



Republic of the  
Marshall Islands



EconMAP  
Technical Note  
June 2021

# *The Economic Impact of COVID-19 on the Marshall Islands with Policy Options for Sustained Recovery*



Economic Monitoring and Analysis Program (EconMAP) Technical Notes are intended to provide concise and timely analysis of important issues for decision-makers in the Republic of the Marshall Islands. Technical notes utilize currently available data sets and macroeconomic tools developed in close collaboration with the RMI government. The EconMAP program is managed by the Graduate School USA's Pacific and Virgin Islands Training Initiatives (PITI-VITI) with funding support from the Department of the Interior's Office of Insular Affairs. Comments, questions or requests for further detail may be directed to [info@econmap.org](mailto:info@econmap.org).



# *The Economic Impact of COVID-19 on the Marshall Islands with Policy Options for Sustained Recovery*

## **Introduction**

**The Marshall Islands took strong proactive measures to protect the health of the nation, including closure of its borders.** In the early months of 2020, the onset of the COVID-19 global pandemic ravaged the global economy with unprecedented reductions in GDP and rapidly rising unemployment. To reduce the spread of the virus, global travel restrictions were implemented which led to a collapse of international travel. In response to the pandemic the Marshall Islands took strong proactive measures—perhaps some of the strongest in the world—to protect the health of the nation, and effectively closed its borders at the beginning of March 2020. While several cases of COVID-19 have been reported on arrival at the Kwajalein military base, these individuals were placed in quarantine at the arrivals center; the RMI has successfully avoided any cases of community spread. These policies and the priority placed on public health have served the Marshall Islands well.

**The RMI participated in Operation Warp Speed to vaccinate the population.** At the start of 2021,

---

*The Marshall Islands took strong proactive measures to protect the health of the nation and benefitted from the US vaccination program Operation Warp Seed.*

---

with the benefit of the US-sponsored program Operation Warp Speed, the RMI began rolling out a nationwide immunization program. Following a strong start the pace of immunization has slowed, reflecting the difficulties in distributing vaccines to remote locations disbursed over a large number of outer atolls. Distribution and travel by health officials to these locations will require time to accomplish. Notwithstanding the threat of emerging virus mutations against which these vaccines may provide reduced protection, the nation will, in the near future, be able to consider reopening its borders and commence economic recovery without a severe threat to the population and the national health system.

**Early projections of a weak fiscal position rapidly deteriorating did not eventuate<sup>1</sup>.** The government of the RMI entered FY20 in a weak fiscal position with limited reserves to draw upon. While revenues have grown rapidly in recent years with the boom in the Vessel Day Scheme (VDS) fisheries receipts, revenue growth had been matched by rapidly rising levels of expenditures. There thus remained minimal fiscal space to mitigate the impact of the emerging COVID crisis. The projected impact on tax revenues, employment and job loss, coupled with potential significant reductions in fisheries revenues, could have resulted in a sizeable—perhaps even unprecedented—fiscal and economic shock. Fortunately, however, the RMI has benefited from substantial assistance from its donor partners which served to substantially mitigate the earlier projected negative impacts on the economy. Thus,

---

<sup>1</sup> See Assessing the Impact of COVID-19 on the Marshall Islands Economy, Graduate School USA, May 2020.





there has been no dangerous deterioration of the RMI's fiscal position.

**Economic impact study reviews impact on economy in FY20 and projects fiscal outturn going forward<sup>2</sup>.** This review and update on the earlier Graduate School USA (GSUSA) economic impact assessment starts with a review of the impact of the COVID-19 global pandemic on the economy of the RMI in FY20. Rising concern over the economic impact of COVID-19 on the RMI led GSUSA to develop a preliminary statistical assessment in early 2021. This data is drawn upon in this impact assessment and includes analysis of the various mitigation programs adopted by the RMI with support from the Asian Development Bank, World Bank, the United States, and other donors. In the second section, a projection is made for the economy for FY21, for which the impact of the pandemic covers the full fiscal period. This updated analysis extends over the medium-term on the assumptions that after the vaccination program is complete, the RMI will gradually open its borders to the outside world from the start of FY22 (October 2021) onwards.

**Adoption of fiscal responsibility and debt management legislation remains critical to ensuring fiscal stability.** In the final section, attention is devoted to policy options that the RMI government might wish to pursue to facilitate fiscal and economic stability as the economy emerges from the pandemic. The discussion focuses on tax reform, fiscal responsibility, counter-cyclical buffers, SOE reform, and Social Security sustainability. Special focus is devoted to external debt and debt sustainability. The adoption of "grant-only" status by the donor community has led to significantly reduced levels of debt such that the RMI is no longer under threat of "high debt stress"; still, it is imperative that the RMI adopts a debt management regime that supports prudent use of debt financing—especially as donor conditions are prone to change over time.

2 This EconMAP *Technical Note* draws on the recent statistical data and uses macroeconomic modeling to project the impact of COVID-19.

## ***Economic and Fiscal Performance and Impact of COVID-19 in FY20***

### **STRUCTURE OF THE ECONOMY**

**The RMI private sector is small as a share of GDP but has grown significantly.** Figure 1 indicates the structure of the RMI economy by institutional sector, with a further detailed indication of the composition of the private sector by industry. The private sector represented an average of 33 percent of GDP during the FY18-FY20 period. The size of the private sector falls between the RMI's two sister Freely Associated States (FAS), the FSM and Palau, representing 20 percent of GDP in the FSM and 50 percent of GDP in Palau. The RMI's government sector, comprising national, local and agencies, represents 30 percent of GDP, compared with 24 percent in Palau and 23 percent in the FSM. As an indirect measure of development of the modern economy, production of the household sector in both informal and non-marketed or subsistence production in the RMI averaged 13 percent, compared with 28 percent in the FSM and 9 percent in Palau. Palau clearly has the most developed and modern economy with a relatively large private sector, whereas the FSM has a large informal sector. The RMI, on the other hand, has greater integration into the cash economy than the FSM, but has relied upon the public sector as its major engine of growth.

**The fisheries export sector is the largest component of the private sector with other industries providing services to the domestic economy.** Figure 1 also disaggregates the structure of the private sector by industry. The largest industry is fishing, which is comprised of offshore purse seine fishing, fish loining, and near shore reef fishing. Overall, fishing represents 37 percent of private sector activity. Construction is also a significant driver of economic activity, representing 12 percent of the private sector. The transport,

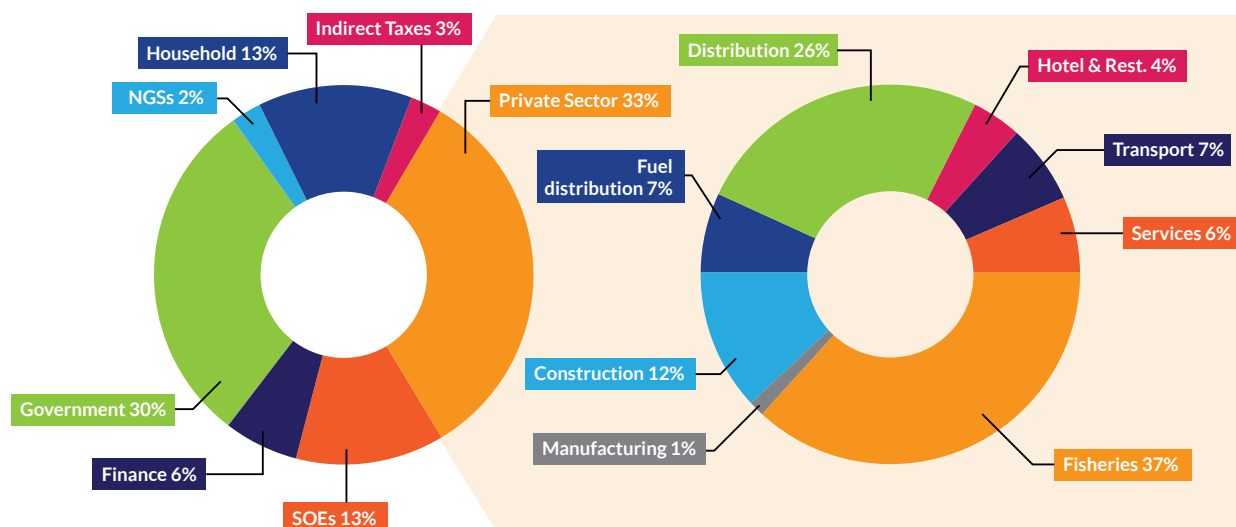
---

*The RMI economy picked up momentum in the years before COVID-19 hit.*

---



**Figure 1** *RMI Institutional Structure of the Economy, FY17-FY19, 3-year average*



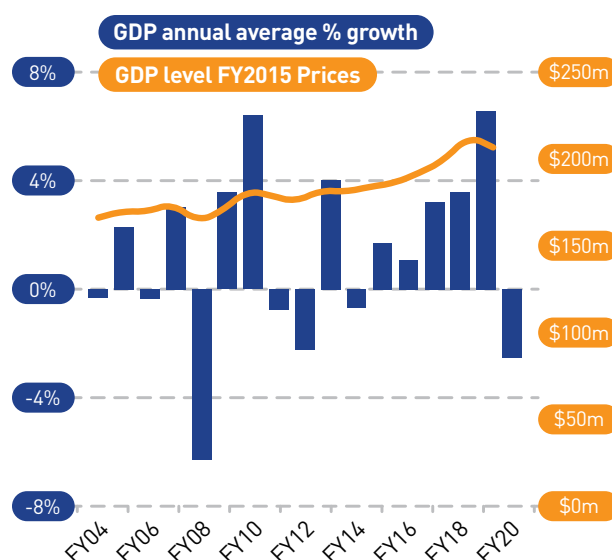
hotels and restaurant sectors are relatively small, representing 11 percent and providing services to a small number of visitors and tourists—in addition to onshore services to fishing fleets. Retail activity is large representing 33 percent of private sector activity and dependent on the overall level of demand in the economy.

## RECENT ECONOMIC PERFORMANCE

Economic growth in the RMI has been modest during the amended Compact, averaging 1.3 percent annually with high volatility. The RMI's economic performance from FY04 to FY20 has been modest, with economic growth averaging 1.3 percent during the period, as Figure 2 reflects. This is comparable to the RMI's sister FAS, Palau, which grew by an average 0.9 percent growth, but considerably more than the FSM, which grew at an annual average of 0.1 percent over the same period. The RMI's low average growth during the period reflects high volatility between periods of strong growth in fisheries, construction, and services, against periods of substantial contraction. The main drivers of growth during the amended Compact have been fisheries, private services including finance, and public sector services. Public administration, education and health have all been forces of growth supported by disbursement of the Compact sector grants in education and health.

From FY15-FY19 economic growth increased, attaining an average 3.2 percent, but declined sharply in FY20 as COVID-19 struck. During the first half of the amended Compact, through FY14, economic growth was weak averaging 0.7 percent per annum. However, during FY15-FY19 the economy grew more rapidly with an average rate of growth of 3.2 percent. This reflected growth in fisheries, construction, shore-based services to fishing fleets and financial services. It was

**Figure 2** *GDP level (FY15 prices) and annual % growth*





further boosted by the general boom in sovereign rents, fishing royalties, and fees from the shipping registry, which increased the fiscal envelope and allowed growth in public administration.

Figure 3 indicates the growth in the private and government sectors during the period. The provision of government services grew modestly with little variation by 1.3 percent per annum matching the average rate in the economy. The private sector, however, performed far better averaging 2.4 percent, but with considerably greater volatility. The large swings in the rate of growth for the overall economy thus reflect the even greater volatility in the private sector.

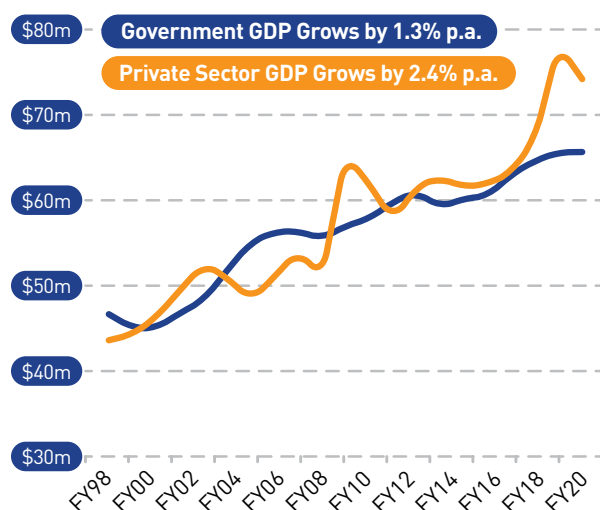
## ECONOMIC OUTTURN IN FY20

**Impact of COVID-19 resulted in a 2.5 percent contraction of the RMI economy.** COVID-19 struck half way into FY20 in March 2020, but the impact for the full fiscal year was modest. GDP fell by an estimated 2.5 percent, which is no greater than the normal ups and downs of the RMI's economic cycle. While the full force of the impact would not to be felt until FY21, the reduction was far less than might have been anticipated. The impact on the private sector was a reduction of 4 percent, spread over a series of sectors. The fish loining plant contracted by 39 percent reflecting closure for many months following the impact

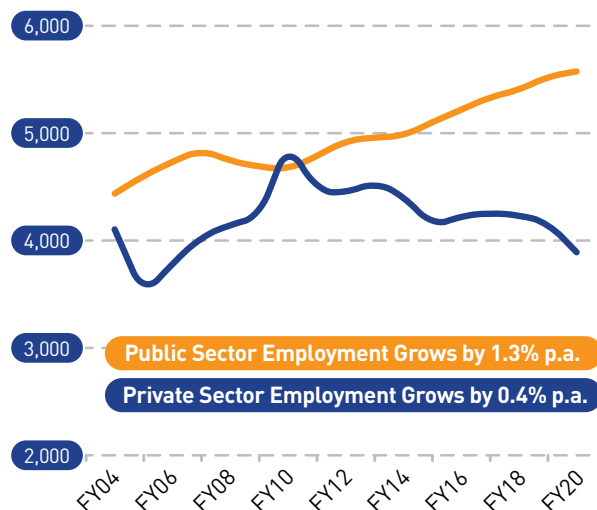
of COVID. The other heavily impacted sectors were transport, including shore-based services to fishing fleets, which declined by 13 percent, and hotels and restaurants, which fell by 24 percent. While these reductions were significant, and further reductions are expected in FY21, the small size of the private sector as only 33 percent of the broader economy dampened the impact of COVID-19. By comparison, in Palau, overall economic growth fell by 8.7 percent.

**While public sector jobs expanded during COVID-19 those in the private sector contracted by 4 percent with 257 jobs lost.** Figure 4 indicates the growth in employment in the private and public sectors since the start of the amended Compact in FY04. The pattern in the public sector mirrors that of the sector contribution to GDP rising steadily with little volatility and averaging 1.3 percent per annum. With the growth in sovereign rents since FY14, the fiscal envelope grew significantly enabling expansion of the civil service. In FY20, despite the impact of COVID-19, the public sector at large continued to grow by 0.6 percent and by 2.1 percent in the RMI government. Private sector employment, although displaying similar volatility as in its contribution to GDP, grew by an average of just 0.4 percent during the amended Compact period. Reflecting the impact of COVID-19, private sector employment contracted by 6.7 percent in FY20 with 257 jobs lost, of which 135 were lost in the fish loining plant and 43 jobs in construction. The most

**Figure 3 GDP by private and public sector, constant prices 2015**



**Figure 4 Employment in the private and public sectors**





notable remaining job losses were in wholesale and retail—26, and in hotels—21.

*The economy contracted by 2.5 percent in FY20 as COVID hit but with a large reduction in private sector jobs of 6.7 percent.*

## FISCAL STRUCTURE

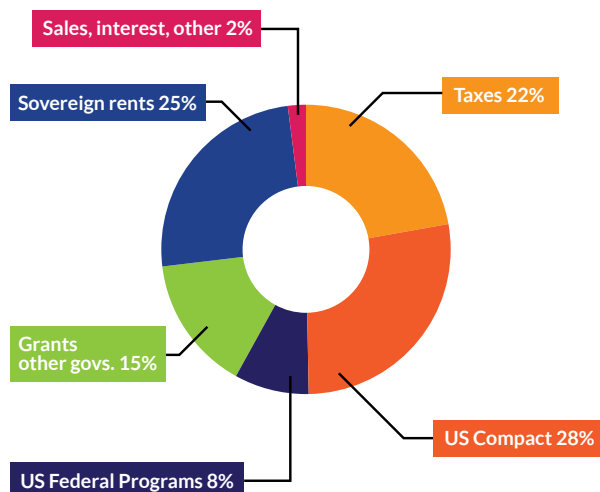
External grants represent the major element of revenues while sovereign rents, the second largest element, have grown rapidly. Figure 5 indicates the structure of revenues by type. In more developed countries tax revenues represent the largest element of government revenues, but in the RMI tax effort is low and represents only 22 percent of total revenues. The tax regime is based on an outmoded regime inherited from Trust Territory days that lacks buoyancy—or growth in relation to economic activity—and requires reform. The most important source of revenue, grants, represents 51 percent of the total, but this amount is either fixed in nominal terms or declines reflecting the lack of full indexation of the Compact sector grants. Clearly, the RMI economy remains highly dependent on foreign assistance from its donor partners: U.S.

Compact grants, federal programs, multilateral, and third country grants.

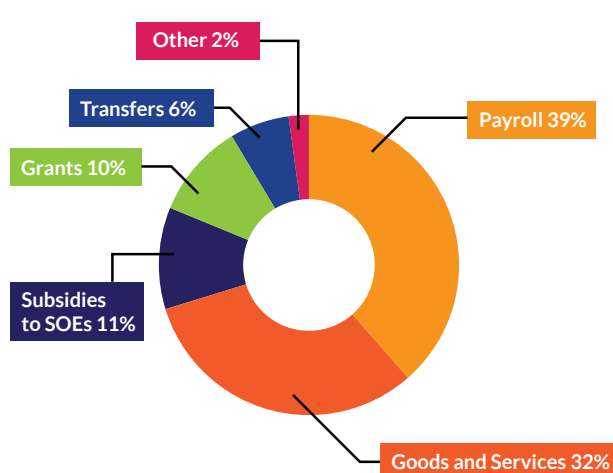
Taking grants and taxes together, over two thirds of total revenues are inelastic with respect to GDP. The major growing source of revenues with rapid growth in the last few years is represented by sovereign rents. This element includes fishing fees derived from Parties to the Nauru Agreement (PNA), implementation of the Vessel Day Scheme (VDS), and revenue-sharing from the ship registry. These sources now represent 25 percent of revenues. Other government fees, sales, and investment earnings are minor accounting for only 2 percent.

The structure of expense reflects balance between payroll and complementary inputs, with a large proportion of payments to SOEs and other government agencies. The structure of RMI expense by economic category is shown in Figure 6. Payroll expense is the largest category representing an average of 39 percent of total expense during the FY18-FY20 period, with complementary inputs in the use of goods and services of 32 percent. This ratio of intermediate inputs to value-added in the delivery of government services indicates an expense structure that is not distorted by fiscal pressure to maintain payroll. Interest payments are almost negligible and reflect declining external debt at concessionary rates and a switch to “grant” only status by donor institutions. Other areas of expense include subsidies to SOEs, grants to other layers of

**Figure 5 Revenue Structure: FY18-FY20 average**



**Figure 6 Expenditure Structure FY18-FY20 average**



*Sovereign rents have grown rapidly enabling a doubling in subsidies and transfers.*

government and “other” expense representing the remaining 29 percent. This last group of expense has grown rapidly in recent years reflecting significant expansion of the fiscal envelope.

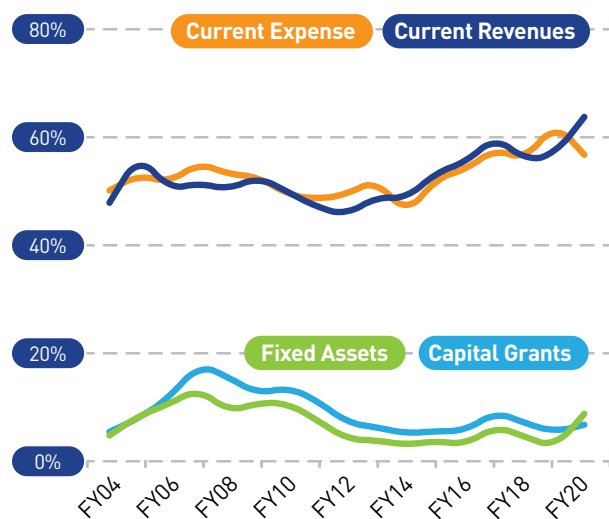
## RECENT FISCAL PERFORMANCE

Revenues fell as a share of the economy in the first ten years of the amended Compact but then grow rapidly with the growth in sovereign rents. Figure 7 indicates recent trends in fiscal performance: current revenues and expenses, together with capital grants and fixed assets, as a share of the economy. During the first ten years of the amended Compact revenues declined as a percent of GDP, reflecting the inelastic and outmoded tax regime and static nature of Compact grants in nominal terms. The FY14-FY20 period reflected growth in a new form of revenue—fishing royalties arising out of the VDS from the PNA—resulting in a 10 percent increase in the share of overall revenues.

**Payroll has declined as a share of GDP, but expenses on subsidies and transfers has doubled.**

Current expense has displayed a largely reactive position with respect to current revenues. The decline in the revenues to GDP ratio led to a tight fiscal period constraining expense. However, as the revenue base expanded with the increase in fishing fees, expenses also expanded in tandem. Within current expenses, discipline has been maintained over payroll which declined in relation to GDP, falling from an average of 25 percent at the start of the amended Compact to 21 percent during the last three years. While the use of goods and services has been largely constant, the main area of expansion has been in subsidies to the large SOE sector and transfers to NGOs and to households, which have doubled from 12 percent to 24 percent of GDP. On the capital side, grants have been the main source to cover expenditures, which as with current expenses have risen and fallen in tandem.

**Figure 7 Revenues, expense, capital grants and fixed assets, % GDP**



**Fiscal policy in the RMI has been driven by revenue availability.** While not directly indicated in Figure 7, the fiscal deficit (in essence the difference between current revenues and current expenses since the capital account is largely balanced) was largely in balance through the period. Fiscal policy in the RMI has been driven by revenue availability and stage of the economic cycle. During the initial period through FY14 budget discretion was severely limited and expense was forcibly constrained. Thereafter, with the boom in revenues, expenses grew unconstrained given the availability within each fiscal year’s fiscal envelope. The failure to create a fiscal reserve during the period when the fiscal envelope was expanding dramatically carries a lesson for RMI policy makers going forward.

## THE FISCAL OUTTURN IN FY20<sup>3</sup>

**Despite the impact of COVID-19 the fiscal position remained strong in FY20.** Revenues were strong in FY20 despite a small reduction in tax revenues. The loss in tax revenues was offset by a large infusion of grants while earnings from sovereign rents held steady. Overall revenues grew by 15 percent or \$23 million. Wage tax collections

<sup>3</sup> The fiscal outturn for FY20 has been estimated from the RMI FMIS, and although preliminary the overall outturn accords well with change in bank balances.



and customs duties both held steady, despite the negative impact of COVID-19. However, the gross receipts tax levied on the private sector fell by 10 percent, a larger reduction than the private sector contribution to GDP, which fell by 5 percent. This reflected tax relief provided to businesses adversely affected by COVID-19. The strongest growth in revenues was in grants which recorded a \$24 million increase or 33 percent. All grantors increased their contributions, including the US, Taiwan and others. The current chart of accounts does not enable identification of new grant sources, but it is probable that World Bank grants were responsible for \$10 million of the grant increase. Sovereign rents, fishing fess and ship registry fees, grew by 7 percent allaying fears that COVID-19 might negatively impact the purse seine shipping industry.

**During FY20 government expense was held firmly in check.** Payroll expense stabilized in FY20 after a series of years of upward momentum, reflecting fiscal restraint during COVID-19. Use of goods and services contracted significantly after a large increase in FY19 but returned to a level similar to FY18. Travel expense contracted as to be expected with the restrictions on travel and closure of the RMI borders, but professional and contractual services remained at their FY19 levels after several years of strong growth reflecting booming sovereign rents. Utility charges also contracted reflecting lower international fuel prices. Subsidies to SOEs remained unchanged, while grants to government entities rose by over 40 percent, reflecting capital grants to SOEs and local governments. The overall outturn for government expense was that all categories, except for capital grants, were held in check.

**RMI runs a large fiscal surplus in FY20 of 5 percent of GDP, and books a matching level of accumulation of unspent reserves.** The major area of expansion was in capital projects which grew from \$6 million to \$21 million. This reflects the large increase in grants of \$24 million. While the increase in capital project spending of \$15 million would have been financed through grants, it is probable that some of the difference of \$9 million would have reflected COVID-related assistance and may not have been drawn due to capacity limitations. The overall fiscal outturn indicates a surplus of \$12 million or 5 percent of

GDP and includes a \$10 million accumulation of bank deposits.

### ***Economic and fiscal impact in FY21 and recovery through the end of the amended Compact period***

**Projections are based on core assumption that travel restrictions will remain in force throughout FY21.** The previous section discussed recent economic and fiscal performance of the economy, important structural considerations, and the impact of COVID-19 on the economy in FY20. This section attempts to estimate the likely impact of the COVID-19 pandemic in FY21 and through the remaining years of the amended Compact to FY23. A core assumption is that travel restrictions will not be removed until the outset of FY22 and therefore the full force of COVID-19 will be felt throughout all of FY21. In the previous section it was indicated that the RMI economy is heavily dependent on the public sector but that the private sector has grown significantly since FY14, especially in shore-based activities and services provided to mid-Pacific commercial fishing fleets. The last section indicated that the impact of COVID-19 on the economy in FY20 was small, representing a preliminary estimated GDP reduction of 2.6 percent. Reflecting the impact of COVID-19 for the full fiscal period, and similar forces at play, the current projections suggest a similar reduction in FY21. These projections have assumed that in FY22 production levels of the affected sectors recover by two-thirds of their normal levels, and are fully recovered by FY23.

---

***Fiscal policy has been driven by revenue availability.***

---





## ASSUMPTIONS BEHIND THE PROJECTIONS

### Agriculture

**Increases in the copra subsidy are projected to increase production by 10 percent in FY21.**

Agriculture in the Marshall Islands is limited to three main activities: production for own consumption, a small volume of marketed sales, and copra production. Copra production has been heavily subsidized by the government as a means of providing income support to low-income families in the outer atolls. Subsidies to the industry have risen from an average of \$1 million in the early 2010s to an average of \$8 million in the last two years. In FY21, the government announced a policy to increase the copra subsidy by 20 percent. In this study it has been assumed that this will induce an increase in production of 10 percent.

### Fisheries

**Shore based fishing activities are projected to decline in FY21.** The fisheries industry in the RMI comprises a range of activities: household subsistence, aquarium fish exports, the tuna loining plant and Pan Pacific purse seine operations, shore-based support (MIFV) to the longline industry and the operations of the Marshall Islands Marine Resources Authority (MIMRA). While household fishing is not projected to decline and may well increase, export of aquarium fish is projected to fall by a further 25 percent reflecting the full year impact. Pan Pacific has indicated both the loining plant and purse seiners are expected to decline by a further 10 percent in FY21. The shore-based transshipment service for export of sashimi grade tuna is also projected to fall by a further 25 percent. The value added of MIMRA is projected to decline by 10 percent in FY21, reflecting the temporary closure of the observer program which monitors the fish catch of the purse seine fleet.

**After initial failure to sell vessel days during the early part of calendar year 2020, all days had been sold by year end, albeit at lower prices.** Of critical importance to the RMI has been the rapidly growing source of funds from the Vessel Day Scheme of the Parties to the Nauru Agreement. For sale in 2020 and 2021 the RMI was allocated 3,185 fishing days of Party Allowable Effort under

the PNA. After the initial impact of COVID-19 and by mid-year, MIMRA had about 800 days unsold for calendar year 2020. The low prices of tuna experienced at the beginning of the year, coupled with travel restrictions, reduced the demand for vessel days with significant risk that some days might remain unsold by year end. Fortunately, MIMRA was able to find buyers for its remaining days—albeit at a considerable discount.

**MIMRA projects a significant reduction in its budgeted transfer to government for FY22.** At the end of FY19 MIMRA reported accumulated reserves of \$24.5 million and was thus able to meet its obligations to government throughout FY20 with a budgeted transfer of \$31.6 million, although this may have required a reduction in reserves. With the lesson learned that the strategy to retain VDS days in anticipation of higher prices later in the season is risky, especially during a pandemic, MIMRA has indicated that at the time of writing, 26 May 2021, it has sold the majority of its allocation with just 400 days remaining unsold. For FY21 the government has budgeted a \$26 million transfer, with an extremely low initial projection for FY22 of \$20 million. While unspent resources from the ADB Pandemic Response Option (CPRO) of \$16 million received in early FY21 might make up the shortfall, in this study GSUSA is projecting that MIMRA will be able to exceed its initial projected transfer level with a total of \$26 million to be transferred from MIMRA during FY22.

### Tourism

**Tourism sector will remain depressed throughout FY21.** Tourism is not large in the RMI and the hotel and restaurant sector accounts for only 2.3 percent of Gross Domestic Product (GDP). The two main hotels are now running virtually empty, and output is thus close to zero. Current GDP estimates indicate that 50 percent of the restaurant sector is dependent on visitors, with no current demand from this component. Local restaurant demand reflects the level of demand in the economy. With the termination of most flights into the Marshall Islands, Mobil wholesale fuel operations was projected to drop by 33 percent in FY20 but to remain unchanged in FY21.



## Construction

**Construction activity will decline in FY21 due to continuing travel restrictions.** Construction represents an average of 5 percent of GDP in the RMI. The sector has been experiencing a boom period in donor projects from both the Asian Development Bank and World Bank. Private sector construction operators initially indicated that output was growing, and the COVID-19 pandemic would not immediately affect construction. However, production is estimated to have declined by 6 percent in FY20 despite significant growth in government capital projects. In this study we are projecting that output will fall by a further 5 percent in FY21 and a further 10 percent in FY22. Current restrictions have constrained travel to the RMI of specialist engineers and project personnel, and while the RMI has managed to maintain output, industry representatives indicate that these constraints are likely to have a greater impact in the remainder of the current year and during FY22.

## Transshipment

**Transshipment service will remain depressed.** Majuro acts as a mid-Pacific entrepot (transshipment center) for the trade of goods and services in support of the purse seine industry. This has been growing in recent years with increased shore-based activities like net repair and containerization of fish. Based on information provided to GSUSA, reflecting the strict travel restrictions that boats must be at sea for 14 days after leaving a COVID-19 infected jurisdiction, significant declines are projected in the activity of local transport companies and the Marshall Islands Ports Authority. It is projected that vessels may be required to transship at sea rather than in port. This study projects a further 34 percent decline in FY21.

## Public Sector and Donor Assistance

**Public expenditures on government operations will remain at FY20 levels, but large inflows of grant assistance will support COVID-19 targeted programs.** No change in the current levels of government operations or in public expenditures

---

*Activities providing shore-based services to the Majuro port and small tourism sector are the worst hit by COVID-19.*

---

or programs has been assumed for FY21 or for the FY22 budget. However, the government prepared a \$42 million RMI *Coronavirus (COVID-19) Preparedness and Response Plan* in June of 2020<sup>4</sup>. The response plan is largely to be funded through donor grants with an RMI contribution of \$2.2 million. The lead donor is the ADB with a program totaling \$23 million, of which \$6 million has been funded through the Disaster Resilience Program (DRP), \$16 million has been funded through the COVID-19 Pandemic Response Option (CPRO), and a further \$1 million in TA. The DRP and CPRO take the form of budgetary support designed primarily to cover funding shortfalls in the finance of COVID-19 impact mitigation efforts. U.S. support includes the CDC with \$5.0 million, and the U.S. CARES Act, which has been extended through the end of September 2021 with a support package of \$7.5 million projected for unemployment compensation. Multilateral support includes the EU with \$2.7 million and \$2.5 million from the World Bank.

**Utilization of donor funds will be phased over FY21-FY23 and will entail an initial buildup of cash balances and fiscal surplus followed by fiscal deficits as the fund balances are utilized.**

The allocation of the resources, all of which were received in FY20 or will be received during FY21, has been apportioned over the FY21-FY23 period depending on utilization rates reported at the end of February 2021. This implies a buildup of cash balances in FY20 and FY21 reflected in a fiscal surplus in each year and draw down of balances in FY22 and FY23 with a corresponding fiscal deficit in each year. Estimating the fiscal impact of the donor-funded program is challenging. However, half has been allocated to households reflecting funding sources from the U.S. CARES

---

<sup>4</sup> It is understood that this document has been updated and that donor assistance now exceeds \$60 million.

Act and ADB CPRO. One third has been allocated to purchases of goods and services. The remainder of the funds has been apportioned between support to the private sector, some small allocations to payroll, SOEs, government agencies and capital investment.

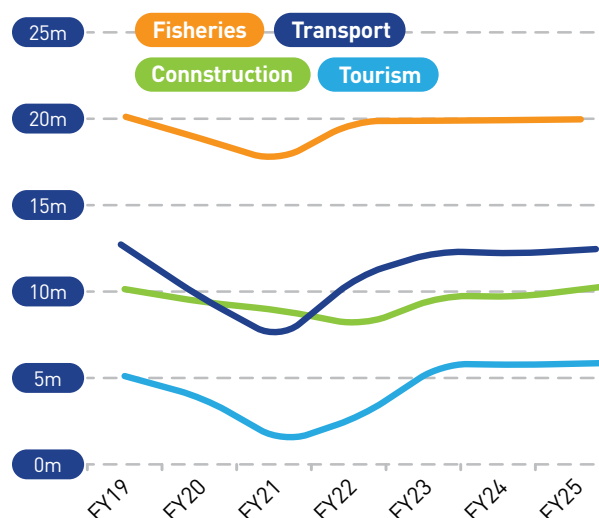
### Kwajalein Military Base

Operations at the military base are assumed to be maintained at normal levels. The Kwajalein Military base is treated as outside of the RMI economic territory and is thus not part of RMI GDP. However, the base employs a significant number of Marshallese workers, most of whom live nearby on Ebeye and commute to work daily. Earnings by these workers constitute 16% of all RMI employee income. It was initially feared that the impact of the pandemic might adversely affect operations at the base. However, apart from several COVID-19 cases that were captured on arrival and did not enter the community, operations were sustained at normal levels in FY20. It is assumed that these conditions will remain in FY21.

### Major industries affected by the Pandemic

Those sectors projected to be hardest hit by COVID-19 are projected to bottom out in FY21, to largely recover in FY22, and to fully recover by FY23. Figure 8 provides a picture of the major industries that have been affected by the pandemic. Fisheries declined in FY20 and will decline further in FY21 reflecting reductions at Pan Pacific (fishing and loining) over the full year. Pan Pacific is projected to recover in FY22, but the observer program funded through MIMRA is projected to recover more slowly reflecting continuing travel constraints. The small tourism sector bottoms out in FY21 and then recovers gradually in FY22 with full recovery in FY23. The construction sector is projected to decline in FY21 and further in FY22, but the depth of the reductions is less than for other sectors. The shore-based transport sectors, after bottoming out in FY21, are projected to recover faster than that of the hospitality sector, and their production should be fully restored by FY23. Finally, a general recovery factor of 50 percent of the difference between the projected levels for FY21

**Figure 8 Major industries affected by the pandemic: value added, constant prices**



and recovery levels expected by FY23 is applied in FY22 to most of the remaining sectors in the economy.

### ECONOMIC IMPACT

The overall economic impact of COVID-19 is now projected to be a total two-year reduction in GDP of 5.9 percent. The economic impact of COVID-19 on the RMI economy is shown in Figure 9. This Technical Note projects a 3.3 percent reduction in GDP in FY21 on top of the 2.6 percent drop estimated for FY20, bringing the total impact of COVID-19 to 5.9 percent over the two years. The major contributing sector to this reduction is shore-based activities supporting fishing fleet provisioning in Majuro port, and responsible for 2.2 percent of the overall decline. The small hotel and restaurant sector, reflecting travel restrictions, is projected to be responsible for a further 1.8 percent of the impact. The construction sector is responsible for 0.7 percent, but despite the negative impact of travel restrictions on key skilled personnel, avoids any large cutbacks. Lastly, the fishing sector is projected to be responsible for a further 0.7 percent of the decline. While there are other offsetting impacts, the government is projected to support the economy contributing a positive 0.6 percent to GDP growth.

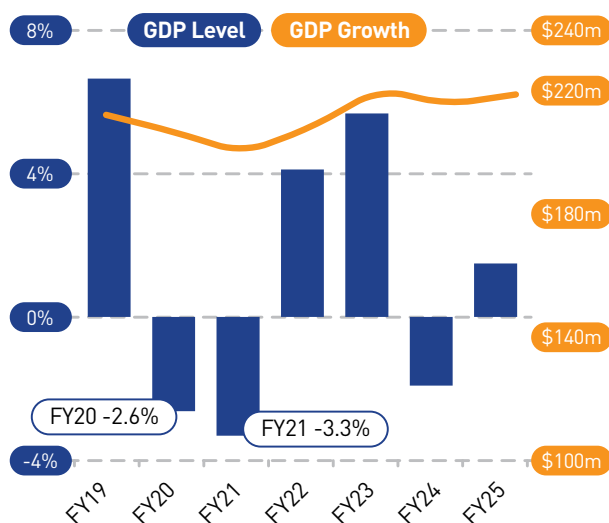


*The economy is projected to fall by 5.9 percent in FY21 compared with the pre-COVID economy in FY19.*

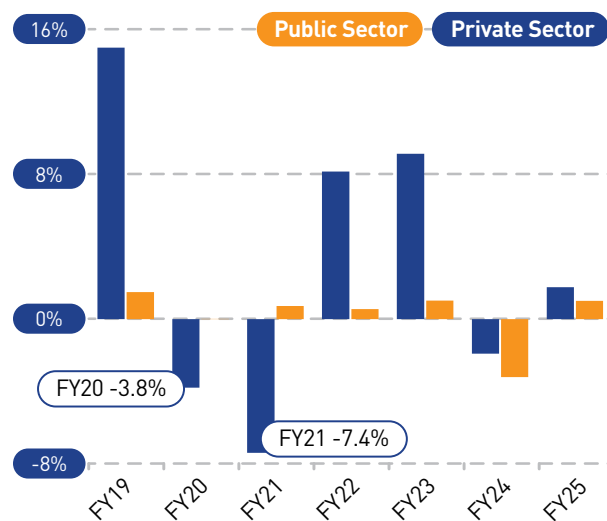
Large size of the public sector and mitigation programs have significantly reduced the impact of COVID-19 on the economy. Given the large public sector which, including State-Owned Enterprises, represented 43 percent of GDP in FY19, the economy is to a significant degree insulated from large shocks such as the COVID-19 crisis. The various mitigation efforts including the US CARES Act have also played a significant role in dampening the overall impact. The original GSUSA study in April of 2020 projected that the wholesale and retail sector would contract and be responsible for 1.2 percent of the decline in the economy. The current estimate, which includes the beneficial impact of the various mitigation programs, indicates that the wholesale and retail sector will contract by a relatively small 0.3 percent. This confirms that these mostly donor-financed programs have been extraordinarily successful in stabilizing the domestic economy.

**Impact of the crisis has been uneven: the public sector is projected to expand modestly while**

**Figure 9 Projected GDP levels and growth**



**Figure 10 Projected private and public sector growth**



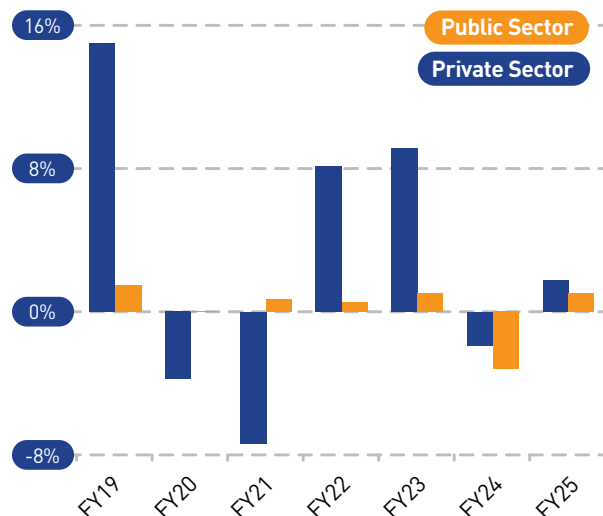
**the private sector has experienced a large contraction.** Figure 10 indicates the impact of the pandemic on the private and public sectors. While the public sector is projected to grow at 0.7 percent reflecting recent trends in payrolls, which are assumed to remain unchanged, the brunt of the COVID-19 impact has been felt in the private sector. In FY20, a relatively small reduction of 3.8 percent was recorded, in part reflecting the closure of the loining plant, and in FY21 a larger reduction of 7.4 is projected. Overall a very sizeable loss in output of 10.9 percent has been projected for the private sector. While the overall impact of the pandemic on the economy may appear “conservative,” when the structure of the economy is taken into full account it is clear that the economic impact is highly uneven. During the crisis, the public sector remains largely unaffected, while the impact on the private sector is quite painful. Even within the private sector, the impact on certain sub-sectors is particularly strong, strengthening the ongoing case for well-targeted mitigation efforts.

## EMPLOYMENT IMPACT

**A loss of 585 of full-time equivalent jobs is projected for FY20-FY21.** The impact of COVID-19 on employment is shown in Figure 11 indicating both level of jobs and the annual



**Figure 11** *Projected employment, numbers and growth*



changes. There is an implied total loss of 585 jobs over FY20 and FY21, which ranges across a series of sectors. This loss in jobs should be understood as a reduction to full-time-equivalent (FTE) positions rather than a specific loss in employed persons. Firms are likely to institute reduced hours for employees before terminating their jobs. With the full force of the COVID-19 impact being reflected in FY21, a further loss of 328 full-time equivalents is projected. The job loss will occur in the same sectors as in FY20, namely: the hotel sector, construction, and transport services. Offsetting this decline, the recent trend of a growing public sector will help reduce the losses in private sector jobs.

**Job losses at the loining plant are expected to remain in FY21.** In FY20 the largest impact of COVID-19 was on the loining plant. The plant

*A modest fiscal surplus of 1.4 percent is projected for FY21 but this shifts into a deficit in FY22 of 3.5 percent as the prior buildup of COVID resources is drawn down.*

was originally anticipated to rebound in FY21. However, access to the US CARES act has provided incentive for both the plant to remain closed and individuals to remain unemployed. Workers who lost their job will receive higher compensation than working at the plant. From the plant's perspective, a loss-making entity established to qualify for domestic fishing discounts under the PNA FSM agreement, a similar incentive exists. By waiting to rehire employees, the business will reduce losses until the provisions of the CARES Act expire and the demand for employment resumes. Given these forces the projections do not assume resumption of operations at the loining plant until FY22.

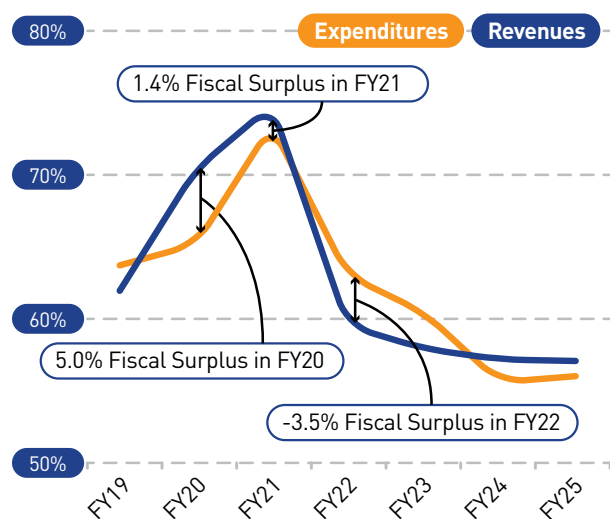
## FISCAL IMPACT

**The anticipated fiscal deficit for FY20 turned into a large surplus.** The fiscal outturn is shown in [Figure 12](#). During FY19 the RMI recorded the first fiscal deficit of \$4.2 million or 1.8 percent of GDP since FY05 at the start of the amended Compact. In FY20, as discussed in some detail in the prior section, the RMI recorded a large fiscal surplus of \$12 million or 5 percent of GDP. This did not reflect fiscal adjustment to projected revenue shortfalls during COVID-19, but rather a set of fortuitous developments. Large inflows of donor grants to assist the RMI during the pandemic, plus mitigation programs that supported the domestic economy, resulted in strong revenue growth. Government expense contracted due to travel restrictions and a downward adjustment for a large repairs and maintenance charge in FY19. While capital expenditures rose to substantial levels funded through capital grants the overall outcome was a large fiscal surplus.

**Revenues are projected to expand in FY21 with continuing growth in grants.** Tax revenues are projected to fall by 0.5 percent in FY21 despite the larger contraction in the economy. However, grants are projected to rise to record levels with an additional \$11 million projected, in large part through the receipt of the ADB CPRO grant of \$16 million. By the end of February 2021 only \$1 million of CPRO funds had been utilized indicating weak implementation capacity. Reflecting the slow pick up much of the funds are projected to be drawn down in FY22 with some remaining for



**Figure 12 Revenue and expenditures % GDP**



FY23. After an initial fear that fishing fee receipts would be significantly reduced in FY21, they have now been re-budgeted at \$26 million, a reduction of \$4 million on FY20. For the FY22 budget, MIMRA has indicated a significant reduction to \$20 million despite indications that the skipjack tuna fishery is recovering well internationally and despite apparent large reserves.

**Government expense is projected to rise significantly.** On the expenditure side recurrent expense is projected to grow by 11 percent, reflecting increases in COVID-19 needs. Non COVID-19 items such as payroll and transfers to government agencies are projected to remain unchanged at pre-COVID levels. Payroll expense is projected to grow by 4 percent, while use of goods and services is projected to increase significantly by 24 percent due to additional grant-funded COVID-19 impact mitigation costs. Subsidies are projected on trend, but with allowance for the announced 20 percent increase in copra subsidy. Grants to other government agencies are projected to fall as the transfer to MISSA is terminated. However, other expense, including transfers to households and support to the private sector, grows rapidly from \$19 million to \$28 million with COVID-19 related needs. Finally, capital expense is projected to fall slightly reflecting project design and implementation bottlenecks arising from travel restrictions.

In FY21, the outturn is projected to be a modest fiscal surplus of 1.4 percent of GDP. With expenditures rising more rapidly than revenues the fiscal outlook deteriorates but remains in surplus. After a record surplus of 5 percent of GDP in FY20 the projections indicate a reduced surplus of 1.4 percent in FY21. In FY22 there is further funding of expenditures from prior COVID-19 related grants resulting in a projected fiscal deficit of 3.5 percent as reserves are drawn down. These trends will continue in FY23 but with a reduced deficit of 2.5 percent of GDP. The net impact is that by the end for FY23 all the prior buildup of COVID-19 funds will have been drawn down.

## **Fiscal policy and sustainability during the post-COVID-19 period**

**While the need for cyclical or event-driven fiscal adjustment has been avoided, structural weaknesses remain.** In any fiscal adjustment program, there are three areas of policy action: expenditure adjustments, revenue enhancements, and access to financing. The optimal balance between these policy actions and the nature of adjustments—temporary or permanent—depend on the assessed nature of the fiscal shock. Short-term cyclical or event driven shocks such as COVID-19 can be addressed through financing arrangements without need for structural reforms. Permanent adjustments with possible use of financing are required in the case of structural deficits.

The RMI entered the period of COVID-19 with a weak fiscal position after the FY19 outturn, indicating emerging structural weaknesses. However, financing needs supplied by donors met the short-term event-driven shock of COVID-19, which were so successful that they resulted in a large surplus for FY20 and projected for FY21. However, the structural deficit and weaknesses indicated by the FY19 outturn have not gone away and need to be addressed. The following discussion indicates areas of reform needed to address fiscal sustainability and to reduce fiscal risks in the RMI in the post-COVID-19 and post-amended Compact era.

## TAX REFORM

**The RMI tax regime is inherently inelastic in relation to economic growth and in need of modernizing reforms.** The RMI, along with its two sister FAS of Palau and the FSM, inherited a tax regime from the Trust Territory Days. The regime is outdated, distortionary and in need of reform. [Figure 13](#) indicates the decline in the tax/GDP ratio and inherently inelastic nature of the current batch of taxes: wages withholding tax, the gross receipts tax and import taxes. A tax reform advisor was recruited with support from AusAid for a two-year period in 2012, a legislative package was drafted, and an implementation program was prepared. Unfortunately, the package failed to garner support and was not taken up by the Nitijela or passed into law. The major focus of opposition was from the business community resisting the introduction of the VAT which was insufficiently understood.

Since the tax reform effort of the early 2010s that followed shortly after the impact of the financial crisis and tight fiscal envelope of the time, reform of the tax regime has not been seriously reconsidered. The boom in sovereign rents and reduced need for revenue effort dampened the demand for tax reform. The donor perspective has been that without commitment to reform of the tax regime, support should focus on administrative strengthening. PFTAC has continued to provide support and in 2020 the ADB launched a TA under the Public Financial Management (PFM) project

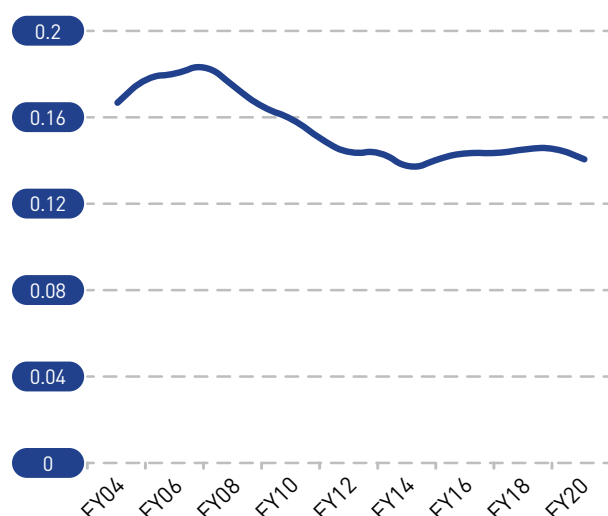
to assist further with administrative support in compliance, improved tax collections, internal processes, and risk management. The ADB TA resulted in one major recommendation to improve IT systems to enhance efficiency. However, while such efforts are highly desirable and will result in increased revenue collections in the short-term, they will not overcome the inherent lack of buoyancy of the existing regime. In other words, tax collections will fail to keep up with the growth in the economy and over time will constrain the delivery of public services.

## FISCAL RESPONSIBILITY

**Passage of a Fiscal Responsibility and Debt Management Bill are key triggers for World Bank and ADB support.** The earlier discussion of recent fiscal trends indicated rapidly rising levels of expenditures growing to absorb the increasing level of revenues. Fiscal discipline to restrict the growth in revenues and thereby to build a reserve to accommodate downturns in the business cycle has been absent. Rather, expenditures have raced to catch up with the expanding funding envelope. In 2019 a committee was formed—chaired by the Chief Secretary—to design a fiscal strategy and to consider a fiscal responsibility framework. As a consequence, in late 2019 a Fiscal Responsibility and Debt Management Act (FRDMA) was drafted, and in early 2020 adopted by cabinet and submitted to the Nitijela. In May of 2021, the bill became law and accompanying regulations were issued. The adoption of the FRDMA related regulations were triggers for a World Bank Development Policy Operation (budgetary support), and also was committed to by the RMI government as a key element of the ADB's Performance and Policy Actions (PPA) necessary for continued grant support at planned program levels.

**Proposed FRDMA modifications would better enable it to address the needs of the RMI.** The sudden appearance of COVID-19 in early 2020 left the work of the FRDMA with a reduced level of technical review and the new law would benefit from the addition of several key, RMI-specific elements that would make the law a better fit for the RMI's unique circumstances and fiscal

**Figure 13 Tax revenue % GDP**





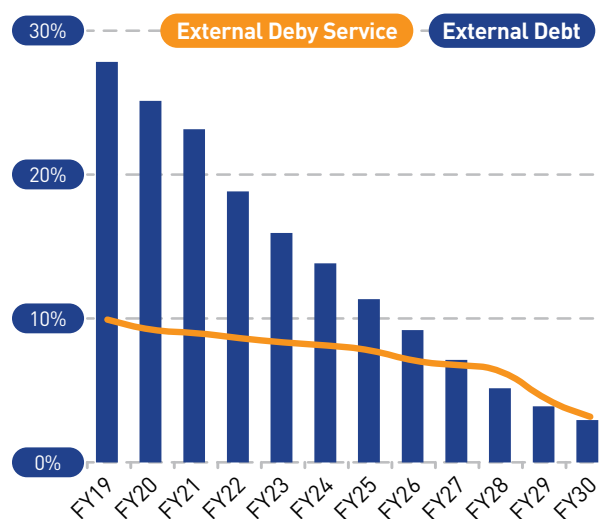
risks. Perhaps most importantly, the FRDMA does not include a principle to restrain growth in expenditures within not only the medium-term revenue envelope but in relation to the size of the economy. At present, efforts are being offered to modify the FRDMA to reflect the key principles identified in the RMI-vetted fiscal strategy and to better reflect the budgetary cycle within the Marshall Islands. It is hoped the FRDMA will be revised to reflect these principles and to engender an environment for the conduct of responsible fiscal operations that was intended in the World Bank's and ADB's respective PPAs.

## EXTERNAL DEBT MANAGEMENT

**External debt falls to low levels.** As a result of the IMF/World Bank's Debt Sustainability Analysis (DSA) indicating the nation as being at high risk of debt distress, the RMI has been designated as a "grant only" recipient, making the RMI no longer eligible for loan financing from multilateral donors. The high-risk assessment has been based on two major factors: (i) the historically high level of debt to GDP and the (ii) potential shortfalls in resources in an adverse scenario after the end of the amended Compact period. External debt stress had posed significant risk to the RMI fiscal position during the early years under the amended Compact, including periods of delinquency in the late 2000's.

The current position has improved significantly, and external debt has fallen from 71 to 26 percent of GDP (see Figure 14). Debt no longer poses a threat in the near term. Debt service as a ratio of debt service payments to general fund revenues has fallen significantly from over 20 percent at the

**Figure 14** External debt % GDP, and debt service % general fund revenues



height of the global financial crisis when the RMI was in state of default to just 8 percent in FY20.

**The designation of "grant only" status has served the RMI well.** External debt has fallen sharply to sustainable levels as a result of being accorded "grant only" status. This status is accorded on the proviso that the RMI does not incur debt from third parties at non-concessional rates. This requirement has inhibited the rapid incurrence of debt that occurred during the original Compact period through FY2002 and during the amended Compact period through FY2010, much of it from the ADB. However, while grant only status has inhibited borrowing, this is not to say that a desire to incur debt has been forgotten; recent applications to IRENA for loan funding and a stream of other proposed loan-financed projects totaling close to \$80 million during 2018 suggest otherwise. So far, the DSA provision and analysis has imposed a useful brake on any reemergence of the past debt financing trends. However, as the Compact renewal terms become known and with a possible favorable outcome, it may be that a reassessment of the major assumptions of the DSA will result in a changed designation for the RMI. The current proposal to implement a well specified FDRMA reflecting the needs of the RMI is thus viewed as essential to provide guidelines on the proper management of debt at sustainable levels and for well-vetted purposes.

---

*Proposed Fiscal Responsibility and Debt Management Act fails to place a break on runaway expenditures and will require redrafting.*

---





## COUNTER-CYCLICAL POLICY, FISCAL BUFFERS AND CLIMATE EVENTS

**The RMI has a need for counter-cyclical fiscal buffers and reserves.** The operation of fiscal policy during the amended Compact has experienced periods of substantial cash flow shortfalls, resulting in fiscal and economic instability including failure to service accounts payable and temporary default on external debt repayments. The RMI, unlike larger more financially developed nations, has no access to capital markets. Further, the adoption of the US dollar and lack of a central bank removes the availability of a domestic source of funds to support cash flow management. Under these circumstances the RMI needs to build a pool of savings from which to fund government operations during cyclical downturns and periods of illiquidity.

**Target levels of cyclical reserve funds may be set in relation to domestic revenues.** Many PICS with their own currencies, fixed exchange rates, and central banks operate on the principle of maintaining foreign reserves at a defined level of imports. In the RMI's case, this objective would translate into maintaining a minimum level of resources equivalent to a target number of months of domestic revenues. This could be determined with reference to historical periods of cyclical volatility. A source of funds to establish the cyclical fund reserve does not presently exist and would need identification. It might be achieved on a matching basis with donor funding and internally generated RMI domestic funds out of the current large accumulated fiscal surpluses. Once established, the fund would need periodic augmentation to ensure the reserve target was met and a mechanism to replenish the fund after it had been drawn upon was identified. Clear rules specifying the conditions under which the reserve funds could be accessed would need adoption.

**A Climate Resilience Fund is likely to become increasingly necessary.** In the case of periodic climate events and natural disasters, the RMI could establish a climate resilience fund to help mitigate adverse impacts. While the RMI has access on favorable terms to climate event insurance facilities from the World Bank and ADB, there are events and circumstances under which access to these funds may not be available or may not be responsive on a timely basis. Contributions from domestic

---

*Reforms to improve the poorly performing SOEs are showing signs of improvement, but there remains a long road ahead.*

---

revenues—and from donor partners--could be set aside into the fund until a target is reached perhaps based on the World Bank's Pacific Catastrophe Risk Assessment and Financing Initiative (PCRAFI). In the RMI's case the risk and cost of an annual climate event has been estimated at about 2.0 percent of GDP. The target for the fund might be set in relation to this risk and the availability of other donor fund facilities. Withdrawal of funds would be permissible once the President declared a state of national emergency. Commitment costs of the World Bank's and ADB's disaster funds, or premium costs for any other such insurance facility, could be drawn from the climate resilience fund.

## STATE OWNED ENTERPRISES

**The SOE sector, comprising a dozen public enterprises, has underperformed and poses significant costs and fiscal risks.** Given the challenges posed by remoteness, small size, and dispersion, SOEs remain active in numerous crucial sectors of the RMI economy. While in some circumstances there are legitimate reasons for the state to subsidize the provision of key public services, for many years the RMI's SOE sector has underperformed, operating at an average annual loss of up to 6 percent of GDP and incurring average subsidies of 4 percent of GDP over the decade from 2005 – 2014. Furthermore, rates of return on assets and on equity over the period FY15 – FY17 were –2 percent and –4 percent, respectively, indicating both poor performance and a negative return on government's investments.

**The Government of the RMI enacts SOE Act to improve accountability, performance, and operation of the sector.** In response to these concerns, in 2015 authorities introduced an SOE Act which is designed to focus public



enterprises on achieving commercial viability as well as to strengthen governance structures and accountability, including through the requirements of annual Corporate Statement Intent (CSI), Business Plans (BP), and the introduction of Community Service Obligation (CSO) contracts. For FY19 and FY20 most entities completed both CSOs and BPs even if some were behind schedule. More recently a selected sample of SOEs: AMI, MAWC, MISC, and Tobolar were requested to develop CSOs for the delivery of services. However, development of CSOs requires detailed accounting, information on services delivered and staff available with the appropriate skill set. Progress has been slow reflecting a variety of factors from disease such as dengue, the recent COVID-19 pandemic and some reluctance to depart from earlier practices. However, the SOE project, given its small size, has been quite successful in raising the level of awareness and management in the sector compared to prior years. The project warrants further donor support and resourcing to ensure the consolidation of gains made to date and to achieve full compliance with the SOE Act across the entire sector.

## MARSHALL ISLANDS SOCIAL SECURITY ADMINISTRATION (MISSA)

**An actuarial study in 2011 projected collapse of the Social Security System in 2023, motivating a series of important reforms.** The financial position of the Marshall Islands Social Security Administration (MISSA) has been a long-standing issue dating back over many years and identified as a significant fiscal risk and in need of reform. In 2011 an actuarial study projected the threats to the system and exhaustion of its reserve investments by 2023. As a result of these dire projections, a series of reforms were proposed in 2013 but failed to be acted upon by the Nitijela. However, given the imminent collapse of the system a revised version of the reforms was enacted in 2017. Compared with the original reform list, it was recognized that these reforms would likely be insufficient to restore long-term sustainability and the Nitijela acted to provide annual transfers of \$3.6 million in FY17, which have been gradually reduced to a \$1.6 million appropriation in the FY21 budget.

**MISSA financial position has improved dramatically.** The impact of these reforms and cash transfers appears to have been significantly greater than originally projected. In both the FY18 and FY19 audits MISSA indicates that contributions and benefits were evenly matched thus allowing annual earnings on investments to accumulate in reserves. Based on the current financial position of the fund and projected contributions based on recent economic work conducted by GSUSA and projections of benefit streams from prior actuarial assessments, the outlook for MISSA appears brighter.

Figure 15 suggests that contributions and benefits are likely to remain evenly balanced for the next several years. The projections, based on a 4.5 percent return on invested assets, the rate assumed in the 2017 actuarial assessment, and termination of government transfers in FY22, indicate that reserves will peak in FY23 and gradually decline thereafter. These results suggest that MISSA continues to pose a fiscal risk but the need for immediate remedial action may be less than had been assumed. However, the benefit projections presented here are based on earlier actuarial studies. There remains a need for a revaluation of the system and careful monitoring.

## OUTER ATOLL INCOME SUPPORT MECHANISMS

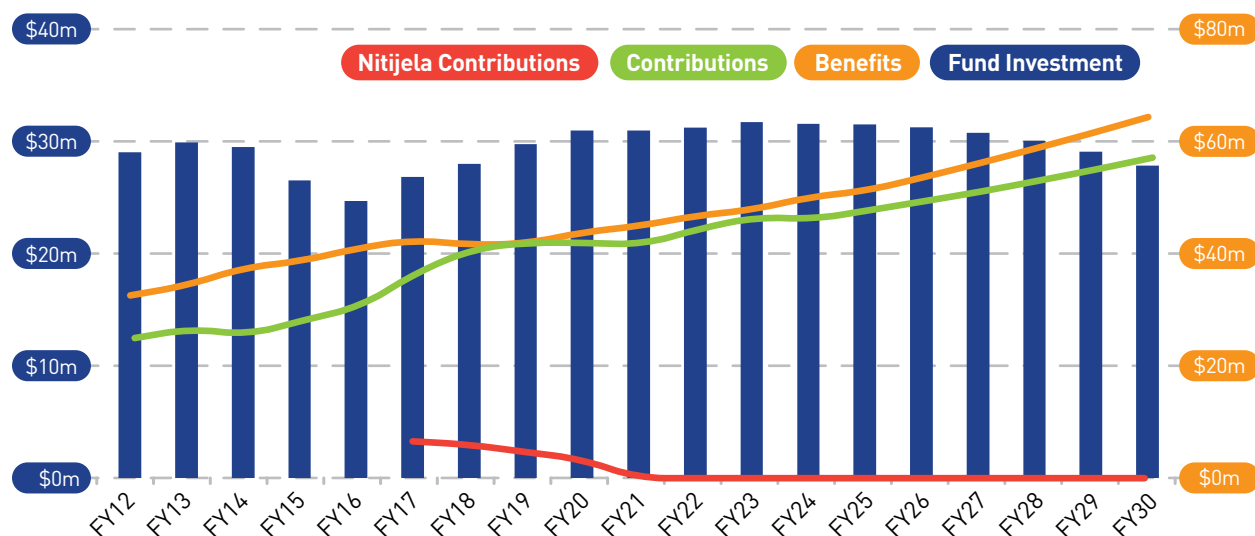
**Increase in copra producer prices to high levels above world market prices to support outer atoll incomes represents a significant fiscal threat.** Related to the recent rapid increase in subsidies to the SOE sector, subsidies to Tobolar, the copra processing plant, have also increased. Tobolar collects copra from household/producers in the outer atolls and exports to world markets at prices generally well below the cost of operations. Over the last five years Tobolar has recorded negative

---

*Earlier reforms to the Social Security system have improved financial sustainability.*

---

**Figure 15 Social security, contributions, benefits and government transfers**



value-added. However, support to outer island households has become a high priority social objective of the government. The rapid increase of the subsidy, which was originally intended as a temporary, pre-Christmas bonus in 2015, appears to have become permanent and represents a significant fiscal threat given the obvious difficulty in restoring grower prices to their original levels in a politically sensitive area. Identification of more economically efficient means of outer island income support is a key public policy objective that has yet to be seriously addressed from either a technical or political perspective.

while favorable and generous donor support has alleviated the immediate need for adjustment, there remains a large range of policy challenges that require attention to sustain the nation in the post-COVID-19 period. As donor resources return to normal levels and in the run up to the renewal of the amended Compact, the RMI needs to implement policy reforms that will support fiscal sustainability and reduce fiscal risks.

## Conclusion

**While the fiscal impact of COVID-19 turned out to be less adverse than originally feared, reforms are needed to enable fiscal sustainability and reduce fiscal risk.** The outturn for FY20 and that projected for FY21 and beyond has turned out far more favorable than anticipated. The GSUSA impact study<sup>5</sup> conducted shortly after the initial phase of COVID-19 was prepared before donor assistance packages had been mobilized and on the basis that the RMI would be facing significant fiscal stress. The compelling need for fiscal adjustment described in that study turned out to be less urgent than expected. However,

*The Impact of COVID has been less severe than anticipated, but reforms are needed to reduce fiscal risk and maintain economic stability.*

5 Ibid

## About EconMAP

The Economic Monitoring and Analysis Program (EconMAP) provides professional expertise to support statistical development and economic analysis in the three Freely Associated States (FAS) of the Republic of the Marshall Islands (RMI), the Federated States of Micronesia (FSM) and the Republic of Palau (ROP). Annual program outputs for each FAS include the development of economic statistics, the publication of Economic Reviews, and the delivery of economic presentations. Occasional topical reports and technical notes are also published occasionally.

The EconMAP program is supported by the Department of the Interior's Office of Insular Affairs, and managed by the Graduate School USA's Pacific & Virgin Islands Training Initiatives. This publication was made possible with supplemental funding support from the Asian Development Bank through RETA-9719. Additional program information is available online at <http://www.pitiviti.org>.



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