the beginning of FY2005, the FSM Congress further legislated to set the national government's minimum share of Compact resources at 10 percent, effective FY2007. The Compact revenue-share formula remained unchanged until the FY2014 sector-grants allocations.

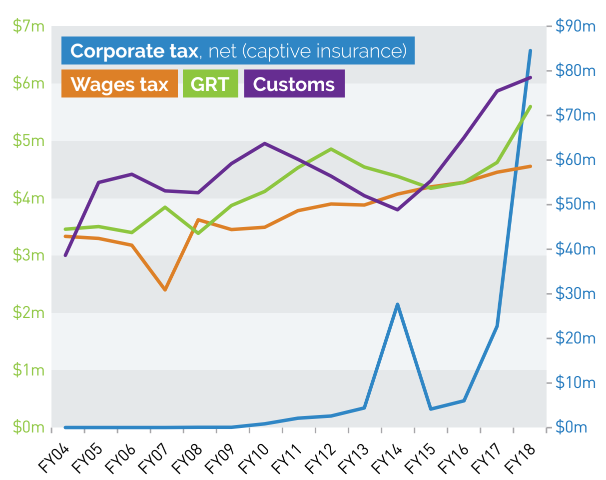
National government opts not to prepare decrement management plan and forgoes Compact revenues in favor of states: Reflecting the decision of the national government to not prepare a decrement management plan—as required by JEMCO (see chapter 4)—the national government relinquished its share of Compact resources in favor of the states, with the exception of the annual grant to the CoM. The CoM share was reduced by $700,000 per annum until a remaining level of $1 million was achieved (in the FY2017 budget). The reduction in national usage was allocated to the states, in precise proportion to the existing state shares, and was used to offset the second tranche of the decrement management plan (implemented in the FY2017 state budgets).

National government increases revenue share to 70 percent, with additional funds for state FSM trust fund subaccounts: With the sizeable increase in revenues from fishing fees and corporate taxes received from the FSM domicile, the national government legislated at the start of 2015 to once again increase the state governments' revenue share to 70 percent. The additional 20 percent was allocated to the FSMTF in state subaccounts effective FY2016 to support state-government operations after FY2023.

National government establishes domicile for Japanese corporations: In FY2008 the national government implemented reforms to the tax code, legislating a 21 percent tax on corporate enterprises with a capitalization of greater than $1 million. In practice, the tax was not effective in the domestic market, as no local companies reached the minimum requirement. However, the changes in law were attractive to those in the Japanese captive-insurance market seeking domicile and lower tax rates in foreign jurisdictions. The scheme is attractive to not only Japanese captive-insurance companies but also investment-oriented major corporations (IMCs). The scheme is operated by MRA on behalf of the FSM government, and revenues are shared on a 60:40 basis in favor of the national government. Figure 26 indicates the gradual introduction of the FSM domicile market, with the national government's share reaching $4.4 million in FY2013. With an extraordinary receipt of $23 million in FY2014 from the IMC segment, $27.6 million of revenues were collected. In FY2015 and FY2016 collections reverted to trend, but again in FY2017 and FY2018 large receipts were collected from the IMC segment; corporate taxes recorded $22.7 million and $84 million, respectively.

Trends in tax collections: Figure 26 also indicates recent performance of major domestic taxes. The GRT stagnated during the early part of the amended Compact, reflecting the weak economic performance of the FSM. In FY2008 GRT collections picked up with the growth in the economy, but they fell back during FY2013–FY2015 as construction activity collapsed. During the last four years, GRT collections have improved as economic growth returned and as an indirect result of the large revenue windfalls from the FSM domicile. Wages-tax collections faltered at the start of the amended Compact, with the RIFs in Chuuk and Kosrae, but have since displayed an upward path, apparently

Figure 26
National government tax collections by type



unrelated to the state of the economy. Customs collections rose in FY2005, reflecting discretionary changes in tobacco taxes and the increases in construction activity. After a period of contraction as the economy deteriorated, collections dropped off, but they have recently showed strong growth as the economy has strengthened and tax compliance improved.

National-government use of sector grants declines: Grant receipts consist of both current and capital. Current grants include Compact sector grants, federal programs and other country grants (see figure 27). National-government use of sector grants has been declining in recent years, from $9.1 million in FY2004 to $1.2 million in FY2018. Federal programs are received by the national government and a large portion on behalf of the states. To ease cash flow at the state level, the national government has fronted federal program expenditures at the state level, although the national government is returning these programs to the states. Other country grants have also shown rapid increases since FY2015, peaking at $24 million in FY2017. This likely represents a misclassification of World Bank projects that are not easily identified in the annual audits and also are largely capital in nature rather than current.

Capital grants comprise both the use of the infrastructure grant and the FAA airport renovations. Both Compact and FAA infrastructure grants rose at a modest rate

Figure 27
National government, current grants by source

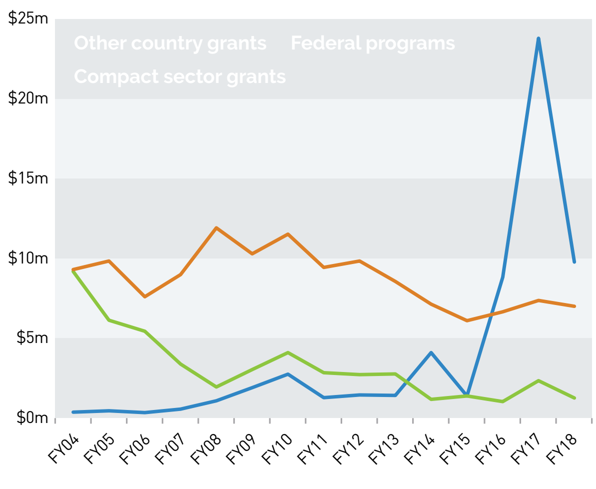
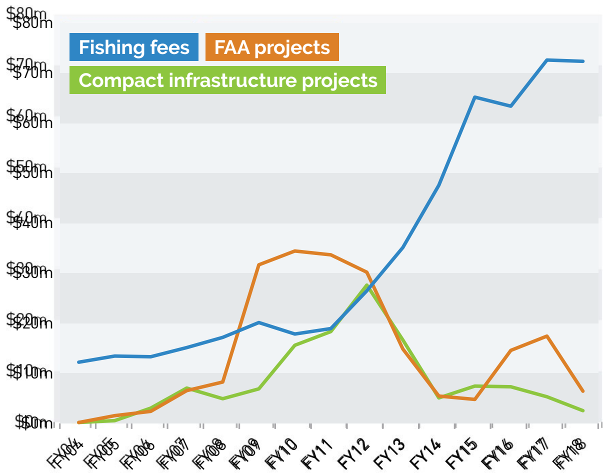


Figure 28
National government, major revenue trends



during the early part of the amended Compact but then took off in FY2009 (see figure 28). Both types of capital grants occur at the state level but are booked to the national government. This reflects the treatment adopted by the auditors, although functionally it would aid interpretation if the expenditures were classified by state. As noted, the FAA projects grew to high levels, maxing out at $34.3 million in FY2010, but then declined from FY2013 through FY2015 because of the completion of the projects. In FY2016 the Chuuk runway renovation was initiated, and FAA capital expenditures rose to $17.3 million in FY2017. In FY2018, with the completion of the renovations, FAA projects fell to $6 million; they are likely to remain modest. The poor utilization and disagreement over the utilization of the infrastructure-grant conditions have now been resolved, and hopefully grant disbursements will resume an upward trend.

Fishing royalties grow strongly: Figure 28 also includes the remaining major category of national government, fishing fees. As stated above, fishing fees have grown at high rates since FY2011, reflecting the implementation of the VDS and the increase in daily rates. The PNA has not specified any increase in the minimum VDS rate, and the rate has been projected to grow modestly with inflation.

Figure 29
National-government payroll and employees

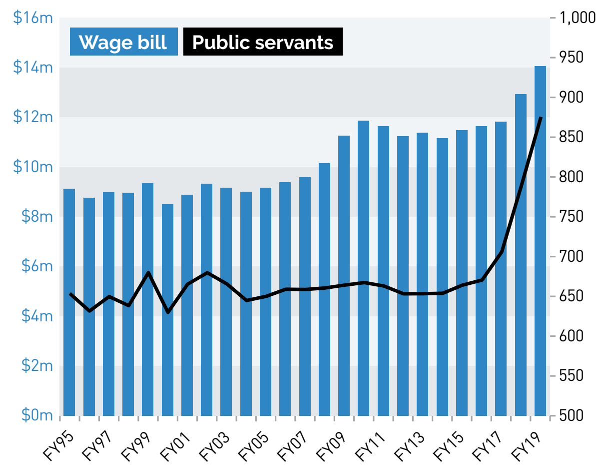
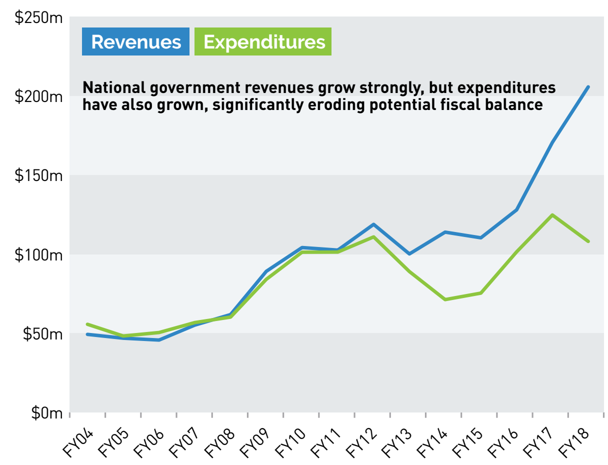


Figure 30
National government, consolidated revenues and expenditures



EXPENDITURES

Boom in national-government payroll in last two years: Figure 29 indicates the size and growth in the national-government payroll during the amended Compact. Employee numbers have increased by 32 percent over the period with 31 percentage points coming during the last three years, FY2016–FY2018. Wage rates on the other hand have followed a different track, increasing by 29 percent through FY2010, in part reflecting a cost-of-living adjustment (COLA) awarded in FY2008. Since FY2010, national-government wage rates have fallen by 7 percent, suggesting the new hires have been at lower grades, possibly in congressional projects. Reflecting these dynamics, the total wage cost (or wage bill) has risen 53 percent during the amended Compact. In recent years, FY2010–FY2016, growth in national-government payroll remained constrained. However, the recent surge afforded by the boom in revenues while state-government payroll remains tightly constrained indicates a lack of burden sharing between the levels of government.

Rapid growth in use of goods and services and legislative projects: Use of goods and services was $19.2 million in FY2009 and jumped to $45.8 million in FY2018, an increase greater than that in any other category of expense, reflecting the booming revenues of the national government. Other categories of expense—interest, subsidies transferred to other layers of government, and miscellaneous—totaled $3.7 million in FY2009 and rose to $6.7 million in FY2018, a more modest change. Outlays on nonfinancial assets or fixed capital mirror the level of Compact sector grants, FAA grants, and legislative projects. From FY2004 through FY2012, outlays on legislative projects averaged $3.3 million, but in FY2018 they hit a record $23.4 million for the amended-Compact period, reflecting the same fiscal space. Historically, the national government has maintained tight control of recurrent expenditures, with the exception of the FY2007–FY2010 period, when payroll grew by 23 percent. However, in the last three years, the fiscal situation has afforded considerable scope for increased spending. In particular, public projects and use of goods and services have grown rapidly.

OVERALL BALANCE

Modest fiscal outturn achieved during the amended Compact through FY2013: The overall fiscal outcome of the national government is shown in figure 30. During the early period through FY2008, the national government ran a series of modest deficits averaging 1.0 percent of GDP. From FY2009 through FY2012, both revenue and expenditures rose rapidly on infrastructure spending, and the national government sustained a series of small surpluses averaging 1.4 percent of GDP. In FY2013 both revenues and expenditures dropped back, reflecting the decline in infrastructure projects, but a significant surplus was attained, representing 3.6 percent of GDP, as fishing-fee royalties started to rise.

Significant savings allocated to FSMTF were accompanied by large increases in expenditures: From the above analysis, it is clear that the national government has generated sustained and significant surpluses. Much of the additional resources, a total of $248 million since FY2013, has been accumulated in the FSMTF, which increased from $12 million at the end of FY2013 and stood at $214 million by the end of FY2018, a laudable achievement. However, as the foregoing analysis indicates, expenditures have also grown apace. In FY2018, compared with FY2013, after allowing for inflation, additional expenditures on goods and services and legislative projects have grown by $135 million. This indicates that out of a structural surplus of $383 million, about two-thirds has been saved and one-third utilized on additional expenditures. There has thus been a clear trend over the last few years: while much of the boom in revenues has laudably been saved, it has also encouraged a boom in expenditures. Given the looming adjustments that may be necessary after FY2023, this represents a significant lost opportunity.

4. Public Sector Management

Public sector management in the FSM occurs at the levels of the nation and four state governments. Reforms thus require replication of policy at five different levels, involving five different administrations and legislatures, often with coordination needed between the national and state governments. This adds considerable cost and complexity to the efficient and effective implementation of reform.

- Given the dominance of the public sector and need to constrain expenditures, wage policy has been a critical element of public sector reform. The size of the civil service in the FSM governments has fallen significantly. However, increases in average wage costs per employee have neutralized the savings from the reduced numbers of civil servants.
- The FSM national government has adopted a PEFA and prepared a Road Map. However, this needs to be rolled out in each of the state governments for effective public financial-management reform.
- The tax regime in the FSM is based on an outdated and inefficient regime dating back to Trust Territory days. Reform is long overdue. Reforms were initiated in the mid-2000s but after more than 10 years of donor-supported effort have not produced a favorable result.
- The structure of the amended Compact and switch to the sector-grant approach required a series of fiscal adjustments at the state level. A period of adjustment was required in Chuuk and Kosrae to conform to the new requirements. Further reforms were required in all states to adjust to the annual decrement in the Compact sector grants.
- The SOE sector has not presented a significant fiscal risk in the FSM, and SOE reforms have not been a major feature of the reform landscape. However, the lack of commercialization and the requirement to operate at full cost recovery have led to the operation of an inefficient and costly sector.
- The World Bank has initiated reforms in the telecom market, but they have been fraught with issues. Significant investments in fiber connections to Chuuk, Kosrae and Yap have been initiated. However, benefits from liberalization of the market have yet to bear fruit.
- FSM PetroCorp, an SOE created in 2007, has outperformed typical expectations of SOEs in the sense that it has proven itself so far to be a well-run, commercially viable entity and until the last financial year was making good returns on capital. However, recent diversification into relatively risky ventures in the coconut industry and rural alternative energy threatens the success that PetroCorp has achieved.

4. Public Sector Management

A. Public Financial Management

PUBLIC SECTOR PAYROLL

Public Sector Reform Program: In the second half of the 1990s, as Compact grants declined sharply, the FSM and state governments underwent a series of reforms, with the assistance of the ADB, known as the Public Sector Reform Program (PSRP). While the PSRP is now part of history, it provides a useful benchmark against which to review recent performance. The PSRP incorporated a goal of reforming and reducing the size of the public sector and, in particular, cutting the size and operating costs of the civil service.

Payroll-consolidation performance: Table 8 presents a comparison of the situation in FY1996 with the PSRP targets and current position more than 20 years later. The PSRP targeted a reduction of 27 percent of civil servants. By FY1999 a 16 percent decrease had been achieved. This reduction has been maintained and a further 2 percent reduction achieved, a considerable accomplishment. However, the story in payroll costs is significantly different. With an initial target savings of 35 percent of payroll costs, the five governments of the FSM had attained 20 percent by the PSRP closeout in FY1999. However, 23 years later, in FY2019 the benefits of the PSRP have become eroded, and payroll costs are now 8 percent, or $4.7 million, above the FY1996 levels. At the individual-government level, the two states with the most adverse fiscal positions, Chuuk and Kosrae, have reduced the size of their workforces significantly, with both Pohnpei and Yap reducing the size of the workforce. In terms of payroll cost, Chuuk has achieved significant gains in cost savings while Kosrae and Pohnpei remain little changed compared with FY1996. In Yap, while the government has reduced the workforce, there has been a large increase in the wage bill. The average wage cost in Yap State was considerably lower than that in all of the other FSM governments during Compact I, and the increases bring Yap closer to but still below Chuuk and Kosrae. For the national government, both the workforce and wage bill have grown significantly during the amended Compact. Average wage costs of the national government are 80 percent above those in Yap, 70 and 68 percent above those in Chuuk and Kosrae, respectively, and 40 percent higher than in Pohnpei.

Basis of estimation: Given the attention the issue of escalating wage costs has received, it is important to note the basis upon which it is

Table 8 Payroll reduction performance: PSRP targets, actual performance as loan closeout in FY1999 and FY2019

	"Workforce-reduction target"	"Workforce reduction FY99"	"Workforce reduction FY19"	"Wage-bill-reduction target"	"Wage-bill reduction FY99"	"Wage-bill reduction FY18"	Annual payroll savings (US$)"
Chuuk	-29%	"-15% (2,676 ==> 2,268)"	"-36% (2,676 ==> 1,709)"	-44%	-29%	-11%	-1.9 million
Kosrae	-14%	"-19% (783 ==> 634"	"-25% (783 ==> 586)"	-26%	-19%	0%	-0.1 million
Pohnpei	-28%	"-20% (1,554 ==> 1,251)"	"-10% (1,554 ==> 1,407)"	-37%	-23%	-1%	-0.7 million
Yap	-30%	"-21% (1,109 ==> 874)"	"-14% (1,109 ==> 958)"	-29%	-19%	23%	1.7 million
National	-21%	"8% (631 ==> 679)"	"39% (631 ==> 875)"	-21%	7%	60%	4.2 million
FSM	-27%	"-16% (6,753 ==> 5,706)"	"-18% (6,753 ==> 5,536)"	-35%	-20%	8%	-4.7 million

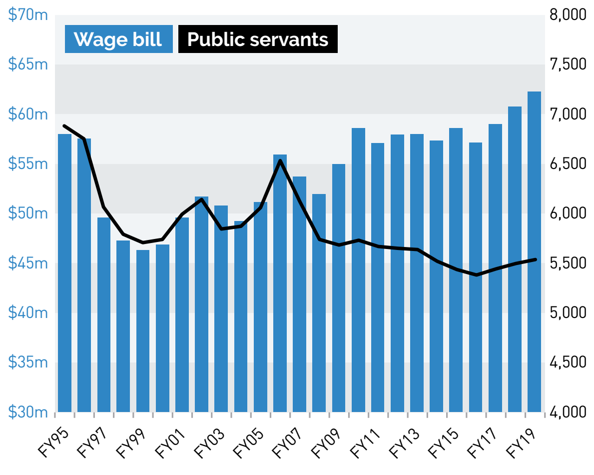
calculated. The payroll data measure total wage costs (or the wage bill), the numbers employed and the average wage cost per employee. The total wage cost is recorded through the FSM payroll systems. The number of employees is an average of the total number of employees on the biweekly payroll over each fiscal year. The average wage cost measures the total wage bill divided by the number of employees. This is different from measures of wage rates, which would be based on factors such as hourly wage rates and annual salaries. Average wage cost per employee can rise for many reasons, despite the fact that wage rates have remained unchanged.[1]

Workforce numbers fall, but wage costs rise: Figure 31 indicates trends in the FSM wage bill and workforce size. The total FSM-government workforce fell considerably during Compact I while wage costs per employee were held in line and the wage bill also fell. At the start of the amended Compact, the number of employees rose, reflecting a lack of discipline in Chuuk. However, since FY2006, numbers have fallen, representing the RIFs in both Chuuk and Kosrae. Wage costs per employee rose strongly during the first seven years of the amended Compact, by an annual average of 2.3 percent, and although the wage bill fell as the RIFs were implemented, it had risen to prereform levels by FY2010. During the FY2010–FY2016 period, reductions in numbers have been offset by a matching increase in average wage costs, and the total wage bill remained little changed from the FY2010 level. During the last three years, there has been an increase in both the size of the workforce and average wages, reflecting additional hiring at the national level and increased wage costs per employee in the states.

Need for payroll discipline as FY2023 approaches: During the early part of the amended Compact, a variety of factors were at play that influenced wage costs per employee. These factors included restructuring the workforce with RIFs in Chuuk and Kosrae, returning to the normal number of working hours in each pay period, upgrading teacher skills and awarding a COLA in the national and Pohnpei governments. These factors led to an increase in wage costs per employee, although most governments enacted a wage freeze. From FY2011 until FY2016, with adjustments to the amended Compact complete, while average wage costs per employee rose, the total wage bill stabilized. In the last three years, while the trend in increasing average wage costs has continued at the state level, the number of public servants rose sharply at the national level reflecting the increased fiscal space. Maintaining payroll discipline in the coming years approaching the FY2023 adjustment remains a key policy objective, given the difficulties with subsequent adjustment as resources tighten.

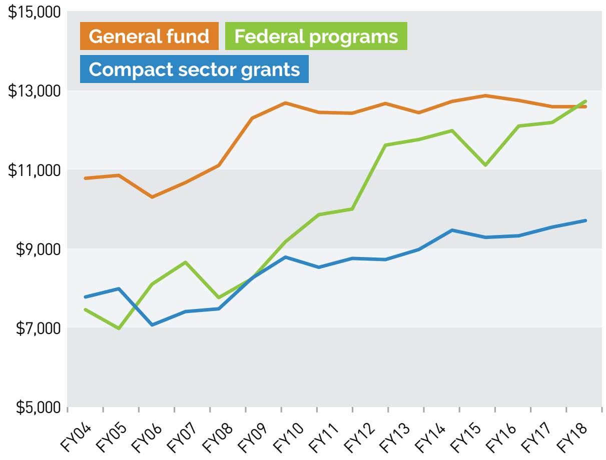
Federal-program-funded employees benefit from rising wages: During the discussion of payroll costs, it is frequently suggested that much of the recent increase is related to federal-program employees, who are not subject to the same fiscal pressures as employees funded through the general fund or Compact sector. Figure 32 provides further information

Figure 31
FSM government employees and wage bill



1 In the following discussion and in the state chapter, it will be noted that average wage costs per employee have risen significantly during the amended Compact, although wage rates have risen to a lesser degree. Second, the data on employment in the statistical appendix have been modified in the present analysis to allocate all federal-program employment administered by the national government to the states in which the employment takes place. Federal-program employees at the state level have been administered at different times by both the state and national governments. To provide a clearer picture of the trends, it is desirable to treat these employees on a consistent basis. Third, employees under Yap Cap and under Head Start in Pohnpei were transferred to the SEG during the amended Compact. These employees were allocated to the two state-government payrolls before the implementation of the SEG to ensure consistency in the present analysis, despite their allocation to the “government agency” category in the statistical tables.

Figure 32
FSM public sector average wage costs and by fund type



concerning average wage costs by major fund types: federal programs, general fund, and Compact sector grants. Through FY2010, all fund types exhibited the same trends, although federal-program wage cost displayed a more erratic path. However, beginning in FY2010 a different pattern emerged. While wages from the general fund leveled off, and those in the Compact sectors showed modest increases, federal-program average wages continued to grow strongly. Over the amended-Compact period, federal-program employees saw a trend annual average increase of 4.0 percent, compared with 1.4 and 1.8 percent for general-fund and Compact-sector employees, respectively. These observations support the conclusion that federal-program employees have not been subject to the same constraints as other government employees. However, of the total increase in the wage-bill cost of $14.7 million during the period FY2005–FY2019 after the provisions of the amended Compact had bedded down, only $3.7 million, or 25.1 percent, is due to federal employees. The bulk of the additional cost thus remains with employees funded by the general fund and Compact sector grants.

Need for an explicit wage policy: The FSM does not have an explicit wage-rate policy, and, in the past, policy has implicitly been determined by resource availability. Going forward, the nation would benefit from an explicit policy, particularly as the annual decrement and lack of full indexation erode the real value of the annual grants. However, holding nominal wage rates constant is not a desirable policy if the FSM wants to retain better-qualified staff and limit emigration. A policy of limited wage increases offset by rationalization of the workforce and efficiency gains would be more appropriate in an otherwise ever-tightening fiscal envelope. Such a policy has been implicitly integrated into the long-term fiscal framework (LTFF) that is discussed in the following sections.

PUBLIC EXPENDITURE AND FINANCIAL ACCOUNTABILITY

FSM national government prepares PEFA self-assessment: In late 2010 the FSM invited PFTAC to assist the nation in preparing a PEFA self-assessment for the national government. PEFA is a framework for assessing PFM and was originally developed by the World Bank and a group of international donors in 2001; it now has its own secretariat at the World Bank with a latest upgrade published in 2016.[2] It has been implemented in many countries in the world and provides an objective yardstick by which countries can assess and improve their PFM performance. The framework now has seven broad categories, each of which is further subdivided, with a total of 31 components in all. The scoring system is based on international standards and provides a precise measurement system, suitable for monitoring.

PEFA Road Map prepared at the national-government level; state-level versions to be developed: After little action in the subsequent years, a renewed self-assessment was conducted in 2016 with the support of PFTAC, which led to development of a "Road Map." The Road Map provides a list of targets for reform against which progress can be monitored. Progress in this area is a standard condition of eligibility for budgetary support from some donors such as the European Union and the World Bank. Since preparation of the Road Map, the FSM has focused on a set of key areas, including implementation of a new FMIS and financial-management procedures. To be of value FSM-wide, the PEFA exercise needs to be rolled out to each of the FSM states, where most of the public expenditures take place. To this

2 See https://pefa.org.

end, the EU is providing TA support to develop PEFAs for each of the four governments.

FINANCIAL-MANAGEMENT INFORMATION SYSTEMS AND PERFORMANCE MANAGEMENT

FSM adopts performance budgets but fails to monitor outcomes or outputs: The FSM adopted a strategic approach, expressed in the FSM Strategic Development Plan, to implementing the amended-Compact-sector grants. The approach required the allocation of resources in accordance with performance criteria to measure both the delivery of services (outputs) and the results (outcomes) attained. However, the nation was not well prepared to implement the framework. While existing budgeting procedures adopted a performance approach and specification of outputs, these were largely hypothetical as no monitoring or evaluation mechanism had been put in place. Although the US has emphasized results and monitoring of outcomes, little emphasis has been placed on deliverables, inviting the question of how to respond to observed outcomes.

Financial-accounting systems fail to provide management information: At the start of the amended Compact, the FSM had inherited a disparate set of financial-accounting systems in the five governments. It was clear that the old systems would not be able to support the kind of financial and performance information required in the fiscal procedures of the amended Compact. Following a request for proposal and the implementation of a new FMIS, all five governments were using the same system by FY2008. However, the implementation of the system focused on the financial reporting requirements of the amended Compact, rather than the fiscal management of the five governments or performance in service delivery. While the focus on financial and accounting requirements was necessary, the systems now provide neither the type of management information required for fiscal and economic management nor that for the measurement of outputs and outcomes.

World Bank supports replacement FMIS: The existing FMIS in use is now reaching the end of its effective life with a lack of software support and upgrades from the parent company and requires replacement. The World Bank, with its extended program in the FSM and RMI, is supporting the replacement of the existing systems in the two countries as part of a PFM improvement program. Implementing a new system will provide an opportunity to develop a chart of accounts that will enable improved PFM, conform to Government Financial Statistics standards (IMF Government Finance Statistics for fiscal management) and enable monitoring of deliverables or outputs (for performance management).

Need for a well-coordinated implementation program: A project manager has been hired and consultants selected to guide the FSM through needs assessment, development of an RFP and selection of suitable software. A well-coordinated implementation program is needed with other partners with experience in the region, including PFTAC and the GSUSA, to ensure efficient and effective implementation. Implementation is likely to take place over a period of years.

World Bank to support revenue-management system: In addition to procuring a new FMIS, the FSM requested support from the World Bank to implement a new revenue-management system to interface with the FMIS. The initial phase of the RMS will be establishment of a tax register of business and issue of Tax Identification Numbers. A project manager has been hired, and an IT expert will be recruited shortly. The intention is to issue an RFP by year end and for implementation to follow shortly thereafter and before the FMIS. The new RMS will have the capability to assist in the provision of statistics for GDP by industry, a topic that is discussed below.

B. Tax Reform

Attempts to reform the FSM's outmoded tax regime have failed: Previous FSM economic reviews have discussed the tax-reform proposal at length. During the March 2015 session of the FSM Congress, the Unified Revenue Authority Act was repealed, effectively terminating the decade-long attempt to reform the FSM tax system. With two FSM states failing to sign on to the reforms, the repeal of the act brought the process to a close. Tax reform has long been a central pillar of the FSM reform agenda to replace an outdated and inefficient system born out of the Trust Territory days over 50 years ago. It was intended to provide a nondistortionary system that would have created an enabling environment for private sector development. It was also intended to provide a source of funds at the outset of the amended Compact and, more recently, to address the needs of either the second or third tranche of the adjustment required under the Decrement Management Process. A large amount of domestic and donor effort has been applied to the tax-reform initiative, and the final result—or, more accurately, nonresult—is a large disappointment. There was some renewed interest recently in Pohnpei State to reconsider the state's participation, but that now also appears to have waned. While there is clearly little incentive for additional revenue effort at the national-government level, the need at the state level to achieve greater autonomy over fiscal policy going into the post-amended-Compact period is strong.

C. Fiscal Adjustment

ADJUSTMENT TO THE AMENDED COMPACT

Amended Compact requires a series of adjustments: After renegotiating the amended Compact with the United States, the FSM was left with a set of fiscal adjustments. First, the amended Compact entailed an 8 percent decline in funding, from $83 million to $76 million. Second, the switch from general budgetary support to a sector-grant approach meant a shortage of domestic revenues to fund non-Compact-sector operations, such as administration, law and order, public works and transportation. In the interim, the US agreed that the FSM could use the capacity-building sector grant to fund operational activities listed under the grant, provided that the FSM agreed to phase out these activities over a five-year period. Third, those activities that were not listed under the capacity-building grant required immediate adjustment. Fourth, the US required that 30 percent of Compact resources be devoted to infrastructure. Fifth, the annual decrement and partial inflation adjustment required long-term fiscal adjustment to the decline in the real level of Compact assistance, amounting to approximately 2 percent per annum. Finally, the loss of the Compact I energy grant meant that in certain states, utility corporations were forced to raise prices to cover costs that had previously been subsidized. The second and fifth of the above adjustment issues are discussed below.

Painful adjustments required in Chuuk and Kosrae: The need to phase out the use of the capacity-building grant for nonconforming purposes required painful adjustments: expenditure cuts (entailing a substantial loss of jobs) and additional revenue efforts. The governments of Chuuk and Kosrae were required to make severe expenditure cuts. In the most extreme case, Kosrae was required to curb non-Compact expenditures by 32 percent. This was achieved by eliminating 110 positions, enacting an across-the-board pay cut, reducing nonpayroll costs and increasing taxes. In Chuuk, the compression was 28 percent, and 317 public-service positions were eliminated. In Yap, the financing gap was 19 percent, but the state has adjusted by holding operational expenditures within current revenues and funding nonrecurring and capital projects through the use of the state's reserves. Only Pohnpei and the national government were spared the need to phase out the nonconforming uses of Compact funds.

DECREMENT MANAGEMENT

JEMCO requires decrement management plan: With near-term adjustment to the amended Compact complete, attention switched to the impact of the lack of full indexation and annual decrement on fiscal management during the remaining years of the amended Compact. This equates to an annual average real decline of 2 percent and represents a real resource loss of 0.5 percent of the current value of GDP each year. The amended Compact was specifically designed to avoid the large impact of each five-year decrement of Compact I funding and thus ease the process of adjustment. However, the relatively small adjustment of 2 percent per annum cannot be easily achieved year to year on a long-term basis without distorting the delivery of public services or the cost structure of government. Recognizing the impact of the annual real decline of Compact resources, JEMCO adopted a resolution (JEMCO 2009-2) in September 2009 that subsequently became known as the decrement management plan:

> *JEMCO resolves that the FSM National and State Governments shall develop plans for managing annual decreases in Compact direct assistance and/or general fund support, and shall use those plans as the basis for Fiscal Year 2012 budget decisions. The plans should include an evaluation of the ability of the health and education sectors to fulfill their strategic outcomes in fiscal years 2012–2014.*

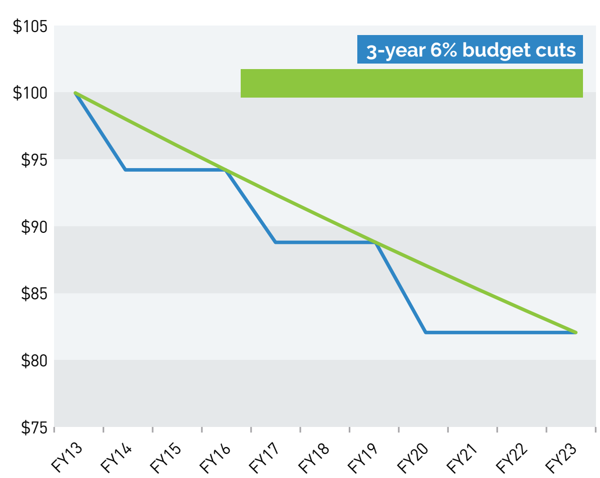
Protracted process initiated to resolve decrement issue: The FSM initially rejected the need for a decrement management plan and chose not to comply with the JEMCO resolution. During the following annual JEMCO meeting in 2010, an extended version of the original resolution was adopted, requiring the preparation of a report in greater detail to cover the remaining period of the amended Compact through FY2023. The resolution specified a participatory approach, inclusive of policy makers at all levels of government and across all sectors. As a result of the second JEMCO resolution, the national government began to prepare an LTFF and convened a national economic symposium. However, the states did not endorse the LTFF. At the FY2012 JEMCO meeting, the states indicated that the national-government LTFF had been drafted without adequate state-level consultations and did not reflect their priorities or needs. In the absence of a credible LTFF, a new process was initiated with the prime intention of ensuring that the final LTFF had state-level participation and reflected local priorities.

Participatory state-level LTFFs prepared: A series of state leadership meetings were accordingly convened. Each state was informed that the annual decrement and lack of full indexation amounted to a roughly 20 percent real cut in the sector grants over the FY2013–FY2023 period, approximately 2 percent per annum. The initial task falling on each state was to prepare budgets as if the 20 percent reduction would be effective from FY2014. The leadership meetings were required to prioritize the budgets prepared by each department/agency, ranking the order of the cuts from highest to lowest priority. However, it was not intended that the 20 percent cut would take place immediately in FY2014, but rather in a set of three tranches of 6 percent each over a three-year period (see figure 33). Each state was then requested to identify the initial three-year cut of 6 percent, which would be a firm commitment and reflected in the FY2014 budgets submitted to JEMCO.

LTFFs entail three cycles of adjustment: It was envisioned that the leadership process would be repeated in three-year intervals. Identification of specific budgets and priorities over a 10-year horizon was not realistic, as many factors and circumstances would be subject to change. Reassessment and prioritization over a 3-year, medium-term horizon was considered more appropriate. It was further indicated that if offsetting revenue measures were identified and passed into law, such as the FSM-wide tax reform or "burden sharing" with the national government, the cuts in future rounds could be relaxed.

Real expenditures to be maintained during each three-yearly cycle: The intended LTFF provided for some inflation adjustment in the intervening years. Since the Compact allows for partial inflation adjustment, the nominal value of the annual sector grants remains relatively static: the annual decrement would be offset by the inflation adjustment. Thus, after each initial cut of 6 percent in the first year of each three-year cycle, some allowance—up to 2 percent—

Figure 33
LTFF 3-year adjustment cycles, constant prices



could be permitted in each of the following two years. It can be seen that the issue of wage policy discussed above can be accommodated within each of the three-year cycles through modest adjustments.

LTFFs formed basis of FY2014 budget: In June 2012, Kosrae State was the first to complete the process with leadership endorsement. Yap State was to follow in July, and Chuuk undertook the process in August, with Pohnpei following in January 2013. The LTFFs prepared by the states formed the basis of the FY2014 budget requests presented to JEMCO. No formal review of the efficiency of the LTFF process in addressing the decrement issue has been undertaken. While it could be argued that "dilution" remains evident behind many of the expenditure cuts, the process did provide a participatory approach to prioritizing expenditures in a comprehensive way.

National government did not adopt an LTFF: While the FSM states completed their LTFFs, the national government argued that a national LTFF was not required, since it faced completely different fiscal circumstances. However, a major element of the discussion at the state-level LTFF meetings was the contribution that tax reform and burden sharing could make to assist the states in maintaining services as Compact resources declined. The requirement of the national-government LTFF was therefore quite different from that of the states. Sharing of buoyant unrestricted national revenues would go a long way in solving the decrement issue at the state level. The envisioned national-government LTFF was thus intended to be a plan for distribution of revenue and not like those of the FSM states, which were designed to reduce and consolidate expenditures.

Decrement planning no longer an active JEMCO issue although remaining a pertinent issue: Reflecting the national government's position to not prepare an LTFF, no allocation for Compact sector grants has since been made, with the exception of a $1 million contribution to the CoM. The release of Compact resources by the national government was held in reserve and to be used to assist the states to offset the second-tranche adjustment in FY2017. During subsequent JEMCO meetings, the issue of decrement management seems to have been forgotten by all parties, as larger issues loom on the horizon in FY2024. However, the decrement issue remains pertinent at the state level with no provision being made for the third programmed tranche of the original decrement management plan in the FY2020 budget submissions. Adjustment will need to be achieved through reductions in real resources for complementary inputs as wages creep upward, thus reducing the value of service delivery.

D. State-Owned-Enterprise Reform

SOEs have afforded low fiscal risk in the FSM: During Compact I, public investment in the fisheries sector blossomed, reflecting the aspirations of the newly independent nation to transform its economy. Although these investments, some of which were supported by the ADB, were an unmitigated failure, all have now become defunct or are now under private ownership or management. The utility sector, both power and telecom, also grew at the start of the original Compact, reflecting the transformation from government departments to SOEs. During the amended Compact, two new SOEs have been created: FSM Petroleum Corporation (2007), which took over the operations formerly run by Mobil, and the FSM Telecommunications Cable Corporation (2017) to operate the fiber optic infrastructure of the FSM. Unlike other Micronesian economies, the SOE sector in the FSM has generally afforded only minor fiscal risk.

SOEs make continuing losses through failure to charge full cost recovery: The FSM Strategic Development Plan of 2005 identified 22 major SOEs operating as utilities or fisheries or in the financial sector or miscellaneous activities and has changed little to this day. In FY2018 the sector employed an average of 854 people (5 percent of the labor force) and contributed $41 million to GDP (10 percent). Overall, the sector required annual operating subsidies of $2.2 million, or 0.5 percent of GDP, to support operations. Salaries are 1.7 times the private sector average. However, despite the apparently low fiscal cost, nearly all SOEs post recurring losses. Losses are sustained through erosion of the capital base. In effect, a positive cash flow is maintained through a lack of provision for capital replacement. Failure to adopt policies of full cost recovery force inefficient operation on utility managers, and the FSM states experience periodic power outages and disruptions.

SOE reforms unsuccessful: In the early 2000s the ADB supported a TA[3] to assist the FSM in the review and reform of the SOE sector. While a valuable benchmark study was conducted, no direct reforms took place. Instead, the TA proposed an institutional structure for reform and identified suitable candidates for transformation. The findings and recommendations were, however, to form part of the 2003 ADB Private Sector Development Program reform requirements, which included (i) preparation of master plans for SOE reform for submission to each government, and (ii) transformation of at least one enterprise. However, the ADB program was not a success, and no significant restructuring was undertaken.

SOE legislation has not been considered in the FSM: In FY2016 the Marshall Islands adopted a legal framework to regulate the operation of the SOE sector. It required SOEs to operate on a commercial basis and defined community-service obligations (CSO) to provide a contractual basis for the delivery of commercially nonviable services. Palau has also adopted, although not legislated, a similar framework. The crisis level of operation that has existed in the production of power, formerly in Chuuk and now in Pohnpei, suggests that the FSM might also be well advised to adopt such a framework. However, the delivery of services at both the national and state levels would require matching legislation at both levels of government.

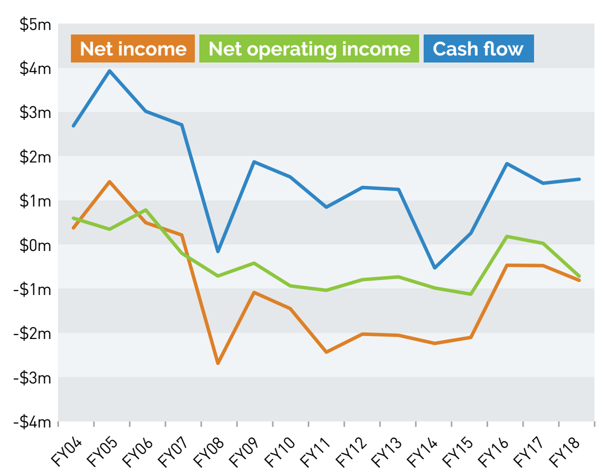
FSM TELECOM AND ICT REFORM

FSM Telecom is sole provider: The telecom sector in the FSM consists of one main provider, FSM Telecommunications Corporation, which was established in 1983 as a state-owned enterprise of the national government. There are no other private sector service providers. FSM Telecom provides GSM mobile, fixed line, internet, 3G mobile data and digital TV services. Major capital investment was undertaken in 1990 through a loan of $32 million from the US Department of Agriculture RUS. The loan provided the funds to invest in basic telephone infrastructure through the provision of copper wire to communities in the main centers of the four FSM states. During the 1990s and 2000s, FSM Telecom performed well financially and accumulated a growing pool of cash reserves.

FSM connects to internet backbone: In FY2009 the US government was laying the infrastructure for a fiber optic connection from Guam to the military base on Kwajalein atoll. This provided the opportunity for the FSM to connect to the internet backbone in Pohnpei at relatively low cost. FSM Telecom extended the RUS loan by a further $12 million and drew down its cash reserves to finance the cost of the new fiber connection. However, despite the new internet services being provided, total revenues have not been growing. Mobile cell phone revenues have shown little growth since FY2010, and while there has been significant growth in internet services this has been offset by a reduction in overseas calls because of new internet services such as WhatsApp, Skype and texting. With increased debt-servicing cost, an enterprise that had operated a positive net operating income and net income balance had now moved into deficit territory.

FSM Telecom fails to achieve commercial viability in internet era: Figure 34 displays these results. In the early part of the amended Compact, the enterprise was maintaining positive net operating and income balances, although the trend in this pre-internet era was downward and

Figure 34
FSM telecom, net operating income and cash flow



3 Project No. 3201-FSM, Privatization of Public Enterprises and Corporate Governance Reform, 2001, Pohnpei.

both measures were turning negative in FY2007. In FY2010, the new fiber optic connection was installed, and FSM Telecom was required to finance larger debt-servicing commitments on the loan extension. By FY2011 net operating income and total net income had bottomed out and were recording negative flows of $1 million and $2.4 million, respectively, a trend that continued through FY2015. The performance in FY2016 and FY2017 saw improvements but deteriorated and remained in negative territory during FY2018. Cash flow, on the other hand, has remained positive (excepting FY2014), although it was considerably below the strong position of the early period. In essence, after taking into account debt amortization and adding back depreciation, the corporation has held its head above water, albeit barely. However, the capital base has been quickly eroding, and total assets have fallen by $24 million, from $65 million to $41 million, since FY2010.

Monopoly status has not led to an efficient and proactive enterprise: The story is an interesting one. Even though it is a monopoly provider, FSM Telecom has been unable to generate a profit in recent years. Despite its competitive prices, by regional standards, for mobile and internet services, two factors—changes in technology and the small size of the FSM market—have hampered revenue growth. FSM Telecom introduced a 3G service in FY2014 and has only just recently moved into 4G LTE. While pricing is not uncompetitive, the cloistered nature of FSM Telecom's protected position and lack of competition have not encouraged rapid introduction of modern services, such as 4G, or a lean and efficient organization. Cost-saving and productivity-enhancing measures should be examined, especially in the payroll area, which represents a high component of total cost.

World Bank initiates ICT reforms: During 2013 the World Bank initiated a series of ICT reforms as part of its Pacific regional initiatives. In the FSM, the World Bank noted that internet penetration outside of Pohnpei was very limited, with Chuuk, Kosrae and Yap served by high-cost satellite connections. To encourage greater access to the internet for all communities in the FSM, the World Bank drafted a project[4] to provide fiber connections to Chuuk and Yap and internet access to Kosrae on similar terms to those in the other FSM states. A project was prepared with $47.5 million in IDA grant financing that included $22.5 million for the Yap connection, $18.5 million for the Chuuk cable spur from Pohnpei, $3.5 million for Kosrae and $3 million for technical assistance and project-management support.

4 World Bank, Project Appraisal Document, 76896-PW, Washington, DC, 2015.

Yap and Palau link to SEA-US cable: Connectivity of Yap and Palau to the internet has been provided through the Southeast Asia–United States cable consortium (SEA-US), which recently laid fiber between Indonesia, the Philippines, Guam, Hawaii and the US mainland. The timing provided a golden opportunity for Palau and Yap to build spurs to the SEA-US fiber at low cost, in a timely fashion, and with assured cable maintenance afforded through an international consortium.

New ICT regulatory framework passed into law to encourage greater efficiency and lower prices: As part of the ICT reforms, the project entails liberalizing markets and opening the FSM telecom market to competition to encourage greater efficiency and affordable services to the public. As a result, the FSM issued the National Information and Communication Technology Policy in September 2012, which called for sector reforms to increase private sector participation and investment in the provision of ICT services. In April 2014 the FSM Telecommunications Act was enacted, giving effect to the ICT policy. The new law ended FSM Telecom's right as sole provider and allowed for licenses to be issued to new network operators and other service providers. The World Bank indicates that the FSM law provides a modern framework for ICT consistent with international best practices.

Regulatory body created and now operational: The law specifies that the market would be regulated by an independent regulator to ensure a level playing field and fair access to shared infrastructure. The Telecommunications Regulatory Authority was created in 2017 and a chief executive has been appointed. In 2019 the new authority proposed new telecommunication and spectrum rules for public comment.

Creation of the open-access entity (OAE): An important element of the reforms was the creation and operationalization of an open-access entity (OAE) for the sale of bandwidth to the FSM market on a fair and equitable basis to all service providers in the FSM. The OAE has now been created and operates as the FSM Telecommunications Cable Corporation. It owns and manages the new fiber connections and had been intended to acquire the HANRU cable from FSM Telecom, thus giving the OAE rights to all the FSM's fiber infrastructure. Clearly, the most efficient and effective solution is ownership of all submarine cables by one entity. However, the proposal met with resistance, and an IRU (indefeasible right of use) was granted by FSM Telecom to the OAE at no cost to provide connectivity and meet World Bank conditions. The new cable connections to Yap and Chuuk are now operational.

Further ICT projects in the pipeline: In addition to the current ICT project, the World Bank has committed to a second cable project connecting Nauru, Kiribati and Kosrae to Pohnpei known as the East Micronesian Cable. Funding of $36 million for the FSM and Kiribati will jointly be supported by the ADB and World Bank while the ADB will support the Nauru portion. A third phase of the ICT project known as the domestic "roll-out" is currently under design and will provide fiber connectivity to the premises and home. In all, the FSM will have received a total of over $100 million for enhanced ICT connectivity.

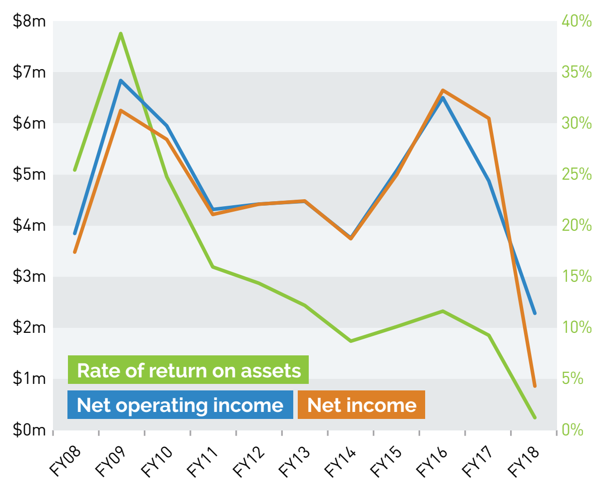
Benefits of reforms about to be contested: Clearly, the FSM is fortunate to be the beneficiary of a very large grant-funded set of ICT infrastructure projects. For the FSM, the next phase will be to seek interested parties to compete in the marketplace. The provision of fiber to the home will significantly reduce cost to competitors and encourage new entrants. The FSM market will provide an interesting laboratory to establish whether the market is sufficiently large to support more than one operator, and whether the incumbent, already operating at the boundaries of solvency, will survive the process in its current form.

FSM PETROLEUM CORPORATION

Mobil leaves the FSM, and FSM PetroCorp created: Not long after the start of the amended Compact, it became clear that Mobil Oil Micronesia intended to reduce its presence in the Micronesian region. Although operations in the Republic of the Marshall Islands would remain under Mobil control, the company would divest its interests in the FSM and Palau. Operations in Palau would be transitioned to the private sector, while in the FSM they would be conducted by an SOE. FSM Petroleum Corporation was created by public law in September 2007. FSM PetroCorp became functional in Chuuk, Pohnpei and Yap in 2008 and took over operations from Micronesian Petroleum Corporation in Kosrae in 2009.

PetroCorp establishes itself as a profitable SOE: FSM PetroCorp has seen the successful emergence of an efficient operation, replacing the former international oil company. Initially financed with a $10 million loan coming from the Bank of Guam and FSM Development Bank and guaranteed by the national government, FSM PetroCorp quickly paid down its loans. The corporation began to expand its asset base from $14 million in 2008 to $69 million in 2018. Figure 35 indicates the profitability of the initial years of operation. Apart from a spike in operations in 2009, the corporation generated net operating profits averaging greater than $5.5 million per annum in the three years (FY2015–FY2017). Nonoperational expenses such as interest payments on debt are minor, and net incomes are similar to net operating incomes. The rate of return on assets declined in the earlier years as net incomes stabilized and retained earnings

Figure 35
FSM PetroCorp net operating income, net income and rate of return on assets



led to a rise in the asset base. However, as operations bedded down and the corporation established itself, the rate of return on assets stabilized and averaged 10.3 percent from FY2015 through FY2017.

Performance deteriorates in FY2018 as margins fall and costs increase: While financial performance has been profitable since PetroCorp started operation, FY2018 recorded the weakest performance on record. Operating and net income fell to their lowest levels, barely avoiding loss. Return on assets was 1.2 percent, well below the 10 percent target and prior performance. Gross profit fell due to rising fuel costs, while operating expense grew rapidly with increases in payroll and a range of items. Hopefully this was a one-off occurrence reflecting a poor year, but it might also reflect increasing cost arising from the expansion into the coconut sector.

Pricing set at 45¢ margin on Guam prices: Clearly, FSM PetroCorp is a monopoly business and, unlike FSM Telecom, operates in an environment of inelastic demand for its major product, petroleum goods. The pricing policy was designed to be competitive with neighboring Micronesian islands and targets a 45¢ margin on Guam prices. PetroCorp targets a 10 percent rate of return on investment, which has largely been achieved, but, unlike the case of its predecessor Mobil Oil Micronesia, there is no hidden cross subsidization of different product markets.

PetroCorp diversifies into region: After a successful launch of the new business, the declining profitability indicates the dilemma facing the corporation. Company policy has been to reinvest savings in fixed-asset rehabilitation, diversification away from fuel, and expansion of operations outside the FSM rather than use them for payment of dividends. Reflecting these policies, the corporation diversified its activities, setting up terminal operations in Guam to supply fuel to the Guam Power Authority. Clearly, this is a sign of the good reputation of PetroCorp. In 2015 PetroCorp took over fuel-supply operations in Nauru, extending its reach farther into the region. The Guam and Nauru operations are conducted under a subsidiary, Vital Energy.

Diversification into coconut base products: However, while regional diversification into established lines of business would present a relatively low-risk policy for productively using unemployed capital, diversifying into nontraditional markets raises questions. In September 2014 the operations of the FSM Coconut Development Authority, a national-government SOE, were transferred to PetroCorp. While relying on national-government subsidy, the Coconut Development Authority was constrained by limited funding. However, plans are underway to restructure the coconut-oil business, and construction of new coconut-processing facilities in Tonoas, Chuuk, is now underway. The initial intent is to become a Tier 2 supplier of higher-value coconut-based products (virgin oil, coconut-fiber products, coconut water, etc.) rather than the traditional low-value copra and coconut-oil products. While the intent is to move up the value chain, the product mix remains homogeneous, undifferentiated, and traded on world commodity markets.[5] Diversification into new-market coconut products is a high-risk venture that has yet to bear fruit in other Pacific Island communities. While there is no cost of the raw input (coconuts) and bringing economic livelihood to the outer islands of the FSM is an important social objective, experience has shown that the basic economics in the coconut industry, in direct competition with major producers in the Philippines, among others, have been difficult to realize.

Diversification into power production: In addition to coconut operations, PetroCorp operates an independent 2.0 MW fossil fuel–based power plant in Pohnpei, colocated with that state's power-production facility. That operation began to respond to the disastrous policies adopted by the state of Pohnpei, leaving PUC in a state of crisis management and undercapitalization, with load shedding a common event. PetroCorp is also investing in power generation in Chuuk, beginning with the reintroduction of power production on the island of Tonoas, utilizing coconut-based fuel and relying upon a partnership with Chuuk Public Utility Corporation for distribution on that island. Plans include linking the new Tonoas grid to the long-standing grid on the main island of Weno.

5 It should be noted that Pure Fiji, a company producing high-value differentiated cosmetic coconut-oil products directly for the consumer market, has proved highly successful.

PetroCorp seen as solution to weakly operating SOEs suffering from political interference in pricing: Power production in the FSM has been subject to a policy of less-than-full cost-recovery pricing—a policy imposed by state legislatures (or utility commissions) on utilities and its implications for delayed plant maintenance and underinvestment in efficient power generators. As a result, power outages were suffered virtually on a daily basis in Pohnpei even after recent investments in new, albeit lower-efficiency, generating capacity, although continuity in power supply is now improving. There appears to be a belief that a successful, well-run enterprise such as PetroCorp can resolve the evident problems of an ailing domestic power industry. However, the failure of the FSM utility sector is in large part due to political interference in tariff setting, rather than weak management. It is thus imperative that PetroCorp moderate its horizontal expansion to ensure that its investments, needed as they may be for FSM-wide development, do not get drastically impaired by regulatory restrictions that fail to allow for full cost recovery in the utility sector.

PetroCorp should focus on consolidating sustainable operations and paying dividends to shareholders: PetroCorp has established itself as a successfully run SOE, arguably the only one on a sustained basis in the FSM. However, caution should be exercised before expanding into nontraditional markets, where risks are very large and political considerations rule the day. The poor financial outturn in FY2018 suggests that costs from entering a new industry may already be undermining profitability. It is highly desirable that the annual financial statements include a breakdown of operations by major cost centers so that the costs associated with entering new business are transparent and readily visible to the public. It would be better for an entity—even a public enterprise—with successful but limited sustainable-management capacity to continue consolidating its strengths and consider paying a dividend to its primary shareholder, as is typically required of monopoly enterprises in healthy, well-regulated SOE sectors.

5. The Financial Sector

Commercial bank lending in the FSM has been weak, with a loans-to-deposit ratio of 15 percent. Lending to the commercial sector is particularly weak, representing only 5 percent of deposits. The inability of businesses to prepare meaningful business plans and financial statements, lack of collateral and the limited ability to use land as security have inhibited financial intermediation.

- The FSM banking system benefits from FDIC insurance as part of the Compact; it is also regulated by the local Banking Board. Should the FSM lose FDIC insurance in the coming CTF era after FY2023, this might threaten financial stability and pose problems in maintaining correspondent-banking relationships with the US.
- In 2005 the FSM passed corporate tax legislation that enabled the creation of an overseas domicile, which has primarily been targeted at Japanese companies. The law provides for a corporate tax rate of 21 percent, and through differential tax rates the FSM host environment provides an attractive domicile for Japanese captive-insurance companies and other corporations.
- The benefit of the FSM domicile has been a steadily growing stream of core revenues averaging \$6–\$8 million in recent years. Periodically, the FSM has received large payments; in FY2014, a large receipt of \$28 million was received, and in FY2017 and FY2018 receipts of \$23 million and \$85 million were received, respectively. A key policy issue is the desirability of setting aside revenues from this source to augment the FSMTF.
- A particular area of concern has been compliance with the Global Forum on Transparency and Exchange of Information for Tax Purposes. As a result of a first peer review in 2015, the FSM was deemed noncompliant, a designation that threatened the existence of the industry. However, after changes in law and conduct of a second Global Forum peer review, the FSM has now been found largely compliant. A key issue for the FSM is to maintain this status or improve on it.
- The latest actuarial assessment of the Social Security system indicates a funded-to-liability ratio of 15 percent. Reforms enacted in 2013 have improved the stability and sustainability of the system, but given the low funded ratio it remains fragile. Projections indicate an imbalance between contributions and benefits that may over time require further adjustment.

5. The Financial Sector

A. Money and Banking

Adoption of US dollar limits monetary policy: With the adoption of the US currency in the FSM, macroeconomic policy and adjustment has been limited to the use of fiscal policy. Many other small island economies of the Pacific use foreign currency, and this practice has served the FSM well. The range of macroeconomic policy options is limited; thus, there is no potential to use monetary policy to adjust to changes and reductions in Compact funding. Of course, this has left the FSM with no way to adjust to reduced levels of resource transfers other than the more politically painful processes of cutting government expenditures, reducing public sector employment and wages, and increasing domestic revenues. The use of a foreign currency has removed exchange rate realignment and devaluation as ways to encourage the export and traded-goods sectors of the economy. At this stage of the FSM's economic development, with many underlying structural impediments, exchange rate adjustment without accompanying supporting policies would be unlikely to encourage a favorable supply response in traded-goods production.

Bank regulation benefits from FDIC insurance: The FSM banking system benefits from the FDIC, as provided in the Compact. The FDIC has played a critical role in supervising the banking system and ensuring a sound and stable financial system. Under the amended Compact, FDIC support remains effective and will help maintain financial stability in the economy and avoid the adverse consequences of a banking-system failure, which has occurred in many other Pacific Island economies. The banking system is also regulated by the FSM Banking Board, which is developing the capacity for banking supervision. The role of the board includes licensing of domestic and foreign banks, on-site and off-site supervision of all banks, consumer protection and consultation with the FDIC.

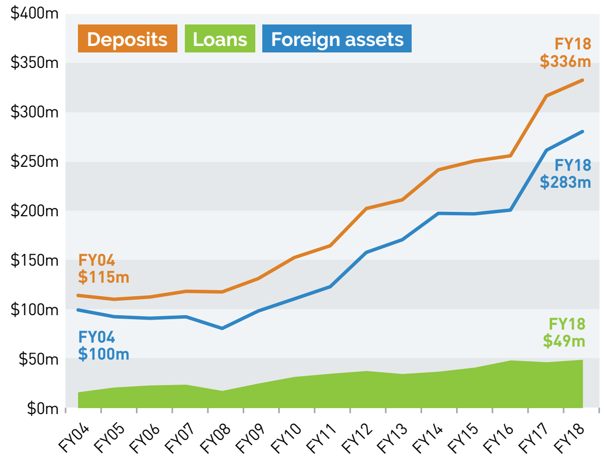
Structure of the commercial banking industry: Since December 2002, when the Bank of Hawaii withdrew from the FSM market, there has been one US bank operating in the FSM. There is also one locally owned bank, Bank of the Federated States of Micronesia (FSM). The remaining US bank, Bank of Guam, is a branch of its parent and thus also comes under US federal supervisory requirements. The present system is thus well supervised and provides a secure basis for financial intermediation and has avoided "de-risking" issues associated with a loss of correspondent-banking relationships that have been experienced in other developing countries. However, if the FSM should lose FDIC insurance in the post-FY2023 Trust Fund era this situation may change.

Deposit interest rates reflect US rates, but lending rates are high: The result of the lack of an independent monetary policy is that domestic interest rates are closely aligned with those of the United States. Deposit interest rates observed in the market are broadly similar to those throughout the US, while lending rates are generally higher, reflecting the additional risk and costs of doing business in the FSM. Initially, the higher rates charged on loans resulted in regulation, and limits were placed on both consumer- and commercial-loan interest rates. As part of the PSRP, removal of regulation was recommended and was a loan condition. The interest rate limits were effectively dropped (leaving only a nonbinding usury limit of 24 percent) in 1998, and there was no adverse change in the local interest rate structure even as the financial system was allowed to adjust to market forces. CD rates have fallen from the 1 percent prevailing in 2004 to the 0.4 percent where they now stand, reflecting the low level of interest rates in the United States. Lending rates on consumer loans have always been high and have averaged 15 percent during the amended Compact. Commercial lending rates are generally lower than consumer rates and stood at 7.6 percent in FY2018.

Deposit base largely invested offshore: Statistics on the FSM banking sector were first created in 1990, but analysis begins at the start of the amended Compact in FY2004 (see figure 36). With regard to deposits, the data indicate a static period during the first five years. Since FY2008 the deposit base has grown more rapidly, averaging 11 percent during the FY2008–FY2018 period. The lack of financial deepening during the early period is consistent with the lackluster performance of the economy, and the expansion since then reflects the improvements in economic conditions. The large difference between the level of deposits and loans is invested offshore. Reflecting the trends in deposits and domestic credit, the level of foreign assets stagnated between FY2004 and FY2008, averaging $95 million, but rose strongly through the remainder of the amended Compact, attaining $283 million in FY2018.

Significant growth in deposits and foreign assets: Regarding lending, at the start of the amended Compact, the Bank of Hawaii had just completed withdrawing from the FSM market, leaving a very low level of outstanding credit in the FSM of $21.3 million. At the time, the Bank of the FSM was restructuring its portfolio, but it has since taken a more proactive stance, opening operations in Saipan. The level of outstanding credit in the FSM has grown by $36.7 million since FY2004 and stood at $50.2 million at the end of FY2018. While the opening of new markets in Saipan was a good idea at the time, the subsequent weakened state of the Commonwealth of the Northern Mariana Islands economy gave rise to concern about the quality of the business, although conditions in Saipan have now improved.

Figure 36
Commercial bank deposits, loans and foreign assets, end of period



Loans-to-deposit ratio remains low at 15 percent: The difference between loans and deposits indicates the large level of liquidity in the FSM banking system and reinforces a widely observed phenomenon in the Pacific Island region: as a factor of production, capital is not in short supply. Reflecting the trends described above, the loans-to-deposit ratio had fallen to a very low level of 14 percent at the start of the amended Compact, after the withdrawal of the Bank of Hawaii. During the amended Compact, the ratio has oscillated and now stands at 15 percent. Overall lending performance has been weak and has grown by an annual average of 8 percent during the amended Compact. This reflects the high level of perceived risk in the FSM and lack of bankable projects. Overall, the inability of businesses to prepare meaningful business plans, lack of collateral, the inability to use land as security and inadequate provisions to secure transactions have inhibited development of the financial sector. With limited opportunities, commercial banks have preferred to invest their assets offshore in less risky and more secure markets.

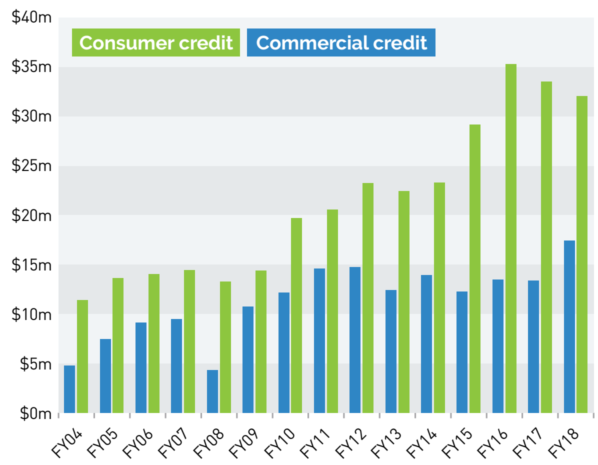
Growth in commercial credit sluggish: Because of a lack of bankable projects, the commercial banks have generally preferred to extend credit to consumers with secure public sector jobs and an identified repayment stream. Consumer-lending growth was sluggish at the start of the amended Compact, but since FY2009 it has been more active (figure 37). Commercial credit has taken the opposite course to consumer lending: it grew in the initial years through FY2011, but since that time it has stagnated.

B. Corporate Tax, Captive Insurance and the FSM Domicile

THE CAPTIVE-INSURANCE INDUSTRY

FSM creates domicile for Japanese companies: A large number of jurisdictions around the world have laws and regulations that enable captive-insurance companies. However, Japanese-owned captive-insurance companies have been primarily formed in Bermuda, Hawaii

Figure 37
Commercial bank credit by sector



and Singapore. The competitive characteristics among these potential domiciles include industry infrastructure, regulatory environment, and access to reinsurance and investment markets. In 2006 the FSM established the insurance law that paved the way for the creation of an FSM domicile for Japanese companies and captives.

Low representation of captives in Japan: Although Japan is the third-largest economy in the world, there are only approximately 120 Japanese-owned captive-insurance companies. As of August 2019, total worldwide captives totaled 5,551,[1] of which approximately 56 percent have North American owners. The first Japanese captives were established in 1975, and the numbers have grown steadily since then. Given the size and GDP of Japan compared to the US and Europe, the primary reason there are relatively fewer captives is largely because of the tight-knit Japanese insurance industry. One member of the industry needs to act as the fronting company before any captive is licensed overseas, which has discouraged the creation of captives. Further, the fronting company charges a fee twice that in other markets for the service. Lastly, certain policy coverages that are popular with captives in the US and Europe are partially covered by government or not seen as necessary (e.g., product liability and workers' compensation).

1 A. M. Best, "Best's Captive Review," exhibit 1, p. 24, August 2018.

FSM establishes attractive domicile for captives: There are currently about 60 jurisdictions around the world, including 30 US states, that have established captive-insurance regimes. Japanese captives have utilized 15 of those captive domiciles, including Bermuda, Hawaii, Singapore and, since 2009, the FSM. Because the FSM offers several advantages for Japanese captives over other domiciles (e.g., tax, foreign exchange, proximity, culture and cost), the FSM is now serving the largest number of Japanese captives, although Hawaii has licensed a few "micro captives" (831[b]'s) recently. In fact, in the eight years since the FSM promulgated captive regulations, it has attracted more than 80 percent of all Japanese captives that have either recently established, redomesticated or relocated domiciles. The FSM now has 25 licensed captives.

THE CAPTIVE-INSURANCE BUSINESS

Rationale and structure of the captive industry: A captive-insurance company typically provides commercial insurance to its parent company and the parent's subsidiaries and affiliates. Depending on insurance rules at the location of the parent—or, for international companies, the location of the risk—a captive may be able to provide insurance directly to the parent company. In most instances (as is the case in Japan), the captive-insurance company provides reinsurance through an existing primary insurance company, also called a fronting company. The parent company of the captive will negotiate with the fronting company to secure the amount of premium that will be sent to the captive-insurance company. The captive will then share claims with the fronting company in direct proportion to the sharing of premiums. A captive is used as a risk-management and risk-financing tool to reduce the overall cost of insurance for the parent company. The captive can control the amount of risk it retains by purchasing its own reinsurance, called a retrocession agreement. This will limit the amount of risk that the captive-insurance company will carry and, thus, the maximum claims they might have to pay. Captive-insurance companies are most often used to provide property insurance, liability insurance and marine insurance, but captives are even moving into life insurance.

DEVELOPMENT OF THE FSM DOMICILE FOR CAPTIVES

FSM domicile based on corporate tax advantages offered by FSM: In FY2005 the FSM initiated the process of creating an attractive domicile for Japanese captive-insurance companies and other corporations. A corporate tax law, Income Tax Regime for FSM Corporations, was enacted that specified that companies incorporated in the FSM with a minimum equity of $1 million would be subject to a tax rate of 25 percent. In FY2006 the FSM further enacted an insurance law that set the groundwork for establishing an environment attractive to the captive-insurance market. Since that time, numerous amendments have been passed and the corporate tax rate was reduced to 21 percent to ensure the FSM domicile remains compatible with Japanese law and regulations. In essence, through differential tax rates, the FSM host environment provides an attractive domicile for Japanese captive-insurance companies and other corporations. The establishment and subsequent steady growth of the industry has been supported in both the FSM and in Japan by MRA, a private company that benefits from a fee equal to 40 percent of the corporate income tax collected, which percentage reduces in a few years.

Structure of the captive industry in the FSM: While the FSM enacted a captive-insurance law at the end of 2006, regulations were not promulgated until 2009, the year the first captive was licensed in the FSM. Since 2006 the FSM government has worked closely with MRA to steadily grow the captive-insurance industry in the FSM. Regulatory oversight of the captive-insurance industry in the FSM lies with the insurance commissioner, who reports to the Insurance Board. The majority of the captive-industry infrastructure is made up of international service providers located in Guam, Hawaii, Japan and Singapore. These service providers include captive managers (such as Marsh and Aon), audit firms (particularly Deloitte and also Ernst and Young) and actuaries.

Large periodic receipts: The net receipts received by the national government (after deduction of the MRA fee) from both captive-insurance companies and overseas investment subsidiaries of Japanese organizations rose from an initial value of $58,000 in FY2009 to $4 million in FY2013 and peaked at $28 million in FY2014, reflecting a large declaration of capital gains by one company. In FY2015 and FY2016 receipts returned to the more normal levels, but FY2017 again recorded a large receipt of $23 million by the same company. In FY2018 there was a receipt of $85 million from a different Japanese organization and in early FY2019 there was a receipt of a further $50 million. Although large receipts can be expected periodically, FY2018 and FY2019 were exceptional.

POTENTIAL RISKS

Need for close collaboration between advisors and FSM: Industry representatives consider the potential for future development of the captive industry to be bright. As one of the leading captive domiciles for Japanese-owned captives, the FSM is usually now evaluated as an option during a captive feasibility study. However, while the FSM has the opportunity to become a major domicile for Japanese-owned captive-insurance companies, the nature of the business is such that captives can very easily locate to alternative domiciles should the environment become unattractive. The national government of the FSM thus needs to continue to work closely with its advisors and ensure that the legal, regulatory and overall business environment for the captive-insurance market remains competitive. Response times and professionalism by the insurance, corporate-registry and treasury departments in the FSM need to continue to adjust in a changing environment for the industry to prosper in the future.

Need for compliance with the Global Forum: A particular threat to the sustainability of the FSM domicile has been compliance with the Global Forum, a group of 158 members working under guidance of the OECD to create a transparent environment among nations to share information in the tax area, although the FSM is not a member. A phase 1 review of the FSM was conducted in 2012, and the results were published in April 2014. In June 2016 the OECD agreed on criteria for assessing noncompliance, and the FSM was deemed noncompliant. Also, in June 2016, a front-page article in the Nikkei Shimbun reported that based on a 2015 assessment, Panama, Micronesia and Indonesia would be blacklisted. While there were inconsistencies in the article, the implications of being placed in the same group as Panama would have been damaging to the FSM's reputation and international standing. MRA has indicated that it has had many inquiries from the FSM's clients and that any inclusion on this list could potentially freeze or kill the FSM domicile and captive-insurance industry.

FSM deemed as largely compliant: As a result of Global Forum noncompliance, the FSM enhanced its efforts and passed legislation on transparency and exchange of tax information. In 2016, under a further round of reviews, the Global Forum undertook a fast-track process, and countries were designated as compliant, largely compliant, partially compliant or noncompliant. As a result of the review, the FSM was designated as largely compliant, thus hopefully alleviating the fears arising from the Nikkei Shimbun article. A further second-round peer review was undertaken in late 2018, and the FSM was rated as largely compliant. Earlier concerns have thus been largely addressed, and the FSM has now indicated that it intends to join the Global Forum as a member to maintain its good standing in the future.

Changes in Japanese and US law: Additional risks to the industry have resulted from changes in Japanese corporate law concerning tax-haven status. In addition to requiring foreign jurisdictions to have an income tax burden in excess of 20 percent, foreign-domiciled companies are now required to display substantial business activity rather than functions of a paper, or cashbox, type. The exact nature of displaying substantial business activity is not yet known, but it will require a physical office and an administrator for each Japanese subsidiary in the FSM. MRA has been active in providing suitable offices and administrators for the convenience of the Japanese captives and other subsidiaries. A further issue is the change in the US corporate tax rate, which after the recent tax cuts is now also 21 percent. This will clearly increase the attractiveness of the US as a domicile for Japanese captives.

Nation-versus-state competition: An important issue is the distribution of receipts in the FSM with the state governments. So far, the receipts have not been subject to revenue sharing, although the legality of this position is open to question. At the current time, the main location of MRA is in Pohnpei, although the company had an office in Chuuk. While tax receipts from the industry are not subject to revenue sharing, the fact that MRA is resident in Pohnpei requires MRA revenues to be subject to the gross receipt tax, which is shared at the state level. While Pohnpei thus does not directly benefit from corporate tax collections, it does benefit from MRA GRT payments. The issue of revenue sharing of the benefits of the industry thus has the potential to become a divisive issue should the states compete to provide the most attractive domicile. This could further possibly discourage new captives from entering the market if the FSM domicile appears to Japanese corporations and their technical advisors to be rife with internal legal disputes. For the benefit of the FSM as a whole, a suitable accommodation between the national and state governments that preserves and advances the competitiveness of the domicile needs to be found.

WEALTH MANAGEMENT

Earnings from captive and corporate domicile have been earmarked for the FSMTF: During late 2018 the FSM Congress passed legislation, PL20-134, allocating 50 percent of the earnings of corporate taxes from the captive-insurance and large-corporation sector to the FSMTF. This review has argued in previous editions that given both the inherent risk in the business and the volatility of the annual receipts, revenues should not form part of core government operations. Rather, the revenues received could be earmarked for the FSMTF, given the anticipated shortfall in the CTF after FY2023. Public law 20-134 goes partway in this regard, but a significant element of national-government revenue will remain subject to wide variation. This review has also argued that part of the proceeds allocated to the FSMTF could be allocated to the state subaccounts, as in the case of the additional 20 percent tax-revenue share. This would form one solution to potential destructive competition among the five governments in the distribution of the benefits from the industry.

C. Social Security Sustainability

Fund status low at 15 percent: Based on the actuarial evaluation completed in January 2012 relating to FY2011 and again in FY2014 and 2017,[2] table 9 indicates the status of the valuation of the Social Security Fund. The accrued liability—with respect to active workers, retirees and other beneficiaries, and inactive workers—was $336 million as of 2017. The assets of the fund were valued at $51 million, indicating an unfunded liability of $286 million. The funded ratio of assets to liabilities represented 15 percent. This is below the ratio in Palau, which has a funded ratio of 34 percent, and similar to that in the RMI, which has a funded ratio of 16 percent.

Reforms in 2013 improve Social Security sustainability: Effective January 1, 2013, the law was amended to improve the viability of the fund and adjust the benefits for changes since the last legislative action taken by the FSM Congress. Taxable earnings were raised by $1,000 to $7,000 per quarter and are scheduled to rise by $1,000 per quarter every five years until a maximum of $10,000 is reached. The current retirement age of 60 was raised to 65 in October 2015, although those over 60 years of age may take 50 percent of benefits upon reaching age 60. Further, the FSM Congress has contributed $1 million per annum to shore up the fund.

GSUSA projections more optimistic on contributions growth than actuarial study: A projection of the likely growth of the contributions, benefits and fund status is shown in figure 38. The estimates for benefits adopt the projections provided in the 2017 actuarial report,[3] while that for the value of contributions uses the projections of compensation of employees generated in this review. The annual change in wages is estimated at 3.7 percent, comprising 1.6 percent wage growth and 1.9 percent growth in employment. The growth in employment reflects the pickup in the economy with large numbers of construction projects in the pipeline. This is higher than the actuarial assumption of 2.7 percent, which would reflect historical growth since the start of the amended-Compact period. A market rate of return of 6.5 percent was adopted, compared with 7.0 percent used in the actuarial report.

Projections indicate fund status is likely to remain balanced through FY2030 but may require eventual reform: As figure 38 indicates, projected contributions and benefits tend to converge through FY2021, but thereafter they diverge as benefits grow more rapidly than contributions. The difference is made up from earnings on investments and contributions by the FSM government. However, from FY2027 the fund corpus starts to fall. The projections indicate that further reforms may not be required during the near term provided the national government maintains its $1 million annual contribution. However, the divergence of contributions and benefits suggests that at some point in the future, further adjustments to the system may be required if it is to remain sustainable. The projections are based on assumptions provided in the 2017 actuarial study, which references the results of the recent 2016 experience study. The latter study reveals actual claims experience

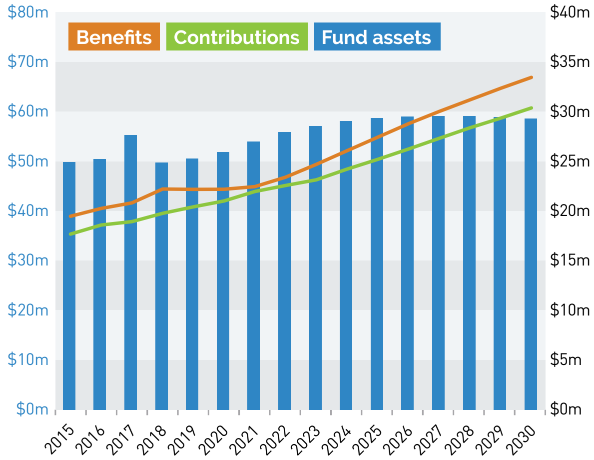
2 Pacific Actuarial Services, FSM Actuarial Valuation, January 2012; Nichols Actuarial Consulting, Actuarial Valuation, January 1, 2014; Cavanaugh Macdonald, Actuarial Valuation as of January 1, 2017, January 2019.

3 See also Cavanaugh Macdonald, Investigation of Experience 2011–2016, October 2018, referenced in the 2017 actuarial study.

Table 9 Social Security valuation, 2011 and 2017 (US$ millions)

	2011	2014	2017
Active workers earning benefits	138.8	128.3	132.7
Retirees, spouses, children, and disabled workers receiving benefits	110.4	129.2	150.5
Fully or service insured inactive workers entitled to a future benefit	38.6	50.1	53.2
Total accrued actuarial liability	287.8	307.6	336.4
Market value of assets	-42.4	-49.1	-50.7
Unfunded actuarial accrued liability	245.4	258.5	285.7
Funded %	15%	16%	15%

Figure 38
Projected Social Security Fund balance, contributions and benefits



in-country, rather than using US-based life and survivor assumptions. Given the sensitivity of the results to the assumptions, careful monitoring is warranted. The results are also, of course, subject to market risk, which may result in a less favorable outcome.

6. Private Sector Development and Special Issues

At the start of the amended Compact, the FSM held its third economic summit and three scenarios were discussed. The most pessimistic scenario, "the dismal scenario," outlined a future of economic stagnation. As matters have transpired, the FSM has struggled to match even the dismal scenario. Economic performance has improved recently, but the FSM can do better with adoption of suitable reforms and investment.

- The World Bank's Ease of Doing Business Survey paints a discouraging view of the environment for private sector development. Out of 190 countries, the FSM currently ranks 160th, 84 percent down the list, indicating that there is much room for improvement.
- As part of the PSRP back in the late '90s, the FSM initiated reform of the environment for foreign direct investment. A two-part system requiring approval at the national level for certain activities and at the state level for others was implemented. However, the process was cumbersome, and efforts were initiated to simplify the system by limiting FDI approval to the national government.
- Reflecting the large receipts of sovereign rents from fishing fees and the domicile of Japanese companies, the FSM national government has established a significant sovereign-wealth fund in the FSMTF. With the legislated commitment to maintain contributions to the FSMTF, the corpus should attain 100 percent of GDP by FY2023 and provide an important source of revenue for future generations.
- With the designation of grant-only status by the World Bank/IMF, the FSM is now in receipt of large volumes of aid from the World Bank and ADB. To date, the new funds have been allocated to infrastructure projects. However, the possibility to provide a source of budgetary support to fund government operations in the CTF era would be a desirable outcome.
- The FSM provides a full range of macroeconomic statistics for surveillance. However, recent limitations to access to key indicators have inhibited compilation of GDP-by-industry statistics. Alternative arrangements have been proposed but have failed to materialize. Proxy estimates to fill the missing data have, during the last three years, been used to estimate GDP but are not fit for the purpose in the longer term. The FSM needs to implement a regime of internal information sharing between departments and reset the statistical series.

6. Private Sector Development and Special Issues

A. Private Sector Development

THE WORLD BANK'S EASE OF DOING BUSINESS SURVEY

FSM fares poorly on World Bank's Ease of Doing Business Survey: The World Bank's Ease of Doing Business Survey provides a general assessment of the environment for private sector development. Table 10 indicates the FSM's ranking for each of the 10 major categories, which has deteriorated in each year since 2012 except 2013. Overall, the FSM currently ranks 160th out of a total of 190 countries, 84 percent down the list, suggesting much room for improvement. The FSM fares worse than either of its Micronesian sisters, Palau and the RMI, which rank 133rd and 150th, respectively, although not by a large amount. In the South Pacific, Papua New Guinea is ranked 108th, Fiji 101st, Vanuatu 94th, Tonga 91st and Samoa 90th. Overall, the FSM's scores are generally weak. Registering property, protecting investors, and enforcing contracts all score between 184 and 187, some of the worst scores of all countries surveyed by the World Bank. Slightly higher up the list, the FSM registers its best score with 61 for trading across borders and 90 for obtaining credit.

FOREIGN DIRECT INVESTMENT (FDI)

FSM adopts two-tier regime for FDI at the national and state levels: As part of the reforms enacted under the ADB-supported PSRP and designed by the Facility for Investment Advisory Service of the World Bank, the FSM enacted a series of state and national laws to regulate and encourage FDI. A two-part system was developed that provided jurisdiction of FDI that related to investment of a national character to the national government and all others to the state governments. At the national level, investments were classified in four parts:

- Category A (red list): banned investments in production of arms, currency, nuclear power, and any other goods and services determined in consultation with the states
- Category B (amber list): investment in activities to which specific criteria applied, such as banking, insurance and others in consultation with the states
- Category C (green list): investments of a national character for which no special criteria were required, including telecommunications, fishing in the exclusive economic zone, international and interstate air travel, international shipping, and others in consultation with the states

Table 10 FSM Ease of Doing Business, World Bank ranking

Category	2012	2013	2014	2015	2016	2017	2018
Ease of doing business: overall rank	140	150	145	148	151	155	160
Starting a business	102	104	151	162	167	170	170
Dealing with construction permits	19	42	37	141	143	137	137
Getting electricity	40	53	30	103	107	109	117
Registering property	183	185	189	189	187	187	187
Getting credit	126	129	61	70	75	90	99
Protecting investors	174	177	186	185	185	183	185
Paying taxes	92	85	114	116	108	110	110
Trading across borders	106	100	106	53	57	58	61
Enforcing contracts	146	149	162	181	183	183	184
Resolving insolvency	164	166	118	116	119	119	123

- Category D: all other investments not of a national character

Two states now operate inefficient old-style foreign-investment boards: At the state level, a similar but three-part process was adopted: red, amber, and, for those investments not of a national character, green. Under the PSRP, the national government and Chuuk, Kosrae and Yap States enacted their respective laws and established regulations. Only Pohnpei did not follow this model, which established an old-fashioned foreign-investment board. After Yap adopted the model legislation, the law was repealed and replaced with a similar restrictive process to that adopted in Pohnpei in response to a proposed large Chinese hotel-investment complex (see chapter on state developments). Overall and not limited to the FDI regime, the FSM has not proved attractive in encouraging FDI.

Reforms proposed to bring FDI under the national government but not yet enacted: In 2016 and resubmitted in 2017, reforms were introduced in the FSM Congress to modify the 1997 FDI Act by bringing all foreign investment under the jurisdiction of the national government. The reforms effectively claim that all foreign investment is by its very nature of a national character. The same three-part process—red, amber and green—is proposed under the current reforms, but now only at the national-government level. At the time of the PSRP, the issue of national and states' rights was topical, generated a substantial debate, and led to Pohnpei's adopting a different process. While the reforms would streamline the FDI process and should be supported, they lapsed with the 20th FSM Congress and would require resubmission under the new administration. The reformed law could be contested by the supreme court and, at the state level, restricted through adverse business licensing.

B. Development Issues

INFRASTRUCTURE DEVELOPMENT AND ECONOMIC GROWTH

Infrastructure-grant disbursements plagued by problems: Delayed disbursement of the Compact infrastructure-sector grant has been a chronic problem facing the FSM since the start of the amended Compact. During the initial years, disbursements were made very slowly, and only in FY2010 had grant usage surpassed $10 million on an annual basis. In FY2012 grants exceeded the yearly average entitlement of $24 million, suggesting capacity limitations had been overcome. However, in FY2014 problems once again arose and infrastructure-grant disbursements fell to very low levels, averaging $5 million from FY2014 to FY2018. In the absence of adequately qualified project-management staff, and with lack of clarity on priorities between national and state governments, erratic and often-inconsistent project requests in relation to the FSM's original IDP, and PMU problems, disbursements virtually ground to a halt.

JEMCO calls for IDP: JEMCO resolution 2012-MT-7 (Infrastructure Development Plan, Health Facilities, and FAA Matching Funds) required that an updated version of the IDP be prepared and endorsed by the national and state governments:

> *Consistent with Article V (1)(e) of the Fiscal Procedures Agreement, the GFSM shall develop and submit to JEMCO a professionally prepared update of its Infrastructure Development Plan (IDP) to reflect GFSM priorities for new and reconstructed capital infrastructure to be financed by Compact funds. Insofar as Sector Grant funds are involved and prior to allocation of Public Sector Infrastructure assistance by the JEMCO, the IDP shall be subject to the concurrence of the JEMCO.*

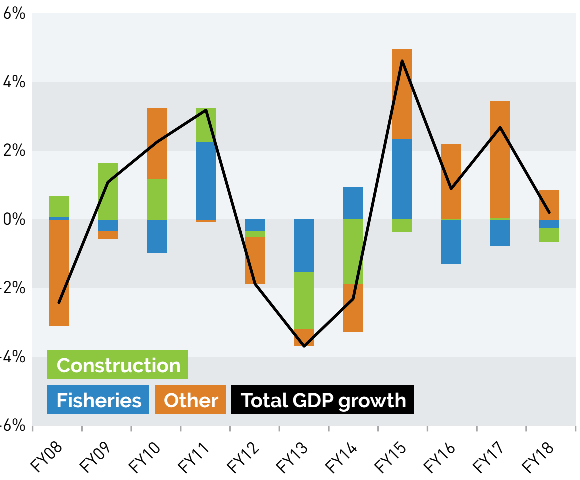
IDP prepared with ADB support: With support of the ADB, a TA was designed with the objective of crafting an updated IDP (the initial IDP had been prepared in FY2004 as part of the original amended-Compact requirements) and specifying a suitable project-management structure. The IDP was completed, and projects have been identified in 10 key sectors: electric power, water/wastewater systems, solid-waste management, road and pedestrian facilities, maritime transportation, air transportation, telecommunications, education, health and government administrative buildings. The projects have been ranked at the state level by the respective state-level infrastructure planning and implementation committees. Each project was assessed according to nine criteria, with each category being scored 1–5. Based on the criteria, each state's projects could be ranked in order of priority. While the FSM uses its traditional distribution formula to allocate funds between states, this has not been recognized by the US in the case of infrastructure. Projects are thus selected between states according to perceived overall FSM priorities, although in practice this has not departed significantly from the FSM's internal allocation process.

FSM selects state-based management structure: Regarding the project-management structure, two systems were initially investigated: an enhanced national PMU building on that already in existence, and a decentralized model with a national PMU and four state project-management offices. Given the history of the centralized PMU in the FSM, lack of adequate staffing, and conflict between the national and state levels, the decentralized version has been selected. Bringing the states, where the projects take place and where there are stronger incentives, into the process is more likely to get the process moving. The project-management framework calls for the PMU to serve the coordinating role of setting engineering standards for the FSM and building a reference library. In this model, the state offices focus on project oversight, with contracting officers, engineers and inspectors. Although the decentralized version is costlier, it is not considered excessive, and a total project cost of 9 percent is envisaged.

Army Corps of Engineers selected to manage and implement infrastructure grants: The ADB TAs and IDPs for the national and state governments were finalized by the end of 2015. A private contractor was selected by the FSM to staff the PMU, but at a meeting in Honolulu in July 2017 between the US and the FSM it was agreed the moratorium placed on the use of infrastructure funds would be lifted provided the incumbent contractor was terminated. It was further agreed the Army Corps of Engineers would be engaged to assist in managing and implementing the Compact infrastructure grant consistent with the IDP. With an initial assessment complete, it is to be hoped that resources will once again start to flow.

Lack of infrastructure projects has large impact on the economy: Figure 39 provides an indication of the impact of construction activity and other leading industries on economic

Figure 39
Impact on GDP of major economic drivers



performance. The graph shows the contribution to economic growth (measured in constant FY2004 dollars) for fisheries, construction and all other industries. Domestic fisheries have played a major role in the economy, stimulating growth as the fleet has expanded (as in FY2014 and FY2015) and triggering economic decline as boats have been withdrawn for dry docking (as in FY2013, FY2016 and FY2017). Construction activity has, however, clearly been a very significant contributor to economic activity. During FY2008–FY2011 increased construction activity had a significant impact of raising GDP levels. In FY2013 and FY2014 the impact was in the opposite direction and the reduction in infrastructure and construction was the major force for the depressed state of the economy during those years. In the last four years, FY2015–FY2018, with an absence of investment in the economy, fisheries and "other" industries have provided the major influence. Analysis of the major drivers of the economy underscores the importance of resolving implementation issues that have held up construction projects under the Compact infrastructure grant.

Large backlog of projects will boost economic growth: Based on audit data through FY2018, there is currently an estimated $200 million in unspent Compact infrastructure funds, some 61 percent of the total available under the grant since the beginning of the amended Compact. After accounting for additional grant approvals and projects in the pipeline, the level of unallocated funds falls to $176 million. Clearly, use of current infrastructure-grant allocations, including part of the back funds, will go a long way toward improving economic performance. The projections made in chapter 9 of this review indicate that a significantly higher growth rate can be achieved in the remainder of the amended Compact and beyond than in the first 15 years from this source. That being said, once project implementation gets underway again, the funds should be released in an orderly fashion to smooth economic activity over the remainder of the amended Compact and beyond. Temptation to front-load the funds, as provided for in the IDP, would be equally disruptive, generating a boom-and-bust cycle and likely reducing the cumulative local value-added component of projects because of absorptive-capacity constraints.

THIRD FSM ECONOMIC SUMMIT

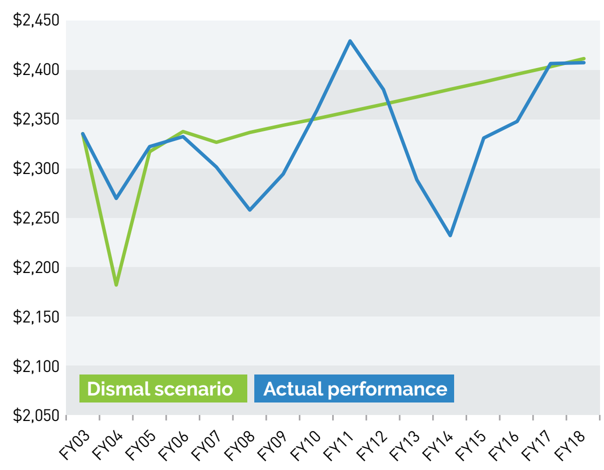
FSM Summit considers three growth scenarios: The Third FSM Economic Summit was held in Palikir, Pohnpei, from March 29 to April 2, 2004. The summit was presented with three economic scenarios that the FSM might experience during the next 20-year period of Compact support: a dismal scenario, a medium-growth scenario and a sustained-growth scenario. While noting that the FSM might face a truly dismal scenario if the country's leadership failed to make needed economic adjustments to offset the drag on economic activity resulting from the structure of Compact assistance, the discussion focused primarily on the moderate-growth and sustained-growth scenarios. The summit adopted a six-part strategy for transition and accelerated growth:

- Establishing macroeconomic stability
- Promoting good governance: improving effectiveness and efficiency of government
- Developing an outward-oriented, private sector–led economy
- Investing in human resource development
- Investing in infrastructure
- Creating long-term sustainability

Dismal scenario projects no economic growth: The FSM Strategic Development Plan examines the three growth scenarios in detail and makes projections of the likely economic-growth and development patterns. Under the sustained-growth scenario, economic growth is held back initially as the economy adjusts to the structure of the amended Compact. However, as the benefits of the sustained-growth strategy take hold, the economy is projected to accelerate and attain an annual average growth rate of 2.6 percent over the whole period. On the other hand, under the dismal scenario, economic growth is weak, and the economy is projected to achieve only 0.1 percent growth during the period.

FSM now tracking with the dismal scenario: Figure 40 compares the projected dismal scenario with the actual performance since FY2003. From the initial years of the amended Compact through FY2009, economic performance was indeed dismal as the economy adjusted to the new provisions—a long, painful period that had not been envisioned. In the next three years, the economy was on a higher trajectory. However, from FY2013 through FY2014, with the reduction in FAA projects and with compliance and administrative issues with the use of the infrastructure grant, the economy rapidly fell below that envisaged in the dismal scenario. The outturn saw improvement in performance from FY2015 through FY2017 and rose above the dismal trajectory in FY2017, only to revert

Figure 40
Comparison of the Third Summit dismal scenario with performance, GDP per capita



below it in FY2018. The FSM has the capacity to do considerably better and needs to remove the impediments to infrastructure-grant use and adopt a reform agenda. With a sustainable basis for development, the FSM will be in a stronger position to identify new sources of economic growth and outperform the dismal scenario.

C. Sovereign-Wealth Management

Large differences between state and national revenues: Figure 41 indicates the level of domestic revenues (taxes, fishing fees and other revenues) of the national government compared to the four FSM states collectively. While the level of state domestic revenues has been largely stagnant through the amended Compact, that of the national government has risen significantly—by over $150 million since FY2004—and is six times higher than the combined level of the four state governments in FY2018. With the creation of the cartel of fishing nations through the PNA, the national government has been the beneficiary of significant increases in fishing royalties. Fishing-fee revenues rose rapidly from $19 million in FY2011 through FY2018, when they attained a level of $72 million. The captive-insurance market has also grown significantly since its inception in FY2008, and in FY2018 it yielded $84 million, albeit an exceptional year. The increase in fishing royalties and captive revenues—both falling in the category of "sovereign rents"—has led to the emergence of a large structural surplus at the national level.

National government allocates significant revenues to the FSMTF: As a result of booming sovereign rents and large fiscal surpluses, the national government has been allocating a significant part of the fiscal surplus to the FSMTF, and the corpus stood at $214 million at the end of FY2018. Under a series of public laws, the national government has specified a series of annual commitments to the fund. Under PL18-107 the national government allocated 20 percent of its share of domestic taxes in favor of the states (approximately $6 million). Under PL20-134 it allocated 50 percent of the earnings of corporate taxes from the captive-insurance and large-corporation sector to the FSMTF (approximately $8 million in normal years). It further allocated 20 percent of fishing-fee revenue to the fund (approximately $12 million). In total the national government has legislated to contribute on a conservative basis $26 million annually to the FSMTF.

National net worth grows significantly in the FSMTF and is likely to approach 100 percent of GDP by end of FY2023: Figure 42 indicates the changes in two major elements in net worth during the amended Compact. External debt net of offsetting assets has remained largely constant, representing 16 percent of GDP in FY2018. On the other hand, the FSMTF is now over 60 percent of GDP. Based on the legislative

Figure 41
National and state government revenues

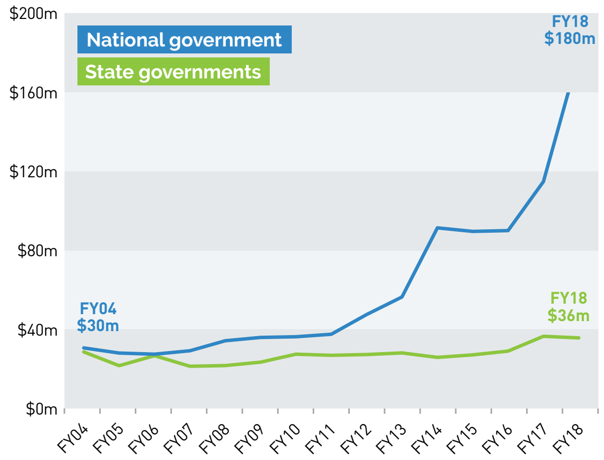
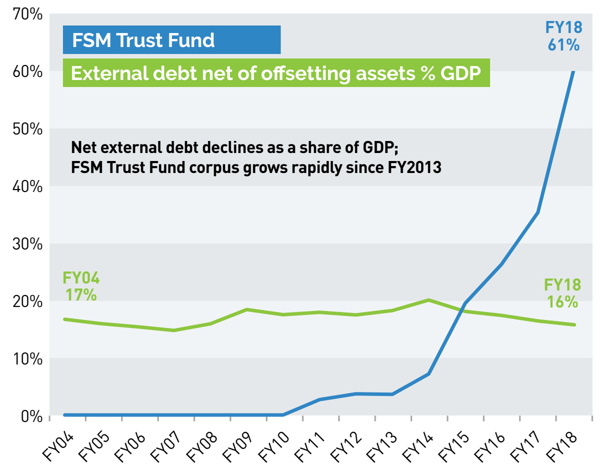


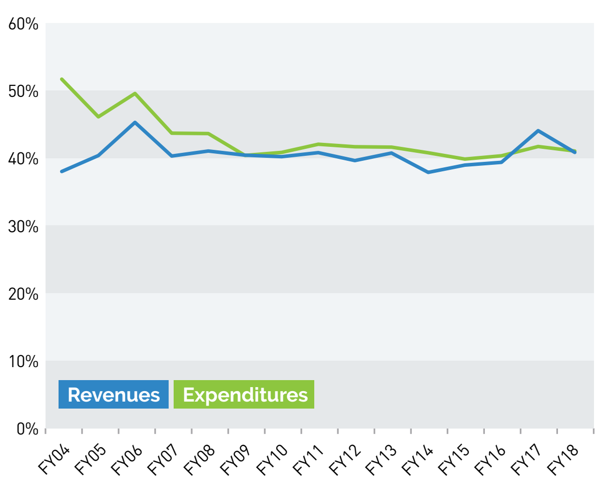
Figure 42
FSM net worth: FSM trust fund and external debt



allocations to the FSMTF, amounting to about 6 percent of GDP, the FSMTF with earnings should be approaching 100 percent of GDP by end of FY2023. As discussed in chapter 3, of the total resources available to the national government in excess of operational requirements, about two-thirds has been saved, with one-third leading to increases in nonrecurrent expenditures or growth in congressional projects. While a greater proportion could have been saved, the allocation of a significant proportion to the FSMTF for future needs that might arise after FY2023 is a significant achievement.

While the national government experiences abundance of resources, the state governments face austerity: While the national government has been operating under a fiscal position of an expanding structural surplus, the state governments have been operating under an environment of austerity. Figure 43 indicates total state-government revenues and expenditures during the amended Compact. During the period, expenditures have fallen by about 10 percent of GDP as the state economies adjusted to the lower level of revenues prevailing, mostly at the start of the amended Compact. In nearly all periods, the state governments recorded deficits. The juxtaposition of abundance at the national-government level compared with a very tight envelope at the state level raises the issue of sovereign-wealth management and burden sharing between the levels of government in the FSM.

Figure 43
State government revenues and expenditures grow modestly, supporting fiscal balance



The FSM should focus on accumulating resources during remainder of amended Compact and preparing for new directions after FY2023: In 2012 the FSM initiated an exercise to plan for transition to the post-amended-Compact era after FY2023, known as the 2023 Action Plan. The plan, while focusing on the post-2023 era, also addressed the use of the emerging national-government structural fiscal surplus. However, since early 2015, the 2023 planning effort and the problem of sovereign-wealth management have no longer been an active issue on the policy agenda. In earlier editions of this review, it was argued that the FSM should reinitiate the Action Plan, which afforded a rational framework for resource allocation. However, at the current time, as negotiations with the US are once again being reignited, the time may have passed for adoption of the Action Plan. We argue that the FSM should continue to save resources in the FSMTF in order to support anticipated shortfalls from the CTF, avoid increases in unsustainable expenditures at the state level and prepare to recraft the policy and planning framework once the conditions of Compact extension are known.

D. Donor Funding and Budgetary Support

Booming aid projects: After a period of relative calm in donor support, the FSM has embarked on a period of significant donor-driven activity. As a result of the policy of the World Bank and IMF to declare the FSM at high risk of debt distress, the ADB has placed the nation on a grant-only basis with a commitment to an annual transfer of $6 million with a likely further increase to $10–$15 million. Under IDA 18 and with the FSM having grant-only status, the World Bank is understood to have allocated to the FSM resources to the tune of $25–$30 million annually. The EU, JICA and China also all make significant contributions.

FSM advised to build capacity to qualify for budgetary support at the state level: To date, non-US donor-funded grants have been in development projects and infrastructure-related areas and additional to the needs of maintaining government operations. EU alternative-energy projects and the World Bank ICT reforms with substantial funding of fiber connectivity provide examples. However, as FY2023 approaches, the need to fund government operations at the state level suggests that an allocation of donor resources to support current operations would be highly desirable. However, allocation of donor funds for budgetary support would require an enhanced capacity to meet the requirements. Most notably, each government would be required to comply with and achieve conditions specified in a policy-assessment framework. While the incentive structure to comply with donor conditions at the national-government level may be weak, the incentive structure at the state-government level would be entirely different. The FSM might thus be well advised to pursue building a capacity at the state level for eventual qualification for budgetary support.

E. Statistical Issues

FSM has developed full range of economic statistics: In former GSUSA reviews, the FSM has been accorded a high score for statistical availability. Since the start of the amended Compact, the FSM has developed a full range of statistics on which to monitor economic performance. However, in a recent IMF Article IV staff review, the IMF indicated that "data dissemination has improved significantly, but data shortcomings in the areas of real and external sector statistics continue to hamper surveillance." Later in the report, the IMF indicated that "data provision has serious shortcomings that significantly hamper surveillance." While the method for ranking of statistical adequacy in the IMF reviews is not transparent, it appears timing is a major area of concern. The IMF has a preference for a maximum nine-month lag before publication, but the annual statistical update in the FSM is timed to coincide with the release of the government audits on June 30 and in time for the JEMCO meeting. Coverage does not seem to be an issue, and more frequent estimates, such as quarterly, would not seem essential in an economy such as the FSM's in which trends are slow moving. However, availability of provisional estimates earlier in the year to coincide with budget preparation would be a priority.

FSM Finance suspends data sharing with the NSO: Of recent concern has been the suspension of the sharing of information between FSM Customs and Tax and the nation's statistics office. In particular, information relating to business gross receipts, which formed the basis of the GDP-by-industry estimates, is no longer shared, purportedly to comply with Global Forum requirements.[1] This in the past has provided a cost-effective method to estimate value added. Direct access to the unit-record data by trained and qualified statistical officers had ensured that (i) only businesses that are within the GDP boundary are included, (ii) classification of businesses is subject to quality control, (iii) data can be edited, and (iv) missing observations can be imputed.

New system proposed but will entail a loss of quality and has yet to be implemented: Of more concern has been the recent action by the FSM Department of Finance to cease sharing tax information with the NSO purportedly because of the need for compliance with Global Forum requirements. Given these new constraints on sharing of tax information, key data relating to business gross receipts, which formed the basis of the GDP-by-industry estimates, have been unavailable to the NSO from FY2016 through FY2018. To address this matter, FSM Finance committed to assisting in the provision of data required to maintain the GDP series by way of a new process requiring a complex back-and-forth flow of information between the respective departments. The suggested new process has not led to a resolution of the issue, and the FSM remains without the ability to adequately compile GDP-by-industry estimates. The new revenue-management model discussed in chapter 4 will provide an enhanced source of information with improved data integrity. Until then, and even thereafter, a basis for exchange of information within the national government needs to be re-established as for example the Global Forum requires between foreign jurisdictions.

1 See appendix 3 for a further discussion on this issue and the use of Social Security data to proxy industry output.

7. The Compact Trust Fund

The estimated value of the CTF at the end of FY2018 was $636 million, including a $68.5 million increase in FY2018 that reflected a market return of 6.77 percent and a US contribution. During the investment period since the outset of FY2006, the CTF has achieved an annualized rate of return of 6.9 percent.

- In the absence of market risk and volatility, the CTF would need to grow at 16.7 percent annually from FY2019 to FY2023 to achieve a level sufficient to provide a smooth transition to CTF distributions from FY2024 onward at the real value of FY2023 sector grants ($81.39 million). Such a sustained rate of growth is extraordinarily unlikely to be achieved, and there is every reason to anticipate that the CTF will be significantly underfunded.
- The GSUSA has modeled outcomes under the CTF distribution rules in the presence of market volatility. The model results for the FSM indicate a significant probability of periodic fiscal shocks, including years in which zero dollars are legally available for distribution in a massive 89 percent of cases.
- Recent studies by the ADB, the GAO and the GSUSA have each shown that technical improvements to the existing rules could provide objectively better results at no extra cost. In this chapter, several alternative rules are discussed.
- The GSUSA study identifies a rule, called "SAFER" (Sustainability Adjustment for Enhanced Reliability), requiring a CTF corpus 1.67 times the estimated size based on market returns without risk or volatility.
- Making substantial improvements to the terms of the CTF Agreement would require mutual agreement by the original parties, which for the US entails both executive and congressional approval.
- The FSM has made significant progress in building up its own trust fund, which recorded a value of $214 million at the end of FY2018. However, even with the additional funds, projections indicate that both the CTF and FSMTF will not provide sufficient resources to replace the Compact sector grants after FY2023.
- The final section of this chapter examines the possible impact of the extension of the Compact and its impact on achieving a CTF value capable of supporting a smooth and sustainable source of income to fund government operations.

7. The Compact Trust Fund

A. Performance of the Compact Trust Fund (FY2004–FY2018 and Projected through FY2023)

BACKGROUND

US indicates no guarantee of distribution level after FY2023: The establishment of the Trust Fund for the People of the FSM (CTF) was a major feature of the amended Compact. The trust fund was created, according to the preface of the CTF Agreement, "to contribute to the long-term budgetary self-reliance of the FSM . . . [and] to provide the Government of the FSM with an ongoing source of revenue after FY2023." The design features of the trust fund related to distributions to the FSM from FY2024 and thereafter are specified in the CTF Agreement, Articles 16(7) (a) and (b). The explicit linkage of distributions and the fully inflation-adjusted value of the Compact annual grant assistance provided in FY2023—notionally providing a smooth transition—has the potential to create expectations that such levels of support from the CTF may be forthcoming. However, the US government has made it clear that neither the terms of the amended Compact nor the terms of the CTF Agreement make any guarantee that the trust fund will be able to sustainably achieve distributions of any specific size.

GAO bases analysis on inflated FY2023 assistance levels: Still, even the US Government Accountability Office (GAO) in its June 2007 report[1] and subsequent May 2018 report[2] completed its analysis based on the assumption that distributions would equal the above-described (maximum) level. When challenged on that assumption with the fact that such levels of disbursement are neither required nor guaranteed, the GAO countered that "[they] believe it is appropriate to undertake a projection of the likely disbursements against that benchmark."[3] The GAO also noted that "[they] believe that careful analysis of the trust funds each year will help establish realistic expectations."[4]

Basis of GSUSA analysis: This chapter is prepared in fulfillment of the GSUSA's general terms of reference to describe key economic trends and describe policy options for consideration by our readers, especially FSM leaders and officials from the US and the FSM engaged in Compact management. Given the immense importance of the CTF to the FSM's long-term prospects for achieving economic self-reliance, our study provides an analytical perspective in addition to that provided through the published reports of the FSM CTF Committee, the US GAO and the ADB. The authors use the maximum level of distribution to complete probability-based (stochastic) projections for the period after FY2023, while noting fully the risk of falling short and the need for FSM leaders to continue to strengthen their policy focus on alternative measures to mitigate the risk of potential periodic (or even sustained) fiscal shocks.

Immense and repeated fiscal shocks projected: As noted in previous GSUSA annual economic reviews, the CTF Agreement includes certain technical characteristics likely to become problematic during the distribution period. It is inarguable that the best interest of all parties would be served if, over the long term, the real value of the CTF were protected and robust mechanisms ensured the relative stability of annual distributions from the CTF to the FSM. Unfortunately, as currently specified, and in the absence of stellar investment-return rates or large additional contributions over the remaining

1 GAO-07–513, Trust Funds for the Micronesian and the Marshall Islands May Not Provide Sustainable Income, June 2007, Washington, DC, http://www.gao.gov/cgi-bin/getrpt/GAO-07–513.

2 GAO-08–415, Compacts of Free Association: Actions Needed to Prepare for the Transition of Micronesia and the Marshall Islands to Trust Fund Income, May 2018, http://www.gao.gov/cgi-bin/getrpt/GAO-08–415.

3 GAO-07–513, appendix V, p. 56.

4 Ibid., appendix V, p. 56.

accumulation period, the real value of the CTF corpus has a high likelihood (81 percent) of declining over the course of the distribution period; perhaps more urgently, the stability of annual distributions will be at risk. Immense and repeated fiscal shocks are more likely to arise because of the specific characteristics agreed to by the parties and enacted in US law. The result is a high likelihood (87 percent) of at least one fiscal year in which zero distribution would be allowed under prevailing rules. While amending these provisions is no easy task—especially since US congressional approval is required—the FSM CTF Committee, in collaboration with JEMCO and the US and FSM governments, may wish to consider (a) modifying problematic design characteristics of the buffer-account mechanism, (b) modifying the distribution mechanism that results in timing that conflicts with the prevailing practice of estimating annual allocation decisions each January and confirming those decisions each August in advance of the subject fiscal year, and (c) devising distribution rules that could better protect the real value of the corpus over the long run while also reducing the volatility of distribution levels and reducing the frequency of shortfalls in annual fiscal support to the FSM. Ideally, the adopted distribution policy will also include mechanisms to automatically manage tail risks inherent to market-based returns on both the downside (through gradual distribution compression) and the upside (through gradual distribution venting).

PERFORMANCE MONITORING

GSUSA projects $81.39 million target distribution in FY2024: This subsection presents a CTF simple sufficiency estimate and related analysis. That estimate is defined as the size the CTF would need to achieve by the end of FY2023 to support a smooth and sustainable transition from US-appropriated annual sector grants to fully inflation-adjusted annual CTF distributions to the FSM. The simple sufficiency estimate is updated to reflect actual outcomes to date, particularly with respect to the partial inflation adjustment that has been applied through the FY2020 budget estimates and to projected inflation going forward. Future inflation projections are linked to US Congressional Budget Office published projections through FY2025.[5] Using these assumptions, the level of Compact sector grants in FY2023 is projected at $81.39 million. With full projected inflation (at 2.09 percent) for FY2024, the $81.39 million is adjusted upward to $83.09 million.

Market assumptions: GSUSA assumes that the FSM CTF investment strategy at that time would need to provide for a prudent balance of risk while allowing for long-term growth. From FY2024 onward, and for estimation purposes only, a balanced investment allocation is assumed, as detailed in a following section of this chapter. Over a 93-year period, the real rate of return using econometric estimation techniques is 5.0 percent. Thus, if inflation were to average 2.0 percent, a nominal rate of return of 7.0 percent is implied. Dividing the $83.09 million (maximum) distribution by a 5.0 percent real rate of return yields a simple sufficiency target of $1.662 billion.

Projected CTF in FY2023 will fail to achieve simple sufficiency level: Using the above-detailed assumptions and starting with the end-of-FY2018 FSM CTF value of $636,086,452, the rate of return required to achieve the simple sufficiency estimate for the FSM CTF of $1.662 billion would be 16.72 percent annually for the five remaining years through FY2023. Such a sustained rate of growth is extraordinarily unlikely to be achieved. Using probability analysis, the median projected level of the FSM CTF at the end of FY2023 is $1.05 billion, or 64 percent of the simple sufficiency estimate.

Projected return on CTF approximates actual returns to date: To put those forward projections into perspective, the long-term projected rate of return of 7.0 percent in nominal terms moderately exceeds the rate of return experienced by the FSM CTF during the period in which it has been invested, FY2007–FY2018. The experienced asset-weighted rate of return during that same period has been 6.89 percent. The asset-weighted rate of return from initial funding on October 1, 2004, through the end of FY2017 is 6.79 percent, reflecting the delay in getting the CTF established and fully invested at the outset of the amended-Compact period.

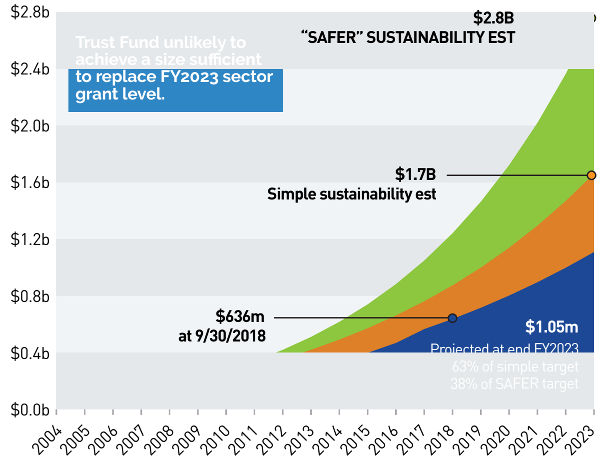
5 Congressional Budget Office, "Economic Data and Projections," table A-3, prices (fiscal years), January 2019, http://www.cbo.gov/publication/54918.

The FSMTF is an important supplement to CTF: The FSM has not funded the D account within the CTF mechanism. However, the FSM has its own trust fund that may be used after FY2023 to support fiscal stability. The purpose of the FSMTF was previously unspecified but has now been specified in a manner that may be more conservative and inflexible than the CTF. The primary objective is now clearly indicated as addressing post-FY2023 fiscal-stability concerns. As of the end of FY2018, the value of that account is estimated at $213.8 million. That amount is just less than 34 percent of the size of the FSM CTF (A plus C accounts) at the same date. Looking forward, the projections in the section below indicate that the FSMTF could with further legislated contributions, at median-level outcomes, add $436 million to the projected CTF value of $1.05 billion, representing a 42 percent increase. The achievement relative to the primary target of $1.662 billion would be increased from 64 to 89 percent. To the extent the FSM continues to dedicate significant portions of its (national government) structural surplus, the FSMTF could grow to become an important supplemental funding source to mitigate periodic or sustained fiscal shocks. To provide that benefit, it is likely the rules of the FSMTF would need to be revised to serve as a better complement to whatever CTF rules are being utilized after FY2023.

Need to mobilize additional resources: Consistent with recommendations in recent CTF annual reports, joint or unilateral efforts to mobilize additional contributions—from domestic and external sources—to the CTF would improve the FSM's long-term fiscal stability and economic security. Similarly, the FSM national government's apparent ongoing commitments to aggressively address post-FY2023 fiscal risks are both prudent and promising.

Market risk requires CTF larger than simple sufficiency estimate to ensure stability: It should be noted that achieving a CTF size that matches the simple sufficiency estimate—as unlikely as that is for the FSM CTF—does not, by any means, eliminate the risks going forward of subsequent severe and repeated fiscal shocks. Periodic strong performance of the CTF does not eliminate the urgency to consider opportunities to achieve mutual agreement on a distribution policy or amendments to enhance

Figure 44
Projected FSM Trust Fund value through FY2023



the CTF Agreement. In the following sections, a more sophisticated, risk-inclusive form of analysis is presented to analyze the range of outcomes that might prevail given the volatility of market returns and the uncertainty of the sequence of those returns over time. That analysis defines the SAFER alternative, which, in effect, requires a larger fund balance than the "simple sustainability" estimate. As shown in figure 44, that estimate is for a fund size of $2.76 billion. In essence, to manage the degree of volatility inherent to the quite standard asset mix considered, the primary target needs to be increased by a factor of 1.67.

Market returns and investment delays resulted in CTF value below expectations: A range of factors have combined to result in a CTF value that is now substantially below the projected path to achieve the simple sufficiency estimate by the end of FY2023. The most important factor is the investment climate that has prevailed from FY2004 through FY2018. Addressing other factors, the authors provided a lengthy discussion on delays in establishment of the FSM CTF and further delays in implementing an investment strategy (see the FY2011 report at http://www.econmap.org).

B. Simulating the Compact Trust Fund

The FSM, RMI and Palau Compact Trust Funds are described in substantial detail in a separate GSUSA report, Compact Trust Funds in the Three Freely Associated States: Mechanics and Stochastic Projections. For the FSM CTF, we provide below a brief summary of the results of the simulations for the distribution period under the existing rules as found in the Trust Fund Agreement and as compared to various alternatives.

TRUST FUND MECHANICS

Core CTF principles: CTF core principles are defined as follows:

- The real (inflation adjusted) value of the trust fund should be protected (over the long run).
- The trust fund should provide a targeted level of annual real distributions to the governments of the FAS on an annual basis.

Annual distributions should entail minimal volatility from period to period, and, when volatility is required, the volatility should be of known magnitude to limit disruption to fiscal policy.

CTF analysis based on Monte Carlo techniques: Simulations are conducted using Monte Carlo statistical techniques based on a simple portfolio composed of equities and bonds. The value of the CTF is projected through as the corpus accumulates, and both drawdowns and fund corpus are projected over a 40-year period through FY2063.

Performance measures: Each of the core CTF principles is scored against a set of performance measures. The first two core principles have two sub-elements: (i) an average over the drawdown period, and (ii) a value in the terminal year. The focus is thus on both averages over the drawdown period and steady-state values measured in the terminal year. In the context of Monte Carlo analysis with 10,000 cases being run, this results in (i) an average of the observed median value for each year for each of the 10,000 cases, and (ii) an average for the terminal value for each of the 10,000 cases. The benchmarks are designed to achieve intergenerational equity.

Volatility is scored through probabilities of zero distributions and downward adjustment in distributions: In the case of volatility, two basic measures are estimated: (i) the probability of a zero distribution, and (ii) the average number of years and magnitude of adjustment in years with reductions in real distributions. The first measure captures either fund collapse or, in the case of the COFA rules, the possibility that the corpus is funded but no distributions are permitted. The second measure captures downward movement in real distributions. It is split between two submeasures: (i) the average number of downward adjustments, and (ii) the average percent reduction from the prior year. The first measure penalizes any downward adjustment, and the second is weighted by the size of adjustment and is an indicator of fiscal adjustment. These measures are intended to reflect the difficulty in downward fiscal adjustment.

Benchmarks: In the discussion, three useful benchmarks are defined:

i. The **target distribution** is defined in the CTF Agreement as the real value of the FY2023 grant-assistance levels plus full inflation adjustment.

ii. The **primary-target** fund estimate is defined as the value of the CTF required to yield the target distribution in a given year based on the estimated real geometric portfolio rate of return.

iii. The **sustainability adjustor** is an empirically estimated percentage above the primary target that the CTF should attain to accommodate an "acceptable" degree of market risk.

iv. The **SAFER target** is defined as the primary target multiplied by the sustainability adjustor.

An evaluation methodology to compare different Trust Fund rules: An important and key aspect of the approach adopted is to provide a means to evaluate the performance of different distribution rules that might be considered as alternatives. The various studies conducted by the ADB and GAO have examined a variety of different rules that might be considered but have not developed a methodology for scoring or selecting among the various alternatives. The performance indicator selected provides just such a selection (or decision) rule.

TRUST FUND RULES

a COFA rules

CTF accumulation: The FSM CTF is composed of three accounts: the A account, known as the corpus; a B holding account; and a C stabilization, or buffer, account. In the initial accumulation phase through FY2023, contributions are deposited into the A account and annual investment income above 6 percent in any year is transferred to the C account. The C account is capped at three times the projected annual sector-grant transfers in FY2023.

Distributions for the FSM during the drawdown period: During the drawdown phase after FY2023, all income of the corpus will be transferred to the B account for distribution. Distributions are capped at the FY2023 sector-grant level fully adjusted for inflation (US GDP deflator). If there are excess funds above the annual projected distribution, these are transferred to the C account until the C account reaches its maximum value of three times the FY2023 nominal drawdown level (unadjusted for inflation).

Zero-distribution years are predicted: Once the cap of the C account has been reached, any excess is returned to the corpus. If the B account has inadequate funds to meet the target distribution, these may be topped up from the C account. If the sum of the B and C accounts is below the target or if the C account has been exhausted, additional funds may not be withdrawn from the A account, resulting in a distribution shortfall. Hence the possibility of zero-distribution years.

b The Sustainability Adjustment for Enhanced Reliability (SAFER) rule

A methodology to define a sustainable drawdown: The SAFER rule attempts to define the level of drawdown that can be sustainably achieved without jeopardizing the three core principles outlined above. More precisely we ask what size of fund is likely to achieve sustainability and generate a score of over 95 percent on the performance indicator.

Estimating the sustainability adjustment: To define a sustainable CTF level, the primary-target indicator is used as a benchmark. Simulations are run assuming the CTF is funded at the primary-target level in FY2024. Recall that the primary target is derived through dividing the target distribution by the estimated real portfolio geometric rate of return. Simulations are run assuming CTF levels ranging from 10 to 200 percent of the primary target in FY2024 in increments of 10 percent.

Selection of a performance target: While it is not possible to unambiguously specify an optimal-target level of performance, a 95 percent target has been adopted. This translates into a funding level of the CTF of 67 percent above the primary target in the initial year. At this level, the CTF corpus and annual distributions are maintained at healthy levels and volatility is reduced to a minimum. At the 95 percent level, at a strong level of confidence it can be ensured that the CTF will be sustainable in the long run. In our case, a sustainability adjustor of 67 percent has thus been selected.

The SAFER rule: The starting point of the SAFER rule is thus defined by a sustainable and initial drawdown level as the value of the corpus in the initial year (an average of the last three years is used) times the real geometric portfolio yield divided by 1 plus the sustainability adjustor. In effect, this amounts to discounting the portfolio average geometric rate of return of 5 percent by 1 plus the sustainability adjustor of 0.67; this is equivalent to a drawdown rate of 3 percent. The SAFER rule is based on drawing down 3 percent of the corpus in the initial year and fixing drawdowns in future years at this level adjusted for inflation.

Downside tail risk: In addition to defining a sustainable drawdown (or distribution) level, SAFER includes two allowances for tail risk, a downside and upside adjustment. In the case of the downside we deploy a moving adjustment mechanism once the corpus falls below a given threshold in relation to the initial-year corpus value (inflation adjusted), referred to as the lower guardrail. A downward adjustment, or decrement, of 5 percent of the previous year's distribution will be made if a three-year moving average of the CTF value falls below the lower guardrail. Downward adjustment continues until the reduction in distribution exceeds the CTF shortfall (the ratio of the actual CTF value to the inflation-adjusted base-year value). At this point, an upward adjustment, or increment, of 2 percent is made until distributions return to their initial-year inflation-adjusted SAFER-defined levels. Adjustment is thus asymmetric: on the downside, adjustment is more rapid, and on the upswing, adjustment is slower in order to allow the CTF to return more rapidly to sustainable levels. Once distributions return to their inflation-adjusted initial values, no further adjustments are made.

Upside tail risk: In the case of the upside, once the corpus achieves a given threshold above the inflation-adjusted initial-year value, referred to as the upper guardrail, a 5 percent increment is allowed. This continues until the target distribution is attained. At this point, future increases in real distributions terminate. In the case in which markets perform badly and the CTF subsequently drops below the upper guardrail, downward adjustment occurs until distributions return to their initial year SAFER-defined inflation-adjusted levels. Both the upper and lower guardrails were determined through simulation and set at 20 percent.

SAFER designed to avoid fiscal adjustment: A key element in the design of SAFER was the desire to avoid downward fiscal adjustment. During both the original and amended Compact, grant levels were programmed with a series of real reductions. In the case of the original Compact, there were two large stepdowns, while the amended Compact included an annual decrement. Both adjustments have been found to be highly disruptive to fiscal policy and economic management. The design of SAFER was thus an attempt to specifically avoid fiscal adjustments to the extent possible with a revenue source subject to market risk. By taking a low initial drawdown, fiscal adjustment could be avoided in the majority of cases, but allowance was incorporated into the rule to allow flexibility when markets entered into the territory defined by the guardrails.

SAFER benefits future generations: Clearly, the initial SAFER drawdown rate of 3 percent is below the estimated market yield of 5 percent, and thus in the majority of cases when average market returns may be expected, the corpus is likely to grow. The SAFER rule thus has an unavoidable characteristic: in order to protect the corpus, a lower drawdown rate is chosen in the initial years, but in the majority of cases over time drawdowns increase. Thus, necessary abstinence on behalf of present generations benefits the well-being of future generations and underwrites trust fund sustainability and fiscal stability.

c Fixed-drawdown rule

The fixed-drawdown rule is simple in concept: An alternative trust fund rule that has gained support in discussion of the FAS trust funds has been a rule based on a fixed-percentage drawdown of a moving average of the CTF corpus. The rule benefits from a simple approach to distribution and accumulation. The rule benefits from adjustment in distributions that protects the corpus as markets fluctuate, but it is weak in stabilizing revenues and thus fiscal adjustment during periods of weak market performance. In our simulations, a 4.5 percent drawdown rate has been selected.

COMPARISON OF THE DIFFERENT RULES

a An overview of performance

The projected CTF in FY2023 is likely to be significantly below a level required to provide a reliable yield to support government operations: The simulations indicate that from a value of $675 million at the end of January 2019, the fund is likely to attain a value of $1,049 million in FY2023 (the median simulated value). However, the probability of the CTF attaining the level of the primary target of $1,656 million is just 2 percent. The SAFER trust fund target of $2,760 million is even more distant and indicates that the likely level of the CTF in FY2023 will be very significantly below a level required to provide a reliable yield to support government operations in the FSM thereafter.

Under the COFA rules, the simulations suggest the FSM is headed for massive and repeated fiscal shocks after FY2023: The above analysis indicates that the CTF will start out in FY2024 in a weak position. Under the COFA rules, the real value of the corpus is likely to decline in 84 percent of cases (see table 11 for details of the results for the different rule sets). While the average distribution during the 40-year period is over 60 percent, this falls to 21 percent of target by FY2063. The number of zero distributions in the 40-year horizon is a massive 89 percent with a large number of years with downward fiscal adjustments. Overall, the COFA rules achieve a score of 33 percent of our performance indicator—a very unsatisfactory outcome.

A considerably improved performance can be achieved through adopting alternative rules: Under the SAFER rule, protecting the corpus improves dramatically compared with COFA, while average distributions are similar but considerably higher by FY2063. Zero distributions are largely eliminated, while reductions in downward fiscal adjustment fall significantly. An overall score of 75 percent is attained. Under the fixed rule, protection of the corpus is improved over COFA but is not as good as under SAFER. Average distributions are up on both COFA and SAFER, but by FY2063 SAFER records the best score. In terms of volatility, zero distributions are eliminated under the fixed rule, but the number of years with downward adjustment is larger than under COFA. Overall the fixed rule scores 64 percent, a considerable improvement over COFA but not as favorable as SAFER.

b A graphical comparison

SAFER produces best score in protecting the CTF corpus while COFA's performance is weak in the extreme. Figure 45 indicates the probability that the real value of the CTF increases during the period under each of the three rule sets—COFA, SAFER and fixed—in different periods. For COFA the probability of maintaining the corpus value is very weak at only 20 percent during the first 10-year period, and it declines further in each subsequent period. In the case of SAFER, the probability of maintaining the corpus real value is about 70 percent in each period. Under the fixed rule, the probability rises very gradually through the 40-year horizon but fails to achieve that attained by SAFER.

Significant intergenerational differences between the rule sets in attaining the target distribution: In the case of attaining the target distribution, figure 46 indicates COFA scores well in the first period, attaining 80 percent of the target, but declines steadily thereafter and only achieves 40 percent in the FY2054–FY2063 period. SAFER achieves precisely the opposite; it starts out with a low achievement at 40 percent, but rises in each subsequent period, until it tops out at 75 percent. This

Table 11 FSM Compact Trust Fund simulated results and performance under different distribution rules

	Rule sets		
Performance measures	COFA rules	SAFER rule	Fixed interest @ 4.5% of 3-yr avg
Compact Trust Fund Corpus results			
Probability of real CTF in FY63 > the FY23 value	16.5%	80.7%	62.8%
Probability of real CTF value > the primary target in FY63	15.5%	63.0%	39.3%
Distribution-level results			
Average distribution from FY24-FY63 as % target	62.1%	59.9%	65.3%
Probability of attaining target distribution in FY63	21.1%	54.9%	35.7%
Volatility results			
Probability of at least one zero distribution from FY24-FY63	88.9%	0.05%	0.0%
Magnitude of decline in years with reductions from FY24-FY63	21.2%	2.2%	3.0%
Frequency of years with reductions from FY24-FY63	31.7%	13.0%	39.9%
Overall performance rating	**33.3%**	**75.1%**	**63.6%**

Figure 45
Probability of real CTF increasing during period

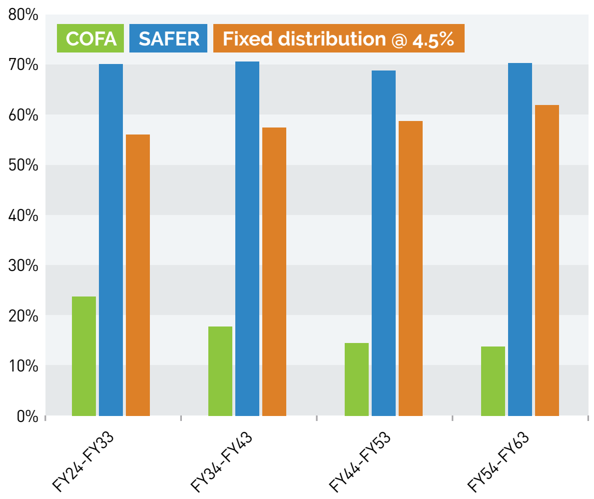
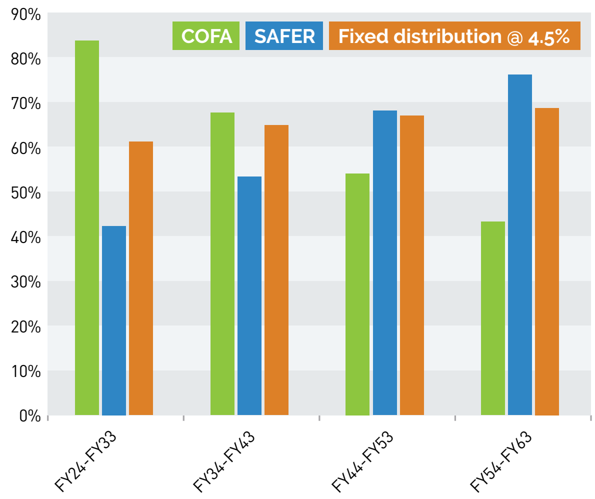


Figure 46
Average distribution % target



reflects the design of SAFER with a low initial drawdown to preserve CTF stability and rises thereafter as market performance permits. In the case of the fixed rule, performance also rises through time reflecting that the fixed rate of drawdown of 4.5 percent is below the portfolio average and in the majority of cases the trust fund corpus rises. Clearly, the performance of the different rules has significantly different intergenerational impact, with COFA benefiting current generations and SAFER favoring future generations. The fixed rule also favor future generations, but not as strongly as SAFER.

SAFER and fixed rule eliminate zero distributions, which are extreme under COFA: Two graphs are presented to display volatility: figure 47 and figure 48. The first graph depicts the probability of zero distributions, with only COFA registering a positive count. Both SAFER and fixed rule eliminate zero distributions, while the probability under COFA rises over time and indicates extreme volatility.

SAFER produces best result in generating stable distributions: The second graph depicting volatility indicates the number of years that a real reduction in drawdown occurs. Under SAFER this is low at about 1 year in each 10-year group, reflecting the design of SAFER to remove volatility to the extent possible and to enable the smooth uninterrupted implementation of fiscal policy. Under COFA the number of years with reductions rises through time, indicating the erosion of the CTF corpus. The fixed rule starts out with a very high number of years with reductions in distributions. Over time, the fixed rule improves and the number of years with distribution reductions declines. This reflects the accumulation of the corpus over time and the fact that the drawdown rate of 4.5 percent is below the projected portfolio average.

Overall, SAFER produces the best results but comes at the cost of weak initial drawdowns: Preference of the rule set clearly depends on the objectives of the CTF. COFA is badly designed

Figure 47
Probability of zero distribution in period

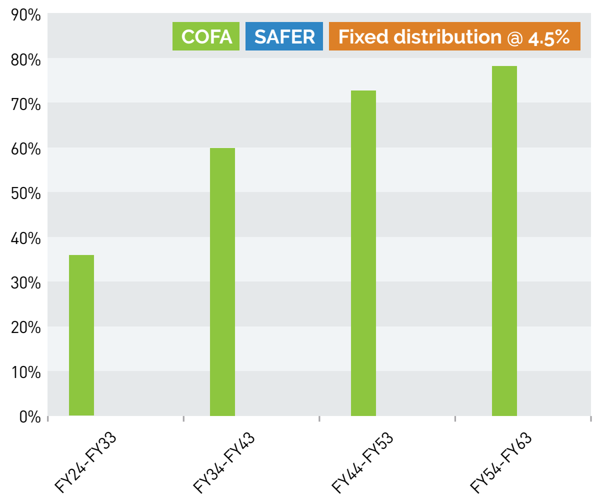


Table 12 FSM Compact extension analysis supporting sector grants + SEG funding at FY23 real values

Performance Measures	Compact extension		
	Fully funded	To date certain	To SAFER achievement
Overall performance rating	94.2%	95.2%	94.3%
Number of years	1	20	16
Total cost of contributions	$2,061m	$2,240m	$1,784m

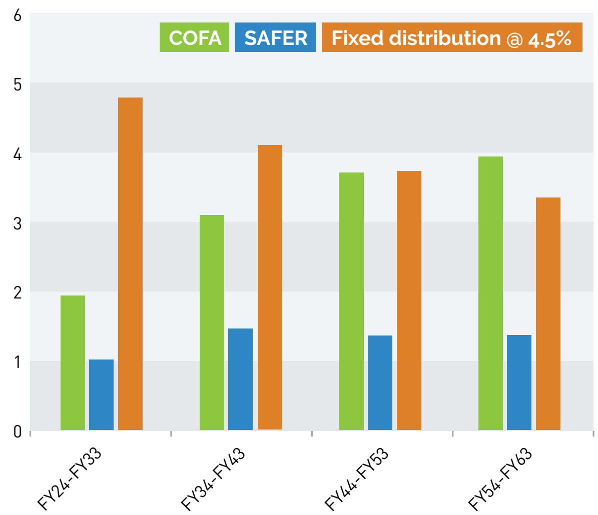
and is now generally recognized as in need of replacement. The fixed rule has been promoted largely because of its simplicity and protection of the corpus, but it fares poorly in terms of stability and the smooth operation of fiscal policy. SAFER protects the corpus and produces the most stable distributions but comes at the cost of a low initial drawdown: it favors future over current generations.

ADDITIONAL CONTRIBUTIONS

Additional FSM contributions can make a significant improvement but fail to achieve the sustainability target: An improved outcome can be attained if the FSM national government devotes its booming revenues to shoring up the CTF before FY2024 and thereafter to supporting the level of government operations at the state level. A variety of different options were simulated to examine the impact of additional FSM funds, but SAFER achieved the best performance with a score of 87 percent. While FSM contributions would make a very significant contribution to the CTF, the addition fails to achieve the target score of 95 percent.

Extension of the Compact by 20 years comes at a cost of $2.1 billion, and sustainability is achieved; a 10-year period is not sufficient: Simulations have been included to examine the impact of extension of the Compact by a further 10 and 20 years (see table 12). Three major alternatives are considered: (i) a direct upfront contribution, (ii) an unconditional extension of the Compact for 20 years, and (iii) a graduation version that entails the US making contributions until the SAFER condition is achieved i.e. that sustainable distributions can be relied on with a high degree of confidence. The upfront cost is $2.1 billion, and 20-year unconditional extension would cost $2.2 billion. Under the graduation scenario, the FSM would in the median case achieve graduation after 16 years at a cost to the US of $1.8 billion. These scenarios achieve sustainability and score greater than or close to 95 percent.

Figure 48
No of years with reductions in distributions



8. State Economic Developments

Economic performance at the state level has shown a great degree of variation between contraction in GDP in Chuuk, Kosrae and Yap, of 14, 11 and 14 percent, respectively, and growth in Pohnpei of 22 percent. In the three negatively performing states, both the private and public sectors have contracted, and even in Pohnpei, which has showed some signs of buoyancy, private sector growth was below average.

- In Chuuk State, implementation of the amended Compact led to a significant adjustment: an RIF and contraction in the public sector. Private sector activities contracted in tandem. Subsequent infrastructure projects led to surges in economic growth but were not sustained, although there has been some pickup in the economy in the last three years. Employment has contracted by 21 percent, and 1,101 jobs have been lost. After recording deficits at the start of the amended Compact, the state has managed to maintain fiscal balance since FY2007.
- Performance in Kosrae has not been dissimilar to that in Chuuk as the economy has adjusted to the amended Compact and was forced to implement an RIF. The economy picked up in FY2012 as the FAA-funded airport-renovation project boosted growth, but the economy subsequently contracted. Some 192 jobs have been lost as employment contracted by 13 percent. After the early fiscal adjustments, the government managed to maintain balance until FY2013, but during FY2014–FY2017 it ran sizeable deficits averaging 5 percent of GDP.
- In Pohnpei, the state was not required to undergo adjustment to the amended Compact and economic performance has been more satisfactory. However, the failure to generate any significant private sector activity is of concern. Unlike in its sister state, employment has grown (by 17 percent) and jobs have been created (1,155). The state has run small fiscal deficits averaging less than 1 percent of GDP during the amended Compact.
- Yap State also managed to avoid adjustment to the terms of the amended Compact, but performance has been both negative and erratic. Loss of the garment factories, erratic performance at the state-owned fisheries corporation and periodic infrastructure projects have resulted in large swings in GDP. Since the closure of the garment factories in FY2006, employment has remained little changed. Availability of significant financial resources has allowed the state to fund independent capital projects and sustainably run fiscal deficits averaging 3.3 percent of GDP.

8. State Economic Developments

A. Chuuk State

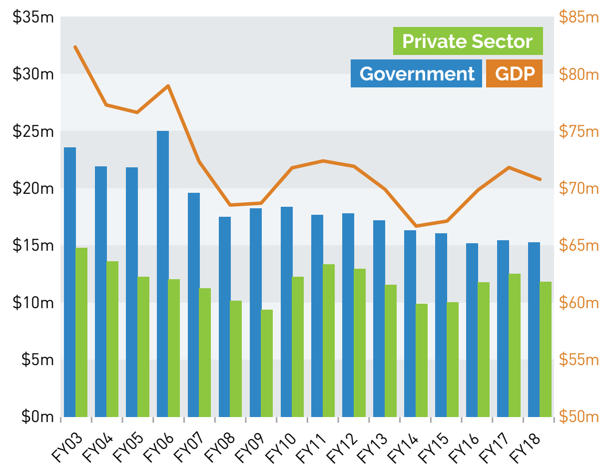
GDP

Economic performance in Chuuk has been disappointing: Economic performance in Chuuk State can be divided into two periods: a precipitous decline of 17 percent from FY2003 to FY2008 as the economy adjusted to the terms of the amended Compact; and a period of erratic performance from FY2008 to FY2018, as the economy underwent a period of boom and bust largely driven by infrastructure projects. Over the amended Compact, economic performance in Chuuk State has been disappointing. GDP has declined by an annual average of 1.0 percent per annum, or 14 percent overall.

In early years, Chuuk adjusted to amended Compact: At the start of the amended Compact in FY2004, the economy declined because of various factors. First, the state had to adjust to the reduction in Compact transfers from the higher levels of Compact I. Second, the additional resources received in FY2003 for rehabilitation from Typhoon Chata'an were no longer available. Third, the amended Compact entailed a loss of the energy grant, which led to contraction in the public-enterprise sector. Finally, the state continued to suffer from an ongoing financial crisis, and delays in vendor payments adversely affected private sector profitability (see figure 49).

Financial crisis hit in FY2006: With the initial adjustment to the amended Compact complete, a new administration took office in FY2006, and the state went through another period of poor fiscal management. Payroll numbers expanded by 20 percent, and the wage bill rose by 15 percent. With continued pressure on the utility corporation, driven by increasing world energy costs, electricity prices soared, and the state CPI rose by 5.5 percent. With an unsustainable expansion in public expenditures, fiscal stability came under severe pressure and arrears mounted. While the public sector expanded, boosted by unsustainable expenditures, the private sector contracted as the crisis hit. State GDP grew, but this was short lived.

Figure 49
Chuuk State constant price GDP, FY2004 prices



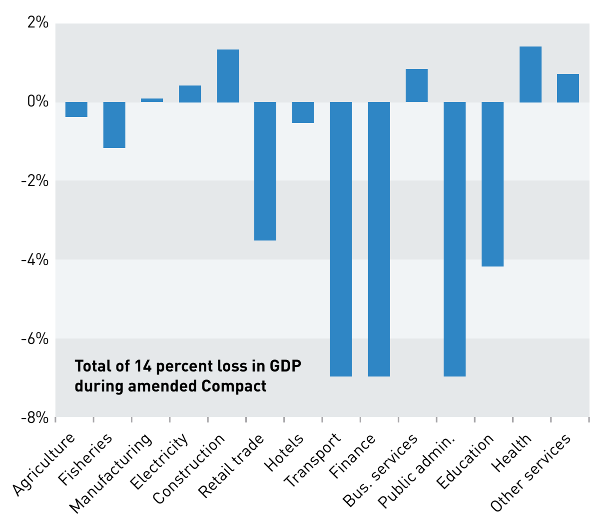
Significant structural adjustment achieved to restore fiscal balance: During FY2007 and FY2008, the state was required to phase out the use of nonconforming activities from the capacity-building sector grant. While Chuuk had at first been slow to respond credibly to the imminent crisis, the state leadership convened a conference to adopt a comprehensive adjustment package. An RIF was the main component of the adjustment, and the state targeted a reduction of 375 positions. A compensation package equivalent to one year's salary, funded with a grant from the US, was paid to the terminated workers. By FY2008 the full impact of the RIF had worked its way through the economy, and a reduction of 317 positions was achieved. While state-government GDP contracted by 30 percent over the two years, the private sector also declined by 15 percent, reflecting not only reduced demand originating from the RIF but also the impact of the world economic recession and rising commodity prices.

Economy goes through boom and bust as infrastructure projects wax and wane: With the fiscal adjustment complete and without any further fiscal mismanagement, government services and output stabilized over the remainder of the period. However, the economy was set for a period of improved performance in FY2010, as use of the infrastructure grant expanded, and the FAA-funded Airport Improvement Program projects were implemented. These forces were sustained in FY2011, but by FY2012, construction activity had peaked as infrastructure projects failed to provide further stimulus and the economy declined. In FY2013 and FY2014, construction activity fell as the FAA projects were completed and the Weno Road rebuilding effort was coming to a close. By FY2014 the economy was at a lower point than any other during the amended-Compact period. In FY2015 the economy had bottomed out, and in FY2016 and FY2017 a new FAA project to renovate and repave the Weno runway was initiated and state GDP grew by 4.0 and 2.8 percent, respectively, boosting the private sector and construction sector. During the most recent year, FY2018, the airport-renovation project was coming to a close and the economy contracted by 1.4 percent.

INDUSTRY DEVELOPMENTS[1]

Improvements in utilities: Figure 50 indicates the contribution of each industry to the reduction in economic activity of 14 percent during the whole period. Both agriculture and fisheries followed the basic trends,[2] declining by an average of 0.3 and 0.7 percent per annum during the period. The tiny manufacturing sector, however, has shown some signs of growth since FY2005. Electricity production declined by 6 percent per annum throughout the first eight years of the amended Compact, but it has since improved with the reforms supported by the ADB. Chuuk now benefits from a 24-hour electricity supply, after many years of power outages and load sharing, and

Figure 50
Chuuk State contribution to economic growth by industry during amended Compact



value added has reverted to its level at the start of the amended Compact.

Services sectors reflect growth in economy: Nontraded activities—wholesale and retail, hotels, transport and other services—followed the pattern of the economy as a whole, declining in the initial period through FY2008 and stabilizing since that time with some improvement over the last two years. The only private sector activity not subject to this trend has been construction, which grew rapidly between FY2009 and FY2011 as the FAA-funded airport renovations commenced and the state was able to start drawing on the infrastructure grant. Construction peaked in FY2012 and then declined through FY2014, almost back to the level of FY2003, with the completion of the FAA projects and reduced level of infrastructure products. From FY2016 through FY2017, construction activity once again rebounded strongly, with the FAA airport-repavement project, but contracted by 36 percent in FY2018 as the project came to a close.

Public administration contracts sharply: The provision of public administration fell sharply in the first half of the amended Compact and was the driving force behind the declining economy. However, it stabilized once the RIF and adjustment were complete, and it has maintained its level since FY2009. With protected funding levels, education managed to expand

1 In FY2016 and FY2017, lack of provision of administrative data on the BGRT prevented us from reliably estimating GDP by industry. The discussion on this in this section thus needs to be viewed with caution. See appendix 2 for greater detail.

2 Trends have been estimated from log-linear regression.

through FY2009 but has dropped since that time, reflecting teacher-certification issues and weak management. As shown in figure 50, health services made the largest contribution of all industries; it grew steadily through FY2012, by an annual average rate of growth of 4.5 percent, but has slid back by 1.2 percent per annum since that time.

EMPLOYMENT

Employment opportunities in the public sector contract: Figure 51 indicates changes in private and public sector employment. The graph clearly reveals the reduction in public sector jobs with the onset of the second step-down in Compact I funding in the late 1990s. There was a misguided attempt to boost public sector employment in the early 2000s, which was unsustainable. However, the need to phase out the use of the capacity-building grant to fund general government led to a further downsizing in FY2007 and FY2008. From that period forward, public sector employment has continued to decline but at a reduced rate. Overall, there has been a loss of 1,924 jobs, or half the workforce, since the mid-1990s. It is no wonder then that there has been significant external migration to Guam, Hawaii and the US mainland.

Private sector resilient despite public sector reductions: In the private sector, employment has been remarkably resilient given the massive reductions in the public sector. There was a rebound in FY2010 and FY2011, with the construction of the infrastructure projects. Since that time, private sector employment has largely reflected changes in economic activity: it declined in FY2013–FY2014 but has risen in the last four years.

GOVERNMENT PAYROLL

Chuuk State has achieved significant reduction in public servants, but payroll costs remain unchanged: Trends in the Chuuk State government payroll are indicated in figure 52. The state was highly successful in reducing both the payroll and the total wage bill through the end of the PSRP. However, the fiscal crisis of the early 2000s undermined the state's commitment and led to an increase in wage costs per employee and the hiring of contract workers. The implementation of the amended Compact required the state to phase out the use of the capacity-building grant for nonconforming purposes, which, in turn, necessitated the RIF in FY2007—and over 300 public servants were retrenched. As a result of these developments, the number of civil servants in FY2010 was significantly below what it was at the completion of the PSRP. Wage costs per employee rose significantly between FY2008 and FY2010, by 33 percent, but have since stabilized. This spike in wage costs originates from two main factors. First, the state returned many of the workers to

Figure 51
Chuuk State employment in private and public sectors

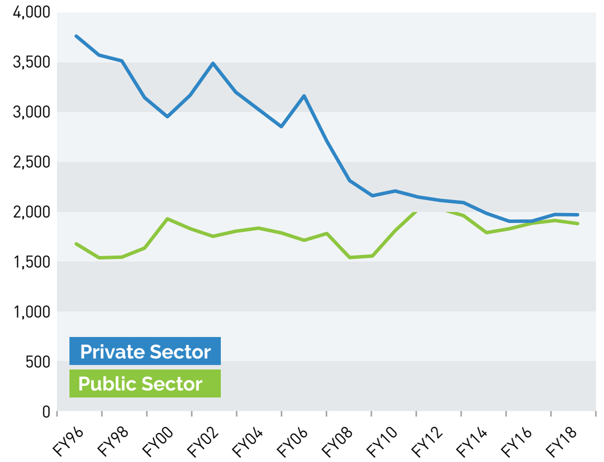
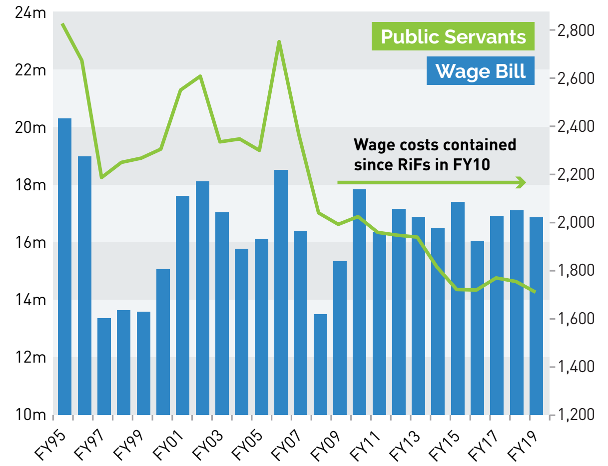


Figure 52
Chuuk government payroll and wage bill



an 80-hour pay period. Second, wage rates in the education and health sectors rose sharply. While the number of civil servants in FY2018 is now 658 below the pre-RIF level in FY2007, the impact of rising average wage costs per employee has offset the gains of reduced numbers, and the wage bill is now $0.5 million above the pre-RIF level of FY2007. However, trends since FY2010 indicate that the number of civil servants has declined while the wage bill has been contained; hopefully it will remain so.

MONEY AND BANKING

Commercial bank lending remains weak in Chuuk: The commercial banking sector in Chuuk is serviced by the Bank of the FSM and the Bank of Guam. Recent trends in loans and deposits are shown in figure 53. The deposit base has grown steadily during the amended Compact by an average of 9 percent per annum, while lending has stagnated. This represents the weakest performance of all FSM states and an inability to develop attractive, bankable projects. The loans-to-deposit ratio has fallen during the period, declining to 20 percent at the end of FY2018. The same constraints on lending exist in Chuuk as in the other states of the FSM, with the commercial banks utilizing the excess liquidity as a source of funding for overseas operations.

FISCAL PERFORMANCE

After period of adjustment, Chuuk achieves fiscal balance: Chuuk has been the least well managed of the five FSM governments, and fiscal performance has oscillated from one extreme to the other. While the state has the capacity for significant periods of fiscal mismanagement, it has also displayed the ability to rein in expenditures when needed to restore fiscal balance. Between FY2004 and FY2006, because of difficulties adjusting to the new regime of the amended Compact, along with a lack of financial discipline, the state registered overall significant deficits of $12.8 million, $5.8 million and $5.5 million, respectively, or 17 percent, 7 percent and 7 percent of state GDP in each period (see figure 54). From FY2007 onward, the state has managed to maintain fiscal balance, attaining an average $0.08 million surplus.

FSM taxes have provided buoyant source of revenues: Tax revenues have grown by an average trend value of 4.7 percent per annum during the amended Compact, above the nominal-GDP trend rate of 1.9 percent, and thus have provided a buoyant source of revenue. This has been the result of improvements in tax administration at the state level. Of the FSM-wide taxes, the GRT has been the most buoyant, and collections have trended at 3.6 percent, above the rate of nominal GDP growth. Both import duties and wage taxes have shown marginal gains of 1.5 and 1.8 percent per

Figure 53
Chuuk State commercial bank loans and deposits

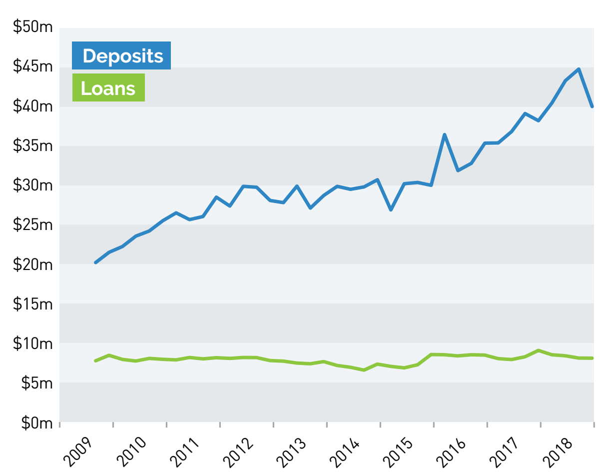
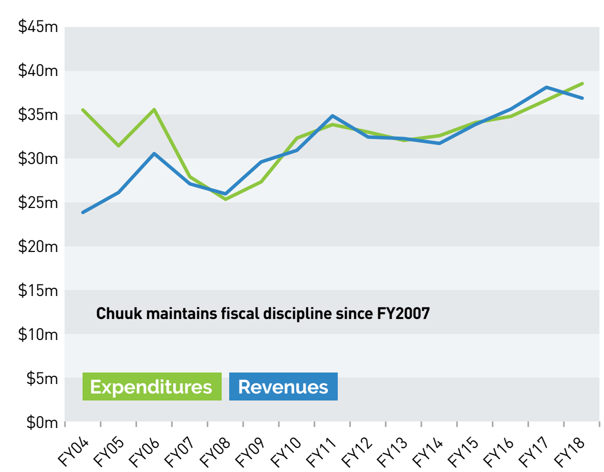


Figure 54
Chuuk State revenues and expenditures



annum, respectively. Taken collectively, the FSM-wide taxes displayed a buoyancy ratio of 1.09, a respectable result given the weak tax regime and perception of widespread undercollection.

Significant improvements in compliance with state taxes: Chuuk State has been an active supporter of the FSM-wide tax-reform effort, having passed the necessary state-level legislation. The major area of growth has been in state sales taxes, which have increased by an annual average of 6.5 percent, and collections have risen from $1.2 million to $2.5 million during the period. This has resulted from better enforcement through support from an Australian Agency for International Development (or AusAID) tax advisor. The other main source of revenue is Compact and other grants. This has displayed an upward trend, with an average growth rate of 3.0 percent, reflecting increased absorptive capacity. Combining tax revenues, grants and the remaining miscellaneous sources, overall revenues have grown by 2.90 percent during the amended Compact.

Expense remains little changed during amended Compact: On the expense side, Chuuk was required in FY2007 to make the first of three annual reductions in nonconforming uses of the Compact capacity-building sector grant; each reduction amounted to $0.9 million. After a slow start, the leadership confronted the pending financial crisis and implemented an RIF of 317 state employees, funded through a US grant and implemented over a two-year period. In response to the fiscal crisis and implementation of the RIF, state expenses were cut from $37.7 million in FY2006 to $29.4 million in FY2007 and further reduced to $26.5 million in FY2008. By FY2017 they had risen to $39.7 million, representing an overall 0.9 percent annual increase in expense during the amended Compact.

Use of goods and services has grown rapidly since FY2009: Payroll costs were significantly reduced through the RIF, but as indicated in figure 52, they returned to former levels in FY2010 and have been held in check since that time. In effect, the reduction in payroll numbers and cost savings enabled the state to return all workers to an 80-hour, biweekly pay period and cover increased wage rates in education and health. Until FY2009 the auditors did not provide details of other expenses, lumping all into one category. Although the time period has been limited, use of goods and services increased rapidly during this period by 8.4 percent, above the rate of change in payroll.

Chuuk pays down accounts payable: During the first three years of the amended Compact, the accumulated deficit of $24.1 million was financed through drawing down $23.2 million of foreign assets. During the next 11 years, FY2007–FY2018, the state accumulated a surplus of $0.9 million. However, with improved fiscal circumstances the state paid down $5.2 million of accounts payable and arrears. This was financed by reducing accounts receivable by $3.5 million and drawing on $12.2 million of foreign assets. To close the account, there was a buildup of cash reserves of $10.7 million.

While fiscal position improves, state remains essentially insolvent: After long periods of financial mismanagement, the state appears to be on a positive path. However, appropriated liabilities of $16.1 million plus an equivalent amount of unappropriated liabilities remain, including pending court cases and land claims. In previous financial crises, Compact funds could be set aside to repay creditors. But the current structure prohibits the use of the new sector grants for purposes other than those specified. The state can restore solvency only through savings of local revenues—which are under considerable stress already—to fund activities that are no longer eligible for Compact sector grants. As noted above, the state has paid down $5.2 million of liabilities since FY2007, which is a significant achievement. There is still a considerable way to go before the state can be considered solvent. However, recent trends indicate Chuuk is on the right track to eventually repay outstanding liabilities.

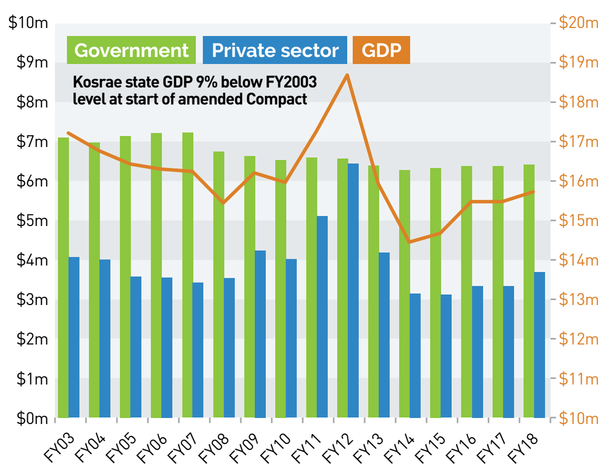
B. Kosrae State

GDP

Economy contracts during initial years of the amended Compact: Economic performance in the small state of Kosrae exhibited a declining trend during the first four years of the amended Compact through FY2007 (see figure 55). Provision of government services held relatively constant, as the state delayed the adjustment required to phase out nonconforming uses of the capacity-building sector grant. However, the loss of the Compact I energy-sector grant, along with rising world fuel prices during the period, had a strong impact on the utility sector, and public-enterprise output fell by 8 percent per annum over four years. The impact of higher prices during this period, along with the lower rate of Compact transfers, reduced demand in the small private sector, which contracted by 4 percent per annum. Overall, the Kosrae economy went into decline during the first four years of the amended Compact and fell by an annual average of 1.4 percent.

Kosrae undertakes adjustment to the terms of the amended Compact: By FY2007 phasing out the use of the capacity-building sector grant for nonconforming purposes could not continue to be postponed. It was no longer possible to sustain the level of public expenditures of Compact I. In the run-up to the FY2008 budget, the state was confronting imminent collapse. However, in a leadership conference in mid-2007, the state decided to remedy the deteriorating fiscal position by implementing an adjustment program: cutting expenditures and raising revenues. Supported through a retirement package equivalent to one year's salary and funded through a US grant, the state was able to implement an RIF of 110 positions. While the impact of the salary payout stimulated demand, it was insufficient to compensate for the reduction in the public sector, and the economy contracted.

Figure 55
Kosrae State constant price GDP, FY2004 prices



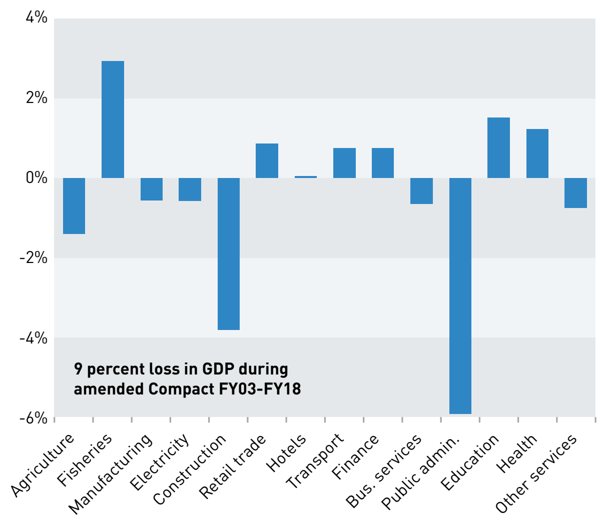
Full impact of the reforms hits the economy in FY2008: In FY2008 the state felt the full impact of the RIF, and government declined by 7 percent. Despite the impact of the reduced level of public sector demand and the onset of the world recession, the private sector grew by 3 percent, reflecting the state's increasing utilization of the infrastructure grant and commencement of the FAA-funded airport-renovation projects. Overall, the economy fell by 5 percent.

Kosrae enters boom period driven by infrastructure projects: During the period since FY2008 and after the reforms, two main forces exerted themselves. The public sector continued to show a gradual decline of 0.5 percent per annum, reflecting consolidation, implementation of the state decrement management plan, and the tight fiscal circumstances. However, the private sector displayed a period of rapid growth and decline. With improvement in the use of the infrastructure grant, the FAA-funded airport renovations and repaving of the runway, the private sector boomed, growing by 27 and 26 percent in FY2011 and FY2012, respectively.

Economy collapses as infrastructure projects completed: However, in FY2013 the majority of the FAA-funded airport renovations were complete, and, in the absence of other stimulus, the private sector contracted by a whopping 35 percent. Government activity also declined, and the economy collapsed, contracting by 15 percent. As if this was not bad enough, FY2014 saw continuation of the same trends, as construction activity virtually collapsed, and the economy fell a further 9 percent. By FY2015 the economy had passed the nadir and started to improve. Growth averaged 2.1 percent during the last four years, FY2015–FY2018, supported by growth in the private and public sectors.

Amended Compact has been a disappointing period for Kosrae: As with Chuuk, the conditions of the amended Compact have not been kind: Kosrae's GDP fell by an average of 0.6 percent per annum, or 9 percent over the period. From FY2008 through FY2012, it looked as though the economy was on an upward and reinvigorated path. However, the economy went into a tailspin in FY2013 and FY2014. With the reduction in construction activity, it reverted to a point well below the level at the start of the amended Compact, the lowest attained during the period. Since that time, the economy has improved, but it still remains below that at the start of the amended Compact. It is to be hoped that as the new arrangements for the disbursement of the infrastructure grant become effective and the hospital and other projects commence, the private sector and the economy will show signs of improvement.

Figure 56
Kosrae State contribution to economic growth by industry during amended Compact



INDUSTRY DEVELOPMENTS[3]

Private sector industries reflect general state of the economy: At the industry level, Kosrae State experienced many of the same developments as in Chuuk (figure 56). The primary and secondary industries of agriculture, manufacturing and electricity all endured a downward trend during much of the amended-Compact period, although both the small manufacturing sector and utilities have improved in the last few years. The main sector bucking this trend was fisheries, which expanded by an annual average rate of 4 percent. In FY2009 fisheries grew by 14 percent with the reopening of the old freezing plant. While the construction sector showed strong growth after FY2007 with greater use of the infrastructure grant and airport renovation, output levels in FY2018 were 55 percent below those attained in FY2003. Nontraded services—wholesale, retail, hotels, transport and business services—all experienced reduced demand, as the economy adjusted to the amended Compact. Output for these activities fell by 4 percent per annum from FY2003 through FY2008 but has effectively stabilized since then with improvement in the last four years.

Public administration contracts as education and health service improve: Public administration contracted by an annual average rate of 6.4 percent during the first part of the amended Compact—less than in Chuuk—reflecting the impact of the RIF, but since FY2008 public administration has held steady. Offsetting the decline in public administration, output in the protected sectors of education and health increased. Provision of education services grew during the first part of the amended Compact through FY2007 by 27 percent but contracted by 12 percent over the remainder of the amended Compact as teacher levels declined with the increased need for certification. Delivery of health services also grew strongly in the initial period, by 12 percent, but unlike education it continued to grow thereafter by 8 percent.

EMPLOYMENT

Significant loss of jobs in the public sector: Figure 57 indicates trends in private and public sector employment. Unlike in Chuuk, there has been a gentler downward trend in the reduction of public sector employment, as the economy adjusted to the second step-down of Compact I. However, the phasing out

3 In FY2016 and FY2017, lack of provision of administrative data on the BGRT prevented us from reliably estimating GDP by industry. The discussion on this in this section thus needs to be viewed with caution. See appendix 2 for greater detail.

Figure 57
Kosrae State employment in private and public sectors

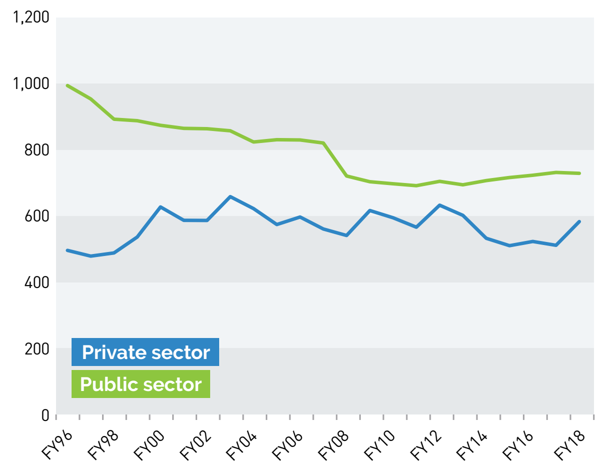
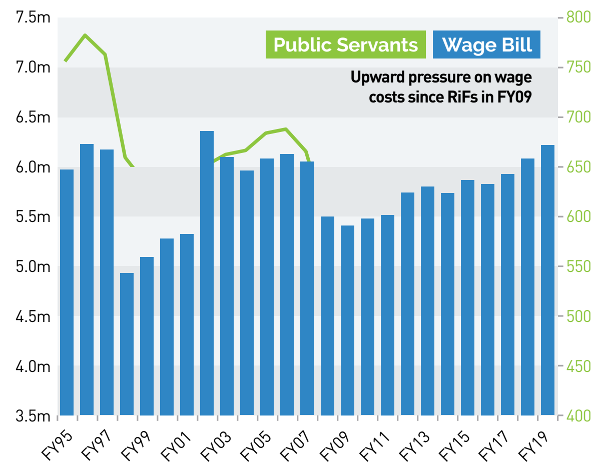


Figure 58
Kosrae government payroll and wage bill



of the use of the capacity-building grant from general administration led to a large reduction in FY2008. Part of the burden of adjustment in Kosrae State has been through a reduction in working hours. Thus, the number of employees has been maintained, while paychecks have been reduced. However, by FY2018 a total of 245 jobs, or 25 percent of the public sector workforce, had been retrenched since the peak in FY1996. As in the case of Chuuk, it is no wonder there has been large external migration to Guam, Hawaii and the US mainland.

Private sector employment declines during amended Compact: The trend in private sector employment reflected an upward adjustment in the second half of the 1990s but has declined by an average 0.8 percent per annum during the amended Compact. The growth in construction activity generated a temporary boost to employment, but as the effect wore off, private sector employment continued its downward trend.

GOVERNMENT PAYROLL

Significant reductions in public servants offset by matching increase in average wages: In terms of reducing the size of the government workforce, Kosrae has been the most successful in the FSM (see figure 58). The number of civil servants fell by 19 percent during the PSRP. After some slippage in the early 2000s, the number dropped another 17 percent between FY2006 and FY2009, when an RIF was imposed as part of the effort to phase out the use of the capacity-building sector grant for nonconforming purposes. In terms of the wage bill, there was a significant reduction as part of the PSRP, but the savings had largely disappeared by the start of the amended Compact. The RIF in FY2007 yielded significant cost savings. However, by FY2019, payroll costs had returned to their pre-RIF levels. While the workforce size has been significantly reduced, this has been offset by increases in average wage costs per employee, which have grown by 33 percent overall, or 1.3 percent per year since the mid-1990s.

MONEY AND BANKING

Commercial bank credit more active in Kosrae than other states: The commercial banking sector in Kosrae is serviced by the Bank of the FSM and the Bank of Guam. Banking data are available by state going back to the end of FY2009, and recent trends in loans and deposits are shown in figure 59. The deposit base was stagnant during the first six years for which data are available, grew with the infrastructure expansionary period and has since fallen back although it remains above the level at the start of the amended Compact. Unlike in Chuuk, lending has been far more active, growing by an average of 10 percent since the end of FY2010. The loans-to-deposit ratio currently stands at 58 percent as of the end of FY2018. Although the same constraints on lending exist in Kosrae as in the other states of the FSM, Kosrae with its tiny market has managed to surpass the obstacles and achieved the best lending performance of all states. As in the other states, the commercial banks utilize the excess liquidity as a source of funding for overseas operations.

FISCAL PERFORMANCE

Kosrae runs large deficits in FY2014–FY2017 but runs a large surplus in FY2018 with support from the national government: At the outset of the amended Compact, the structure of Kosrae's fiscal accounts had been altered the least of all five FSM governments, tax effort was weak, and the local economy was the most dependent on Compact funds. These conditions indicated a lack of capacity to adjust to the provisions of the amended Compact. In FY2004 the state experienced cash flow–management problems, revealing an underlying stressed fiscal position. After adjusting for the contribution to the CTF, a structural deficit of $2.4 million, or 14 percent of state GDP, was recorded (figure 60). Matters failed to improve in FY2005 and FY2006, and the state continued to run overall deficits of $1.6 million and $1.7 million, respectively, or 10 percent of GDP in both years. From FY2008 through FY2013, after implementing the fiscal adjustments, the state kept a tight rein on expenditures and maintained fiscal balance. However, in FY2014, the state recorded a significant deterioration in discipline and ran a large deficit, which was to be sustained in the following three years with deficits averaging 5.4 percent of GDP over the FY2014–FY2017 period. In FY2018 the state received a large grant of $1.8 million, turning what would otherwise have been a continuing large deficit into a slight surplus.

FSM tax-collection effort very weak: Tax revenues have grown by an average trend rate of 2.2 percent per annum during the amended Compact—very close to the nominal rate of GDP of 2.4 percent—and thus have provided a satisfactorily buoyant source of revenue. This has been the result of enhanced revenue effort to increase state taxes. Of the FSM-wide taxes, the GRT has been the most buoyant, and collections have trended at 2.4 percent, which is above the rate of nominal GDP growth. Both import duties and the wage taxes have been weak performers, declining by 0.5 and 1.3 percent per annum, respectively. Taken collectively, the FSM-wide taxes displayed a buoyancy ratio of 0.1—that is, no change in the level of taxes as current-price GDP has grown—a very poor performance and one that indicates the need for reform. Kosrae State has been an active supporter of the FSM-wide tax-reform effort, having passed the necessary state-level legislation.

Figure 59
Kosrae State commercial bank loans and deposits

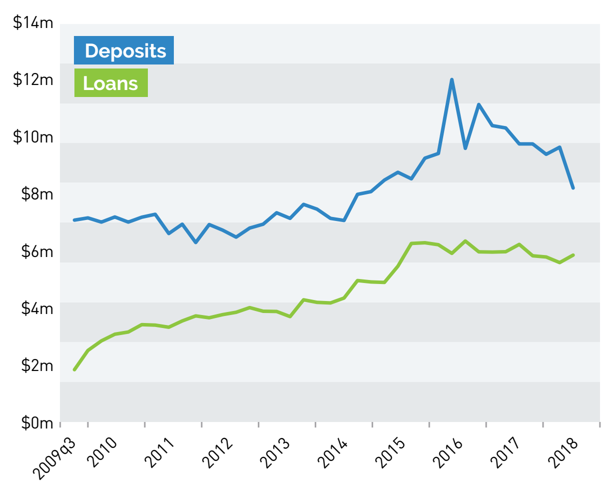
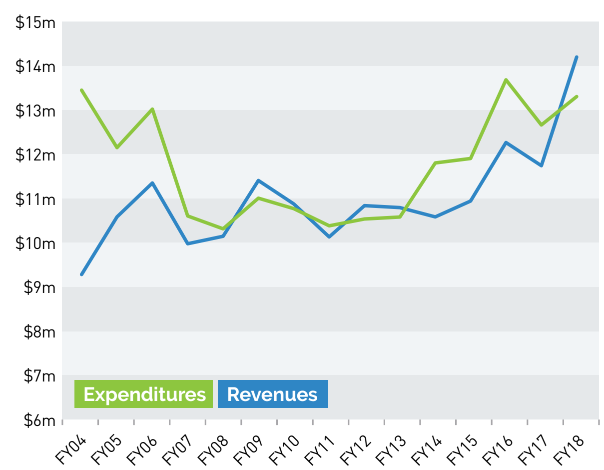


Figure 60
Kosrae State revenues and expenditures



State tax collections have been buoyant: The major growth area in revenues has been in state excises, which have grown by an annual average of 12 percent. Collections have risen from the low base of $0.16 million to $0.42 million during the period. The increase reflects the decision of the state leadership to increase tax effort as part of the FY2007 fiscal adjustment. During the discussion on how to respond to the fiscal crisis, the municipalities agreed to forgo their constitutional share of the increase in tax rates. In Kosrae State, taxes are shared 50–50 between municipalities and the state government. Although the temporary forbearance by the municipalities aided the state during the crisis, there was a return to the 50–50 revenue share mandated by the constitution in FY2011. The other main form of revenue is Compact and other grants. These have grown in nominal terms by an average 1.8 percent, and the rate of growth includes the impact of the annual decrement and partial inflation adjustment. Combining tax revenues, grants and the remaining miscellaneous sources, overall revenues have grown by 1.6 percent during the amended Compact.

Use of goods and services main area of recent fiscal expansion: On the expense side, total expense has grown marginally by an annual average trend rate of 0.3 percent during the amended Compact, reflecting the midperiod fiscal adjustment. In 2007 the state convened a leadership conference and adopted a program of reform to increase revenues and phase out, in an orderly manner, nonconforming uses of the Compact capacity-building sector grant. The main instrument of adjustment was an RIF, and in FY2009 payroll expenses were reduced by $0.9 million, or 14 percent of the prior-year level. Use of goods and services, which makes up the remaining bulk of expenses (payroll and use of goods and services account for 96 percent of total expenses), has oscillated during the cycle, but in the last three years it has grown significantly and was one of the main reasons for the deteriorating fiscal position.

Deficits during the amended Compact have been funded largely through drawdowns of foreign assets: During the first three years of the amended Compact, the accumulated deficit of $7.4 million was financed through a variety of sources. Domestic accounts receivable deteriorated by $2.7 million, but this was offset by drawing on foreign assets and investments of $7.5 million. The balance of financial requirements was made up of domestic borrowing of $1 million and an increase in accounts payable of $1.4 million. During the remainder of the amended Compact, FY2007–FY2018, the accumulated fiscal balance of $3.7 million was again largely funded through drawdown of foreign assets of an equivalent amount. The state drew down domestic loans of $2 million, but reduced accounts payable by an equivalent amount. Domestic assets also remained largely unchanged.

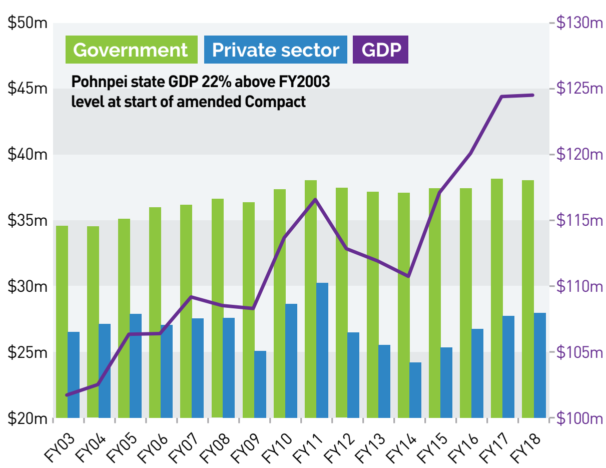
With limited financing options, the emerging fiscal imbalance is a cause for concern: During the FY2014–FY2017 period, the state accumulated a fiscal deficit of $4.5 million, an annual average deficit of 5.4 percent of state GDP. In FY2018 the situation improved, and the state recorded a surplus. However, the favorable outturn was conditioned on a large transfer from the national government, and the structural deficit remained largely unaltered. The fiscal equation in Kosrae is finely balanced, and the small state cannot afford to get off the rails, having few other sources of finance to redress the imbalance. While national-government support is welcome, it is unclear whether this can be relied upon and will be sustained in the future when the nation enters the post-amended-Compact period.

C. Pohnpei State

GDP

GDP grows satisfactorily during amended Compact: The Pohnpei economy weathered the implementation of the amended Compact in FY2004 without any undue adverse impact (see figure 61). Unlike Chuuk and Kosrae, Pohnpei had in the mid-1990s phased out the use of the energy grant for subsidizing utility prices and thus avoided the associated reduction in public-enterprise value added. Pohnpei State hosts the national government, which was largely unaffected by the decline in Compact resources. The more developed nature of the state economy and the higher revenue effort meant that the state was able to make the adjustment to the new Compact regime without suffering the negative impact of the transition to a sector-grant approach. During the amended Compact, the Pohnpei economy has grown by 1.4 percent per annum, a respectable rate in comparison with the other FSM states. In the initial years through FY2007, the economy expanded by 1.8 percent per annum and then flattened out during the international-recession years. In FY2010 and FY2011, it picked up speed as the FAA and infrastructure projects gained momentum, but it then fell back as these projects were completed or held up by noncompliance and project-management weaknesses. In the FY2015–FY2017 period, the economy grew strongly, by an average 4.1 percent, but in the last year it flatlined.

Figure 61
Pohnpei State constant price GDP, FY2004 prices



Private sector stagnates: The private sector declined by an average of 0.2 percent per annum, making a negative contribution to economic growth during the amended Compact, but underwent periods of changing fortunes. As figure 61 indicates, the private sector was relatively flat through FY2008. However, it was hit hard in FY2009 by the inflationary impact of the international recession on demand. Production picked up in FY2010 and FY2011 with increased construction activity but then declined significantly from FY2012 through FY2014 as construction output fell. In the last four years, FY2015–FY2018, the private sector gained back some of the lost ground, reflecting improvements in many industries and fiscal expansion at the national-government level.

Public enterprises and households make significant contribution to growth: Public administration of government, comprising national government, state governments, municipalities and agencies, expanded during the earlier years of the amended Compact in FY2003–FY2011 but has stagnated since that time (representing 3.4 percentage points of the 22 percent growth in the amended Compact). Government activities, both state and national, that have not been subject to the same restrictions as in Chuuk and Kosrae have not suffered the same decline. Public enterprises, including Caroline Fisheries Corporation (CFC), make an important contribution but fluctuate depending on the size of the catch; they added 3.1 percentage points to the total growth. Financial services including both the commercial banking sector and domicile for Japanese corporations grew rapidly, by 11 percent per annum, during the period. Given the small size of the sector, its contribution to overall economic growth was 5.7 percent. The household sector has made a very significant contribution to the Pohnpei result, contributing 7.1 percentage points to the overall increase in GDP. This reflects increases in subsistence production, homeownership and mixed income as measured between the two most recent household-income and household-expenditure surveys.

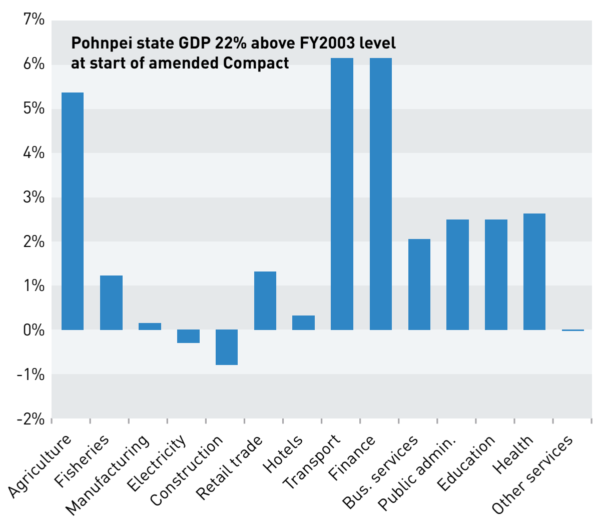
While the growth in GDP looks favorable, the result is barely satisfactory: Overall, the results for Pohnpei have been barely satisfactory, with the private sector making a negative contribution to overall growth. The reliance on the small offshore domicile and increase in household production does not reflect a sustainable base for economic growth. From FY2012 through FY2014, economic growth was negative, mirroring falling demand for infrastructure, but during FY2015–FY2017 the acceleration in growth was encouraging. While hopefully compliance and project-management issues in the use of the infrastructure grant will be overcome, the result indicates the vulnerability of an economy reliant on a few driving forces and the need for a broader-based and active policy initiative.

INDUSTRY DEVELOPMENTS[4]

Subsistence agriculture and fisheries have been positive drivers of economic growth during amended Compact: The contribution of various industries in Pohnpei to overall economic growth during the amended Compact is shown in figure 62. Because of an increase in subsistence production, agricultural output improved during the amended Compact, registering an annual trend growth rate of 2.8 percent. As previously noted, this rate is derived from the results of recent household-income and household-expenditure surveys. The results may reflect changes in survey methodology as much as economic trends, although they are consistent with a weak economy. The fisheries sector has provided a positive engine of growth, averaging 3.7 percent per annum, but it varies from year to year, depending on fishing conditions and prices. In FY2013 dry docking of the three CFC boats negatively impacted the fish catch, but all were back in service in FY2015, together with two new boats that were commissioned at the end of the fiscal year. Output of the small manufacturing sector has grown in the last few years, but electricity production has followed a downward trend because of higher prices. More recently, power outages caused by poor management and maintenance have adversely affected output,

4 In FY2016 and FY2017, lack of provision of administrative data on the BGRT prevented us from reliably estimating GDP by industry. The discussion on this in this section thus needs to be viewed with caution. See appendix 2 for greater detail.

Figure 62
Pohnpie State contribution to economic growth by industry during amended Compact



although with donor support performance is likely to improve.

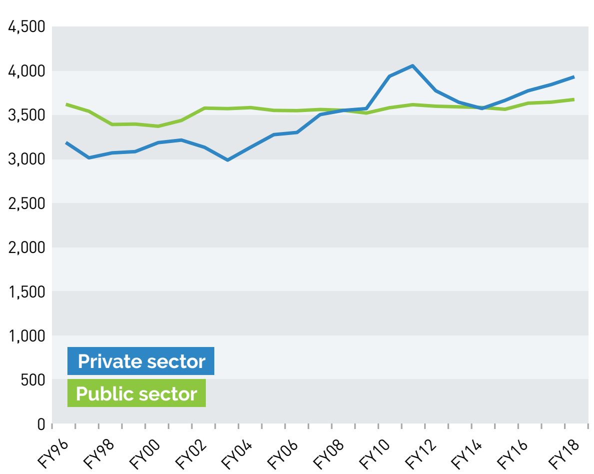
Construction, retailing and hotels all perform poorly: Construction demand was weak in the initial years but proved to be a strong source of growth from FY2008 to FY2011, with airport renovations, the runway extension and increased use of the infrastructure grant. From FY2012 through FY2015, output contracted with the completion of the airport renovations and delay in disbursement of the infrastructure grant. During the last four years, construction has stagnated and remains below the level attained at the start of the amended Compact. Wholesale and retail trade have largely remained flat during the amended Compact, with a trend decline of 0.2 percent per annum; services contracted as the demand for infrastructure fell but have now improved with the overall improvement in the economy. However, the availability of products in local supermarkets compared with other Micronesian economies reflects a lack of competition and an inefficient sector. As in all states, including Pohnpei, the tourism sector has shown poor results. It declined in the initial years of the amended Compact but has picked up in the last few years and now stands above the level at the start of the period. For the activity that has more natural advantage than any other in the FSM, this is very disappointing. As mentioned in the previous section, financial services have grown rapidly and made a significant contribution to the revenues of the national government. However, the sector is small, and it is not anticipated that it will be a significant source of job creation.

Public administration stagnates, but health-services sector shows good performance: Delivery of public administration declined in the early years of the amended Compact through FY2007 but has subsequently shown signs of growth. Education and health have increased, by annual averages of 0.3 and 3.5 percent, respectively. In the case of education, growth was concentrated before FY2007 and reflects the shift to the sector-grant approach, which provided more funds to education. More recently, problems with teacher certification and accreditation at the CoM have constrained output. In the case of health, delivery has grown steadily over the period.

EMPLOYMENT

Public sector employment remains largely static: Figure 63 indicates the changes in private and public sector employment in Pohnpei State. In the public sector, employment contracted in the later parts of Compact I, as the state implemented the early-retirement program of the PSRP. However, growth in the number of public servants in the national and state governments and agencies made up for the loss before

Figure 63
Pohnpei State employment in private and public sectors



the onset of the amended Compact and has remained largely constant since that time. Both the national and state governments were spared any need to further reduce staffing levels.

Private sector employment expands during the amended Compact: In the case of the private sector, 1,076 new jobs were created between FY2003 and FY2011. This is a 36 percent increase—significantly higher than the private sector GDP increase of 15 percent during this period. The increase reflects the creation of an additional 462 jobs in construction and 374 in wholesale and retail trade. In the subsequent seven years through FY2018, private sector jobs contracted by 3 percent for a loss of 126 jobs, reflecting the completion of the airport-improvement projects. Fortunately, continuing growth in the economy in recent years has helped mitigate the downturn in construction. Over the amended-Compact period, the private sector has generated an additional 950 jobs with an annual average growth of 1.9 percent.

GOVERNMENT PAYROLL

Government payroll numbers and costs stable since FY2008: Pohnpei State implemented the early-retirement program of the PSRP and achieved significant success (see figure 64). By FY1999 the number of civil servants had fallen by 20 percent and the wage bill was reduced by 23 percent. However, during the following years, increases in payroll numbers, unconstrained by the need to adjust to the amended Compact, neutralized much of the earlier achievements. The number of civil servants has risen and now stands 10 percent below the pre-PSRP levels, while the total wage bill is 1 percent below former levels. In FY2008 a COLA of $30 per employee per pay period was awarded. Since that time, however, the wage bill remained steady until the period FY2017 through FY2019, when there was an uptick.

MONEY AND BANKING

Rapid buildup in deposits while commercial bank lending stagnates: The commercial banking sector in Pohnpei is serviced by the Bank of the FSM and the Bank of Guam. Banking data by state are now available going back to

Figure 64
Pohnpei government payroll and wage bill

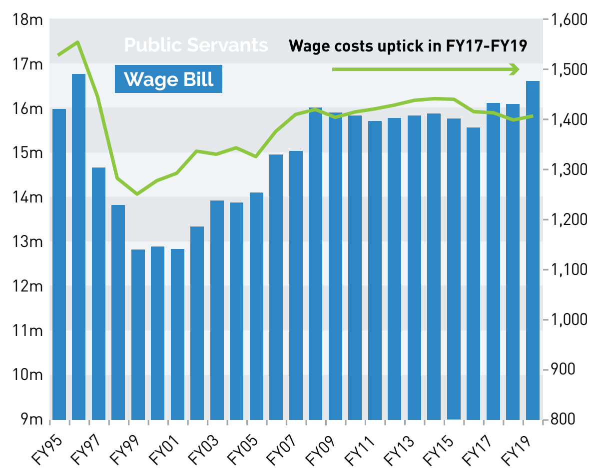
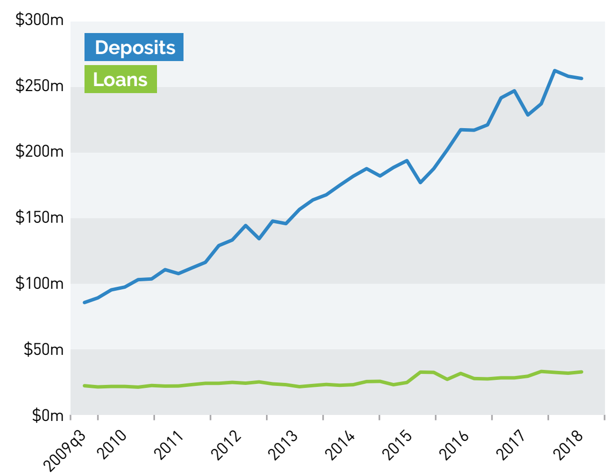


Figure 65
Pohnpei State commercial bank loans and deposits



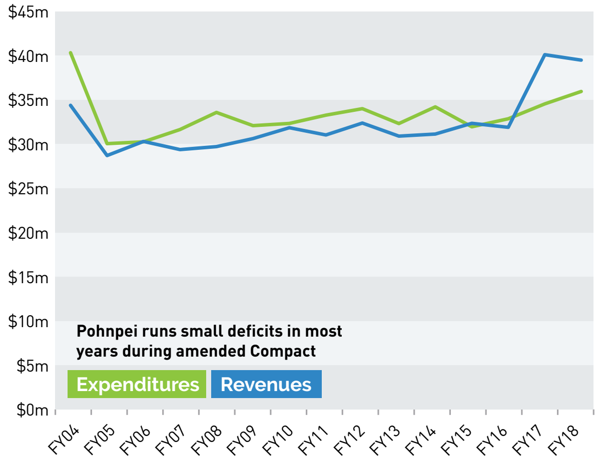
the end of FY2009. Recent trends in loans and deposits are shown in figure 65. The deposit base has grown very rapidly in the nine-year period, averaging 13 percent per annum. While this reflects a general deposit growth of the economy, it also includes changes in deposits of the national government. National-government savings are accumulated in the local banks and then shifted offshore periodically into higher-yielding investments. Lending, however, has been far more subdued, growing by a very modest 4 percent. The loans-to-deposit ratio currently stands at 12 percent as of the end of FY2018 and is the lowest in the FSM. As in the other states, the commercial banks utilize the excess liquidity as a source of funding for overseas operations.

FISCAL

Pohnpei runs a finely tuned balanced budget: Pohnpei has operated a finely balanced fiscal policy. At the start of the amended Compact in FY2004, a deficit of $6 million (6 percent of GDP) was recorded (see figure 66). However, this outturn hides the state's contribution of $7.5 million to the CTF and an unusual increase—of about $5 million—in nontax revenues. Adjusting for these nonrecurring features, the state ran an underlying deficit of $4 million (4 percent of GDP). Unlike its sister states, Pohnpei did not require any phase-out of the use of the capacity-building sector grant for nonconforming purposes. The structure of the economy and state budget prevented a shortfall in funds for public administration, and Pohnpei was able to enter the amended-Compact period with a fiscal structure in alignment with the sector-grant approach. Figure 66 indicates that after the initial year of the amended Compact, the fiscal equation was generally closely balanced and in deficit.

Revenues have been weak, reflecting outmoded tax regime and reliance on grants: Tax revenues have grown by an average rate of 1.4 percent per annum during the amended Compact, below the nominal-GDP rate of 4.2 percent, and thus have not provided a buoyant source of revenue. The GRT has trended at 4.7 percent, just above the rate of nominal GDP growth, while import taxes have grown by 4.0 percent. Neither the wages tax nor the state sales tax has provided buoyant revenue, the former growing by 2.8 percent and the latter by 0.8 percent. Taken collectively, the FSM-wide taxes displayed a buoyancy ratio of 0.92, a barely satisfactory performance. Pohnpei State has been reluctant to participate in the tax-reform initiative, but lack of buoyancy in the current outmoded regime suggests the state would be well advised to reconsider if it wishes to avoid declining funding to support services. The other main form of revenue is Compact and other grants. These have displayed an average 1.0 percent trend growth rate, reflecting the partial

Figure 66
Pohnpei State revenues and expenditures



indexation and annual decrement. Combining tax revenues, grants and the remaining miscellaneous sources, overall revenues have grown by 1.4 percent during the amended Compact (excluding FY2004).

Outlays on expense remain stable during amended Compact: On the expenditure side, wage costs grew rapidly from the start of the amended Compact through FY2008. In FY2008 Pohnpei awarded a COLA to state-government employees, but wage costs have stabilized since that time. Overall wage costs have grown by an annual average of 1.2 percent during the amended Compact. Outlays on use of goods and services have been erratic but have displayed no trend in nominal terms. This suggests that fiscal balance has been achieved through squeezing complementary inputs. Wages and purchases of goods and services take up about 87 percent of total state expense, and other costs have been held in check. Overall state expenses have grown modestly by 0.1 percent through the amended Compact and remained largely stable. Outlays on nonfinancial assets average less than $1 million since all state Compact infrastructure projects have been billed to the national government. This will change going forward as the disbursement of the infrastructure grant is channeled through the state management offices.

Pohnpei has operated a very finely balanced budget and has recorded an average deficit of 0.8 percent of state GDP since FY2004. Over the period (excluding FY2004, when the state made transfers to the CTF), the accumulated deficit of $9.2 million has been financed mainly through a drawdown of external investments of $13.6 million, with a buildup in local deposits of $5.9 million and increase in accounts payable of $2.3 million. As in the other FSM governments, the continuing reduction in real Compact flows places mounting pressure on fiscal operations. The unassigned general-fund balance of $3.4 million—roughly just one month of expenses, in FY2018—indicates that the flexibility to adjust to fiscal shocks is weak.

POLICY ISSUES

Pohnpei does not adopt FSM tax-reform initiative: Pohnpei State was not an active participant in the tax-reform initiative during 2005–15. Unlike Chuuk and Kosrae, the state did not pass the required legislation relating to the value-added tax and Unified Tax Authority to enable the state to participate in the reform process. The state did not undergo the same fiscal-adjustment process that Chuuk and Kosrae were forced to adopt, and thus the need for reform was less pressing. Further, the state's private sector was not receptive to the proposal, although lack of awareness of the reforms may well have been an important reason behind the state's position. This was in spite of the fact that economic-impact analysis of the reforms indicated that Pohnpei would have been the main beneficiary of the changes. With a more adverse fiscal environment, the need to subsidize Pohnpei Utilities Corporation and the post–Compact Trust era approaching, there was some resurgence of interest in the reforms. However, this appears to have waned.

Pohnpei's FDI regime requires reform: During the reforms enacted during the late part of the original Compact period, Pohnpei did not adopt the model foreign-investment regime adopted by the national government and the other states. Pohnpei preferred to follow an old regime enacted through a foreign-investment board, in which applications are reviewed through a bureaucratic and time-consuming process. Pohnpei State has generally not provided an enabling environment for FDI, and the presence of foreign investment is very limited. Many foreign investors have left the island, and there is a lack of competition, resulting in weak private sector growth.

Pohnpei subject to chronic power disruptions: PUC has been operating since 2009 under an official declaration of emergency.[5] While there have been brief periods of respite, the entire operations of PUC in providing power, water and sewer services to the people of Pohnpei are at risk of extended periods of service disruption with serious risk to human health and economic efficiency. On the power-production side, load shedding has been required whenever even one of the eight operational generators is down for maintenance or because of a fault. Pohnpei's residential- and commercial-power consumers that had once relied upon nearly fault-free and continuous power have been subject to frequent planned and unplanned outages, reducing total demand and creating knock-on expenses that typically remain uncompensated. The shift of some commercial users to self-production with private generators has resulted in reduced demand for PUC services while being more costly in the long run for businesses.

PUC operates at a stressed financial position: Regarding financials, the unrestricted net position of PUC fell into deficit in FY2015 for the first time since FY2007 and has since remained in negative territory. The ratio of current assets to current liabilities has deteriorated to a very weak level as well, with PUC holding just $0.57 in current assets for every $1.00 of current liabilities, a sign of severe illiquidity. The quick ratio, cash availability to current liabilities, was a mere 29 percent, also indicating severe cash flow–management problems. Bad-debt allowances have also peaked, with 84 percent of PUC's accounts receivable deemed uncollectible. Finally, a summary measure of financial position[6] hit an all-time low of 1.6 out of 10 for PUC in FY2015, having peaked at 4.7 in FY2007.

Weak performance despite significant donor support: The above indicators of financial performance indicate a utility operating at very low levels of efficiency. However, this has not occurred without significant support from government, donors and other agencies. PUC has benefited from approximately $15.4 million of capital contributions from FY2012 to FY2018 and subsidies in excess of $3.0 million from FY2009 to FY2018. These contributions, which have been largely quick-fix solutions, have not resulted in any sustained improvement in the underlying financial status or operating efficiency of PUC. The cycle of capitalization followed by deterioration is virtually unbroken in recent years because of the short-term fixes supported by donors and government and, of course, because of the failure to sufficiently address underlying policy and technical mistakes.

Pohnpei adopts CRISP, a program for utility reform: Because of the ongoing crisis and sustained underperformance that PUC has been experiencing, the state leadership—comprising the PUC board, PUC management, the governor of the state and the state legislature—have, to their credit, come together in an effort to resolve the underlying issues and adopt a program of capitalization, recovery and institutional strengthening (CRISP). The CRISP approach entails five components:

- Re-establishment of reliable, efficient base-load production of electricity
- Reducing inefficiencies through improved technology, controls, distribution network and financial improvements, including cash power and water meters
- Improving existing alternative-energy assets and expanding alternative-energy production and storage capacity
- Rehabilitation of core water and sewer-system assets and eventual expansion to additional locations in priority order
- Institutional strengthening through long-term expert hires, other technical assistance and training

Reforms costed at $32 million: Immediate portions of the program are costed at $24 million for capitalization, $5.8 million for recovery support and $2.65 million for institutional strengthening, for an estimated total of $32.45 million. Later elements, including still extraordinarily high-priority alternative-energy projects, would add substantially to the funding requirements.

5 Pohnpei Utilities Corporation, Framework for a Multi-Donor Funded Capitalization, Recovery and Institutional Strengthening Program, Pohnpei, 2017.

6 Crawford & Associates, PC, The Performeter: A Financial Statement Analysis of the Pohnpei Utilities Corporation, as of and for the Year Ended September 30, 2015.

Successful implementation of CRISP requires a demonstrated commitment: While consensus agreement among the four key parties has been fully achieved, it is understandable that donors have a degree of skepticism about whether Pohnpei leadership will abide by its commitment. As part of the CRISP approach, the Pohnpei leadership agreed to adopt a set of prespecified commitments to reduce risk and provide confidence to the donor community that the reform commitments are real and lasting. These include maintaining audits and financial information, establishing a supplemental-management-and-operations team, adopting a full cost-recovery tariff, establishing a debt-repayment plan to Pohnpei State, establishing a set of cash flow targets, expanding the existing cash power meters, developing a line-loss reduction program, and many others. It is understood the board together with the governor of the state approved the plan and submitted to the legislature in August 2018, but as yet no action has been taken.

World Bank and ADB have agreed to support the program provided commitments are maintained: If the program can be implemented and commitments maintained, it affords a wonderful opportunity to turn around a persistent problem that has plagued the state for many years.

Need for economic reform to improve performance: Economic performance in Pohnpei State has averaged 1.2 percent over the amended Compact and has provided a minimally satisfactory performance, at least in comparison to the other FSM states, where growth has been close to −1 percent. Pohnpei State has benefited from the presence of the national government, which has not been subjected to declining real Compact resources but has been the beneficiary of the rapid rise in revenues from fishing fees. The greater economic performance has been despite a weak policy environment. The coming CTF era and tighter fiscal environment will hopefully provide an incentive, as in the case of the PUC, to re-examine and improve the policy regime to develop a more competitive and vibrant economy.

D. Yap State

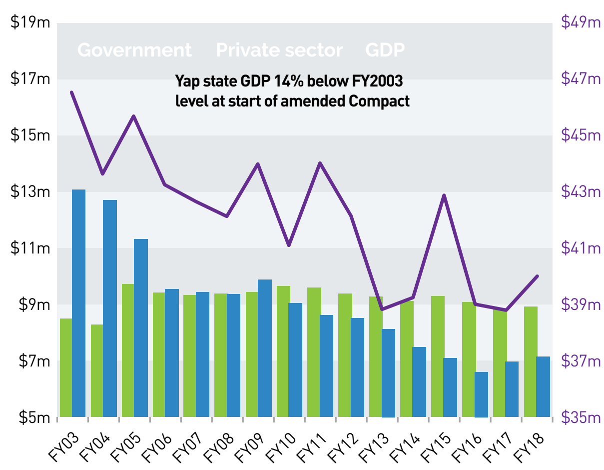
GDP

Yap experiences secular decline in GDP during amended Compact: Like Pohnpei, Yap weathered the implementation of the amended Compact in FY2004 without any undue adverse impact. Yap managed to avoid any significant fiscal adjustment or requirement to downsize the public sector workforce. The state also in the mid-1990s had phased out the use of the energy grant to subsidize utility prices and thus avoided the associated reduction in public-enterprise value added. While the state was required to phase out the use of the capacity-building sector grant, it managed to do this without disruption. However, unlike in Pohnpei, the state economy has declined significantly, by 14 percent overall, or a trend annual average decline of 0.9 percent (see figure 67). This result is largely similar to that in Chuuk and Kosrae, but after the favorable result of Compact I, the outcome during the amended Compact is a disappointment.

Large decline in private sector output: The start of the amended Compact saw the departure of the two garment factories, and private sector value added declined by 10 percent per annum over the first three years. However, with the departure of the factories complete, the private sector continued to decline between FY2006 and FY2018, by an annual average of 2.4 percent. Of the overall reduction in GDP of 14 percent during the amended Compact, the decline in the private sector was responsible for 13 percent—that is, the loss in GDP was almost entirely due to the decline in the private sector.

Public-enterprise performance affected by erratic performance of Diving Seagull: Public enterprises, including both the local utilities, the Yap State Public Service Commission (YSPSC) and Diving Seagull (the purse-seine operation owned by the state but managed by the private sector) also declined during the period. The latter two entities contributed 3.5 percent to the overall drop. However, this outturn is adversely affected by the very erratic performance of Diving Seagull reflecting changes in fish catch; on a trend basis, public-enterprise GDP was largely stagnant, growing by 0.2 percent annually during the period.

Figure 67
Yap State constant price GDP, FY2004 prices



Government and households ameliorate the decline in the economy: The major forces sustaining economic activity were the government and households, which counterbalanced the losses incurred by the private- and public-enterprise sectors. In the second year of the amended Compact, government grew by 17 percent, but over the remainder of the amended-Compact period it has contracted by an average 0.7 percent annually. Households contributed 4.2 percent to overall growth during the period.

GDP performance highly volatile, reflecting natural disasters and fisheries: Figure 67 also reveals significant oscillations through the period. The decline in GDP in FY2004 represents the impact of Typhoon Sudal, which destroyed crops and depressed agricultural output. FY2004 was also a poor year for the local purse-seine operation, which led to further falling output. The spike in FY2005 reflects the typhoon rehabilitation and return to normal agricultural output. However, the closure of the garment factories hampered GDP from returning to its pre-Sudal levels. The jump in FY2009 was due to a temporary boost to construction activity. In subsequent years, the wild oscillations can largely be attributed to changes in fisheries output at Diving Seagull.

INDUSTRY DEVELOPMENTS[7]

Volatility in economic performance reflects large swings in agriculture, fisheries and manufacturing: At the industry level, the Yap State economy shows an overall weak performance, with most industries declining during the amended Compact (figure 68). Agriculture has shown modest trend growth of 2.0 percent, reflecting household surveys and population data, upon which the agricultural GDP estimates are based. As noted, agricultural output fell and rose in response to Typhoon Sudal at the start of the period. Fisheries output showed a declining trend through FY2009 but subsequently showed rapid increases and declines (see figure 69). The large swings reflect withdrawal of boats from the fishing fleet for dry docking and other vagaries in fish-migration patterns, prices, and costs. Manufacturing all but disappeared in FY2005, with the closure of the two garment factories. While the factories made a significant contribution to GDP, most of the employed labor consisted of foreign workers. State GNI, which adjusts for compensation of nonresidents, would show a more stable pattern.

7 In FY2016 and FY2017, lack of provision of administrative data on the BGRT prevented us from reliably estimating GDP by industry. The discussion on this in this section thus needs to be viewed with caution. See appendix 2 for greater detail.

Figure 68
Yap State contribution to economic growth by industry during amended Compact

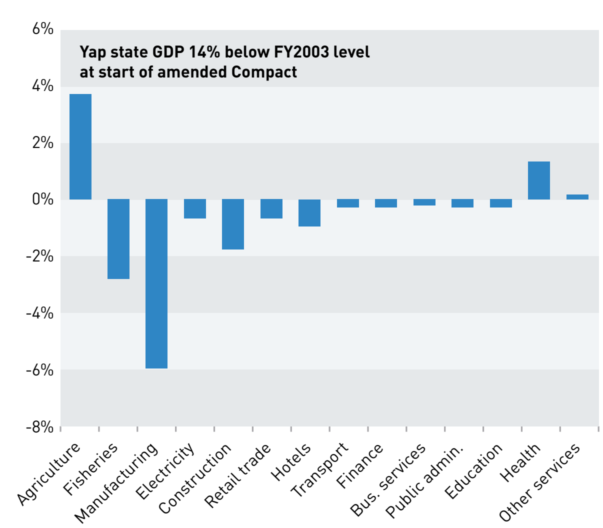
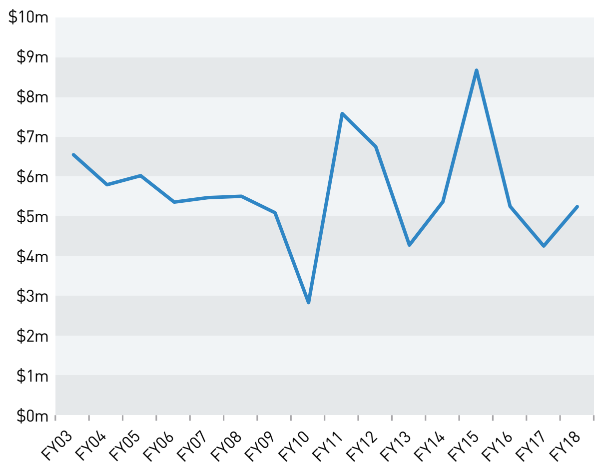


Figure 69
Yap State fishereies value added, FY2004 prices



Industrial performance in utilities, construction and tourism generally weak: Reflecting the general forces prevailing in Yap, electricity production revealed a downward trend during the early part of the amended Compact, the result of the closure of the garment factories. Subsequently the fall in production moderated, reflecting weakening demand in the economy and rising prices. Construction output has varied in proportion to public investment demand. It rose very strongly in FY2005 because of cyclone rehabilitation, and again in FY2009, with the FAA-funded airport renovation. Yap benefited less than its sister states from the FAA projects because runway repaving had been completed prior to the amended Compact. In FY2010 the airport improvements came to an end, but construction output was boosted by Compact infrastructure projects and state-financed road repairs. With these projects completed, construction activity has fallen to very low levels. Reflecting the general trends in the economy, wholesale and retail trade has declined during the amended Compact, although performance has improved during the three years. Tourism, as in Yap's sister states, performed abysmally and fell by an average annual rate of 3.8 percent. Yap has considerable tourism potential with good tourism infrastructure, but the limited and inconvenient flight schedule has inhibited growth.

Administration and education stagnate, but health-services sector grows strongly: Government administration has been variable, surging by 13 percent in FY2010 and then gradually receding through FY2018 to levels below those at the start of the amended Compact. In FY2006 the education-services sector grew rapidly, reaching a new plateau, benefiting from the sector-grant approach. However, the sector suffered significant reductions in each of the years from FY2010 through FY2017, falling below the level of service at the start of the amended Compact and reflecting the need to improve teaching standards and teacher certification to qualify for continued Compact education-sector grants. The health-services sector has been the strongest performer in the amended Compact, following the pattern in other states and has grown strongly in most periods, averaging 4.2 percent a year.

EMPLOYMENT

Employment opportunities decline during amended Compact: Figure 70 indicates trends in employment in both the private and public sectors. The private sector reveals the upward trend toward the end of Compact I, with jobs created in the garment factories, although this was largely represented by foreign labor. At the start of the amended Compact, the factories closed and employment fell sharply. From FY2006 through FY2016, private sector employment dropped by an annual average of 1.6 percent, but in the last two years it improved, reflecting

Figure 70
Yap State employment in private and public sectors

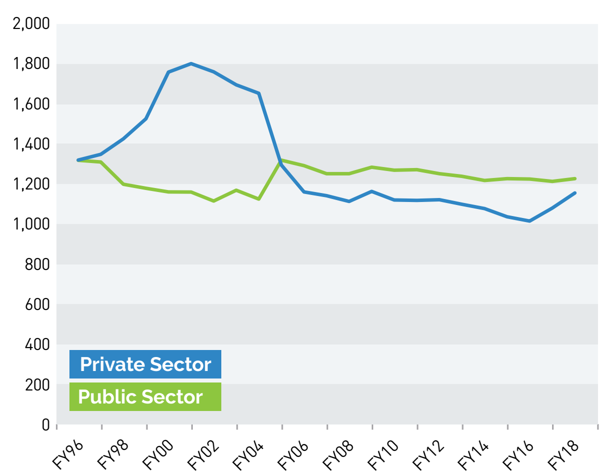


Figure 71
Yap government payroll and wage bill

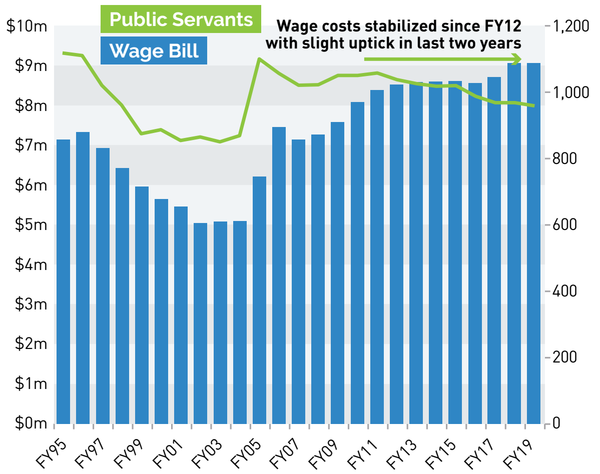
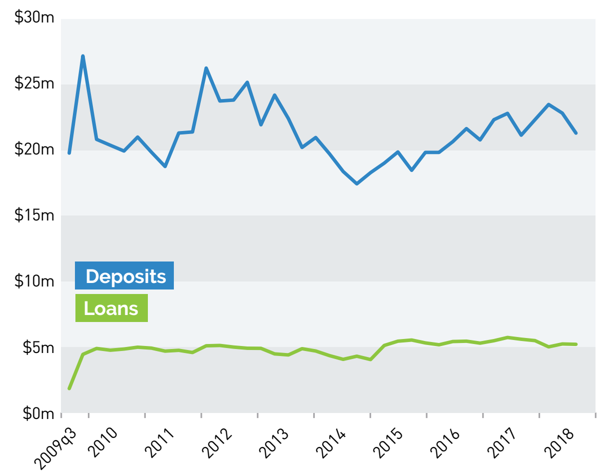


Figure 72
Yap State commercial bank loans and deposits



increased demand in the construction and retail sectors. Yap participated in the PSRP, as did all the FSM states, and the public sector workforce was reduced in the FY1998–FY1999 period. It remained at the postreform levels for several years but then rose at the start of the amended Compact, but it has gradually declined since FY2005 by an average 0.66 percent per annum.

GOVERNMENT PAYROLL

Payroll cost has grown rapidly during amended Compact: Recent payroll performance in Yap has been a disappointment (see figure 71). The state was one of the best achievers of the PSRP, but weak management at the start of the amended Compact under a new administration eroded the former success. At the end of the PSRP, the number of civil servants had fallen by 21 percent, and the total wage bill had been reduced by 19 percent. Current employment numbers are 14 percent below PSRP levels, but the wage bill is 24 percent above. In FY2005 civil-servant numbers rose sharply, by 27 percent, the result of additional hiring and Typhoon Sudal, but, after adjustment in the following two years, they now stand 13 percent below the FY2005 peak. Yap had the lowest wage rates in the FSM, but in FY2006 a wage-rate adjustment was awarded and wage costs per employee rose 25 percent. This brought Yap almost in line with Chuuk and Kosrae, but the wage rate remained below that of Pohnpei. Since FY2007 average wages have risen gradually by an average of 2.3 percent. As a result of these developments, the total wage bill has risen by 78 percent since the beginning of the amended Compact.

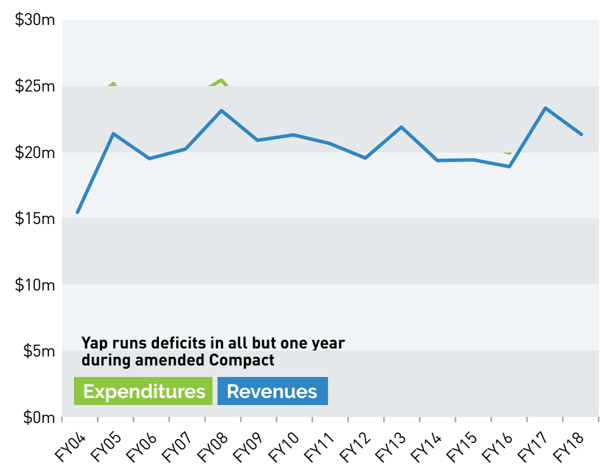
MONEY AND BANKING

Both deposit and credit growth have been depressed in Yap: The commercial banking sector in Yap, as in the other states, is serviced by the Bank of the FSM and the Bank of Guam. Banking data by state are now available from the end of FY2009, and recent trends in loans and deposits are shown in figure 72. Unlike in the other FSM states, the deposit base has remained largely stagnant over the nine-year period, averaging a growth rate of only 1.6 percent per annum. Lending has also been very subdued, growing by only 1.0 percent per annum since the start of FY2010, at a rate similar to that displayed in Chuuk. The loans-to-deposit ratio currently stands at 23 percent at the end of FY2018, also on par with Chuuk. As in the other states, the commercial banks utilize the excess liquidity as a source of funding for overseas operations.

FISCAL PERFORMANCE

Large pool of reserves has enabled Yap to fund an independent investment program: The existence of a large pool of external investments accumulated during the original Compact has presented Yap with a different fiscal environment compared to that of the other FSM governments. While the state was faced with the same problem as Chuuk and Kosrae—the need to phase out the use of the capacity-building sector grant for nonconforming activities—Yap maintained operational expenditures within the fiscal envelope without the need for an adjustment program or reduction in personnel. However, capital outlays and nonrecurring expenses have been funded through the drawdown of financial investments. The ability to fund infrastructure projects out of the state's own resources is something that has not been available to the other FSM states. As a result, Yap has operated a fiscal deficit in all but one of the years of the amended Compact (see figure 73) without endangering financial stability.

Figure 73
Yap State revenues and expenditures



Yap sustains average deficit of 3.5 percent of GDP during amended Compact: After adjusting for the contribution to the CTF in FY2004, the state recorded overall persistent fiscal deficits from FY2005 through FY2018, averaging $1.8 million, or 3.7 percent of GDP. The gross operating balance (revenues less expenses), on the other hand, averaged a deficit of close to zero. The accumulated overall deficit during this period of $25.9 million was financed through a drawdown of foreign assets of $35.8 million to fund investments in infrastructure of $26.3 million plus a large $12 million increase in accounts receivable. In effect, Yap has operated fiscal policy under what is sometimes referred to as the "golden rule," which means using financial reserves only for investment purposes.

Tax revenues perform poorly: Tax revenues have declined by an average trend rate of 0.2 percent per annum during the amended Compact, below the trend nominal GDP rate of 1.2 percent, and thus have provided a very weak and underperforming source of revenue. All national-government taxes have been weak performers in Yap. The GRT has declined by an annual average trend rate of 1.9 percent, wages tax has remained unchanged, and customs duties rose by 1.1 percent. The worst performer, unlike in Yap's sister states, has been the state excise, which has fallen by an average of 0.3 percent. The poor performance of the tax system suggests, as in the case of Pohnpei, that Yap State should take a long, hard look at the tax-reform proposal because the current outmoded regime does not provide an elastic source of revenue and has in fact declined while nominal GDP has risen.

Revenues stagnate during amended Compact: The other main form of revenue is Compact and other grants. Since the poor start to the amended Compact, when grant receipts were artificially low, the trend has flattened out, which reflects the partial indexation and annual decrement. While access to federal programs has fallen, this has been offset by a large increase in transfers from the national government. This reflects the large increase in national-government legislative projects. Yap, unlike its sister states, has adopted the practice that the state's share of congressional projects is used to augment the state's budget. Combining tax revenues, grants and the remaining miscellaneous sources, overall revenues have risen modestly by an annual average 0.7 percent.

While payroll cost has grown, use of goods and services has remained stationary: On the expense side, payroll expense grew rapidly at the start of the amended Compact, but despite stabilizing in FY2007, it has continued to grow. Overall payroll costs have increased by an annual average of 1.8 percent. Use of goods and services, which together with payroll accounts for 87 percent of total expense, has been largely stationary, although it has exhibited significant variation at times. Overall total expense has displayed a stationary trend during the amended Compact.

POLICY ISSUES

Tourism development and ETG: In March 2011, Yap was approached by the Exhibition and Travel Group (ETG) with a proposal for tourism development and construction of a 10,000-room casino and golf-resort complex. The development divided the Yap leadership's opinion, with some favoring economic development and others concerned with the impact on culture and tradition. The state administration issued a business license and foreign-investment permit. However, motions were set in place to recall the governor, and the Yap State legislature passed restrictions on foreign investment. ETG was asked to scale back the development, and the proposal was cut to 4,000 and subsequently to between 1,000 and 1,500 rooms, with the casino and golf course dropped from the concept. Clearly, the original scale of the investment was far too large, comparable to that of Guam's. Even the reduced size of 1,500 rooms is close to plant size in neighboring Palau. Although ETG still has a presence in Yap, interest has waned. The ETG initiative raised important issues of economic development, culture and tradition. However, the experience was divisive, splitting the state leadership and resulting in the passage of antireform legislation.

Foreign-investment law and land registration: As a result of the ETG proposal, the state legislature enacted measures to restrict foreign investment and introduce a foreign-investment board. This was a backward step from the PSRP reforms in the late 1990s, which had introduced a state and national regime with the intention of streamlining the approval process in a simple and transparent manner. A green, amber and red system was designed with the idea of removing bureaucratic intervention from the process. The creation of a foreign-investment board effectively thwarts this process. Efforts to improve land legislation have also failed to gain traction. As part of the ADB-sponsored Private Sector Development Program, a measure was drafted to enable land registration. This was submitted to the legislature in 2007 and reintroduced during the eighth legislature. The policy supports land leasing and private sector development.

Tax reform: Yap's failure to participate in the tax-reform process was an issue of concern. The holdup concerned interpretation of the constitution, which states that "the power of taxation shall never be surrendered, suspended or contracted away." The FSM tax reforms involved the creation of the Unified Revenue Administration (URA), which would collect all taxes in the FSM on behalf of the national and state governments. The state legislature took the position that the state constitution conflicts with Yap's participation in the URA and, therefore, Yap could not contribute to the reforms. Legal opinion has been issued that the URA is not in conflict with the constitution, but the legislature has failed to accept this position. It appears that apart from this issue, the legislature had no objection to the reforms in and of themselves. As noted above, Yap State needs a modern and efficient tax system to support the state's development and to maintain a buoyant source of revenue. At the present time, the tax-reform initiative has lapsed. However, as indicated in this review, the current tax system is ill suited to meet the FSM's needs. At some point, the reforms are likely to be reconsidered, and Yap's position will need to be revisited.

Legislature precipitates financial crisis at YSPSC: The YSPSC was one of the best-run utilities in the Micronesian region, but action taken by the legislature in FY2008 to address rapidly rising fuel prices forced the entity to adopt weak management and financial practices. In FY2008 the state legislature barred the use of a variable fuel charge that had been enacted in FY2006 by the YSPSC to cover increases in fuel costs. From an average level of 17 cents per unit in FY2005, prices rose to 31 cents in FY2007. However, in 2008 the new law forced the corporation to return average prices to their prior levels. As a result, the YSPSC was put into a dire financial position: once one of the most efficient utilities in Micronesia, it was forced into operating one of the largest deficits in the region. In FY2007 gross revenues were $5 million, with costs of an equal amount. By FY2008 the utility was required to repay $3.1

million in revenues to customers, resulting in an operating loss of $5.7 million.

YSPSC forced to cross subsidize to remain financially viable: To enable YSPSC to honor the liabilities forced on it, the state legislature loaned the utilities $1.6 million in FY2009, which was subsequently forgiven in FY2013. In February of FY2009, the YSPSC implemented a revised tariff that built fuel cost into the base rate. While the revisions to the tariff improved the financial position of the utility, they were insufficient to cover costs. As a result, the utility needed to charge government departments a higher rate—70 cents per unit—to make up the shortfall.

JEMCO reduces level of grants by rate of cross subsidy: In 2009, with US Department of the Interior support, a fuel-tariff study was conducted that recommended a fuel-cost component to allow tariffs to adjust to cost, and a new tariff was introduced in FY2012. However, the state legislature froze the fuel-cost element, thus once again impeding the corporation's ability to adjust tariffs to costs. The Department of the Interior–funded study surprisingly failed to recommend the removal of the cross subsidy from government. This led JEMCO to reduce the level of the education- and health-sector grants by an amount equivalent to the subsidy.

YSPSC breaks even: After the introduction of the current tariff in FY2012, YSPSC sustained operating losses through FY2014, but it managed to run small operating profits up to FY2017 before recording a small loss in FY2018. The improved performance has been due to reduction in the fuel price per gallon from $4.45 in FY2014 to $2.82 in FY2016 with a gradual rise to $3.43 by FY2018. Tariffs have remained at their FY2012 levels without the legislature intervening to pass on the reduction in prices to consumers. However, even with the current reductions, YSPSC operates well below full cost recovery. The YSPSC saga has yet to reach a satisfactory conclusion that allows the entity to operate on a commercial basis, and the entity is subsidized by the state only where there are clearly defined community-service obligations (CSOs).

YSPSC implements ADB-funded renewable-energy funded loan project: YSPSC has entered into an interesting renewable-energy program with the ADB for $8 million entailing a wind farm expected with three turbines to generate 17 percent of the main islands' power needs. The project includes grid-connected solar panels that will be installed on 21 government buildings equivalent to 4 percent of production needs. In addition, a new fuel-efficient generator will replace existing plant, reduce fuel consumption and work to supplement capacity of the renewables when wind and solar power fall below operating needs. Implementation of the project is now complete, and the utility has drawn down $8.0 million of the $9.0 million allocated.

Yap State Investment Trust Fund proves successful investment vehicle: In FY2010 Yap enacted special legislation to create the state's Investment Trust Fund (ITF). Yap transferred $30 million to the new fund, which stood at $56.8 million at the end of FY2018. Effectively, the ITF has been isolated from the general fund and may not be drawn on except through further legislation. At the end of FY2017, the general fund had accumulated investments of $15.8 million, with $9.2 million unassigned and available to fund expenditure. While the state has executed recurring fiscal deficits through the amended-Compact period, it has implicitly adopted a fiscal "golden rule" and only drawn down its financial investments to fund infrastructure projects.

Conclusion: Yap State has in the past been well managed and reform minded, setting the standard for strong leadership and development in the FSM. However, the performance during the amended Compact has been very disappointing, with a large (14 percent) reduction in the economy. The vast majority of the collapse has been in the private sector, leaving government and households to keep the economy afloat. With the divisive nature of the ETG proposals and lack of clarity on issues such as tax reform, foreign investment and utility pricing, the state has departed from its former sense of direction. It is hoped that the state leadership can come together and return to the reform agenda to take advantage of its tourism potential and reignite private sector–led growth without threatening Yapese culture and tradition.

9. The Long-Term Economic Outlook

This chapter and the long-term economic projections through FY2030 are based on the FSM long-term economic and fiscal framework (LTEFF). A baseline scenario is outlined reflecting the switch in FY2024 from Compact sector grants to Trust Fund drawdowns and the programmed loss of the SEG. The baseline assumes that the economic policy environment remains unchanged and current economic trends prevail.

- The baseline projection is made on several key assumptions: The domestic fisheries industry returns to the level of catch in prior years, and the domestic fishing fleet expands. Increasing use is made of the infrastructure Compact sector grant both out of the annual allocations and from the use of the backlog of unused funds. In FY2020 and through the remainder of the amended Compact, the state governments are required to adjust to the annual decrement and falling level of real grant transfers.
- After FY2023, as the new Trust Fund era commences, the national government is required to make a substantial cutback in its public legislative projects and reduce the recent growth in contractual services. With the released resources and existing fiscal surplus, the national government can compensate for the reduced drawdown from the CTF and keep government "open" at the state level.
- GDP is projected to grow by 1.1 percent during the remaining five years of the amended Compact. In the Trust Fund era, the FSM economy is projected to contract by 0.8 percent in FY2024 and thereafter to stagnate through FY2030.
- Employment is projected to grow during the remainder of the amended Compact by 1.4 percent per annum, reflecting greater capacity utilization of the infrastructure funds. While there is a loss of jobs in FY2024 with the redirection of national funds to assist the states, employment remains largely stagnant through FY2030.
- With the largely benign changes in employment, migration is not projected to accelerate during the Trust Fund era. Rather, the constant annual rate of migration that is part of the basic structure of the FSM economy is projected to continue at close to the historical rate of 1.6 percent of the population.
- The projections made suggest that performance, while an improvement on the first 15 years of the amended Compact, is weak, so there is considerable room for improvement. The current status of the negotiations between the FSM and US are uncertain, but once the outcome becomes clear the FSM might wish to reconsider adopting a reform program with donor support.

9. The Long-Term Economic Outlook

A. Background

The modeling framework: The long-term economic projections through FY2030 are based on the FSM's long-term economic and fiscal framework (LTEFF). The modeling structure incorporates the economic flows and interrelationships of the economy for the four states and five governments in the FSM. Starting from production and supply, the model simulates the generation of factor incomes, the institutional sectors (households and government) and derivation of demand. Demand is in turn allowed to flow back into supply. The LTEFF provides projections through the end of the amended Compact and beyond to FY2030 in order to capture the post-amended-Compact adjustments that may be required to maintain financial stability.

A financial-programming approach: The LTEFF comes under the class of models known as financial programming developed by the IMF. A write-up of the LTEFF is provided in appendix 1. A set of projection tables and the spreadsheet model can be downloaded from http://www.econmap.org.

Baseline scenario based on current policy but with adjustment to reduced transfers after FY2023: The first objective of the LTEFF is to enable the creation of a set of realistic and plausible projections of the FSM economy over the remainder of the amended Compact, based on the current policy environment and experience during the initial period, FY2004–FY2018. The discussion in this chapter focuses on the likely path of growth the economy will take and the emerging fiscal outturn at the national and state levels. This is the base scenario. A second objective, given the potential shortfall of resources from the CTF, is to closely define the level of fiscal resources and the size of the adjustment that may be required in the CTF era. It is assumed that after FY2023 the FSM must adjust to a reduced drawdown from the CTF to replace the annual sector grants and to adjust to the programmed loss of the SEG. The results of the CTF simulations referred to in chapter 7 and explained in a recent paper[1] are drawn on to define a sustainable distribution policy without subjecting the FSM to the potential erratic implications of the existing CTF Agreement.

Alternative scenarios: In previous reviews, alternative scenarios have been analyzed. In the FY2017 review, a worst-case scenario was explored to indicate the impact of a loss of federal programs and services as the nation enters the post-amended-Compact period. However, while the impact of such a case would be severe, the current indications of intent by the US to reopen negotiations for a third phase of the Compact make this scenario extremely unlikely, and it is not taken up in this review. More probable would be simulation of a third phase, but possible terms and conditions are not known with any clarity at this time. Earlier reviews have also examined a reform scenario, but until the terms of a third phase are clear the nation is unlikely to consider this scenario. The simulations presented in this chapter are thus limited to the impact of the baseline and necessary adjustments in FY2024 should there be no additional financial resources.

B. Economic Prospects

ASSUMPTIONS

The major factors affecting the baseline projection of economic activity relate to the fisheries sector, infrastructure investment, and the provision of public sector services and are discussed below. Other model assumptions are outlined in appendix 1.

1 The FSM, RMI and Palau Compact Trust Funds are described in substantial detail in a separate GSUSA report, Compact Trust Funds in the Three Freely As sociated States: Mechanics and Stochastic Projections, 2018, http://www.econmap.org.

Fisheries production: While the size of the FSM exclusive economic zone would suggest fisheries could play a major driving force in the economy, the domestic industry is limited to 2 purse-seine companies: Yap State Diving Seagull (YSDS), which operates 2 boats, and CFC, which operates 5. From FY2016 through FY2018, fishing output was depressed at YSDS. With increased fishing fees payable, the company has been experiencing significant financial difficulties and the projections have assumed the fish-catch levels experienced in the last three years will prevail. For CFC, production levels have improved as the company has increased its fleet; with 1 extra boat operating in FY2019, the fish catch has been rated up accordingly. There has also been significant growth in offshore but domestically registered fishing companies to take advantage of the lower fishing royalties paid by the "domestic fleet" under the FSM Arrangement. The number of boats that are nonresident but domestically flagged and operating under the FSM Arrangement is now 15, but they are not considered part of GDP.

Fishing royalties: The receipt of fishing royalties has grown dramatically over the last few years but is projected to remain constant in nominal terms. The evidence on hand suggests that the PNA has been successful in conserving the skipjack stock and that risk of depletion of fishing stocks is low. However, the recent trends to increase the domestic fleet through local incorporation of foreign vessels under flags of convenience may well pose a serious threat to sustaining the current levels of fees. The lack of indexation of fishing fees to inflation is thus a cautionary projection reflecting a sustainable fishery but potential erosion of fees through further domestic licensing. The projection of fishing-fee royalties with an assumption of indexation is a key variable for the model and fiscal outcome.

Infrastructure: As discussed in earlier parts of this review, utilization of the infrastructure grant has fallen to very low levels in recent years, reflecting issues with fulfilling the terms of the grants and management problems. In FY2018, out of a total available $24 million, only $2.4 million was drawn on. Of the $330 million available for use during the amended Compact through FY2019, only $130 million has been used, leaving $200 million available. In the LTEFF projections, given the resolution to the moratorium on the use of funds between the US and the FSM, it is assumed that use of the grant rises to 25 percent of the allocation in FY2018 and by an additional 20 percent each year until an absorptive limit of 150 percent is reached in FY2026. Under these assumptions, the backlog of funds is projected to be exhausted in FY2031. Use of backlog funds is thus spread evenly to avoid front loading and periods of boom and bust. The eventual exhaustion of the backlog will likely result in a modest negative shock to the economy after FY2031.

Implementation of the decrement management plan: Implementation of the second adjustment of the decrement management plans (DMP) adopted at the FSM-states level was averted in FY2017 through the reallocation of the national government's share of Compact resources. While the third phase of the DMP planned for FY2020 is no longer required by JEMCO, the states still need to face the annual real reduction in Compact flows through FY2023 and adjust accordingly. The LTEFF thus assumes that a real fiscal adjustment and reduction in the use of goods and services in Chuuk, Kosrae and Yap is required annually through FY2023 of 2, 3 and 5 percent, respectively, to maintain fiscal balance.

National government maintains contributions to the FSMTF: The national government's structural fiscal surplus has been allocated between three major categories: contributions to the CTF, legislative projects, and increases in use of goods and services. In the first category and under PL18-107, the national government allocates 20 percent of its share of domestic taxes in favor of the states (approximately $6 million). Under PL20-134 it allocates 50 percent of the earnings of corporate taxes from the captive-insurance and large-corporation sector to the FSMTF (approximately $4 million in normal years). It further allocates 20 percent of fishing-fee revenue to the fund (approximately $12 million). In total the national government has currently legislated to contribute about $22 million annually out of its fiscal surplus to the FSMTF.

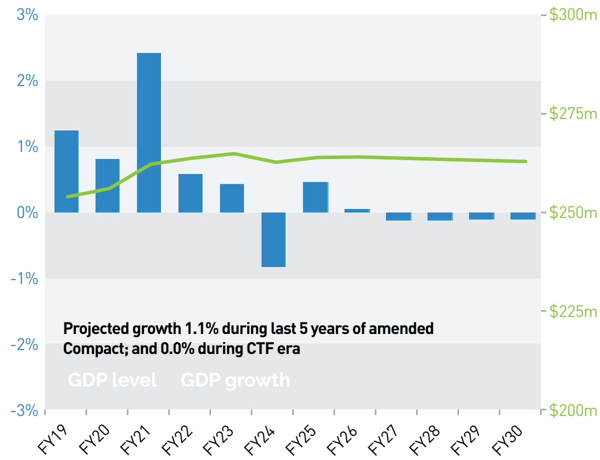
National government reduces congressional-district projects and recent rapid expansion in use of goods and services: National-government legislative projects have grown rapidly from \$3.5 million in FY2012 to \$23 million in FY2018, an election year. Further, expenditures on professional and contractual services have ballooned from \$4.4 million in FY2014 to \$21.5 million in FY2018. However, our projections indicate that after allocation of its legislated commitments to the FSMTF, it will not be able to continue to spend at the FY2018 level without deficit financing. In FY2019 the continued high level of exceptional gains in revenues from the FSM domicile suggests no adjustment was necessary. At the end of FY2018 there existed a large volume of “committed” but unspent expenditures (about \$60 million). It has been assumed that about half of these funds will provide a source of revenues for reprogramming that can support the level of legislative projects and use of goods and services. We have assumed that to maintain the balanced-budget constraint, Congress reduces expenditures on projects to \$15.8 million in FY2020. Further we have assumed there is a downward adjustment equivalent to 25 percent of the real increase in professional services between FY2014 and FY2018. Based on these assumptions, the national government will continue to run a fiscal surplus through FY2023, but after fulfillment of FSMTF commitments there will be a run-down of financial assets of approximately \$10 million per annum through reprogramming of prior committed unspent funds.

Current fiscal stance assumed to remain unaltered: The modeling framework assumes current policies in other elements of public expenditures follow historical patterns at both the state and national levels. Civil-service positions remain constant, but historical rates of wage increase are maintained. Use of goods and services is maintained in real terms with the exception of the national government discussed above.

ECONOMIC ACTIVITY

Economic growth expected to improve in FY2019: The projected growth path of the FSM economy is indicated in figure 74. After a year of weak performance in FY2018, the economy is expected to improve in FY2019. Fisheries output is projected to grow as CFC returns to normal catch levels and adds an additional seiner. Diving Seagull is projected to operate at the margin given

Figure 74
FSM economic prospects, FY2018–FY2030



its weak financial position; no change in catch is projected. Construction activity begins to benefit from enhanced capacity utilization after the resolution of the moratorium placed on use of the infrastructure grant. Government payroll data for FY2019 were available at the time of the update of LTEFF and have been incorporated into the projections; during the year, public administration continued to expand. Lastly, receipts from the FSM domicile remained strong in FY2019, enabling continued high rates of expenditures at the national-government level, but a reduction in public projects has been projected in a post-election year. Overall GDP is expected to grow by a modest 1.2 percent in FY2019.

Growth weakens in FY2020 as states and national government required to adjust to reduced levels of resource flows: In FY2020 several opposing forces exert themselves. While implementation of the decrement management plan is no longer required, the state governments still need to maintain fiscal balance, and the downward drag of declining real grants requires offsetting adjustments; this has been assumed to require a reduction in the use of goods and services. At the national-government level, the commitment to transfer approximately \$22 million, or 5 percent of GDP, to the FSMTF is not possible without fiscal adjustment. The large pool of unused legislative-project committed funds (“carry over”) is assumed to provide a means to maintain former expenditure levels. About half of the needed adjustment is programmed to be funded from this source and the remainder through offsets in use of goods and services and legislative projects (a total reduction in expenditures from the two sources of $5.6 million, or 1.3 percent of GDP). Lastly, fisheries output increases as the catch returns to normal. Overall GDP is projected to grow by 0.8 percent in FY2020.

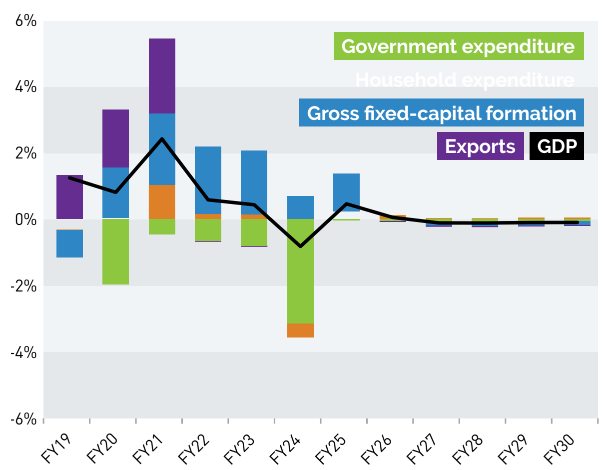
FY2021 is projected as a good year for the economy, but growth slows in the run-up to post-amended-Compact period: In FY2021 the contractionary forces of fiscal adjustment at the national and state levels are projected to be less severe and are counterbalanced by improved capacity to implement the infrastructure grant. It is also anticipated the FSM is beginning to increase its utilization of the large pool of resources of donor funding available from the ADB and World Bank. Lastly, FY2021 is the last year of projected catch-up in fisheries, and overall the economy is projected to grow by 2.4 percent. In the following two years, the economy continues to expand, albeit at a more modest rate as construction demand becomes the remaining driver of growth. In FY2022 and FY2023 economic growth is projected to be 0.6 and 0.4 percent, respectively.

FSM economy contracts in FY2024 with shift to reliance on Trust Fund distributions: At the start of the CTF era, the economy will contract by 0.8 percent, reflecting the need for adjustment. It is assumed that government operations in the states will be supported through transfers from the national government. At the state level, the size of the fiscal transfer is sufficient to avoid adjustment. However, at the national-government level, there is a need for offsetting reductions in expenditures. While the level of Compact infrastructure spending is assumed to continue because of the backlog of unused funds, construction activity falls because of the need to cut back public legislative discretionary expenditures to their FY2012 level of $3.5 million (a drop of $12.3 million from the projected FY2023 level). It is also assumed that expenditures on contractual and professional services return to the preboom levels of FY2014, a further cut in expenditures of $19 million. Given the magnitude of the adjustment, it may be surprising that only a 0.8 percent contraction in GDP is required. However, the projections assume no reduction in direct public sector payroll. Rather the adjustment is felt indirectly through a reduction in demand for services provided by the private sector.

Backlog of construction projects sustains the economy through remainder of projection period: As indicated earlier, the backlog of unspent infrastructure funds is programmed to sustain economic activity from FY2024 through FY2026, when capacity utilization peaks at 150 percent. The remaining backlog of funds is sufficient to maintain construction output through FY2031, and the negative impact of the eventual decline is pushed out beyond our projection period. In a sense, fiscal adjustment to the Trust Fund era is not fully felt or implemented until well after the close of the amended Compact, although the precise timing of the reductions cannot be known with precision. The economy is projected to grow in FY2025 by 0.5 percent, but it is projected to flatline from then through FY2030. Our projections indicate that once the backlog of infrastructure funds is finally exhausted, the economy will contract modestly.

Economic performance dominated by changes in infrastructure and contractions in public administration and, in the near term, fish exports: Figure 75 indicates the sources of growth through the projection period. Clearly, gross fixed-capital formation is a dominant factor, boosting growth through FY2023 as additional funds become available. In

Figure 75
Sources of growth through FY19-FY30

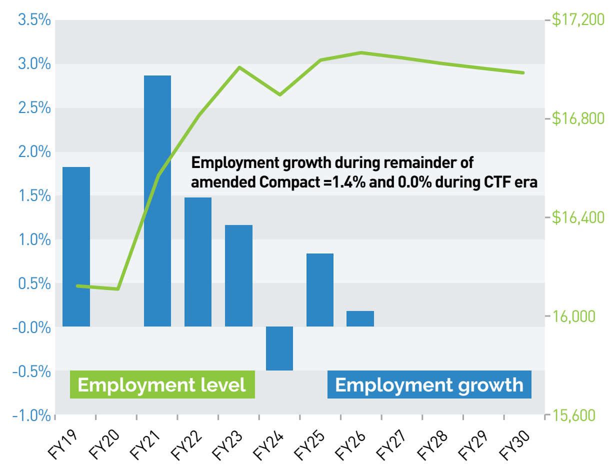


FY2024 use of the infrastructure grant continues to expand as the backlog of funds is tapped, but reductions in legislative projects reduce investment demand. By FY2026 infrastructure demand has peaked and is no longer a driver of economic growth. Government expenditures also play a significant role, with downward adjustment during the remainder of the amended Compact, reflecting the fiscal drag of the decrement, and contraction in FY2024 as the nation adjusts to reduced resource flows. In the CTF era, the impact of public expenditures is neutral, reflecting the constant level of real drawdowns embedded in the SAFER drawdown rule. Household expenditures mirror those in the economy, stimulating growth on the upswing and the reverse on the downswing. Exports, mostly fish, are projected to provide a positive force for growth in the initial period as the industry reverts to normal catch levels and as an additional seiner enters operation at CFC. After FY2021 exports play a neutral role in terms of demand, but they might well play a more positive force if there is expansion in fishing or the fish-processing industry. Other exports including tourism have been assumed to remain largely unchanged, echoing the weak policy environment for private sector development, and play little role in improving economic performance.

Employment grows modestly through FY2030 with a small loss of jobs in FY2024 as the FSM enters the Trust Fund era: Reflecting the assumptions of the LTEFF, employment mirrors the changes in GDP and shows favorable growth through the end of the amended Compact of an average 1.4 percent per annum (see figure 76). In FY2024 employment drops by 0.7 percent, reflecting the redirection of funds at the national-government level as demand for private sector services is cut to finance transfers to the states. In FY2025 there is a short period of growth in employment reflecting the increase in infrastructure funding, but thereafter through the end of our projection period employment remains unchanged.

Impact of switch to Trust Fund era on migration is small, but large impact in FY2028 as backlog of infrastructure funds exhausted: The LTEFF incorporates a migration function, which assumes (i) a constant level of migration regardless of economic activity and (ii) an element that is sensitive to changes in employment. The function assumes that there is no change in migration if employment change is within given bands of 1 percent change from year to year. The function is also asymmetric on the upside and downside. Losses of jobs are assumed to be accompanied by out-migration of the principal employee plus his or her relatives based on the observed dependency ratio. An improvement in employment potential is assumed to be less elastic in limiting out-migration. Figure 77 indicates both the annual change in migration stimulated by job gain or loss and the accumulated level of migration through the period. In most periods, employment growth is either positive or very close to zero. Given our assumptions about the shape of the migration function, change in employment generally stays within the 1 percent boundaries and no additional out-migration is stimulated. However, in certain periods of employment growth such as in FY2021, there is a reduction in out-migration. Over the projection period through FY2030, migration is dominated by the insensitive constant part of the migration function and little variation is induced through changes in the domestic economy.[2]

Figure 76
Projected employment level and growth



2 The migration function is based on an assumed relationship that has not been empirically estimated but is intended to reflect observed trends and provide an indication of the possible impact of shocks embedded in the Compact relationship.

Figure 77
Projected migration and impact of reduced employmment opportunties

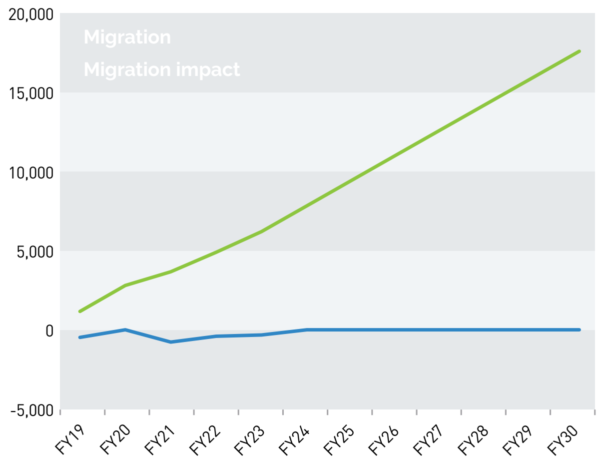
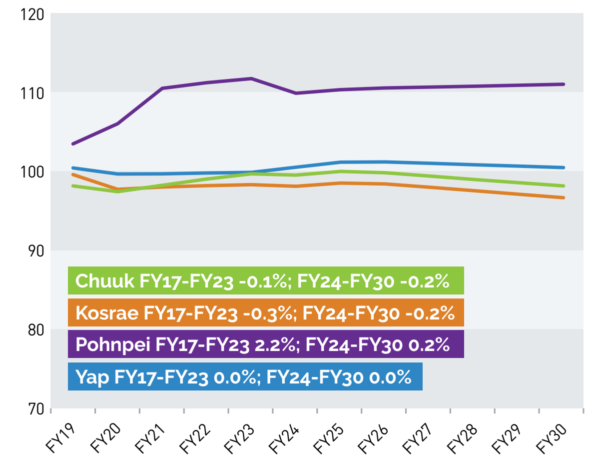


Figure 78
Economic prospects at the state level, FY2018–FY2030



Pohnpei State performs well through the remaining amended Compact but then contracts at the start of the Trust Fund era: Figure 78 indicates economic prospects at the state level. Pohnpei State grows at a satisfactory level—by 2.2 percent during the remainder of the amended Compact, reflecting improved catch and expansion in the fishing fleet with greater use of the Compact infrastructure grant. In FY2020 the forward momentum in the economy from fisheries and infrastructure means there is sufficient fiscal space to avoid the decrement adjustment required in the other states, and the economy continues to grow through FY2023. In FY2024 the state economy declines by 1.7 percent—the largest of all states—reflecting the reallocation and adjustment of national-government expenditures in Pohnpei State. From this point forward the state grows modestly by an average annual rate of 0.2 percent through FY2030.

Performance in the state economies of Chuuk, Kosrae and Yap is similar, and all three economies stagnate through FY2030: The drivers of economic growth in Chuuk, Kosrae and Yap are broadly similar. In the near term, all three states are required to adjust to the impact of the decrement to maintain fiscal balance, and the economies of all three decline in FY2020. Thereafter there is some improvement as the increasing level of infrastructure-grant usage outweighs the fiscal drag of the decrement. In FY2024 with the transition to the Trust Fund era, there is little impact on the state economies. The national government makes up the shortfall in Compact funds, with the impact of the national-government adjustments being largely confined to Pohnpei State. Thereafter all three states maintain level economic activity through FY2030 with minimal change in GDP levels. Chuuk, Kosrae and Yap grow by −0.2, −0.3 and 0.0 percent per annum, respectively, between FY2018 and FY2030, which, while disappointing, is more favorable than the growth experienced during the first 15 years of the amended Compact, which averaged −1.0 percent.

FISCAL PROJECTIONS

CTF distributions: The projections assume that after FY2023, as the nation enters the Trust Fund era, the FSM moves to adopt a rule like the SAFER rule outlined in chapter 7. This implies an annual drawdown of approximately $31 million, a massive drop from the projected target distribution to replace the sector grants of $82 million. A further $9 million is also required to replace the SEG. Maximum allocation of distributions under the existing CTF Agreement would prove highly disruptive, with wild oscillations reflecting the underfunding of the CTF and market vagaries. While a distribution policy has not yet been determined, it is assumed the CTF Committee would adopt a rule similar to SAFER, which would preserve a stable but sustainable drawdown, albeit at considerably lower levels than the existing annual grants.

FSMTF distributions: Given the need to support the four state-government operational needs in FY2024, it is assumed that all future national-government contributions to the FSMTF will terminate. Further it is assumed that the FSMTF will be used as a source of funds for distribution to augment the CTF shortfalls, and it is projected to yield approximately $14 million in FY2024 under the SAFER rule. The distinction between national and state accounts in the FSMTF is ignored for distributional purposes—or, perhaps more accurately, it is assumed the national government would forgo its dominant share in the FSMTF to enable allocations to meet state needs.

National government provides additional revenues to the states to bridge the fiscal gap: Our projections indicate that provided the national government cuts back on discretionary spending, it could provide an additional inflation-adjusted $35 million in FY2024 thereafter to the states to bridge the fiscal gap. This would entail a reduction in legislative projects and professional and contractual services to the levels prevailing in FY2014 before the boom in sovereign rents of $3.5 million and $4.4 million, respectively.

With the transition to the Trust Fund era, fiscal balance is maintained at the state level: The results of these adjustments and the transition to the new Trust Fund era for the state governments are revealed in figure 79. During the remainder of the amended Compact, revenues grow modestly in nominal terms by an annual average of 0.4 percent. This reflects the static nature of grant levels and the lack of buoyancy in the existing tax system. On the expense side, civil-service staffing levels are projected to remain constant, although historical patterns of wage drift are projected to continue on trend. As indicated earlier, while decrement management is no longer required by JEMCO, there remains a need for adjustment to bring expenditures in line with the fiscal envelope. We have assumed a downward adjustment in the use of goods and services to ensure the state governments maintain fiscal balance through FY2023. Expenditures are projected to grow by 0.2 percent in the final years of the amended Compact with the state governments achieving a small surplus in FY2023. In the Trust Fund era, Compact revenues are largely replaced by domestic revenues and transfers from the national government, which are all assumed to be fully indexed to inflation. Revenues and expenditures at the state level grow by 2.5 and 2.2 percent, respectively, and the fiscal balance remains positive.

Fiscal balance at the national-government level deteriorates, but adjustments in FY2024 enable the state governments to remain open: The results for the national government are revealed in figure 80. In FY2019 the national government records a continuing large surplus

Figure 79
State-government revenues and expenditures, FY18–FY30

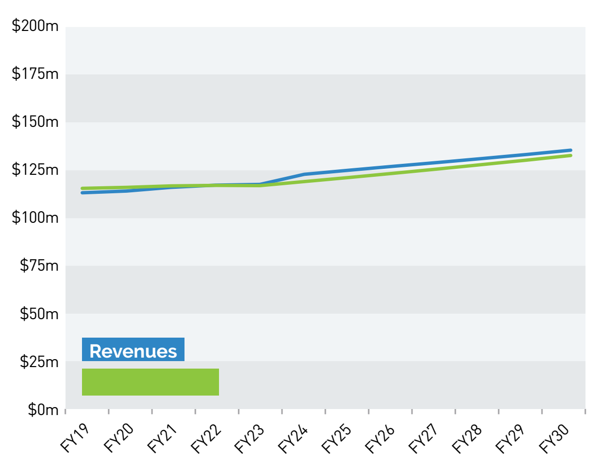
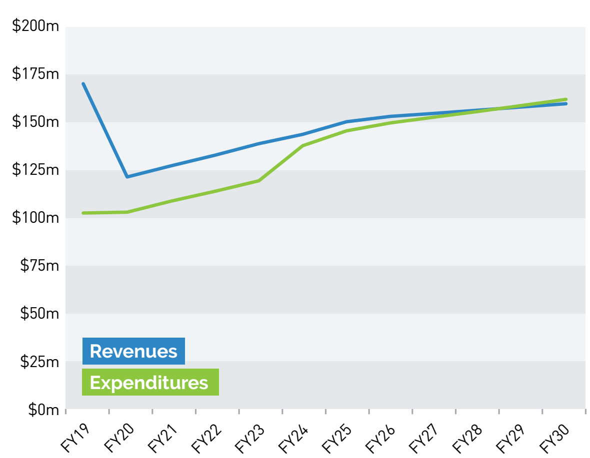


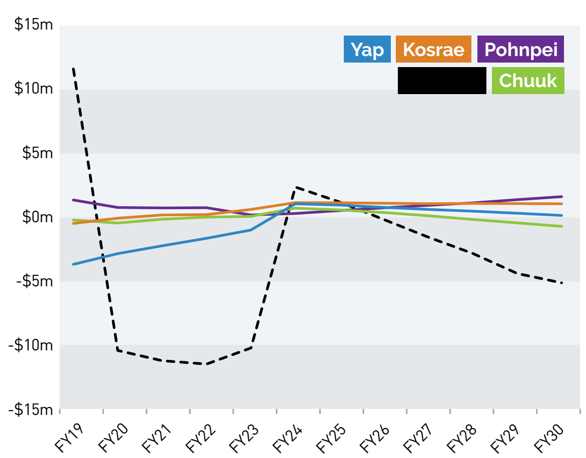
Figure 80
National-government revenues and expenditures, FY18–FY30



reflecting the large and unusual receipt of $62 million from the domicile for Japanese companies. During the remaining amended-Compact years, the national government is projected to run a surplus, rising from $17 million in FY2020 to $20 million by FY2023. However, the true size of the structural surplus includes expenditures on discretionary national legislative projects and the recent blowout in contractual services. It is out of these funds coupled with former contributions to the FSMTF that the national government is able to support a $35 million transfer to the state governments for operations after FY2023. Figure 80 indicates that after FY2023, the national-government surplus continues to deteriorate and turns negative in FY2028.

State governments attain fiscal stability, but at the national-government level further adjustment may be required: Figure 81 indicates the change in level of net financial assets (NFA) in each government in the FSM. NFA measures the fiscal balance after deduction of debt repayment and after contributions to the FSMTF in the case of the national government. NFA is the residual on the fiscal account after all financial commitments have been made; it measures the change in cash reserves. For the state governments, the figure indicates a largely constant outturn close to balance in each year. This is by design and reveals the implementation of fiscal policy: that adjustments are made to

Figure 81
National and state governments net financial assets, FY18–FY30



ensure financial stability. In the case of the national government, the outturn is different. In the FY2020–FY2023 period, the national government draws down its reserves to fund continuing expenditures on legislative projects and use of goods and services of approximately $10 million in each year. In FY2024 the national government transfers its structural surplus to keep operations at the state level open and adjusts its fiscal policy to limit further erosion in NFA. However, over time the projections indicate that there is an emerging funding shortfall and that further adjustments by either the national government or state governments may be required.

C. Policy Implications

Projections based on assumptions subject to risk: The projections indicate that the FSM economy can be expected to grow through the end of the amended Compact by an average rate of 1.1 percent. In the post-amended-Compact period, the economy after adjustment in FY2024 is projected to remain largely stagnant as Compact funds are replaced by trust fund drawdowns. Based on the revenue projections in the LTEFF, the FSM should be able to maintain fiscal stability without the need for outside assistance. However, the revenue projections assume that fishing-fee receipts remain stable in nominal terms, as do captive-insurance tax collections, and market returns on investments perform at historical rates. Any one of these assumptions is subject to varying degrees of risk. While the PNA appears on solid ground, the enlargement of the domestic fleet under the FSM Arrangement or with fragmentation of the PNA could erode fees. The new Japanese requirements for a significant domestic presence of Japanese firms operating in the captive-insurance market could undermine the viability of the industry. Market returns may perform poorly, reducing yields from the trust funds. All these factors indicate that FSM economic and financial stability is fragile.

Results highly sensitive to fishing-fee stability: The sensitivity of the assumptions in this review indicates the large range of possible outcomes. Should fishing-fee receipts rise in line with inflation, a likely outcome if skipjack-tuna stocks are in decline in other parts of the world, a totally different set of results would arise. By FY2024 an additional $11 million would become available to the national government if fishing-fee income rose with inflation, and by FY2030 the figure would be $24 million. While these figures arise simply by compounding the rate of inflation, they indicate the possible large range of adjustment needed at the outset of the Trust Fund era.

While reconsideration of the revenue-sharing agreement may be desirable on equity grounds, the fiscal implications will be large: At the onset of the original Compact, agreement was reached between the four states to share revenues based on one-third to be allocated by state and the remainder to be distributed by population. It has been assumed this agreement would continue to be the modus operandi going forward into the Trust Fund era. However, the rate of migration in Chuuk and especially Kosrae has been larger than Pohnpei and Yap and any re-estimation of the formula would likely result in changes disadvantageous to the two states. Sensitivity analysis indicates that the degree and severity of fiscal adjustment at the state level are highly sensitive to the distribution formula. While there may be a strong basis on equity grounds for reconsideration of the revenue-sharing agreement, there would be significant fiscal implications.

Once the conditions of any Compact extension with the US become clear, there will be need to reconsider the reform agenda: The projections outlined in this review indicate that while an improved performance may ensue in the remainder of the amended-Compact period, the economy is likely to stagnate in the Trust Fund era. In this chapter, we have also not considered any policy or reform scenario that might result in an improved outcome. Clearly, the uncertainty over the likely outcome of the coming negotiations with the US make this difficult. Consideration of reform has largely gone on the back burner during the amended Compact with focus directed to adjustment to the amended Compact and decrement management. However, there is no doubt the FSM could do better, and once the outlook becomes clearer the nation might well be advised to look once again at reform possibilities. With the multilateral donors paying closer attention to Micronesia, there is considerable scope for support to implement reform and enhance performance.

Appendix 1

The Policy Scorecard

Table 13 provides a selected summary of various components of the FSM's policy and institutional structure that have been part of the reform agenda and have been discussed in this review. A brief summary is included in the table, with a color-coded indication of the success of the reforms.

FISCAL POLICY

Fiscal balance: At the start of the amended Compact, the FSM was faced with the issue of restructuring departmental expenditures to meet the new structure. After a period of adjustment and execution of RIFs in Chuuk and Kosrae, something close to fiscal balance has been achieved in all states since FY2007, although balance is finely tuned (scored green).

Table 13 Summary of FSM policy reforms

	Achievements	Score
Fiscal policy		
Fiscal balance	Strong performance at national-government level; fragile balance at state level	
Long-term fiscal adjustment	"Initial adjustment to amended Compact achieved in Chuuk and Kosrae; long-term fiscal frameworks prepared in all states but now inactive"	
Public sector payroll	Size of public service reduced through amended Compact; wages grew at start but held in check since FY2010; recent growth at national-government level	-
Tax reform	No progress after many years of active consideration; tax-reform laws repealed by FSM Congress	
External debt	Sound external debt position	
Social Security	Reforms enacted with improved sustainability	
Macroeconomic monitoring	Full set of statistics available for economic performance assessment; issues with data sharing need resolution	
Public financial management		
Financial accountability	Audits currently "unqualified"	
Public Expenditure & Financial Accountability (PEFA)	Internal assessment completed late 2016 and road map outlined; plan rolled out to the states	
Strategic Development Plan	Completed at outset of amended Compact; monitoring and implementation under-resourced; draft 2023 Action Plan prepared but no longer active	
Medium-term budget framework	Not currently adopted in the FSM	
Performance management	Weak and no monitoring of outputs or outcomes	
Information systems	Captures accounting information; weak tool for management; under replacement with World Bank support	+
State-owned enterprises		
Subsidies	Low: 0.5 percent of GDP	
Divestment	Fisheries corporations either defunct or under private management/ownership	
Full cost recovery	Utilties operate on cash flow basis without setting aside funds for depreciation	
SOE policy	No FSM or state-level SOE policy framework: World Bank ICT reforms weakly implemented, issues with PetroCorp investment strategy	
Regulatory environment		
FDI	Reforms in late 1990s followed by reversals; legislation proposed at national level - not acted on	
Land reform	Some progress, but considerably more required	
Doing Business Survey	World Bank survey places FSM 160th out of 190	

Long-term fiscal adjustment: Long-term fiscal management has entailed both the initial and painful downsizing in Chuuk and Kosrae and the need for decrement management. Each state prepared an LTFF to enable an efficient adjustment to the annual decrements in real Compact funding levels. During the FY2017 budget process, the national-government share was allocated to the states to assist in decrement planning, but in the JEMCO meetings since FY2018 the issue has no longer been active (scored yellow).

Public sector payroll has fallen, given the need to reduce expenditures outside the sector-grant areas. However, wages rose in the early part of the amended Compact, reflecting the restructuring, annual wage drift and payment of COLAs. Since FY2010 public sector wage costs have largely been held in check with modest annual increases, although a recent increase in most governments with the exception of Chuuk is a concern (scored green minus).

Tax reform: In the early 2000s, an ambitious tax-reform program was proposed and adopted by the FSM, requiring action and coordination at both national and state levels. After many years of activity, two states—Pohnpei and Yap—dropped out of the program and the FSM Congress repealed the tax-reform legislation enacted earlier. There has been some renewed interest in Pohnpei State, which would move the process forward if the state enacted the reform legislation, but interest seems to have waned. Much time and effort from advocates and donors have not borne fruit in an area of reform that the FSM direly needs (scored red).

External debt: The FSM has adopted a favorable external-debt strategy, reflected in a low debt-to-GDP ratio. The debt poses no significant risk (coded green).

The Social Security system has undergone reform to meet the deteriorating unfunded liability of the mid-2000s. With adjustments to tax rates, thresholds and retirement provisions, the fund is now moving toward sustainability (scored yellow).

Macroeconomic monitoring: At the start of the amended Compact, the FSM had a limited set of basic macroeconomic statistics available on which to assess economic performance. Since that time, with US technical assistance, the FSM has had a full set of the major economic statistics and data: GDP, employment, wage data, CPI, banking statistics, BoP, international investment position, external debt, and government fiscal statistics. Local capacity is improving, and capacity building is supported by international donors. However, FSM Finance ceased sharing key industry tax data in 2017 with the NSO, resulting in a lack of compilation of GDP-by-industry statistics for the last three years. Plans to replace the old system were proposed, but they have not been implemented (downgraded to yellow).

PUBLIC FINANCIAL MANAGEMENT

Financial accountability: In the area of financial accountability and control, all audits are no longer qualified and the national and state finance offices are generally adequately staffed (code yellow).

PEFA: The FSM initiated a program to adopt the World Bank and IMF standard—PEFA—as a means of improving PFM. After an external assessment was made at the national-government level in FY2011, little further progress was achieved until late 2016, when a further assessment was undertaken, and a PEFA Road Map has been prepared. Plans with EU support have been made to replicate PEFA at the state level (coded yellow).

Strategic Development Plan: At the onset of the amended Compact, the FSM prepared a Strategic Development Plan, required to inform budget planning and implementation. The Strategic Development Plan was a quantitative document and provided a series of matrices with output- and results-orientated indicators. While it has been over 15 years since publication, the majority of the material remains relevant (coded yellow).

Medium-term budget framework: The FSM has not adopted the standard approach: the medium-term framework for budget management. A medium-term fiscal framework for defining the fiscal envelope has not been adopted, and although performance budgets (the expenditure framework) have been prepared, they are not monitored or audited. As a result, there is no effective performance management. Both the medium-term fiscal framework and performance-management items are coded red.

Financial-management information systems have provided adequate accounting and audit data, but they have not provided a basis for measuring output delivery, fiscal statistics or budgeting. The software company responsible for the system no longer provides support, and with World Bank grant funding the systems are currently in the process of replacement (coded yellow +).

STATE-OWNED ENTERPRISES

Subsidies: The level of SOE subsidy in the FSM is less than 1 percent of GDP, and the nation has avoided the financial pitfall experienced in many countries (coded green).

Divestment: The SOE sector has undergone consolidation with liquidation of the large fisheries investments or their transfer to private ownership or management. However, other public entities would benefit from transformation to more efficient and effective management (scored yellow).

Full cost recovery: The utility services are run as state monopolies at less-than-full cost recovery. Performance has been weak, with frequent power outages, because of lack of maintenance and underpricing. Chuuk State is the one exception, with a now-reformed management after receiving ADB support (scored yellow).

SOE policy: An ADB TA was executed in the early 2000s in an attempt to rationalize and transform the sector, although no sector-wide SOE policy framework was proposed (scored yellow).

PRIVATE SECTOR REGULATORY ENVIRONMENT

Foreign direct investment: An attempt to rationalize the regulatory environment for foreign investment was adopted in the early 2000s, demarking the division between the national and state levels. However, though laws were enacted and the regime put in place, Pohnpei opted to maintain a foreign-investment board, as did subsequently Yap State in response to large-scale investment interest in tourism. During the amended Compact, the FSM has failed to attract any significant foreign investment. FDI is scored red.

Land reform: As part of the ADB private sector development program, legislation for long-term leasing of land was prepared to encourage development and mortgage-secured commercial lending. Only one state enacted the legislation (scored yellow).

World Bank's Ease of Doing Business Survey: The World Bank's Ease of Doing Business Survey ranks the FSM 160th out of 190 countries, a poor performance, and the indicator is coded red.

CONCLUSION

Policy environment needs much work: Overall, the policy, regulatory and institutional environment needs much work if the FSM is to be transformed into a growing economy as envisaged in the earlier Strategic Development Plan. Economic performance during the first 15 years of the amended Compact has been poor because of the limited extent to which the reform agenda has been implemented. Much attention during the initial years of the amended Compact was given to adjustment to the sector-grant approach, subsequently the decrement management issue, and more recently the moratorium placed on the use of the infrastructure grant, although the latter has now been lifted. For economic growth and development to accelerate, the reform agenda needs to pick up momentum and a change in attitude and commitment is needed.

Appendix 2

Projection Methodology of the Long-Term Economic and Fiscal Framework

This appendix provides a description of the projection methodology of the LTEFF to enhance understanding of the results. The LTEFF comes under the class of models developed by the IMF known as financial programs. The model is based on the four macroeconomic accounts of a nation: the national accounts, statement of government operations, BoP, and monetary survey. Each of the four accounts is related to the others and relies on simple projection techniques that can be modeled in spreadsheets. Each of the accounts is modeled for each of the FSM states, with the exceptions of the BoP and the monetary survey, which are only projected at the FSM level. While this is appropriate for the BoP, projection of the monetary system by state has been limited to the information available. With the recent availability of state-level monetary information, future versions of the LTEFF could make use of the new data source, but this has yet to be adopted. This appendix provides a description of each of the major components of the LTEFF framework. While it would be possible to specify the model algebraically, the approach adopted is to describe the major elements of the system and refer the reader to the spreadsheet model, which contains notes and can be downloaded from http://ww.econmap.org. The following four main methods of forecasting have been deployed:

- Trend, either linear, exponential or growth factor
- Constant or moving average
- Exogenous, based on policy variables or known factors, such as project implementation and investment intentions
- Endogenous, or linked to other economic variables in the system

PRODUCTION AND GDP

Production and GDP have, for the most part, been projected in constant prices, with the current-price series estimated through application of appropriate price indices. The economy can be divided functionally into sets of industries that behave in a similar manner. The methodology for projecting the majority of GDP is covered below, but for parts not covered the spreadsheet model contains further details.

i. **Production for home consumption**: Subsistence, or household nonmarketed, production, including ownership of dwellings, is related to the level of population, which has been declining in recent years. Household production (agriculture and fishing) for the market (mixed income) is also projected on the basis of population change.

ii. **Nontraded production for the home market**: Much of private sector production is driven by the level of aggregate demand and has no capacity limitations. This category includes commercial agriculture, manufacturing, wholesaling and retailing, general transport, financial intermediation, commercial real estate, business services and other private services.

iii. **Tourism**: Tourism is projected on trend, although this has been negative in many states during the amended Compact.

iv. **Construction**: Current-price forecasts are made for Compact infrastructure, FAA projects, and national legislative projects. The Compact sector grants are allocated to the states according to the FSM internal distribution formula. FAA projects are determined in discussion with the FSM Department of Transport, Communications and Industry. Congressional projects are allocated to the states by senatorial representation in Congress. Residual private sector construction is estimated through a three-year lagged-accelerator principle. The constant-price series is derived through deflation of an index of construction costs.

v. **Government services**: Government nonmarketed production is considered a policy variable and projected exogenously. In the base scenario, national- and state-government employment are projected to remain constant. Current-price projections for government services utilize the wage projections in the LTEFF (see below).

vi. **NPISH**: Both nonprofit institutions serving households and various other minor activities have been projected as moving averages.

vii. **Taxes (less subsidies) on imports and products**: Taxes on products have been projected in relation to the tax base: import taxes are estimated in relation to aggregate demand, GRTs in relation to private sector GDP value-added projections, and other taxes on products in relation to the constant-price value of the "cash" components of the economy (i.e., excluding items produced for home consumption). State-owned enterprises have received only minor subsidies in the FSM and have been projected in relation to the growth in the utilities sector.

EMPLOYMENT AND MIGRATION

The LTEFF provides simple estimates of employment based on the change in industry value added. In essence a fixed labor–output ratio is assumed, which does not permit factor substitution. Further, the model has not made allowance for productivity change, reflecting the weak performance and lack of change in economic structure.

The model incorporates a simple migration function based on a constant annual rate of out-migration reflecting long-run trends, plus an element sensitive to employment change. The variable component incorporates two boundaries, upper and lower, inside which change in employment has no impact on migration. A 1 percent boundary has been adopted. For change outside this range, an asymmetric function has been followed. On the downside, loss in jobs results in out-migration of the principal employee plus relatives based on the dependency ratio—the size of the population divided by total employment. This is multiplied by an elasticity of migration with respect to employment change, assumed to be one on the downside. On the upside, a similar formulation is adopted; however, the elasticity of migration is assumed to be lower at 25 percent.

PRICE AND WAGE PROJECTIONS

Model prices are projected exogenously on the basis of the "small-country assumption." While this is a simplifying assumption, and nontraded-goods prices are domestically determined, it is not realistic to endogenize prices, given the very small size of the FSM. Consumer prices are derived as a composite index of prices (Congressional Budget Office [CBO] long-term forecasts of the US CPI), with food and fuel prices weighted by the FSM CPI weights. Projections of the US GDP deflator are also taken from the CBO. In the case of commodity prices, the World Bank provides a very handy set of projections for the major commodities affecting the FSM: food, fuel and coconut oil. Fish prices comprise long-line sashimi-grade fish and purse-seine skipjack prices. Projections are made based on long-term trends, which have been rising although highly volatile during the last 16 years for which we have data.

In the case of wages, the model assumes that past trends are likely to continue into the future. Wage rates are projected on trend by institutional sector. In a more comprehensive model, wage rates would reflect labor-market conditions, but in the simplified world of the LTEFF, wage rates are projected exogenously, with a policy adjustment for the public sector, if necessary, to indicate likely trends.

GDP AT CURRENT PRICES AND THE GENERATION-OF-INCOME ACCOUNT

The projection of GDP at current prices is a relatively straightforward affair, with the change in GDP at constant prices being indexed to the respective price or wage indicator. In general, the constant-price traded-goods industries of the economy are inflated by the appropriate world price. For private sector nontraded goods, the FSM CPI is used. In the case of general government, the constant-price series is multiplied by the projected wage-rate change. The sum of all industry current-price estimates provides the estimate of current GDP at basic prices. To this the value of taxes less subsidies on products must be added. These are projected in relation to the corresponding estimates in the fiscal account. The total of all industrial production and taxes less subsidies on imports and products provides the estimate of GDP at purchasers' values.

The generation-of-income account is the allocation of value added among compensation of employees, operating surplus, and taxes (less subsidies) on imports and products. An estimate of compensation of employees by industry is made through multiplying the prior-period compensation estimate by the increase in industry constant-price GDP and the respective wage index. The model thus implicitly assumes fixed factor proportions and allows for no factor substitution or productivity change. Estimates of operating surplus are derived residually through subtraction of compensation from value added. Other taxes and subsidies on production are minor, not known with any degree of accuracy, and may be ignored for practical modeling purposes.

THE HOUSEHOLD-SECTOR ACCOUNT

We are now in a position to bring together the various components of the household-sector account and move toward estimating household disposable income. Household income is generated from a series of value-added components: compensation of employees from domestic production, mixed income from production, and withdrawals from quasi-corporate income. Compensation of employees and mixed income from production are taken directly from the GDP estimates. Withdrawals from quasi-corporate enterprises are estimated from the operating surplus derived in the generation-of-income account.

Turning to primary incomes, households receive interest on savings and time deposits and make payments on loans. On the secondary distribution-of-income account, there are major receipts and payments to the Social Security Administration. Social Security payments are projected to grow in line with the growth in compensation of employees. Social Security benefits are based on the actuarial report provided to the Social Security Administration. Households pay wage taxes, fees and fines and receive certain social benefits from government. These are linked to the fiscal account. A significant element of grants is Pell grants, which are projected as a moving average. Households send and receive remittances to and from the rest of the world, which are derived from the BoP.

Adding up all the transactions enables an estimate of total household disposable income, which is either saved in fixed proportion to income (based on historical behavior) or consumed. From deflating nominal household disposable income by the CPI, an estimate of real disposable incomes is derived.

GROSS DOMESTIC EXPENDITURE AND DEMAND

The gross domestic expenditure (GDE) account is built from a mixture of current and constant prices and then either deflated or inflated to derive the corresponding series. Government final consumption expenditure is the sum of the national, state, agency and municipal governments. For the national and state governments, the current-price series is derived from the fiscal accounts and based on changes in compensation of employees and use of goods and services. Municipal governments' expenditures are assumed to remain constant in nominal terms, and agencies are related to the GDP current-price series. The constant-price series for the five governments is deflated by a composite of the index of wages and the CPI. Municipalities and agencies are deflated by the CPI.

Household final consumption expenditure is composed of three elements: household acquisitions or cash expenditures, ownership of dwellings, and production for own consumption (subsistence). Household acquisitions are indexed to the change in real household disposable income from the household account times an estimate of the marginal propensity to consume. Estimates for ownership of dwellings and other items produced for own consumption are indexed to population growth. The current-price series is derived through inflation by the respective elements of the CPI. The estimation of consumption of nonprofit institutions serving households (NPISH) is driven by the growth in the NPISH-sector GDP growth in current and constant prices.

Gross fixed-capital formation (GFCF) is broken down into construction and other (mainly equipment). The construction component is linked to the GDP current-price series, and constant prices are derived through deflation of a composite index of the World Bank's Manufacturing Unit Value Index and the US CPI. The current-price equipment series is also driven by the growth in construction activity, while the constant-price series is deflated by the construction-cost composite index. The assumed constant ratio between construction and equipment is clearly open to question, but in the absence of any better assumption it has been adopted. Changes in inventories are not projected.

Trade in goods and services is estimated from the sum of exports and imports. Exports comprise exports of goods (largely fish in Pohnpei and Yap), re-exports (fuel), services and tourism. These are projected in current prices and deflated by the CPI, while tourism is projected in constant-price terms, which is consistent with the production account. Imports are projected for four major categories: food, fuel, general and services. The series is generated in constant prices and linked to real household incomes for food and the level of real aggregate demand for the others. The series includes a set of assumed income elasticities. The current-price import estimates, as elsewhere, are inflated by a matching price index.

Adding final-government and household consumption expenditures to gross fixed-capital formation provides an estimate of GDE. Changes in inventories are not modeled. Adding the trade account to the GDE estimates offers an estimate of gross domestic product by expenditure, GDP(E). Aggregate demand is projected as the sum of GDE and exports and is used to drive many of the series in the LTEFF. Finally, the difference between GDP(P) and GDP(E) is the national-accounts discrepancy and provides an estimate of the overall reliability of the LTEFF series.

STATE-GOVERNMENT FINANCE

The fiscal account comprises revenues less the sum of expense, outlays on nonfinancial assets, and financing. Revenues include two major categories: taxes and grants. Taxes are linked to an estimated series of the tax base: wage-tax estimates are projected in relation to the estimates of compensation of employees, GRT in relation to those industries paying GRT (in current-price GDP), imports to import demand, and state sales taxes to the current-price GDP estimate of wholesaling and retailing. Buoyancy ratios were utilized in Pohnpei and Chuuk, where the estimates were plausible, but proxy values were provided in Kosrae and Yap. Grants, mainly Compact, were estimated from the projected level of grant assistance under the Compact times two-thirds of the GDP-deflator estimates. Other grants were assumed to remain constant in nominal terms.

Government expense comprises compensation of government employees, use of goods and services, subsidies, debt service, and transfers. Compensation of employees has been assumed to grow in relation to the current-price GDP estimates of public-service providers: no change in real employment levels is assumed, but allowance is made for the historical trend increase in wage rates. Use of goods and services is also held constant in real terms, but allowance for cost increases is included through inflation by the US CPI projections. Other items on the expense account are minor. Accumulation of nonfinancial assets at the state level (with the exception of Yap) is restricted to minor outlays, as both the use of the Compact infrastructure grant and FAA airport-improvement projects are booked to the national government.

On the financing side for Chuuk, Kosrae and Pohnpei, debt service on existing loans, mainly on-lending of ADB loans by the national government, is projected as moving averages, reflecting the lack of new borrowing in recent years. For these states, the residual on the fiscal account is reflected in the drawdown of domestic deposits. For Yap, the state has financed a significant volume of projects through drawdown of the state's reserves and trust funds. It has been assumed that the state will continue to invest in public infrastructure, and the residual for Yap is reflected in the drawdown of foreign securities from the state's investments.

NATIONAL GOVERNMENT: FINANCE AND EXTERNAL DEBT

The fiscal equation of the national government is significantly different from that of the states. In addition to the normal array of FSM taxes, the national government receives money from the corporate tax (Japanese domiciles) and from the sale of fishing licenses. Corporate tax collected from the FSM domicile is projected to grow on linear trend. Fishing fees are projected to remain constant in nominal terms, although allowance for increase in Vessel Day Scheme rates is undertaken in the sensitivity analysis. While the use of the infrastructure grant and FAA projects all occurs at the state level, these projects have in the past been booked to the national government. This is likely to change going forward with new disbursement arrangements for the Compact infrastructure grant and adoption by state-level project-management offices. For now, the LTEFF continues to assume all projects are funded and operationalized by the national government. On the expense side, the projections are formed on a similar basis to the states. The only difference is debt-service interest payments, which are linked to the debt module. Acquisition of nonfinancial assets reflects the use of capital grants (infrastructure plus FAA) and an allowance for FSM Congress legislative projects.

The fiscal accounts include a debt module, which comprises existing debt obligations and projections for the incurrence of future debt. The existing debt profile is known with precision, and incurrence of future obligations has been set to zero, given the grant-only basis now accorded the FSM. The result is that the nominal value of debt is declining steadily through FY2030. Taking into account state debt servicing channeled through the national government, the residual on the national government's fiscal account is treated as the acquisition of foreign securities.

BALANCE OF PAYMENTS

Exports and imports are linked to the GDP(E) current-price projections. The major items of primary-income receipts are fishing-fee royalties and interest and dividend earnings on overseas investments. The former item is linked to the fiscal projections, while allowance has been made for increases in interest and dividend earnings in future years, as the world economy recovers. The main item of primary income payments is dividends of foreign companies in the FSM, which has been projected in line with nominal GDP. Secondary income flows are dominated by grants and receipt of Compact and other grants and are consistent with the fiscal account. Household remittances, both inward and outward, and receipt of Pell grants have been projected in line with the household account. The other major secondary income receipt is tax receipts from the Japanese-corporation domiciles, which have been projected to be consistent with the fiscal account.

The capital-account inflows are dominated by Compact flows and FAA airport-improvement grants, which are linked to the fiscal account. On the finance account, FDI, reflecting the poor investment climate, has been negligible in recent years and has been projected as a moving average. Portfolio investments have been projected to rise, mirroring the large national-government surpluses, which have been assumed to be invested in the FSMTF. Other investments reflect the growing level of commercial bank deposits and the lack of lending opportunities in the local economy. Incurrence and repayment of external debt is derived from the external-debt module.

BANKING SURVEY

The banking survey at the FSM level has been included in the LTEFF for comprehensiveness, although the projections are simple. Deposits are projected in line with the growth in nominal GDP, reflecting the monetary approach implicit in financial programming. Commercial loans are indicated to remain flat, consistent with recent performance, and are projected as moving averages. Consumer loans are projected in line with the growth in compensation of employees. Foreign assets are the residual on the account.

Appendix 3

National-Accounts Methodology: Use of Social Security Data as a Proxy for Operating-Surplus Estimation

BACKGROUND

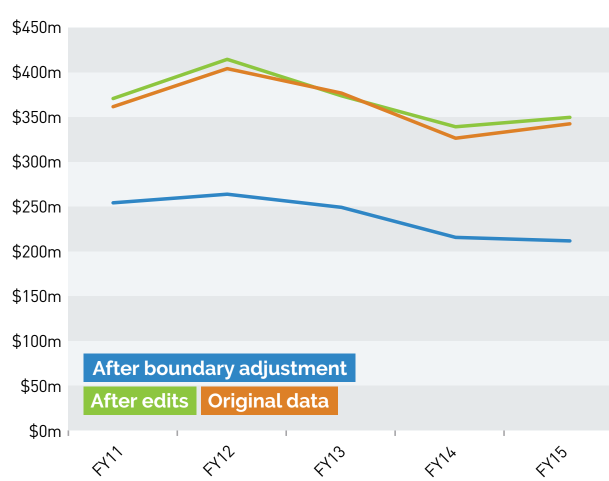
During the FY2016 GDP estimation, the normal flow of information and sharing of data between Customs and Tax Administration (CTA) and the NSO of the national government of the FSM were suspended. This removed the basis for estimating operating surplus in GDP and prevented the NSO from compiling GDP-by-industry statistics. As a result, the coverage of GDP and certain elements of the BoP in the FY2016-through-FY2018 statistical appendices has been compromised and reduced in scope. To maintain the GDP series by institutional sector (also known as the income approach), an estimate for private sector operating surplus has been attempted using Social Security data. This appendix provides an analysis of implications of the change in policy and also attempts to shed some light on the bias that may have been introduced through the use of the proxy and on whether this method should be maintained in the future.

In March 2004, a memorandum of understanding (MOU) was developed and executed between the assistant secretary of CTA and the assistant secretary of the NSO. This MOU was designed specifically to address the sharing of confidential unit-record data between CTA and the NSO. In this instance, the MOU was designed to enable the provision of detailed information provided by taxpayers to CTA, such as the BGRT, to the Statistics Division, such that the confidentiality of this information was subject to and protected by the statistics law, PL5-77. The legal sufficiency of the MOU was reviewed by the attorney general and found adequate at that time. The MOU formed the basis of the sharing of information between CTA and the NSO through the following 13 years, until 2017, when a review of the policy was undertaken. It was decided to suspend the arrangement out of concern that the MOU was not sufficient and might not address some of the requirements of tax-information sharing as outlined by the Global Forum.

STATISTICAL PROCESSES

The data formerly supplied by CTA comprised records of each business's gross receipts by quarter for the four states. The NSO would classify each business according to International Standard Industrial Classification, determine which businesses did not belong within the production boundary, and edit the data series for missing or invalid values (delinquent taxpayers, closed businesses, data-entry errors, etc.). Considerable effort was made annually to ensure businesses were classified correctly, and individual observations were adjusted appropriately. Figure 82 provides a graphical display of the magnitude of the adjustments. As can be seen, edits to the series play a minor role in the level of the final figures, but the impact on annual changes may not be minor (see below). The major difference at the compilation stage is the exclusion of businesses that do not belong within the GDP private sector boundary. These include public enterprises, imported services (airlines, engineers, etc.), MRA (special treatment required), and nonprofits and individuals; the

Figure 82
Statistical adjustment to unedited BGRT data, 2011-15



latter two have no operating surplus. These exclusions from the data series account for about one-third of the total value of gross receipts reported to CTA.

In order to address the lack of information on which to compile the GDP-by-industry estimates, the FSM Department of Finance and Administration proposed alternative arrangements to remedy the situation that after three years have yet to be implemented. Statistical processing of raw data into a form fit for purpose as outlined above is inherently time consuming. The skills required, which are part of the statistician's toolkit, are not generally part of finance officers' job description. It may thus not be surprising that the proposed arrangements have not been able to generate the missing data. The time is now appropriate for the FSM to review its statistical needs for economic monitoring and surveillance and find a solution to the existing bottlenecks. The FSM is compliant with Global Forum requirements concerning data sharing between sovereign states. It now needs to consider adopting a similar process for internal data sharing between government departments to fulfill its information needs.

Figure 83
Comparison of BGRT estimates of gross output with Social Security proxy, 2004-15

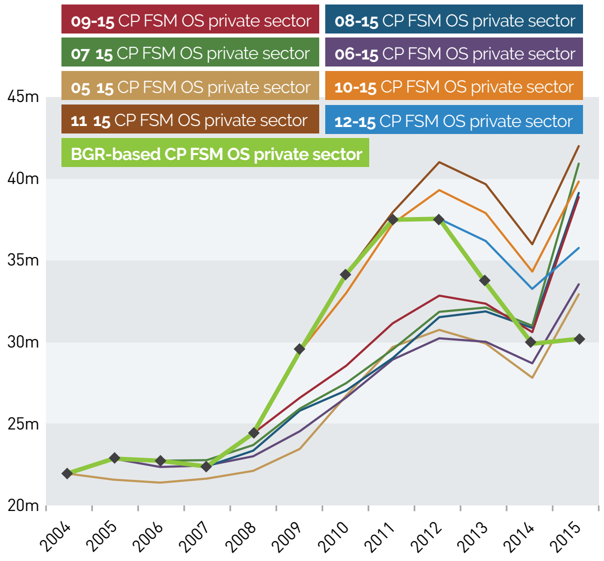
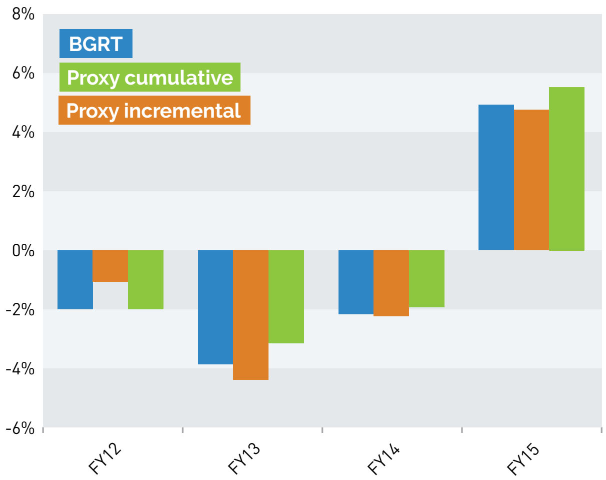


Figure 84
Impact of Social Security proxy on GDP growth

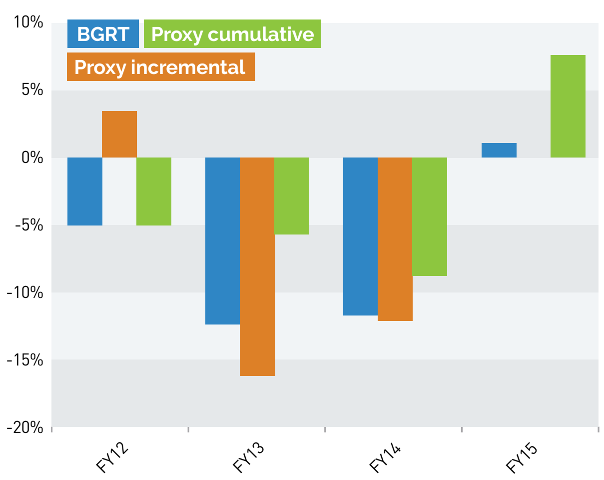


BIAS IN USING SOCIAL SECURITY DATA AS A PROXY

In this section, we take a brief look at bias that may be inherent in using Social Security data as a proxy for the BGRT in estimating private sector operating surplus. Prior methodology has been to multiply estimates of gross output derived from the BGRT by fixed operating-surplus ratios. The process adopted since FY2016 has been to rate the existing series forward in time by the change in Social Security gross wages by industry. Figure 83 provides a comparison of the actual operating-surplus estimates and a series of other estimates based on the Social Security method. The second group of estimates is based on the assumption that adopting the Social Security method starts in one-year intervals. The objective is thus to establish whether there is evidence that the bias grows the longer the technique is used.

The use of the Social Security proxy would clearly seem to be biased. There was little divergence for the initial period FY2004–FY2008, when the economy was largely stationary, but during the FY2009–FY2011 period the estimates clearly diverged. This was a period of growth with large infrastructure projects under implementation (FAA and Compact infrastructure grant). In the subsequent period, FY2012–FY2014, the economy went through a period of prolonged recession as the projects

Figure 85
Impact of use of Social Security proxy on growth of private sector operating



came to an end. On the upswing, the Social Security proxy underestimates operating surplus, while during the downswing the forces work in reverse. In essence, profit margins rise on the upswing and decline on the downswing. The Social Security proxy would thus not seem to be a good estimator for operating surplus during the economic cycle, but the data do not suggest that the two methods diverge in the long term.

Figure 84 and figure 85 provide some more detail on the differences between the BGRT estimates and the Social Security proxy on GDP growth and growth in the operating surplus. The proxy estimates are provided as if the proxy method was implemented for one year (incrementally) and over the period FY2012–FY2015 (cumulative). For GDP (figure 84), the estimates indicate close proximity of the two methods, as would be expected given the low proportion of private sector operating surplus in GDP, 12 percent. In the case of operating surplus (figure 85), the differences are much greater and, in some years, take a different sign. Over time, there are significant differences. Once the analysis is done at the state level, the difference between the two methods is even larger, and at the industry level one would expect even greater divergence, although this has not been attempted.

The conclusion is that for a given year, the differences between the two estimates at the GDP level for the FSM can be tolerated. However, at greater levels of disaggregation the errors get larger. During the business cycle, the proxy understates GDP on the upswing and overstates it on the downswing. Clearly, the use of the proxy method to generate a GDP estimate should be replaced as soon as possible if the FSM wants to maintain the GDP time series and comprehensive coverage of its economic statistics. Further development of the FSM statistics—in particular, supply-and-use tables and GDP by expenditure—cannot be attempted until estimates of supply can be generated. This requires estimation of gross output, for which the BGRT is an ideal source.

FULL REPORT

March, 2020

ECONOMIC REVIEW

FSM FY 2018

This review has been prepared to assist the government of the Federated States of Micronesia and the U.S. Department of the Interior's Office of Insular Affairs to fulfill their respective reporting obligations under the FSM Compact of Free Association with the United States. FSM is required, under Title One, Section 215, to report to the U.S. president on the use of sector grant assistance and on progress in meeting mutually agreed programmatic and economic goals. Under Title One, Section 104.h, the president is required to submit a similar report to Congress concerning developments in FSM.

This review has been prepared by the Economic Monitoring and Analysis Program (EconMAP) of the Graduate School USA, with funding assistance from the United States Department of the Interior's Office of Insular Affairs. It is not intended to directly fulfill the reporting requirements of the Federated States of Micronesia and U.S. governments, but rather to provide an independent assessment of FSM's economic performance and policy environment, as well as independently verified economic statistics. While the reporting requirements of the two governments differ, much of the material herein will be directly relevant to the two reports.

Additional information on the EconMAP program, as well as a digital copy of this report, is available online at http://www.econmap.org