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THE BAHAMAS

SELECTED ISSUES

April 15, 2022

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Western Hemisphere Department

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REVIEWING THE RULES-BASED FISCAL FRAMEWORK[1]

The Bahamas introduced a rules-based fiscal framework with a budget balance operational target and debt anchor in 2018. Since then, the pandemic and Hurricane Dorian have significantly widened the distance between the debt ratio and the envisaged anchor. This paper describes the current fiscal situation and prospects from the viewpoint of the existing fiscal rules and provides some options for the upcoming mandatory review of the framework in 2023. The main findings include: (i) the debt ceiling under the current rules remains appropriate, (ii) the current operational target does not ensure sufficient convergence of the debt ratio towards the target, (iii) the authorities' envisaged medium-term budget surplus could ensure convergence to the debt ceiling within a decade if supported by well-designed and growth friendly fiscal consolidation measures, and (iv) an automatic adjustment mechanism could strengthen the credibility of the framework.

A. Background and Motivation

1. The 2018 Fiscal Responsibility Act (FRA) laid out a fiscal rules framework and mandated the establishment of a Fiscal Responsibility Council. The act closely followed IMF staff advice at the time[2], with the rules-based framework consisting of two operational targets—an overall deficit rule and cap on recurrent expenditure growth—and a debt anchor (Table 1). These rules are complemented by a mandatory annual Fiscal Strategy Report (FSR) that sets the transition path toward the targets. The Fiscal Responsibility Council, a new independent body established in 2019, reviews the FSR and assesses the government's compliance with the fiscal targets, with mandatory annual reports to Parliament. The rules embed an escape clause to allow the deviation from the rules / targets under exceptional circumstances, such as natural disasters.

Table 1. The Bahamas: Summary of 2018 Fiscal Rules

TARGET VARIABLES	CEILING	TARGETED YEARS TOWARD CEILINGS
OVERALL DEFICIT	0.5 percent of GDP	FY2020/21
GOVERNMENT DEBT	50 percent of GDP	FY2024/25
RECURRENT EXPENDITURE GROWTH	Long-term nominal GDP growth	Once the deficit has reached the target.
KEY DESIGN FEATURES		
COVERAGE	Central government	
COMPLIANCE MARGIN	0.5 percent of GDP	

[1] Prepared by Atsushi Oshima (WHD). I am grateful to the Bahamian authorities for their productive comments and Tigran Poghosyan, William Gbohoui, Olusegun Ayodele Akanbi, and the IMF Jamaica country team for substantial inputs.

[2] IMF Country Report No. 18/119

Table 1. The Bahamas: Summary of 2018 Fiscal Rules (Concluded)

ESCAPE CLAUSE	"Temporary" deviations from the fiscal targets and path are allowed "only when sudden and unexpected events arising from external shocks result in a significant economic downturn, as well as in the case of national security considerations, or natural disasters". The Minister of Finance needs to provide an adjustment plan to Parliament, and that adjustment plan needs to be published.
REVIEW AND AMENDMENT OF FRAMEWORK	The first review of the framework is set for 2023, and every five years after the first review. Every year, the government publishes a Fiscal Strategy Report that lays out the fiscal path required to meet the fiscal targets.

Sources: The Bahamas 2018 Fiscal Responsibility Act; and 2018 Fiscal Strategy Report.

2. **At the time of implementation in 2018, the operational targets ensured sufficient convergence towards the debt ceiling, while allowing room for stabilization.** Staff simulations in 2018 suggested that a 50 percent debt anchor would be appropriate for The Bahamas as this would ensure that the country's debt would remain below the "critical-debt" benchmark of 70 percent of GDP for emerging markets even in the face of large shocks. To reach that debt ceiling within a decade, while allowing a 3-year transition period towards the operational targets, required an overall budget deficit of 1 percent at the time. Staff also recommended setting up a savings fund for natural disasters, requiring additional savings of 0.5 percent of GDP, suggesting a headline deficit target of 0.5 percent of GDP.

3. **Subsequent developments forced the government to repeatedly revise the transition path towards the targets.** The FY2018/19 overall deficit was in line with the path set by the 2018 FSR, but Hurricane Dorian in September 2019 forced the government to trigger the escape clause and delay the achievement of the operational targets to FY2024/25. As a result, the envisaged convergence to the debt ceiling was also delayed to FY2028/29. The COVID-pandemic, which led to an unprecedented downturn, required the continued use of the escape clause, and further delayed the achievement of the fiscal targets. As a result of the unprecedented collapse in revenues and significant COVID-related spending support, the deficit reached almost 14 percent in 2020/21, and debt increased to more than 100 percent. The government now intends to achieve the deficit and debt targets by FY2024/25 and FY2030/31, respectively.

The Bahamas: Overall Balance Path, FY2018/19–25/26
(Percent of GDP)

	FY2018/19	FY2019/20	FY2020/21	FY20201/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26
2018 Fiscal Strategy Report	-1.8	-0.8	0.1	0.1				
2019 FSR		-5.3	-3.8	-2.2	-1.7	-0.8	-0.5	
2020 FSR			-11.6	-7.8	-2.5	-1.5	-0.5	
FY2021/22 Budget			-12.3	-7.7	-2.8	-1.1		
2021 FSR		-7.2	-13.6	-7.4	-3.3	-1.5	0.5	1.5
Outturn	-1.7	-7.2	-13.7					

Sources: The Bahamian authorities; and IMF staff calculations.

Note: Fiscal-year nominal GDP for "Outturn" is calcluated by IMF staff based on the latest quarterly national account.

The Bahamas: Government Debt Path, FY2017/18–25/26
(Percent of GDP)

	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY20201/22	FY2022/23	FY2023/24	FY2024/25	FY2025/26	Target Year
2018 Fiscal Strategy Report	57.8	56.7	55.3	53.8	52.4					FY2024/25
2019 FSR	58.9	60.0	64.4	66.6	66.5	65.9	64.5	62.9		FY2028/29
2020 FSR		56.6	66.0	83.0	85.0	80.1	76.7	73.7		FY2030/31
2021 FSR			72.5	100.4	93.3	90.1	86.6	82.7	79.4	FY2030/31
Outturn	57.5	57.1	72.4	101.0						

Sources: The Bahamian authorities; and IMF staff calculations.
Note: Fiscal-year nominal GDP for "Outturn" is calcluated by IMF staff based on the latest quarterly national account. The government debt here consists only of official debt contracts, and does not include other debt liabilities, such as payment arrears.

B. The Current Targets in the Post-Pandemic World

4. Given the large gap between the current fiscal ratios and targets (Figure 1), it is worth revisiting the current calibration and timeframe of the fiscal rules and targets. Although the short-term uncertainty is large, developing a credible and achievable fiscal consolidation path underlined by well-designed fiscal measures and anchored in a rules-based framework is essential to help increase fiscal discipline, transparency, and accountability. Now is also a good time to start evaluating potential options, given the upcoming review of the fiscal rules taking place in 2023.

5. Despite these challenges, staff still sees a long-term debt ceiling of 50 percent as appropriate. First, it is worth noting that the target applies to central government, and that consolidated public debt today is about 6 percentage points higher than central government debt. Second, the vulnerability of the Bahamian economy, especially against climate change would require high fiscal buffers, especially in the absence of other insurance mechanisms against natural disasters. The stochastic simulation based on Eyraud et al. (2018a) indicates that The Bahamas would need about 20 percentage points safety margins to avoid crossing the “high risk” debt threshold for emerging market economies (Figure 2, left chart).[3] Incorporating a natural disaster shock based on historical damages associated with hurricanes in The Bahamas, the required buffer is even larger (Figure 2, right chart).[4]

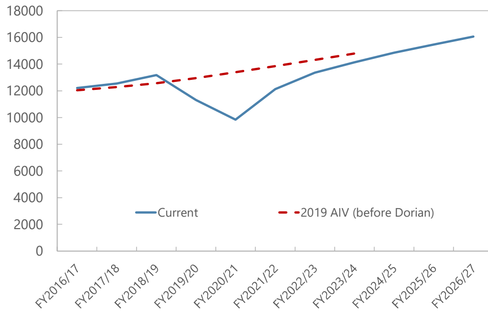
[3] The simulation is similar to the second approach in the 2018 The Bahamas Article IV Selected Issues Paper with the updated data. The safety margin was calibrated to ensure –with a 90 percent probability– that debt does not cross the critical ceiling in the event of macroeconomic shocks. Series of shocks were generated from the multivariate joint distribution estimated from the vector-auto regression model of key macro variables.

[4] See the details in Gbohoui and Akanbi (Forthcoming). The probability of the natural disaster is set at 40 percent as The Bahamas received 13 non-trivial hurricanes and tropical storms in the last three decades. The average simultaneous growth impact of these incidents on real GDP is 3.2 percentage points. The shock is evaluated as the difference between the actual growth and the growth projection in the April World Economic Outlook in the corresponding years.

Figure 1. The Bahamas: Fiscal Projections, Before and After Pandemic

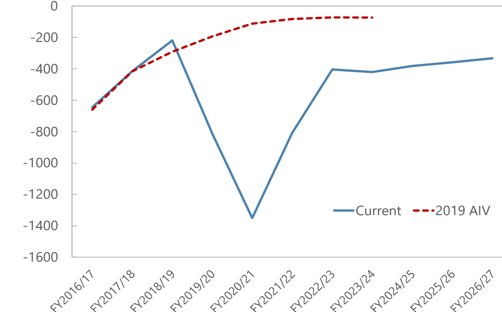
The twin shocks led to a sharp contraction…

Nominal GDP, FY2016/17–26/27
(Millions of Bahamian dollars)



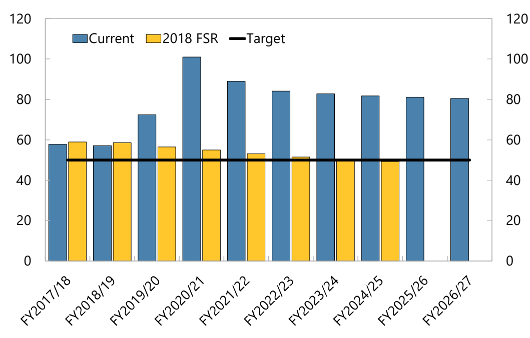
… and deterioration in the fiscal balance.

The Bahamas: Overall Balance, FY2016/17 - 26/27
(Millions of Bahamian dollars)



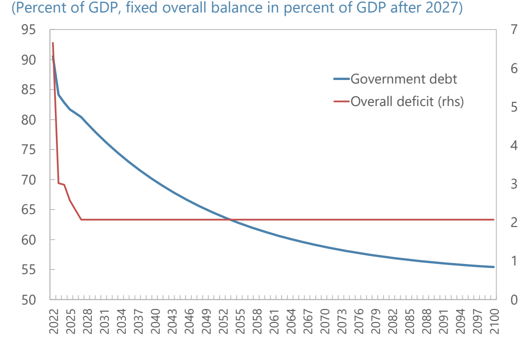
The government debt level reached 100 percent of GDP.

Government Debt, FY2017/18–26/27
(Percent of GDP)



Under staff's current policy baseline with GDP/deficit kept at 2026/27 levels, debt will not reach the target.

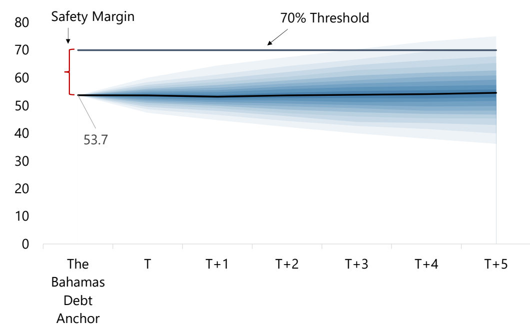
Long-Term Fiscal Projection
(Percent of GDP, fixed overall balance in percent of GDP after 2027)



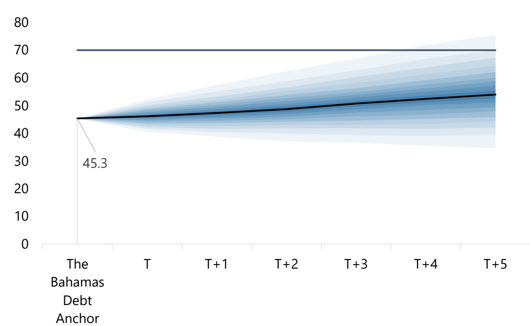
Sources: The Bahamian authorities; and IMF staff calculations.
Note: Government debt includes not only direct charges of the government but also legacy arrears to the domestic sector and promissory note to the Bank of The Bahamas.

Figure 2. The Bahamas: Stochastic Simulation to Calibrate the Required Debt Buffer

Debt Anchor without Natural Disaster

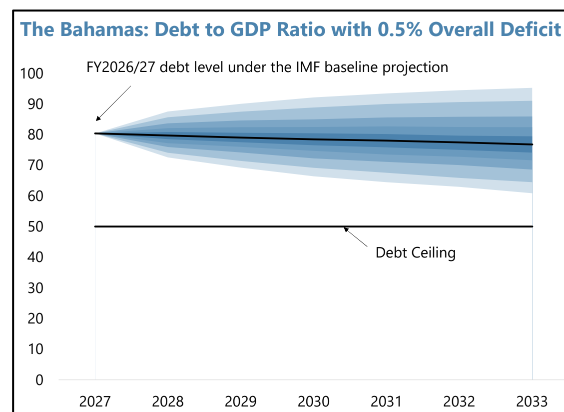


Debt Anchor with Natural Disaster



Source: IMF staff calculations.

6. Given the large increase in debt following Hurricane Dorian and Covid-19, a deficit target of ½ percent of GDP will be insufficient to reduce debt to 50 percent over the next decade. Staff's baseline scenario which incorporates current legislated policies would have debt stay above 80 percent of GDP in FY2030/31. This scenario assumes that the COVID-related spending measures are phased out in FY2022/23 and that revenue collections benefit from the broader economic recovery and an updated property tax roll, keeping the overall deficit elevated at around 2 percent of GDP by FY2026/27. With this deficit and long-term nominal growth of 4 percent, public debt would not reach the target in the foreseeable future (Figure 1, bottom-right chart). The stochastic simulation based on Eyraud et al. (2018b) indicates that with a deficit target of ½ percent in FY2026/27 and continued thereafter, debt would decline to 78 percent by 2030/31.



C. Options for the Framework Review

7. Staff recommends the authorities to consider some options around the calibration and design of the fiscal rules and composition of the underlying fiscal adjustment:

- Modifying the timeframe over which to achieve the debt target. According to the latest Fiscal Strategy Report, the authorities aim to run an overall surplus of 1½ percent of GDP by FY2025/26, to be achieved through raising the revenue to GDP ratio to 25 percent (mainly through tax administration improvements), reducing current spending to 20 percent, while permanently increasing capital expenditure to 3.5 percent of GDP. They still aim to reach the debt target of 50 percent by FY2030/31. Given the severity of the shocks, consideration could be given towards delaying the achievement of the debt target by at least two years.

- Putting in place a fiscal policy mix that is supportive of economic growth. While staff agrees with the authorities on the overall size and broad composition of fiscal adjustment and the 1½ percent overall surplus to be achieved over the medium-term, it sees a well-designed and credible tax policy reforms as an integral part to get to a 25 percent of GDP revenue-GDP ratio. Staff has long advocated for more public investment to strengthen output and resilience and thus supports the authorities' proposal to raise capital spending/GDP to 3½ percent over the medium term. Conducting rigorous and transparent cost-benefit analyses would help ensure sound project selection. Spending on health and education, which is well below regional peers, needs to increase to boost human capital. At the same time, there is scope to reduce spending on other items (outlays to state-owned enterprises, administration).

- In addition, the rules-based framework can be strengthened through an automatic adjustment mechanism (AAM), which explicitly guides the government on how to revert to the original path

towards the targets after the government has deviated from them. Among regional peers, Jamaica has such a mechanism in place (Box 1).

- Consideration could also be given to either removing the expenditure rule that comes into place once the deficit target is reached from the framework or incorporating discretionary revenues into the rule. One option would be to require that spending increases which go beyond the country's long-term economic growth rate must be matched by additional discretionary revenue measures.

- Re-accumulation of the natural disaster fund, which would provide additional financing resources in an emergency situation, could be considered to cover smaller-scale natural disasters. However, this would require additional revenue increases beyond those mentioned above to have the same gross debt path with lower net debt.

8. A growth friendly fiscal adjustment that achieves a surplus of 1½ percent by FY2026/27 can facilitate convergence to the debt target within a decade. Due to data limitations, it is challenging to estimate The Bahamas specific fiscal multipliers, but past research indicates that fiscal multipliers vary among fiscal instruments. We conduct another simulation, non-stochastic, but addressing this point by setting different fiscal multipliers associated with revenue, productive expenditure, and non-productive expenditure measures. Productive spending here consists of spending on health, education, and capital expenditure, which could have a positive long-term impact on potential growth. With the multipliers set as indicated below, the government could bring down the debt-to-GDP ratio to 50 percent by FY2032/33 with an underlying fiscal surplus of 1½ percent of GDP by 2026/27 and recurrent spending growth capped at nominal GDP thereafter (Figure 3).

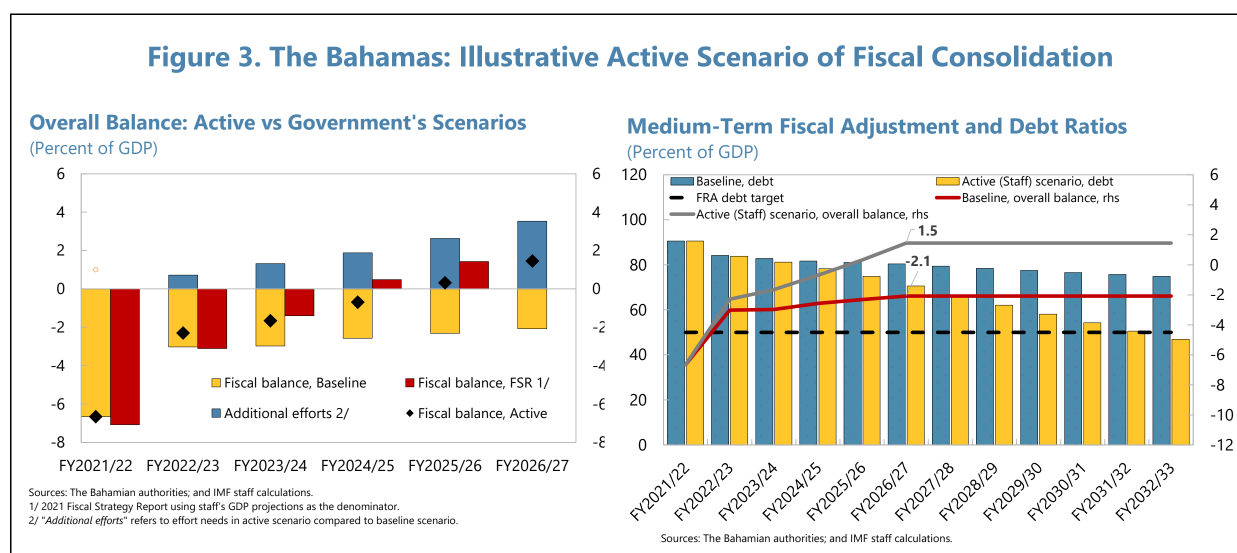


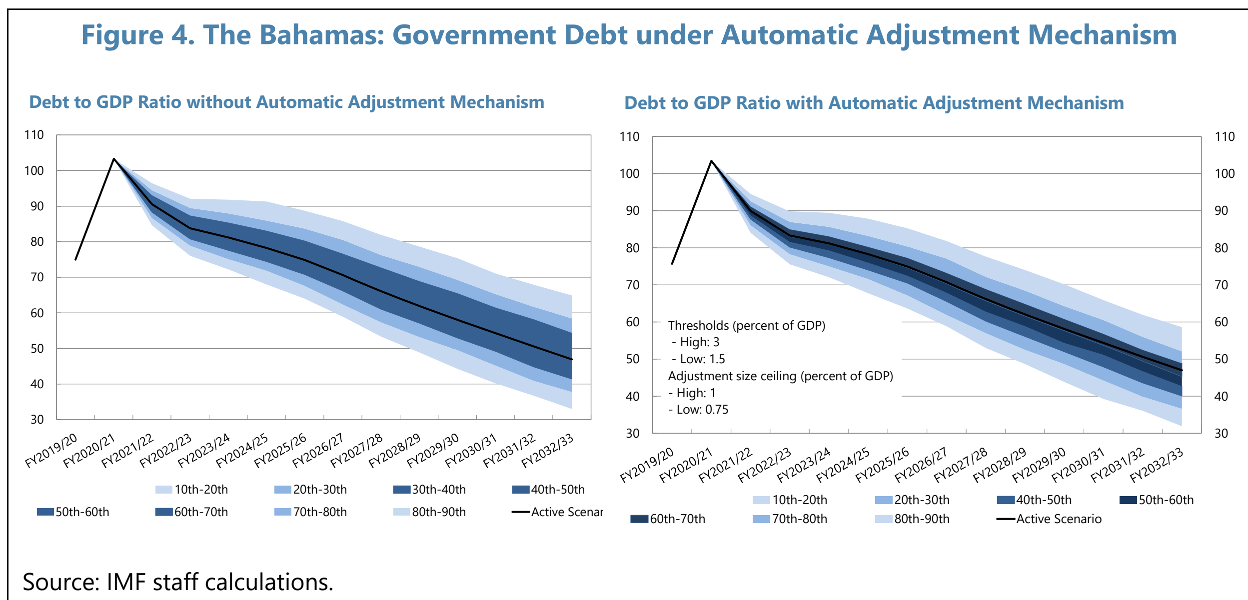
Figure 3. The Bahamas: Illustrative Active Scenario of Fiscal Consolidation

9. More specifically, relative to staff's baseline, staff's active scenario assumes the following:

- Revenue increases by about 1 percentage points of GDP annually from FY2022/23 so that the revenue-GDP ratio would reach 25 percent by FY2026/27.
- Productive spending increases by ½ percentage points of GDP annually.
- Unproductive spending decreases by ⅓ percentage points of GDP annually.
- After FY2026/27, an overall surplus of 1½ percent of GDP is maintained.
- The impact fiscal multiplier for revenue is 0.5 and gradually declines to zero over five years, 0 for unproductive spending, 0.1 for productive spending for the first year, then gradually increasing toward 0.5 (as it takes time to build the capital stock). The fiscal multiplier here measures the impact of a $1 dollar change in discretionary revenue or spending on the level of GDP.

10. Adding an AAM to the framework could enhance credibility. We add stochastic shocks to the active scenario above to show how the AAM could ensure convergence to the debt target and minimize risks of overshooting. The shock was generated from the multi-variate normal distribution estimated from a vector autoregression with GDP and the fiscal balance. The correction scheme and its parameters are set in line with what was implemented in Jamaica. That is, the overall balance would be adjusted by at least ¾ percentage point of GDP when the cumulative deviation of the overall balance outturn from its target fell in between 1½ percent and 3 percent of GDP. When the cumulative deviation exceeded 3 percent of GDP, the annual adjustment should be 1 percent a year, to reduce the cumulative deviation to zero. The target overall balance each year corresponds to the one under the active scenario above, and the cumulative deviation is computed starting in FY2022/23. The simulations show that the automatic adjustment mechanism below would not only shift down the range of the paths but also narrow the range itself (Figure 4).

Figure 4. The Bahamas: Government Debt under Automatic Adjustment Mechanism



Source: IMF staff calculations.

11. Reviving the natural disaster fund could also improve the resilience against smaller-scale natural disasters. The Bahamas established a natural disaster fund just before Hurricane Dorian. Its initial resources came mainly from government dormant accounts and totaled about B$40 million (0.4 percent of GDP). Following Hurricane Dorian the fund was depleted. However, the government is considering to re-accumulate the Fund. This shock-absorbing mechanism could be useful to reduce the impact of smaller-scale natural disasters.

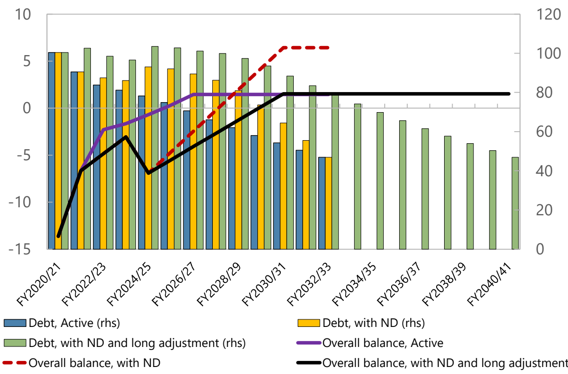
12. Staff simulations show that natural disasters can significantly disrupt the path towards the targets. If another large hurricane were to hit the country, GDP would decline and the government would likely need to support the vulnerable, leading to a deterioration in the debt-to-GDP ratio. For example, another natural disaster shock similar to Hurricane Dorian[5] in the middle of the consolidation could significantly derail progress towards the targets. If the government wanted to maintain a similar timeframe to achieve the debt target, the required overall balance could significantly increase (Figure 5, left chart).[6] While in principle, a natural disaster fund could enable the government to still reduce the debt to the target over the envisaged timeframe without significant changes to the operational targets (Figure 5, right chart), it may be difficult to replenish the existing disaster fund in the current high public sector financing cost environment.[7] The simulations here assume an accumulation of resources to the Fund of ¾ percent of GDP per year. This would require significant additional revenue mobilization to the 5 percentage points of revenue-to-GDP increase assumed in staff's active scenario. A smaller fund might be more feasible but would then only cater to smaller scale disasters.

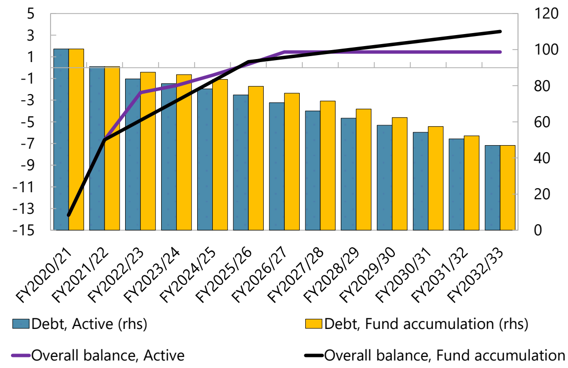
[5] Hurricane Dorian impact is calculated as the differences in the projections between 2019 Article IV surveillance (pre-Dorian) and 2020 January World Economic Outlook (after Dorian but before the COVID-19 pandemic).

[6] The simulation is based on the operational target calibration framework by Gbohoui and Akanbi (forthcoming). The natural disaster in this non-stochastic simulation takes place in FY2024/25. Nominal GDP growth is assumed to be zero in that year and the fiscal balance deteriorates by 4 percentage points. GDP would rebound so that nominal GDP would return to 99 percent of the level without the ND scenario in two years. The more ambitious fiscal adjustment is assumed to continue over five years and then the fiscal balance would return to the previous path (in the absence of the ND shock).

[7] In the NDF accumulation scenario, the government would start accumulating the fund from FY2026/27. The investment amount in the Fund would be fixed at 0.75 percent of GDP a year time so that the Fund would be 5 percent of GDP by FY2032/33.

Figure 5. The Bahamas: Illustrative Scenario without and with Natural Disaster Fund





Sources: The Bahamian authorities; and IMF staff calculations.

D. Conclusions and Recommendations

13. Given the deterioration in public finances as a result of the pandemic and Hurricane Dorian, the current calibration of fiscal rules needs to be revisited. Staff still views a 50-percent debt ceiling as appropriate given the susceptibility of the Bahamas to economic shocks and climate change and the need to build fiscal buffers. But the current operational target of ½ percent of GDP deficit will not bring down the debt ratio decisively over the next decade. The government's envisaged 1½ percent medium-term surplus seems appropriate and would be sufficient to bring debt down to 50 percent over a decade provided that there is a shift to a more growth friendly policy mix, that includes significant tax reforms, elimination of wasteful spending and quality increases in public investment and protects the vulnerable. Introducing an automatic adjustment mechanism could further enhance the credibility of the government's medium-term strategy.

Box 1. Automatic Adjustment Mechanism in Jamaica

Jamaica established the Fiscal Responsibility framework under the Financial Administration and Audit Act in 2017. The framework has fiscal rules accompanied by an automatic adjustment mechanism (AAM). The fiscal rules consist of a public debt ceiling (60 percent) and wage bill-GDP ratio ceiling (9 percent). The Jamaican government needs to set the annual fiscal targets, like the Bahamian government does, to reduce the debt toward the ceiling as government debt was around 110 percent of GDP when the Fiscal Responsibility framework was introduced. The AAM is expected to ensure the downward trajectory of the government debt toward the ceiling.

The AAM consists of the following components

- Notional account: The cumulative deviations from targeted fiscal balances are recorded in this account.
- Upper and lower thresholds: The value of the notional account hitting these thresholds will trigger the government's adjustment actions.
- Upper and lower adjustment size: The minimum adjustment size is also set in the scheme, depending on which threshold the notional account hits.

If the notional account is between 1.5 and 3 percent of GDP[1], the government needs to adjust the targeted overall balance by at least 0.75 percent of GDP the following year and the cumulative deviations shall be remedied over a period of three financial years. If the notional account exceeds 3 percent of GDP, the government needs to adjust the overall balance target by 1 percent of GDP and the cumulative deviations shall be remedied over a period of four financial years.

[1] These parameters were enacted in December 2020. For the original parameters, see https://moj.gov.jm/sites/default/files/laws/The%20Financial%20Administration%20and%20Audit%20Act_0.pdf

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The Bahamas, 2018. IMF country report 18/118.

The Bahamas Selected Issues, 2018. IMF country report 18/119

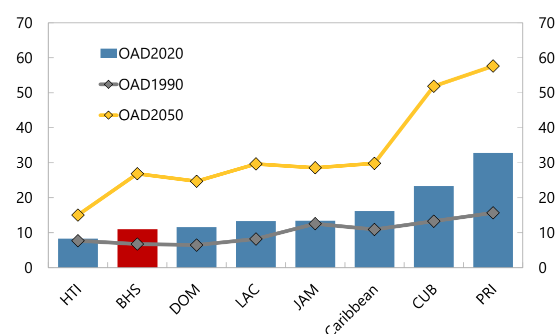
REVIEWING PUBLIC AND PRIVATE SECTOR PENSIONS[1]

The Bahamas is aging fast, so there is limited time to ensure sustainability of the pension system. This review describes the current system for both civil servants and private sector workers and lays out some policy options. It finds that the combination of high accrual rates and last/best earnings reference wages with relatively low or absent contribution rates leads to high internal rates of return. Moreover, the retirement age for civil servants is very low, while the minimum years of contribution requirement in the private sector could leave a significant share of the elderly without pensions.

A. Background and Motivation

1. The Bahamas has one of the youngest populations in the region, but it will be ageing fast. Currently The Bahamas has a relatively low old-age dependency ratio of 11 people over the age of 65 for every person of working age, compared to an average ratio of 16 among Caribbean countries. However, the old-age dependency ratio in The Bahamas is expected to more than double to 27 by 2050, almost catching up with the average of the region.

Old-Age Dependency Ratio



Source: UN Population Prospects

2. Rapid poplation ageing means that ensuring fiscal sustainability of the pension system is urgent. To avoid sudden disruptions and large intergenerational differences a gradual implementation of reforms is preferable. However, equitable pension reforms are slow to take full effect. Therefore, the relatively low current old-age dependency ratio provides the perfect opportunity to start this gradual implementation of pension reforms and would prevent the need for an abrupt adjustment in the future.

3. The current pension system in The Bahamas consists of two earnings related pension schemes, one for civil servants and one for the private sector. In 2020, The Bahamas spent 1.2 percent of GDP on the civil servants' scheme and 2.1 percent of GDP on the private sector scheme, which includes a minimum pension for those with entitlements below a certain threshold.[2] Finally, there is a social pension for those with no other pension (0.1 percent of GDP of spending).

4. Slightly more than 80 percent of working age Bahamians participated in the labor market in 2019. Participation rates among women were lower (77 percent) than men (87 percent). Among the employed, a little more than 1 in 5 persons works as a government employee, although not all government employees are civil servants (Department of Statistics, 2019). Finally, around 7

[1] Prepared by Boele Bonthuis (FAD).

[2] Both schemes include old-age, survivor, and disability pensions.

percent of total employment is in vulnerable employment, which includes informal jobs and inadequate earnings, having an impact on future pension benefits.

B. Description of The Current System

Civil Servants' Scheme (Pension Act)[3]

5. **Civil servants have their own pension scheme in The Bahamas.** Apart from officials of the Government of The Bahamas, employees of certain institutions like public broadcasters, central bankers and the National Insurance Board are also eligible for a public service pension. Civil servants can retire at age 55 with a minimum of 5 years of continuous service or at any age after 30 years of continuous service.[4] The mandatory retirement age is 65 for civil servants. The entire scheme is budget financed, with no contributions paid by either civil servants or public entities. However, there are plans to introduce employee contributions for civil servants.

6. **Benefits are calculated as the final salary multiplied by the number of (continuous) months worked as a civil servant divided by 720.** This is equivalent to an annual accrual rate of 1.67 percent. Accrual is capped at 67 percent of the final salary, reached after 40 years of service. As an alternative to the standard pension benefit, civil servants can take 75 percent of their annual pension and receive a lump sum of ten times the remaining 25 percent. There are also lump sum payments for those not reaching 5 years of service, those leaving public service before the retirement age and for survivors. Finally, pensions are not regularly indexed but are increased on an ad hoc basis.

National Insurance[5]

Old Age Pension (Retirement Benefit)

7. **The private sector scheme covers all dependent employees and the self-employed.** Contribution rates of 3.9 percent for the employee and 5.9 percent for the employer are paid up to a

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[3] Based on: a) Law: Pensions Act, 1952; b) Amendments: Pensions (Amendment) Act 2016, Pensions (Amendment) Act, 2017

[4] In case of reorganization, the pension can be granted even earlier (but the individual can be called upon to return to service).

[5] Private sector scheme: a) Law: National Insurance Act Monday, 1974; b) Amendments: National Insurance (Amendment) Act, 2009, National Insurance (Benefit and Assistance) (Amendment) (No. 3) Regulations 2012, National Insurance (Benefit and Assistance) (Amendment) Regulations 2012, National Insurance (Contributions) (Amendment) Regulations 2012; c) Regulations: National Insurance (Benefit and Assistance) (Amendment) Regulations 2010, National Insurance (Benefit and Assistance) (Amendment) Regulations 2012, National Insurance (Benefit and Assistance) (Amendment) Regulations 2012, National Insurance (Benefit and Assistance) Regulations, National Insurance (Contributions) Regulations, National Insurance (Financial and Accounting) Regulations, National Insurance (Contributions) (Amendment) Regulations 2010, National Insurance (Benefit and Assistance) (Amendment) (No. 3) Regulations 2012.

ceiling of about B$37,000 per year, which is about 120 percent of the average wage.[6] For those who earn less than half the ceiling there are no employee contributions and only 2 percent employer contributions. The self-employed pay 8.8 percent. The contribution ceiling also functions as a covered earnings ceiling feeding into the reference wage in the benefit calculation. The ceiling has been indexed with inflation since 2013.

8. Pension benefits are determined by total accrual multiplied by the reference wage. Accrual ranges from 30 percent for the first 500 weeks and 1 percent thereafter for each 50 weeks up to a maximum accrual of 60 percent. The reference wage consists of the average of the best 5 years of covered earnings, subject to the ceiling mentioned above, with no valorization of past wages. If someone complies with the minimum of 500 weeks of contributions, there is a minimum pension benefit of about B$4000 per year (which is close to 12 percent of the average wage). All benefits are indexed with inflation every second year (since 2010).

9. The statutory retirement age for the private sector in The Bahamas is 65 years. Those with 500 or more weeks of contributions are eligible for a pension benefit. Those with between 150 weeks and 500 weeks receive a one-time lump sum. Anyone with less than 150 weeks is only eligible for a social pension. Early retirement is possible from the age of 60 provided that the person complies with the minimum contribution requirement. For each month of early retirement, a penalty of 0.58 percent is applied leading to a penalty of about 7 percent per year, which is relatively standard in international comparison. Early retirement on a minimum pension is also possible with lower penalties applied.

10. By law, an actuary reviews the financial situation of the national insurance fund every 5 years. However, the law does not stipulate any necessary action connected to the outcome of the review. The reports are presented to parliament.

Disability and Survivor Pensions

11. Disability benefits are granted to permanently incapacitated workers who are below the retirement age. The accrual schedule is largely similar to the old-age pension except that permanent disability pensions are already provided for those with a minimum contribution period of 150 weeks (16 percent accrual increasing linearly to 30 percent for 500 weeks of contributions). The reference wage is calculated over three years of earnings. The same minimum and maximum pensions apply as in the old-age pension system. At retirement the higher benefit of either the disability pension or the old-age pension is paid.

12. Survivor benefits are available to survivors of people who were eligible for an old-age pension. Survivors must be over the age of 40, disabled or children under the age of 16. The survivor benefit is 50 percent of the pension benefit or entitlements of the deceased for a widow(er)

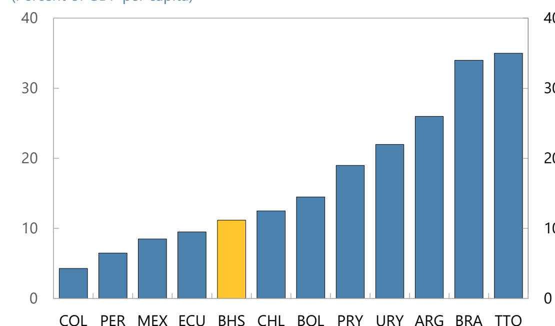
[6] Most figures in the law are defined on a weekly basis. To facilitate easier comparison to other countries, figures in this note are presented on a yearly basis. The only average wage readily available online from an official source is from Department of Statistics for 2005. GDP growth rates are applied to get to an estimate of the current average wage.

and 10 percent for an orphan. The same minima as for the regular old-age pension are applicable to the widow(er).[7] Pension benefits cease after remarrying and survivors with own entitlements receive the higher of the two.

Social Pension (Old Age Non-Contributory Pension)

13. At age 65, anyone who does not receive a pension is eligible for a social pension. The benefits amount to around B$3,300 per year or around 10 percent of the average wage. Compared to other social pensions in the region, benefits in The Bahamas are below average but that is mainly due to very high social pension benefits in countries like Argentina, Brazil and Trinidad.[8] Social pension expenditure is tax financed but administered by the National Insurance Fund.

Social Pensions
(Percent of GDP per capita)



Source: CAF (2021)

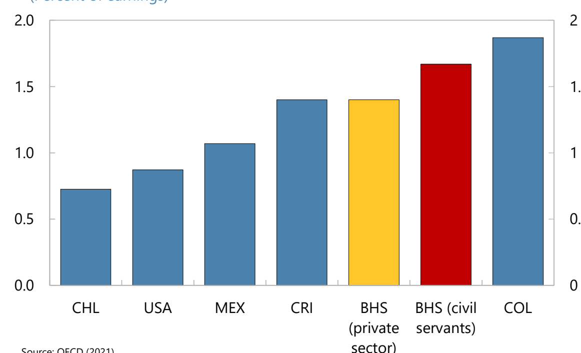
14. Old-age poverty rates in The Bahamas are lower than average poverty rates according to the latest data. In 2013 poverty rates of people between ages 60 and 69 and ages 70 and over were 6.5 percent and 8.1 percent respectively, compared to 12.5 percent for the entire population of The Bahamas. This is despite the social pension benefit level being below the national poverty line. In 2013 the poverty line was set at B$4,247 per year. If the consumption basket used to determine the poverty line followed consumer prices this would be close to B$5,000 today.

C. Issues and Policy Options

Benefits

15. Compared to other countries in the region, accrual rates in The Bahamas are high. Average accrual rates for the private sector for a full career from age 22 to age 65 (the retirement age) are 1.4 percent per year. In addition, a full career civil servants worker receives 1.67 percent accrual per year. In the region, among OECD countries, only Colombia offers higher accrual rates.

Effective Accrual Rate of a Male Full-Career Average Earner
(Percent of earnings)



Source: OECD (2021).
Note: Accrual rates for Chile and Mexico are implied accrual derived from pensin payments under funded reimes.

[7] The maximum combined survivor benefit is equal to 100 percent of the deceased's pension/entitlements in the case of multiple survivors.

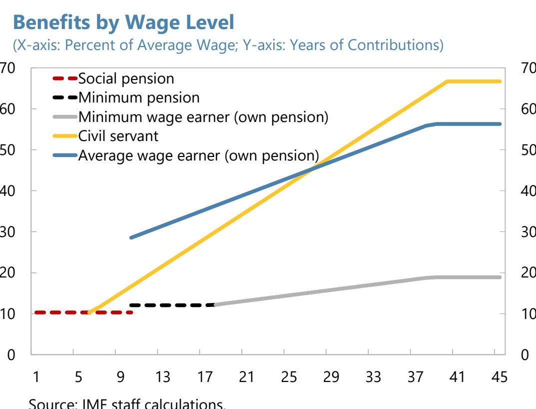
[8] In addition to social pensions, low-income individuals over the age of 60 can rely on assistance with utility- and food payments and receive free healthcare.

16. The accrual schedule in the private sector scheme disincentivizes long careers. The concave accrual schedule implies a very high accrual rate for the first 10 years of contributions (3 percent per year, which is common in Caribbean countries but very high in international comparison), a much lower rate for later years (1 percent) and no accrual at all after 39 years. Taken together with the ceiling on pensionable earnings this is likely to disincentivize high earners with long careers the most.

17. Current rules determine pensions on the basis of the last wage(s) earned. For the private sector the reference wage is based on the best 5 years of earnings and for the civil servants' scheme it is based on the last salary earned. This penalizes relatively flatter age-earnings profiles and gives strong incentives to pre-retirement promotions and salary increases.

18. The low ceiling on the reference wage for the private sector discourages high earners from reporting the full wage. This wage ceiling will fall further in terms of the average wage because of price indexation of the ceiling, impeding the scheme's ability to provide income smoothing for those who earn more than the ceiling. The lack of valorization of past wages makes replacement rates dependent on inflation and real wage growth. Considering that the reference wage is based on the best 5 years only it is not likely to have a substantial impact at the moment. But if the reference wage period were to be extended, rule-based valorization of past wages with the economy wide average wage growth will be necessary.

19. It is possible to produce theoretical benefits for different career lengths and wage levels.[9] Up until roughly the 10th year of contributions, benefits are limited to the social pension of around 10 percent of the average wage. After that, earnings-related benefits are received for someone who earns the average wage, which slowly rise from 28 percent of the average wage to 56 percent of the average wage. The difference between the replacement rate and total accrual reflects the lack of valorization of past wages. For minimum wage earners exceeding 500 weeks of contributions means receiving the minimum pension, since their own pension entitlements are lower. This holds up to a career length of around 17 years. Afterwards, benefits rise slowly to reach a little less than 20 percent of the average wage after 39 years. In both cases accrual stops after 39 years because of the cap on total accrual at 60 percent. Benefits for civil servants with an average wage start out lower but have a steeper increase, overtaking private sector benefits after 28 years of contributions. These benefits are also received at least 10 years earlier.



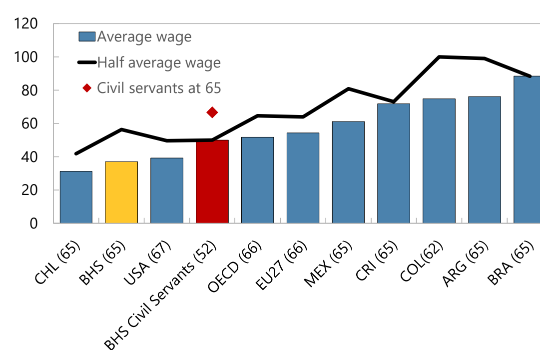
Source: IMF staff calculations.

[9] Past wage growth (for 5 years) necessary to calculate the reference wage is assumed to be equal to average GDP growth over the same period (6 percent nominal). This is probably the closest we can get, given the lack of actual wage data or data on employment rates.

20. High accrual rates and short reference wage periods lead to relatively high theoretical replacement rates for the private sector. As shown above, current replacement rates for an average wage earner in the private sector for a full career amount to 56 percent. This is likely to drop once the cap on earnings – which is currently slightly higher than average earnings – will affect the reference wage for those retiring in the future. For an average wage earner following the standard OECD case – labor market entry in 2020 at age 22 and retirement at the earliest possible age at which a pension is received without penalty – the replacement rate falls to 37 percent in 2063 (Figure 5). However, contributions paid by this worker will have fallen in almost equal measures. Replacement rates for lower earners (half the average wage) will remain at 56 percent.

21. Replacement rates for civil servants are projected to remain high. For the standard OECD case the replacement rate is as high as 50 percent. The age of retirement in this case is 52 (entry at age 22 plus 30 years of contributions), 13 years before the retirement of a private sector worker. If a civil servant were to stay employed until the mandatory retirement age, the replacement rate would be 67 percent. While early career accrual for a civil servant is less than the accrual in the private sector, accrual after the first 10 years is higher, the civil servant scheme is a final salary scheme, retirement is at least 10 years earlier than in the private sector and there is no ceiling on earnings used for the benefit calculation.

Future Theoretical Replacement Rates



Sources: OECD (2021) and IMF staff calculations.

22. The lack of income taxation in the Bahamas means that the generosity of the pension system is difficult to compare. In most countries people pay lower taxes during retirement compared to working life because of progressive income tax rates combined with replacement rates below 100 percent and because many countries have tax credits or tax rates that are more favourable for pensioners. However, only few countries fully exempt pension income from taxation. From the countries in the figure above only Chile, Mexico and Brazil do not impose taxes on pension benefits for average wage earners (OECD, 2021).

23. The lack of an indexation rule for civil servants increases uncertainty for pensioners, the budget and makes it difficult to pursue a stable pension policy. Irregular or ad hoc indexation is discouraged because it can lead to a real decrease in pension benefits and/or politically driven indexation.

24. Survivor benefits long before the official retirement age and means-testing against own entitlements discourage labor supply. Age 40 is low to be receiving permanent survivor benefits. Best practice suggests limiting survivor pensions to periods when the survivor is unable to adjust their labor supply to the drop in household income. In addition, survivor benefits should be independent of own entitlement to encourage labor participation. The lack of permanent survivor benefits in the civil servants' scheme seems at odds with survivor benefits in the private sector.

Policy Options to Reform Pension Benefits Include:

- **Expanding the reference wage to include average full career earnings in both schemes.** A full career reference wage is more equitable, making the link between contributions and benefits stronger while containing some of the cost of the pension system. Past wages should be valorized with average wage growth. The extension of the reference wage will need to be phased in. While expansions of one year per annum is typical, a faster pace is possible, especially if valorization is introduced at the same time. But even an expansion of 5 years per year will require about 8 years to reach full career earnings for most new retirees.

- **Lowering accrual rates in both schemes.** Accrual rates are not supported by contributions in the current system. One of the tasks of the next actuarial report should be to establish fiscally sustainable accrual rates for both schemes.[10] Including the civil servants' scheme in the actuarial review would improve public sector accountability. Lowering accrual can take immediate effect. However, the fiscal gains of the reform will only gradually be realized.

- **Applying equal accrual rates to all years of contributions.** Minimum pensions already benefit those with shorter careers and target low earners better. Additional redistribution to shorter careers is not prudent and favors high earners with short careers. Constant accrual schedules are favored over concave accrual rates schedule which discourage contributions later in working life.

- **Reforming survivor pensions.** For the private sector permanent survivor pensions should be limited to those close to or above the retirement age, reflecting the inability for those survivors to adjust their labor supply. The increase in eligibility age will need to be gradual to avoid inequitable outcomes. Survivor benefits should not be dependent on own pension benefits to limit negative labor supply incentives and to avoid redistributing from dual earning couples to single earning couples. Temporary benefits could be offered to younger survivors to bridge the adjustment period. Survivor benefits for the civil servants' scheme should be designed in the same way, once the scheme's other rules have been brought in line with the private sector scheme.

Contribution Rates

25. The high replacement rates are not supported by contribution rates. Civil servants do not pay contributions and private sector workers pay relatively little contributions. This can potentially lead to serious shortfalls in funding of the pension system and consequently rising budgetary transfers to make up for the difference. Current contribution rates are

Effective Contribution Rates Average Wage Earner
(Rate)

Sources: OECD (2021) and IMF staff calculations.

[10] Constant accrual rates of 1 percent per year would bring real internal rates of return down to 2.4 percent, which is still well above the real wage growth assumptions (1.25 percent in this section) but it would significantly narrow the gap (see box).

low compared to other countries in the region and while replacement rates are close to the OECD average, contribution rates are almost half the OECD average (Figure 6).

26. Because the ceiling on contributions in the private sector is linked to prices, effective contribution rates will be falling in the future. The current ceiling is set just above the average wage. Assuming a real wage growth of 1.25 percent per year, the effective contribution rate of an average wage earner will have fallen from today's 9.8 percent to just 6.6 percent by 2063 (Figure 6). However, the drop in replacement rates will be of similar magnitude.

27. The link of the contribution ceiling to prices will eventually lead to a compression of contributions and pension benefits. This creates both potential fiscal sustainability issues and adequacy issues. The ceiling on pensionable earnings will eventually lead to pension benefits being based on an ever-narrowing wage range. Replacement rates for higher earners will fall to very low levels endangering the consumption smoothing objective of the pension system. At the same time, total contributions will also fall relative to the total wage bill and therefore relative to GDP as an ever-smaller share of wages will be subject to contributions. Since benefits are partially determined by past contributions the rate at which replacement rates and effective contribution rates fall do not necessarily coincide, potentially worsening fiscal sustainability issues. Making a pension system's consumption smoothing abilities and fiscal sustainability dependent on real wage dynamics is bad practice.

28. For low wage earners in the private sector contributions are even lower. A two percent contribution rate for those earning less than 50 percent of the contribution ceiling might encourage labor supply of low earners but does not support the relatively high replacement rates for low earners. Moreover, the lower limit on contributions is likely to affect the shape of the wage distribution, with firms setting wages just below this threshold to avoid having to pay higher contributions.

Policy Options to Change Contribution Rates Include:

- **Linking the contribution ceilings to wage growth.** It is vital to maintain a stable contribution revenue as share of GDP. While employment and real wage growth are difficult to influence, capturing a stable share of the official wage bill is straightforward and mostly dependent on chosen pension system parameters. This will also have a positive effect on maintaining replacement rates.

- **Introducing civil servant contributions as soon as possible.** Ideally, contributions for civil servants should be introduced at the same rate as the private sector. Shortfalls in funding and projections of future shortfalls become more apparent, which in turn facilitates taking action to improve the fiscal sustainability of the pension scheme. Finally, it would facilitate the integration of civil servants into the private sector scheme.

- **Equalizing contribution rates for all wage levels under the contribution ceiling.** Imposing only 2 percent contributions paid for wages under half the ceiling likely leads to firms setting

wages just below. Pension contribution rates can be equalized across income categories while progressive taxation can be more appropriately applied through income tax rates.[11]

- **Increasing contributions in the long run.** However, any increase in contributions should be carefully weighed against potential negative effects on (formal) labor supply.

Box 1. Internal Rates of Return

Given high accrual rates and low contribution rates the internal rate of return of the pension system is high. For civil servants no internal rate of return can be established since no contributions are paid. However, for the private sector, assuming 2 percent inflation and 1.25 percent real wage growth, real internal rates of return for a full career average wage earner are 3.5 percent. These type of internal rates of return are unlikely to be supported by the natural rate of return of the pension system which is close to contribution base growth (wage growth and formal employment growth).

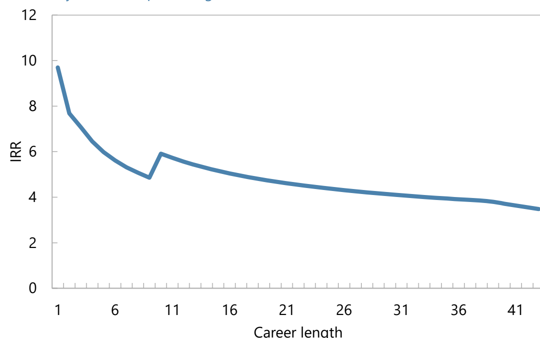
In addition, the internal rate of return has an unusual pattern that changes with career length, wage level and changes over time because of various interactions of pension system parameters. Internal rates of return declining by career length and wage level are common and intentional in many pension systems. Moreover, lowering internal rates of return from very high levels is advisable. However, this should be conscious policy and not an accidental byproduct of poor design. The way internal rates of return turn out in the Bahamas is undesirable, driven by unintended interactions between minimum years of contribution requirements, accrual ceilings, the lack of valorization of the reference wage, contributions floors, contribution ceilings and their indexation.

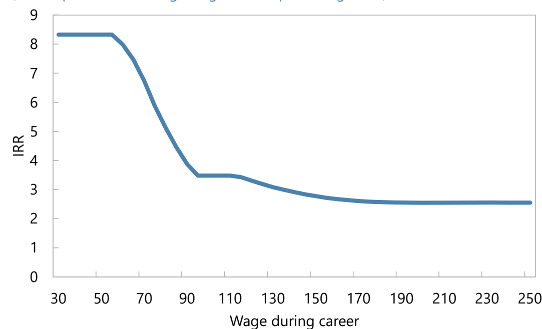
The internal rate of return differs by career length in a suboptimal way. The real internal rate of return for very short careers is high, close to 10 percent (Figure 7A), which is not unusual and mainly reflects the receipt of social pension benefits. After a steep decline to 4.9 percent for those with a 9-year career the internal rate of return increases to 5.9 percent for those with exactly 500 weeks of contributions, reflecting very high average annual accrual for the first 10 years of contributions after which people are eligible for an old-age pension. After 10 years of contributions the internal rate of return declines slowly because of lower accrual rates and after 38.5 years of contributions the internal rate of return drops even faster because of hitting the maximum accrual of 60 percent.

The internal rate of return also differs by wage level. The employer of low earners only pays 2 percent contributions while low earners pay no contributions themselves. For those with higher wages the internal rate of return drops off quickly until reaching 3.5 percent for average wage earners (Figure 7B). The internal rate of return falls even further for those earning above the ceiling on contributions (2.5 percent). There are a number of reasons for this. First, because the contribution ceiling is linked to inflation, assuming individual wage growth is positive, some individuals will be below the contribution floor for the first part of their career while being above the floor but below the ceiling for the latter part (the first steep drop). For others they will be below the ceiling for the first part of their career while being above the ceiling in the latter part. In the presence of real positive wage growth, being pushed above the ceiling essentially means a flatting of the reference wage but also a flatting of the contribution curve throughout the career. Both would largely cancel out if the reference wage was based on a full career but given that the reference wage takes into account only the best 5 years the downward pressure on the internal rate of return dominates (i.e. pensionable earnings fall more than life-time contributions).

[11] The introduction of income taxation, including taxation of pension income, would also benefit the fiscal sustainability of the pension system. Alternatively, some progressivity in contribution rates can be maintained through different contribution brackets (similar to tax brackets in progressive income taxation). To keep contribution revenue at least at current levels this would imply raising the contribution ceiling or introducing a third bracket.

Box 1. Internal Rates of Return (Concluded)





Finally, there are two opposing forces on the internal rates of return at work over time. Internal rates of return will go up over time because of-life expectancy gains, meaning that benefits will be received for longer periods of time. But internal rates of return will go down because of bracket drift as described above.

Retirement Age and Eligibility Requirements

29. The retirement age for civil servants is low. Retiring at any age after 30 years of contributions or retiring at age 55 is very early. At age 55 in The Bahamas life expectancy is 23.5 years meaning almost 40 percent of adult life is expected to be spent in retirement. There is little reason to retire later since there is no bonus for later retirement and total accrual is capped.

30. There is no good reason to treat civil servants differently from private sector workers. Non-contributory earnings-related schemes typically represent unwarranted redistribution from the general taxpayer—most of whom are typically poorer than scheme members—towards more affluent people often enjoying job security and guaranteed annual wage increases.

31. There is no plan to increase retirement ages in the future in either scheme. The retirement age for the private sector in The Bahamas is close to the OECD average. At the moment life expectancy at the retirement age is about 16 years, which is well below the OECD average of more than 20 years. However, considering the significant increase in the old-age dependency ratio and potential life expectancy gains in the future, an eventual rise in retirement ages is inevitable.

32. The minimum contribution requirement (500 weeks) for the private sector is high. This is likely to leave many people without an earnings-related pension despite having contributed for a significant period of time. In addition, the requirement creates a big gap between discounted benefit of those with contribution periods just below 500 weeks compared to those with contribution periods just above 500 weeks (see box on internal rates of return). Finally, it discourages older workers with short careers who will not reach the required contribution period from formal labor force participation.

33. The penalties for early retirement for the minimum pension are too low. Penalties rates for early retirement on a minimum pension are far from rates applied to standard early retirement.

Policy Options

- **Increase the retirement age for civil servants to equalize with the private sector in the short run.** Equalizing retirement ages between civil servants and the private sector takes time. Using a one year per year increase of the retirement age would imply no civil servant will retire in the next 10 years, which will be hugely disruptive to the typical ongoing rejuvenation of the civil service. A much slower pace would imply a very long transition period. Alternatively, a fast pace in combination with the option of early retirement for civil servants with appropriate actuarial adjustment can be offered as a transition arrangement. Once retirement ages are equalized, the retirement age for both schemes should be linked to life expectancy gains. To maintain the relative length of retirement to working life, a retirement age increase of two-thirds of life expectancy gains is common.

- **Abolish early retirement on the minimum pension.** The low penalties encourage early retirement and actuarial neutrality is difficult to establish. At the very least penalties for early retirement should be equalized with penalties for regular early retirement.

- **Lower the minimum contribution requirement for the private sector.** It discourages contribution by older workers with short careers and creates unnecessary redistribution between those close to the threshold. Additional entitlements for every year of contributions provides the best and fairest incentives and should not jeopardize fiscal sustainability with reasonable contribution and accrual rates. The minimum contribution requirement could be maintained for the minimum pension, or the level of the minimum pension can be made dependent on career length.

- **Integrate the public sector scheme in the private sector scheme.** Over time the civil servants' scheme should be abolished. Turning the civil servants' scheme into a dormant scheme can be done relatively quickly, i.e. from the date of the reform all civil servants will contribute to the private sector scheme, no new entitlements will be accrued in the civil servants' scheme. All existing entitlements to the civil servants' scheme would remain valid but future pensions benefits would be a weighted average of civil service and private sector pension entitlements. Minimum service requirements should be based on total service time (the sum of time spent in the old civil servants' scheme and the new integrated scheme). The full transition can only be completed once retirement ages have been equalized.

The Bahamas: Summary of Policy Options

	Fiscal Sustainability	Adequacy	Equity
Benefits			
Expanding the reference wage	✓		✓
Lowering accrual rates	✓		
Applying constant accrual rates			✓
Reforming survivor pensions.	✓		✓
Contributions			
Linking the contribution ceilings to wage growth		✓	
Introducing civil servant contributions	✓		
Equalizing contribution rates for all wage levels	✓		✓
Increasing contributions	✓		
Retirement Age and Eligibility Requirements			
Increase the retirement age for civil servants	✓		
Abolish early retirement on the minimum pension	✓		✓
Lower the minimum contribution requirement for the private sector		✓	✓
Integrate the public sector scheme in the private sector scheme	✓		✓

Sources: IMF Staff.

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