

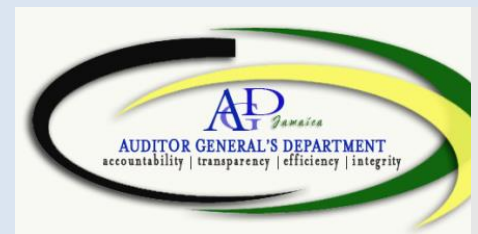
**AUDITOR GENERAL'S DEPARTMENT**  
**FINANCIAL STATEMENTS ANALYSIS OF PUBLIC BODIES**

**NATIONAL SOLID WASTE MANAGEMENT  
AUTHORITY**

The Auditor General is appointed by the Governor General and is required by the Constitution, Financial Administration and Audit Act, other sundry acts and letters of engagement, to conduct audits at least once per year of the accounts, financial transactions, operations and financial statements of central government ministries and departments, local government agencies, statutory bodies and government companies.

The Department is headed by the Auditor General, Pamela Monroe Ellis, who submits her reports to the Speaker of the House of Representatives in accordance with Section 122 of the Constitution of Jamaica and Section 29 of the Financial Administration and Audit Act.

This report has been prepared by the Auditor General’s Department of Jamaica for presentation to the House of Representatives.



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## AUDITOR GENERAL'S OVERVIEW

The Public Bodies Management and Accountability Act (PBMA) requires public entities to demonstrate prudent financial management of public resources. To assist Parliament and the Public Accounts Committee (PAC) in their review of the financial performance of public bodies, we reviewed the financial statements of the National Solid Waste Management Authority Limited (NSWMA) over a five-year period, in the context of the Fiscal Responsibility Framework (FRF). We calculated ratios of key financial items in the balance sheets and income statements of the entity, merely to analyse trends. However, we did not conduct an audit of the financial statements of the entity and hence did not test the management's assertions regarding the figures in the financial statements and disclosures.

This Financial Statements Analysis (FSA) of NSWMA provided valuable insights for our performance audit that was tabled in July 2022. The FSA revealed that NSWMA's net profits over the review period, FY2016/17 to FY2020/21 was primarily enabled by Government Subvention income, which accounted for 89.0 per cent of total revenue. Additionally, NSWMA's liquidity position was adversely impacted by increased trade payables and reduced receivables from Commercial contractors. Accordingly, it is important that NSWMA takes steps to improve its income generating capacity and manage its receivables and payables, while pursuing promulgation of the Regulations that support the NSWM Act.

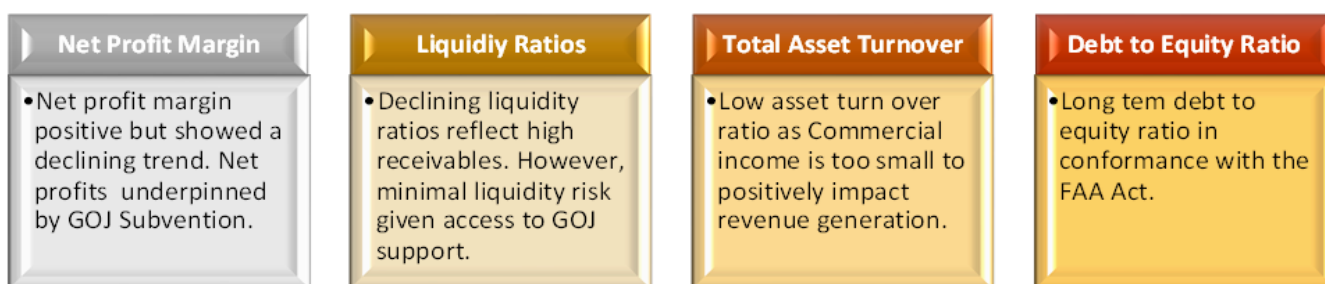


Pamela Monroe Ellis, FCCA, FCA  
Auditor General

## EXECUTIVE SUMMARY

The National Solid Waste Management Authority (NSWMA) is a statutory body, which falls under the portfolio of the Ministry of Local Government and Community Development (MLGCD). The NSWMA was established in 2002 under the National Solid Waste Management Act to regulate and manage solid waste in Jamaica. Additionally, the Government of Jamaica's Medium-Term Socio-Economic Policy Framework charges the NSWMA with the responsibility of protecting the health and safety of the nation through the effective management of solid waste. The NSWMA Act passed in 2001, widely empowers NSWMA to carry out enforcement and regulatory functions; however, the enabling regulations to provide the supporting structures that would firmly establish NSWMA as a regulatory entity, are yet to be established. Hence, instead of functioning as a regulatory authority as intended by the NSWMA Policy, NSWMA's operations have largely been confined to the collection and transportation of solid waste, and the management of waste disposal sites.

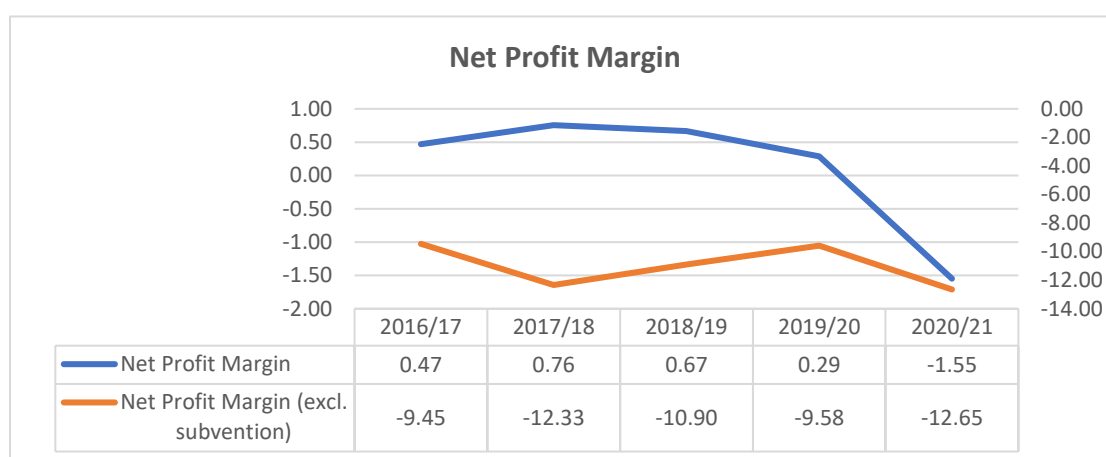
The NSWMA operates through four regional companies (Metropolitan Parks and Market (MPM), North-Eastern Parks and Market (NEPM), Southern Parks and Market (SPM) and Western Parks and Market (WPM)), distributed across all fourteen parishes. We assessed NSWMA's Consolidated Audited Financial Statements, for the five-year period ended March 2021, to identify trends in key financial ratios that might signal strengths or weaknesses in NSWMA's operations. We did not conduct an audit of the financial statements of the entity and did not test the management's assertions regarding the figures in NSWMA's consolidated financial statements and disclosures. The key findings from our review are highlighted below:



### What We Found

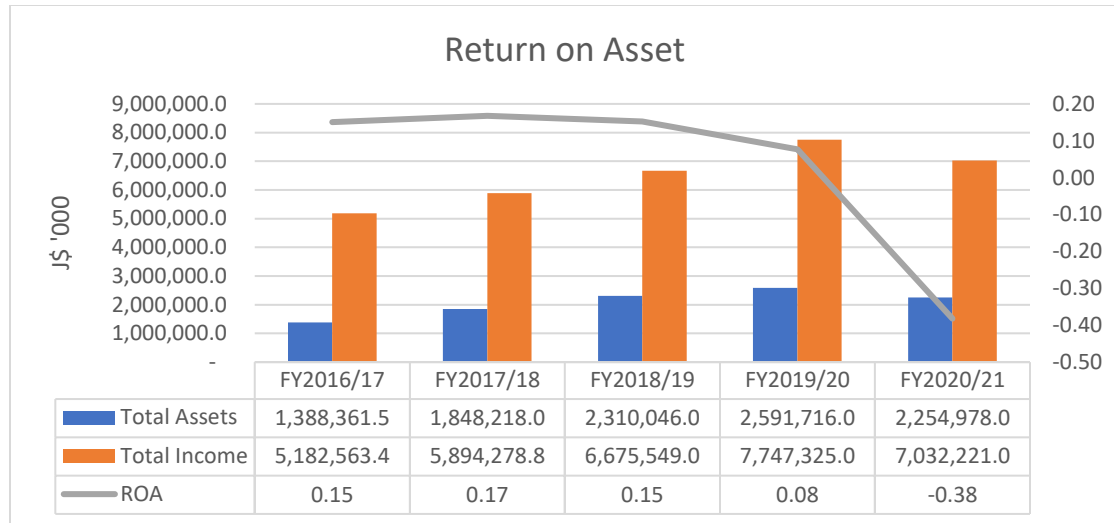
- NSWMA recorded a Net Loss of \$861.5 million in FY2020/21, relative to Net Profits of \$198.9 million and \$208.6 million in FY2019/20 and FY2016/17, respectively.** Accordingly, Net Profit margin fell to negative 1.55 in FY2020/21, from 0.29 in FY2019/20 and relative to 0.47 in FY2016/17. NSWMA's profitability was largely underpinned by Government of Jamaica (GOJ)

Subvention, funded by the Parochial Revenue Fund<sup>1</sup>, as NSWMA’s other income sources, namely, contracts and fees from the collection of commercial solid waste and from landfill waste disposal, generated minimal revenue. Over the five-year review period, GOJ Subvention (net) which averaged 88.8 per cent of NSWMA’s Total Income, increased to \$6.2 billion in FY2020/21 relative to \$4.4 billion in FY2016/17, but fell marginally relative to the \$6.9 billion for FY2019/20. The net loss in FY2020/21 was in a context where Government reduced its expenditure budget due to fiscal challenges brought on by the COVID-19 pandemic. To ascertain the impact of GOJ Subvention on NSWMA’s balance sheet, we excluded the Subventions from our calculations. We observed that net profit margin fell to negative 12.65 for FY2020/21 relative to negative 9.45 for FY2016/17, as revenue from operations was insufficient to offset the impact of increasing expenses, which amounted to \$7.9 billion in FY2020/21, relative to \$5.0 billion in FY2016/17, averaging \$6.5 billion over the five-year review period.



2. **NSWMA’s return on assets ratio which averaged 0.03 for the five-year period, also displayed an increasing trend, notwithstanding a decline to negative 0.38 at end FY2020/21 relative to 0.15 at end FY2016/17.** The fall in FY2020/21 indicated that for every dollar of assets invested, NSWMA recorded a net loss of \$0.38, reversing a positive position underlined by four successive years of net profits. NSWMA’s total assets over the review period expanded by \$866.6 million (62.4 per cent), primarily driven by Account Receivables which increased by 37.3 per cent to \$522.5 million in FY2020/21 from \$380.6 million in FY2016/17. Account Receivables accounted for an average of 23.3 per cent of the Authority’s Assets, whereas Cash & Cash Equivalents averaged 19.9 per cent of Total Assets over the period.

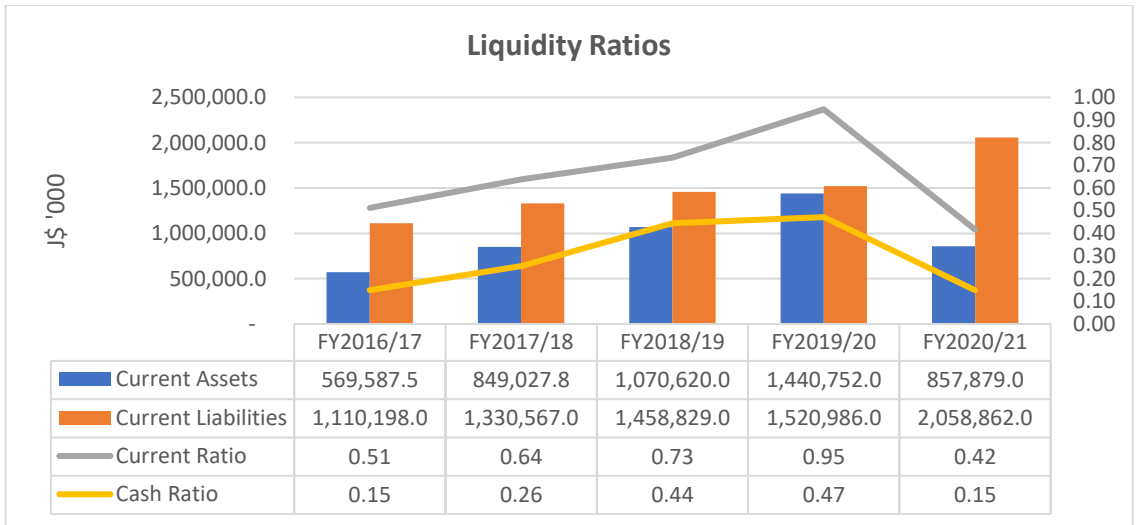
<sup>1</sup> In 2017/18, funding of the NSWMA was removed from the GOJ Consolidated Fund.



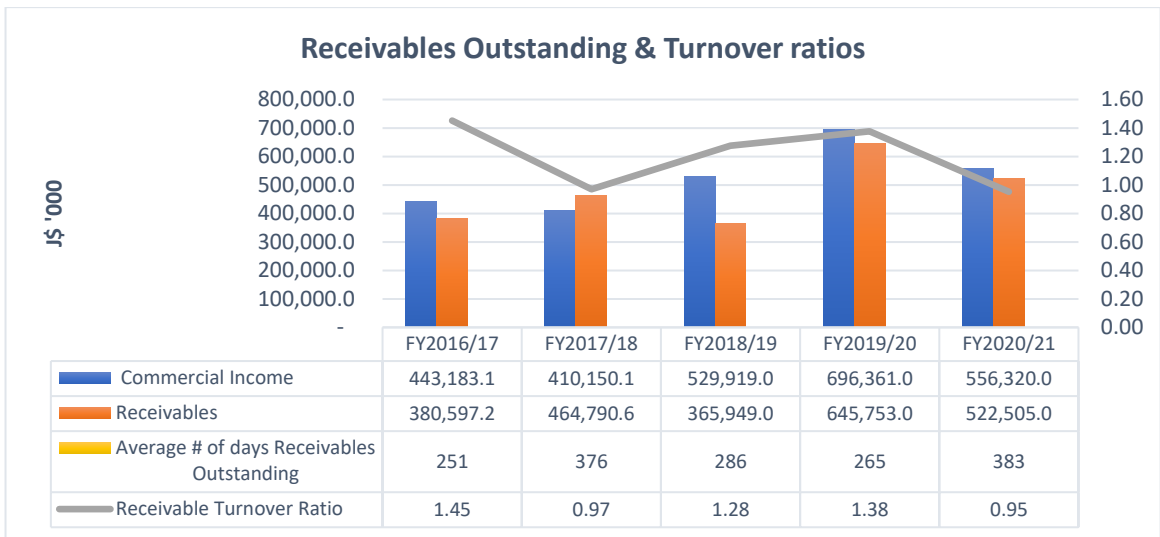
Source: NSWMA's Audited Financial Statements

3. **NSWMA's liquidity ratios, albeit low, generally trended upward over the five-year review period notwithstanding a decline in FY2020/21.** The current ratio measures a company's ability to meet its short-term financial obligations. NSWMA's current ratio fell to 0.42 in FY2020/21 from 0.95 in FY2019/20 and relative to 0.51 in FY2016/17. This indicated that for every \$1 of current liabilities, NSWMA could only cover forty-two cents (\$0.42) in FY2020/21, compared to \$0.51 coverage in FY2016/17 and \$0.95 in FY2019/20. The relatively tight liquidity condition was also reflected in the cash ratio which fell to 0.15 in FY2020/21, from 0.47 in FY2019/20, attributable to a reduction in Government Subvention by 10.1 per cent and a 20.1 per cent decrease in Commercial Income. NSWMA's current assets declined in FY2020/21 relative to FY2019/20, consequent on a 19.1 per cent fall in Trade & Other Receivables, a 57.3 per cent decline in Cash & Cash Equivalent and a 62.9 per cent fall in Inventories. Concurrently, Current Liabilities increased based on upward movements in Accounts Payable and Provisions (up 35.5 per cent) and Lease Liabilities (up 24.8 per cent).



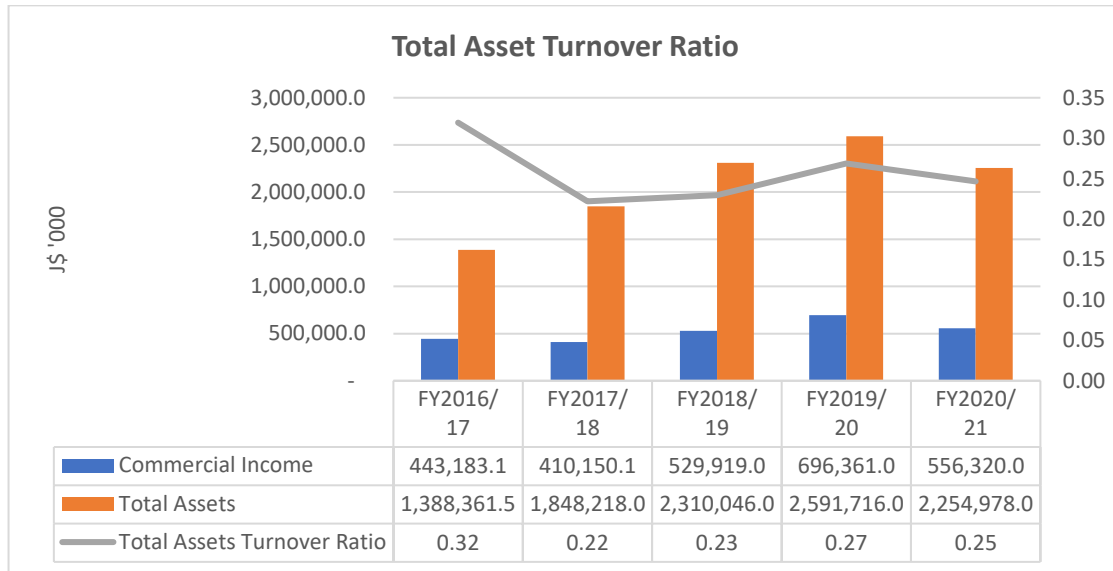


NSWMA’s adverse liquidity condition was also reflected in an increase in the average number of days in receivables outstanding, to 383 days in FY2020/21, from 251 days in FY2016/17. Concurrently, the receivables turnover ratio fell to 0.95 in FY2020/21 from 1.45 in 2016/17 based on NSWMA’s slower collection rate vis-a-vis credit extension. Nonetheless, despite the high volume of outstanding receivables, which included uncollected revenue from waste collection services and the high downtime of collection units, NSWMA faced lower liquidity risk given guaranteed access to Government Subvention and other resources.



- The NSWMA’s total asset turnover ratio fell to 0.25 in FY2020/21 from 0.27 in FY2019/20 and relative to 0.32 for FY2016/17, averaging 0.26 over the five-year review period. The Total Asset turnover ratio measures how efficiently an entity utilizes its assets to generate revenue, with a higher ratio being more desirable. NSWMA’s total assets comprised primarily Property, Plant,

and Equipment, fleet of collection units used for commercial operation, Trade and Other Receivables, Cash and Cash Equivalent. The low Total Asset turnover ratio was related to the fact that Government Transfers which form the bulk of NSWMA’s income, was not generated by NSWMA’s operational activities. On the other hand, Commercial Income, NSWMA’s revenue from operations, accounted on average, for only 8.1 per cent of total income, thereby contributing negligibly to NSWMA’s revenue generation capacity. During the review period, there was only a moderate increase of 25.5 per cent in Commercial Income relative to the 62.4 per cent increase in total assets over the period.

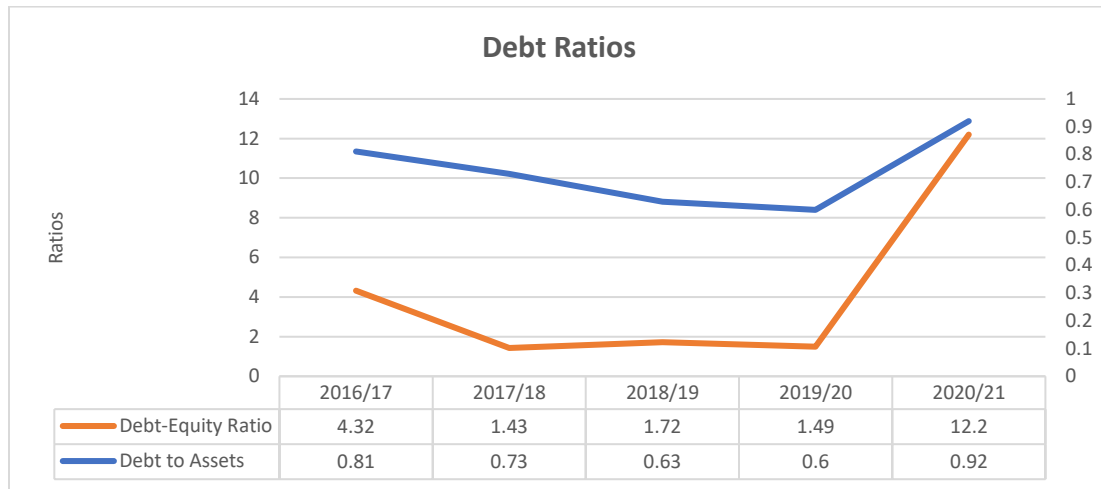


5. **NSWMA’s long-term debt to equity ratio averaged 0.05 for the period, which conformed to the leverage standard outlined in the Fiscal Responsibility Framework Regulations<sup>2</sup>.** The long-term debt to equity ratio displayed a declining trend for FY2016/17 to FY2018/19, reflective of debt amortization related to the acquisition of NSWMA’s head office building. There was a reversal in this trend in FY2019/20 and FY2020/21 due to the renewal of the entity’s long-term lease agreements. However, inclusive of short-term liabilities, NSWMA’s debt to equity ratio averaged 4.23 per cent over the five-year review period, given a sharp increase to 12.20 in FY2020/21, from 1.49 the previous year and relative to 4.32 in FY2016/17.

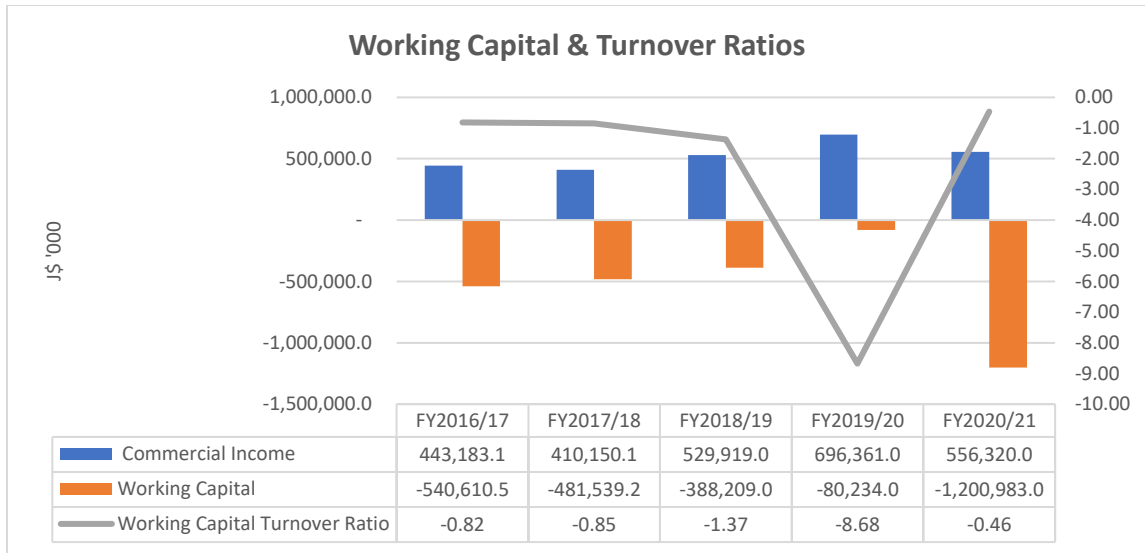
The Debt-to-Equity (D/E) Ratio is a measurement of the degree to which an entity finances its operations through debt versus equity. A ratio higher than 1 implies that the entity’s funding is more concentrated in debt, which is more expensive to maintain than equity. NSWMA’s current liabilities on average accounted for 98.3 per cent of total liabilities. A build-up in payables throughout the period was largely attributed to delays in the payment of Statutory Liabilities,

<sup>2</sup> Criteria for Financial Standards - FAA Act (Amendment) 2015, Regulations. See Appendix 2.

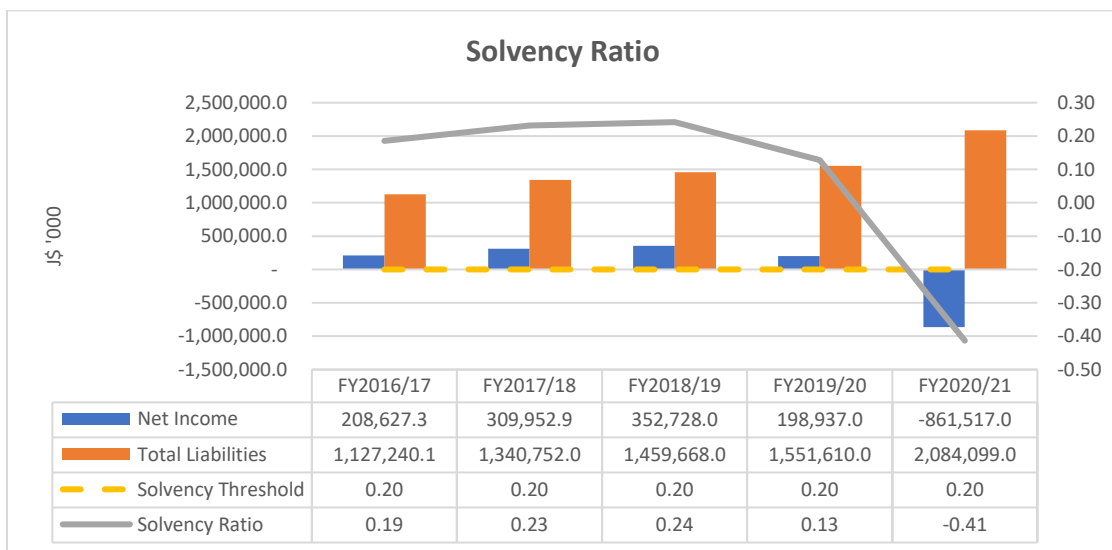
which accounted for an average of 45.6 per cent of Accounts Payable and Provisions for the period.



6. **For the period reviewed, NSWMA did not meet the criteria established in the FAA Regulations, related to the attainment of positive working capital.** Working capital refers to the day-to-day management of an entity’s short-term assets and liabilities. Despite an improvement in FY2018/19, NSWMA’s working capital was generally negative over the five-year review period moving sharply to minus \$1.2 billion in FY2020/21 relative to minus \$540.6 million for FY2016/17. The significant decline in working capital in FY2020/21 relative to FY 2019/20 was underpinned by a 57.3 per cent decrease in Cash & Cash Equivalent and 35.5 per cent increase in payables. Given the negative working capital throughout the review period, NSWMA’s working capital turnover ratio was negative 0.46 in FY2020/21 relative to negative 0.82 in FY2016/17, indicating that the Authority had to utilize external sources to fund its operations. The working capital turnover ratio measures the effectiveness of a business in generating sales for every dollar of working capital to cover its immediate liabilities and operational expenses.



7. **NSWMA solvency ratio fluctuated around the solvency threshold of 0.2, declining to negative 0.41 at FY2020/21 from 0.13 in FY2019/20 and relative to 0.19 in FY2016/17.** The solvency ratio measures an entity’s ability to meet its liabilities in the long-term. A negative or low solvency ratio indicates a greater likelihood that the entity can default on its obligations. However, given the guarantee of Government funding support, the risk of NSWMA defaulting on its obligation would be minimal or non-existent. Nonetheless, the movement in NSWMA’s solvency ratio was driven by changes in Government Subvention (inflows) on the one hand, and Other Payables (outflows) on the other, including Statutory obligations. Although Government Subvention income generally increased during the period, in the latter years, inflows were outpaced by a rise in Trade Payables and Statutory Liabilities as reflected by the increase in the ratio between FY2016/17 and FY2018/19, and the decline thereafter.



## What Should Be Done

8. Management must take steps to strengthen its collections, by tightening its credit policy and reviewing its approved list of contractors to address its chronic aged receivables.
9. NSWMA must also implement controls to limit the growth in Trade Payables and to prioritize clearing Statutory Liabilities, which directly impact staff welfare.

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# PART ONE

## BACKGROUND

### *Disclaimer*

- 1.1 ***This Financial Statements Assessment is solely an analytical review of the Consolidated Audited Financial Statements of the National Solid Waste Management Authority (NSWMA). We did not conduct an audit of the financial statements of the entity and hence, did not test the management’s assertions regarding the figures in the financial statements and disclosures. The calculation of ratios was merely intended to provide trend analyses of key financial items in the balance sheets and income statements of the entity, along with the notes provided. The assessment was also undertaken to inform Parliament and guide the Public Accounts Committee (PAC) in its review of the financial performance of public bodies***

This report was prepared using information from NSWMA’s Consolidated Audited Financial Statements FY2016/17 to FY2020/21, Annual Reports, and other supplementary information.

### **Profile of the Entity**

- 1.2 The National Solid Waste Management Authority (NSWMA) is a statutory body, which falls under the portfolio of the Ministry of Local Government and Community Development (MLGCD) and was established in 2002 under the National Solid Waste Management Act to regulate and manage solid waste in Jamaica. Government of Jamaica’s Medium-Term Socio-Economic Policy Framework also charges the NSWMA with responsibility for protecting the health and safety of the nation through the effective management of solid waste. With operations distributed across all fourteen parishes, the NSWMA carries out its mandate through four regional companies, which provide a range of services. The regional subsidiary companies are: Metropolitan Parks and Market (MPM), Waste Management Limited – St. Catherine, Kingston & St. Andrew, and St. Thomas; Southern Parks and Market (SPM) Waste Management Limited – St. Elizabeth, Manchester and Clarendon; North-Eastern Parks and Market (NEPM) Waste Management Limited – St. Ann, St. Mary and Portland; and Western Parks and Market (WPM) Waste Management Limited -Trelawny, St. James, Hanover and Westmoreland.

### **Mission, Vision, Mandate**

- 1.3 **Mission:** to ensure a clean Jamaica by managing solid waste effectively through public cleansing, adherence to public health and environmental standards, public education and enforcement programmes supported by advanced technology, the participation of communities and the delivery of services by a highly trained and engaged staff.

1.4 **Vision:** to be a model solid waste management entity, using cutting edge state of the art technologies to maintain a clean and healthy environment comparable to global standards.

1.5 **Mandate:**

- I. Achieve acceptable standards of environmental practices in all public cleansing and disposal operations.
- II. Develop capable environmental monitoring staff through training and appropriate recruitment.
- III. Provide standards, regulations and expertise with regard to solid waste management;
- IV. Participate in the development of an inter-agency institutional structure for pollution and environmental control; and
- V. Enforce the National Solid Waste Management Act.

**Vision 2030/United Nation’s Sustainable Development Goals (SDGs)**

1.6 NSWMA’s operation is aligned to the achievement of Vision 2030’s National Outcome #3 Sustainable Management and Use of Environmental and Natural Resources under Vision 2030 and SDGs Goal #12 Responsible Consumption and Production.

**Financing**

1.7 NSWMA’s operations are financed primarily from subvention from the GOJ. Other revenues are generated through commercial contracts, landfill tipping fees, fines, and employee services. Commercial service contract arrangements provide for customers to be billed on a monthly basis in arrears. Revenue from landfill tipping is based on the type and weight or volume of waste being disposed of at the disposal facilities.

**Table 1: Revenue Sources**

Details	2020-21 \$'000	2019-20 \$'000	2018-19 \$'000	2017-18 \$'000	2016-17 \$'000	Total	Revenue %
Government Subvention – Group	6,175,699	6,869,031	6,131,489	5,365,123	4,397,523	28,938,865	87.63
<b>Commercial revenue</b>	556,320	696,361	529,919	410,150	443,183	2,635,933	7.98
<b>Other income</b>	297,882	178,519	10,499	119,006	341,857	947,763	2.87
<b>Rental Income</b>	3,480	6,374	2,381	NI	NI	12,235	0.04
<b>Fees and Fines</b>	1,190	3,875	625	NI	NI	5,690	0.02
<b>Insurance Settlements</b>	0	12	0	NI	NI	12	0.00
<b>E-Waste Income</b>	1	1,156	2,166	NI	NI	3,323	0.01
<b>Processing Fee and Other</b>	41,402	42,067	5,327	NI	NI	88,796	0.27
<b>Write Back Accruals</b>	251,808	125,035	0	NI	NI	376,843	1.14
<b>Write-off of SPM Payable</b>	0	0	0	NI	NI	0	0.00
<b>Interest income</b>	2,320	3,414	3,642	3,415	3,948	16,739	0.05
<b>Total Income</b>	<b>7,032,221</b>	<b>7,747,325</b>	<b>6,675,549</b>	<b>5,897,694</b>	<b>5,186,511</b>	<b>32,539,300</b>	100.00

Source: NSWMA Audited Financial Statements      NI – Information not included in Audited Financial Statement





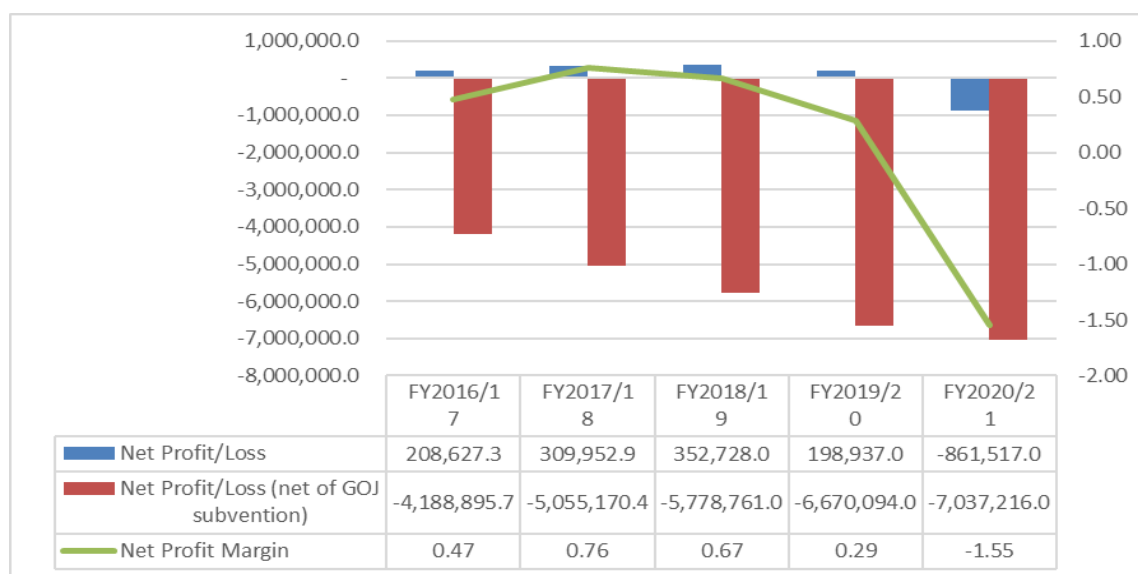
## PART TWO

### FINANCIAL STATEMENTS ANALYSIS

#### NSWMA profits primarily reflects GOJ subvention income

2.1 NSWMA's net profits trended down over the five-year review period, despite moderate increases in FY2017/18 and FY2018/19, with the entity recording net losses of \$861.5 million in FY2020/21. Accordingly, NSWMA's net profit margin fell steadily to negative 1.55 in FY2020/21, after increasing to 0.76 in FY2017/18 from 0.47 in FY2016/17. The net profit margin ratio for FY2020/21 indicated that NSWMA recorded \$1.55 of losses for each dollar of income received, relative to the positive 29 cents in FY2019/20 (**Chart 1**). NSWMA's financial performance between FY2016/17 and FY2020/21 was largely underpinned by Government Subvention income (net) which increased by 56.2 per cent to \$6.9 billion in FY2019/20 relative to \$4.4 billion in FY2016/17. However, in FY2020/21 Subvention Income (net) fell sharply by \$693.3 million or 10.1 per cent contributing NSWMA's loss position, in a context where Government reduced its expenditure budget due to fiscal challenges brought on by the COVID-19 pandemic (**Chart 1**).

**Chart 1: NSWMA Net Profit Margin - FY2016/17 to FY2020/21**

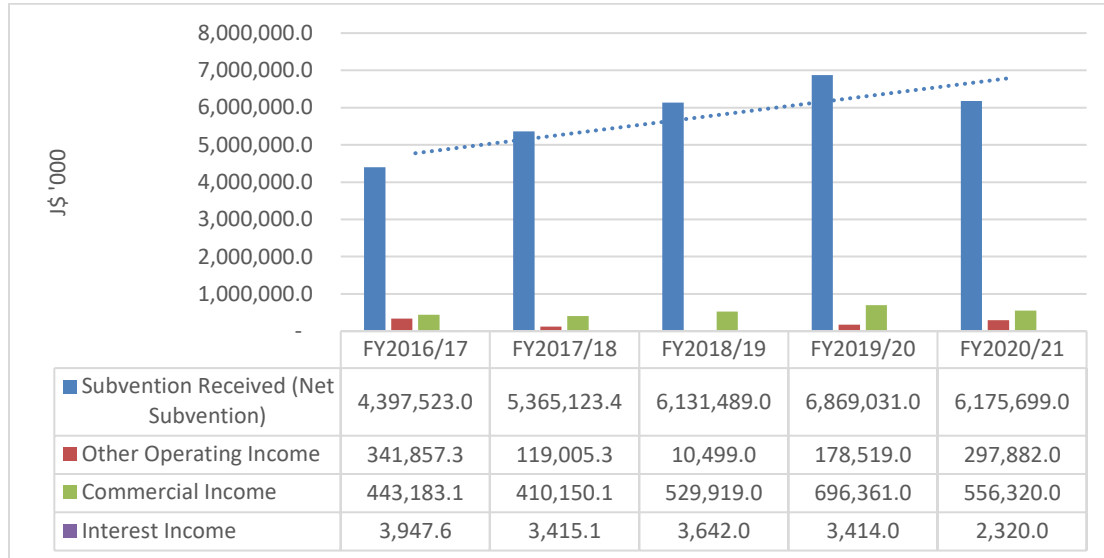


Source: NSWMA Audited Financial Statements

2.2 Government Subvention (net) comprises two components, a primary subvention allocation and an emergency and special projects component. The primary subvention allocation component was reduced by \$1.4 billion or 28.8 per cent in FY2020/21 relative to FY2019/20, which countered a \$628.0 million or 33.0 per cent increase in the emergency and special projects component.

Overall, Subvention income accounted on average for 88.8 per cent of total income over the review period, indicating that without these receipts, the Authority's earnings from Commercial and Other Income would be grossly inadequate to sustain its operations. Commercial and Other Income increased by 8.8 per cent to \$854.2 million in FY2020/21 from \$785.0 million FY2016/17, with a slight decline of \$20.7 million (2.4 per cent) between FY2019/20 and FY2020/21 (**Chart 2**). Of note, in FY2017/18 the NSWMA was removed from the Consolidated Fund with the Parochial Revenue Fund (PRF) becoming the main source of financing.

**Chart 2: NSWMA Total Income FY2016/17 to FY2020/21**



Source: NSWMA Audited Financial Statements

2.3 Commercial Income comprises revenue from contracts and fees received from the collection of commercial solid waste throughout the country and from landfill waste disposal. In relation to the landfills, the NSWMA is mandated to manage eight disposal sites located in Portland, St. Ann (two), Kingston & St. Andrew, St. Thomas, St James, St Elizabeth and Manchester. The NSWMA indicated that commercial revenue from collections is influenced by factors such as frequency, type, volume, or weight of the waste collected and distance to the disposal facility<sup>3</sup>. Other operating income comprises, Rental Income and fees charged for breaches of the NSWM Act. In the FY2016/17 Annual Report, NSWMA stated that unavailability of sufficient collection units and constant breakdown of operational units along with the practice of drivers not handing delivery slips to clients, were the two major constraints, which impacted revenue generation and collections. Subsequently, in its FY2017/18 Annual Report, NSWMA attributed the perennial issues of late collection, backlogs of solid waste collection and non-collection throughout the island, primarily to financial constraints, and in some instances rainy weather conditions.

<sup>3</sup> NSWMA audited financial statements FY2018/19.

## Expenses increased over the period driven by staff costs

- 2.4 Expenses over the five-year period, rose by \$2.9 billion or 58.6 per cent with the component, Direct Administrative and General Expenses accounting for nearly all total expenses. Expenses was driven by staff costs, which averaged 37.6 per cent of total expenses, with this line item increasing by 92.1 per cent over the five-year period moving to \$3.2 billion in FY2020/21 from \$1.7 billion in FY2016/17. As at March 2021, the NSWMA had a staff complement of 3,666, increasing by 40.0 per cent from 2,619 in FY2016/17. In this regard, MPM Waste Management Ltd, one of the subsidiaries of the NSWMA, had the largest proportion of staff with 1,674 or 45.7 per cent of the total Group staff complement. We noted that between FY2019/20 and FY2020/21 total staff complement declined by 454 (11.0 per cent) but overall staff cost increased by \$343.2 million (11.9 per cent) (**Table 2**).

**Table 2: NSWMA Main Contributors to Expenses FY2016/17 to FY2020/21**

ITEM (J\$ million)	FY2020/21	FY2019/20	FY2018/19	FY2017/18	FY2016/17
<b>Staff Costs</b>	3,236.0	2,892.8	2,489.8	1,967.9	1,684.3
<b>Beautification and Special Projects</b>	1,260.1	1,441.4	1,272.2	792.8	698.9
<b>Landfill Operations</b>	714.9	770.3	494.7	450.1	400.6
<b>Landfill Contractors</b>	1,216.0	1,006.3	763.7	706.3	817.3
<b>Other Expenses</b>	1,466.4	1,437.6	1,302.4	1,670.6	1,376.8
<b>Total Expenses</b>	<b>7,893.4</b>	<b>7,548.4</b>	<b>6,322.8</b>	<b>5,587.7</b>	<b>4,977.9</b>

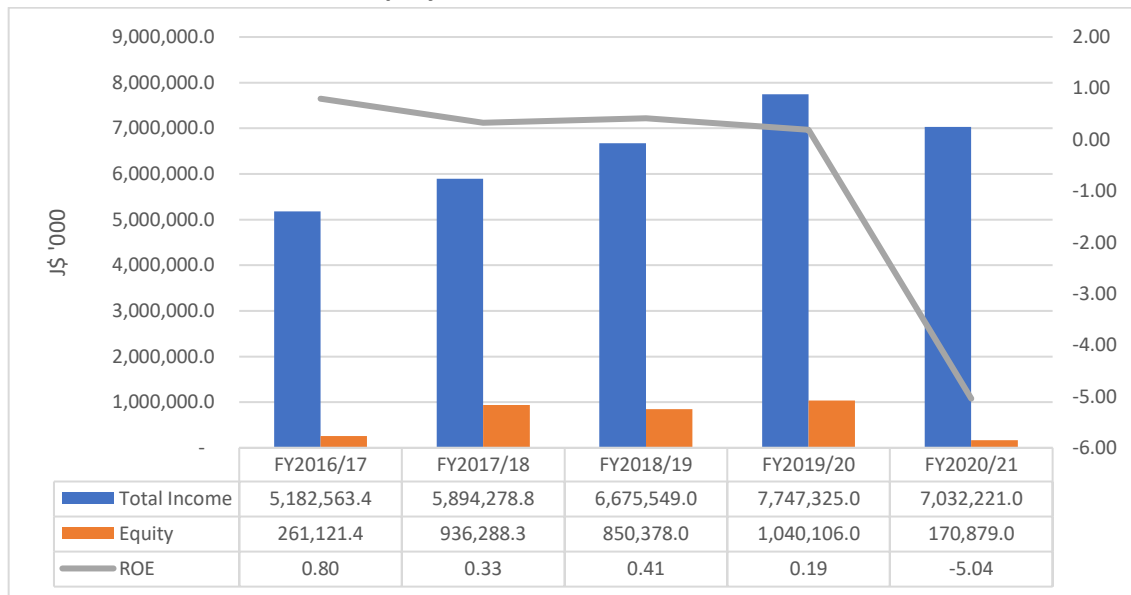
Source: NSWMA's Audited Financial Statements

- 2.5 The NSWMA contracted supplementary units to maintain its target collection schedule, given issues related to availability of garbage trucks. The NSWMA's FY2017/18 Annual Report indicated that the entity awarded a 13.6 per cent increase in the rate paid per trip to these contractors, which underpinned the movement in this line item. Further, NSWMA's FY2018/19 Annual Report, indicated that there were eight major fires in landfills across the country, which influenced expenses based on the implementation of additional measures. These measures would have impacted FY2019/20, whereby expenses related to Land Fill Operations and Contractors rose by 55.7 per cent and 31.8 per cent respectively. For FY2020/21, expenses attributable to Land Fill Operations fell by \$55.4 million (7.2 per cent), while expenses attributable to contractors rose by \$209.7 million (20.8 per cent) as the NSWMA sought to bolster its contractor fleet given its own deficiencies.
- 2.6 Beautification and special projects expanded significantly by 80.3 per cent over the review period with the greatest year-over-year movement of 60.5 per cent or \$479.4 million, occurring between FY2017/18 and FY2018/19. The NSWMA indicated that increased projects were

undertaken in partnership with other public bodies. Of note, subventions received from Government include a specific component for emergency and special projects, which the NSWMA executes during the financial year. This is in conjunction with other public bodies such as the Tourism Enhancement Fund (TEF) and Tourism Product Development Company Limited (TPDCO).

2.7 NSWMA’s Return on Equity ratio exhibited a similar trend over the period to that of Net Profit Margin, declining to negative 5.04 in FY2020/21 from 0.80 in FY2016/17. The return on equity ratio indicates how well an entity uses its own funds to generate profits. NSWMA’s total Equity rose steadily for the review period but fell significantly to \$170.9 million at end FY2020/21 with an Accumulated Deficit of \$19.4 million influencing the decline (**Chart 3**).

**Chart 3: NSWMA’s Return on Equity Ratio FY2016/17 to FY2020/21**

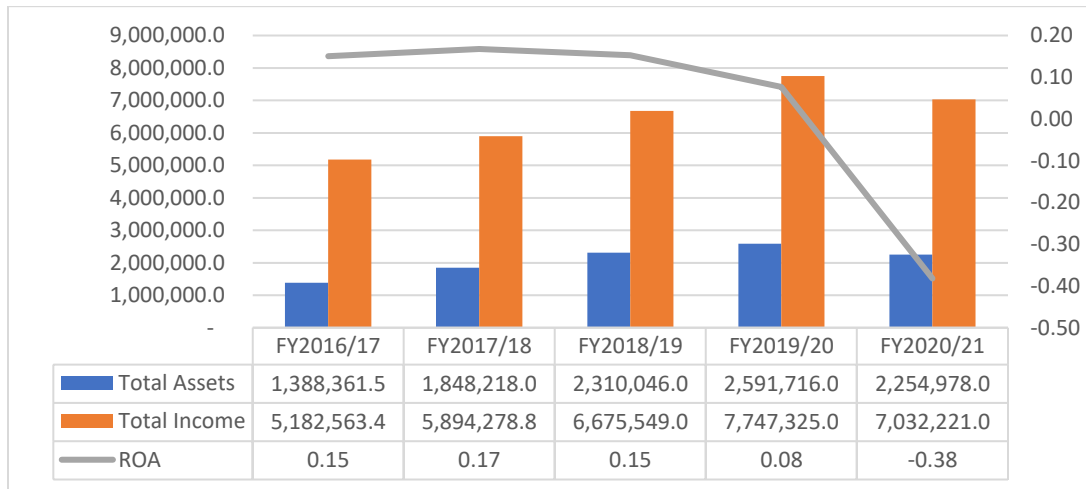


Source: NSWMA’s Audited Financial Statements

### Expansion NSWMA’s Assets driven by Accounts receivables

2.8 NSWMA’s return on assets ratio which averaged 0.03 for the five-year period, declined to negative 0.38 at end FY2020/21 relative to 0.15 at end FY2016/17 (**Chart 4**). The fall in FY2020/21 indicated that for every dollar of assets invested, NSWMA recorded a net loss of \$0.38, reversing a positive position underlined by four successive years of net profits.

**Chart 4: NSWMA Return on Assets Ratio FY2016/17 to FY2020/21**



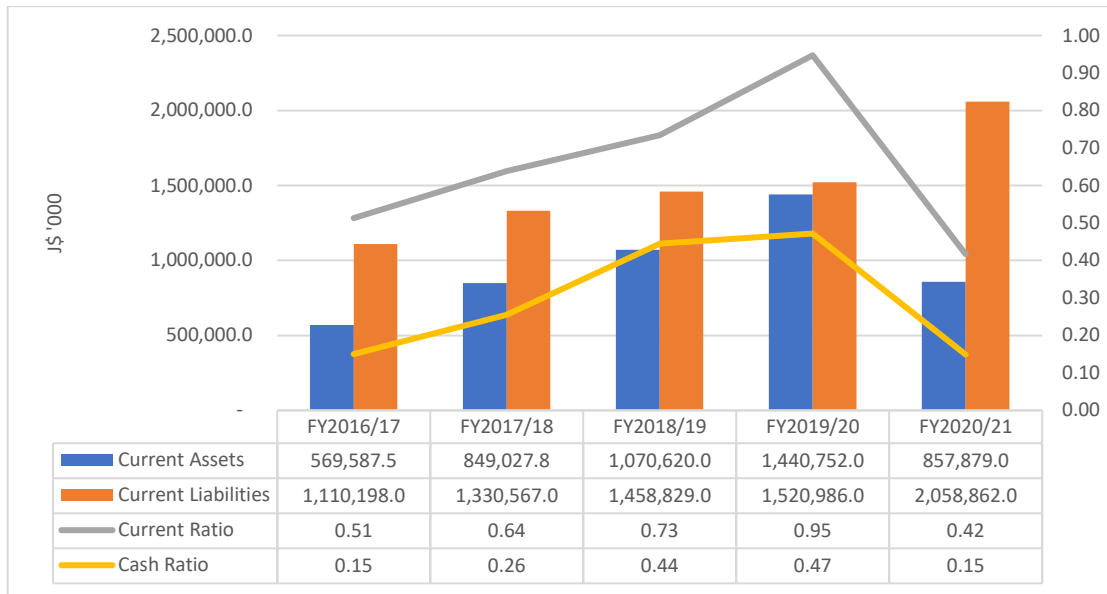
Source: NSWMA's Audited Financial Statements

2.9 NSWMA's total assets over the review period expanded by \$866.6 million (62.4 per cent), primarily driven by Account Receivables which increased by 37.3 per cent to \$522.5 million in FY2020/21 from \$380.6 million in FY2016/17. Account Receivables accounted for an average of 23.3 per cent of the Authority's Assets, whereas Cash & Cash Equivalents averaged 19.9 per cent of Total Assets over the period.

**Current and Cash Ratios fell to their Lowest Levels in FY2020/21**

2.10 NSWMA's liquidity ratios (current and cash ratios) showed steady improvement between FY2016/17 and FY2019/20 although the ratios remained relatively low (**Chart 5**). In FY2020/21, the liquidity ratios fell to their lowest levels for the review period. The current ratio, which measures an entity's ability to meet short-term financial obligations that are due within a year, using its Current Assets. NSWMA's current ratio declined to 0.42 in FY2020/21 from a high of 0.95 in FY2019/20, implying that in FY2020/21, NSWMA would have been able cover only 42 per cent of its Current Liabilities using Current Assets. NSWMA's Current Assets decreased by 40.5 per cent in FY2020/21, whereas Current Liabilities increased by 35.4 per cent, relative to FY2019/20. The decrease in Current Assets in FY2020/21 relative to FY2019/20 was due to a 19.1 per cent fall in Trade & Other Receivables, a 57.3 per cent decline in Cash & Cash Equivalent and a 62.9 per cent fall in Inventories. Concurrently, the increase in Current Liabilities was due to Accounts Payables and Provisions (up 35.5 per cent) and Lease Liabilities (up 24.8 per cent).

**Chart 5: NSWMA Liquidity Ratios FY2016/17 to FY2020/21**



Source: NSWMA Audited Financial Statements

2.11 The improvement in the liquidity ratios up to FY2019/20 was facilitated by increases in Government Subvention, Commercial Income and Other Operating Income. Government Subvention, Commercial Income and Other Operating Income on average accounted for 88.8 per cent, 8.1 per cent and 3.1 per cent, respectively, of total income. In FY2020/21, the Government Subvention fell by 10.1 per cent along with a decrease in Commercial Income (down 20.1 per cent) in a context where Government reduced its overall budget and reallocated resources to manage the Covid 19 pandemic. These reductions negatively impacted the cash flow and heightened liquidity risk for the entity. Specifically, NSWMA cash ratio decreased from a high of 0.47 in FY2019/20 to its lowest ratio of 0.15 in FY2020/21. For the review period, neither Cash & Cash Equivalents nor Current Assets were sufficient to cover Current Liabilities. Nonetheless, despite the adverse impact on liquidity by the high volume of outstanding receivables, which included uncollected revenue from waste collection services and the high downtime of collection units, the Authority faced low liquidity risk given guaranteed access to Government Subvention and other resources.

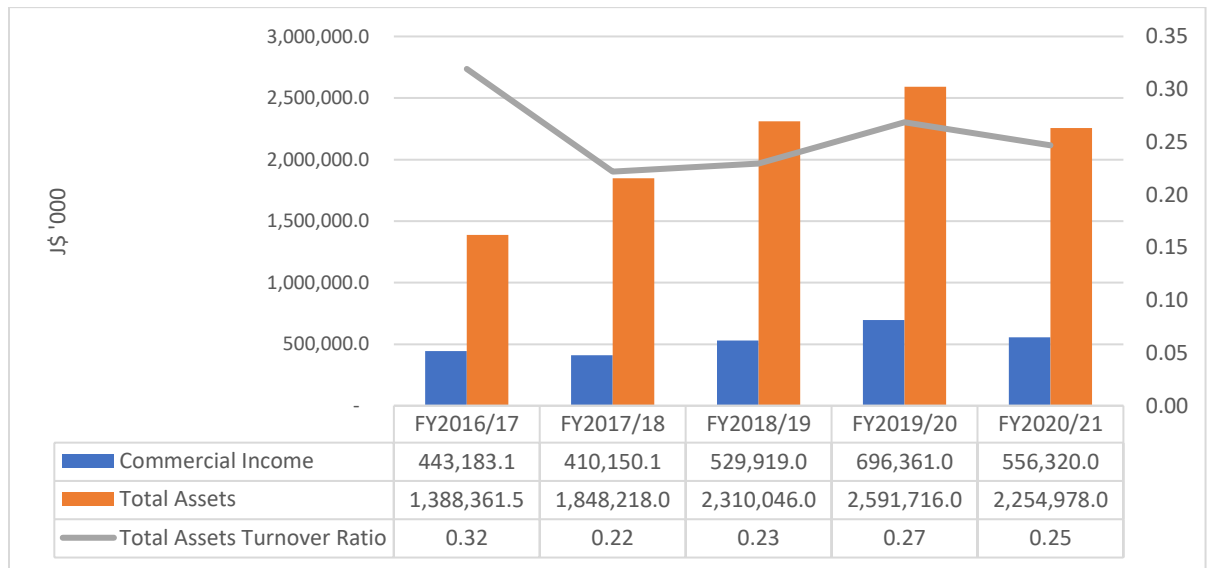
**Increase in Total asset yielded marginal improvement in Commercial Revenue**

2.12 NSWMA’s total assets comprised of Property, Plant and Equipment (fleet of collection units use for commercial operation), Trade and Other Receivables, Cash and Cash Equivalent, defined benefit plan, right-of-use asset, and Inventory. NSWMA’s total asset base expanded to \$2.3 billion in FY2020/21 from \$1.4 billion in FY2016/17 (62.4 per cent). Despite this expansion however, there was little impact on overall revenue generation as Government Subvention, which accounts for almost 90 per cent of income, is not engendered by NSWMA operational

activities. Commercial Income, which on the other hand is derived from core operations, was negligible in nominal terms and therefore had minimal revenue generating effect. Further, during the review period, there was only moderate increase in Commercial Income of 25.5 per cent relative to the 62.4 per cent increase in Total Assets over the period.

2.13 Against this background, NSWMA total asset turnover ratio, which averaged 0.26 for the review period, reflected a trend decline to 0.25 in FY2020/21 from 0.32 in FY2016/17, notwithstanding a brief uptick to 0.27 in FY2019/20. Of note, the increase in FY2019/20 was underpinned by a 31.4 per cent increase in Commercial Income to \$696.4 million from \$529.9 million in the previous year (**Chart 6**). The total asset turnover ratio measures how efficiently an entity utilizes its assets to generate revenue with a higher ratio being more desirable.

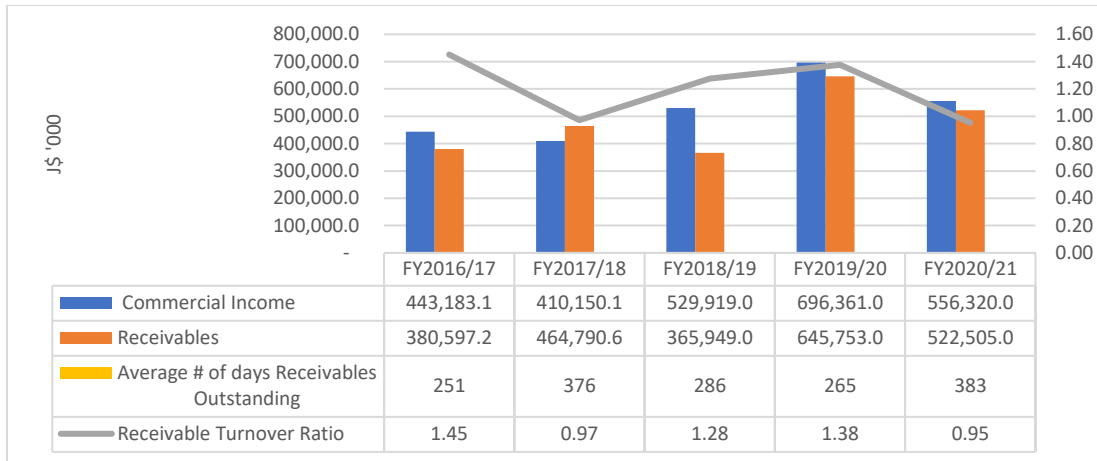
**Chart 6: NSWMA Total Asset Turnover Ratio FY2016/17 to FY2020/21**



Source: NSWMA's Audited Financial Statement

2.14 One of the major factors affecting revenue generation and the turnover ratio over the period, was the persistently high-volume outstanding receivables. NSWMA highlighted in its FY2017/18 Annual Report that factors affecting collections, which hindered the revenue target included uncollected revenue from non-payment or the unwillingness of clients to pay for waste collection services and the entity's inability to meet its contractual obligations due to the high downtime of collection units. Consequently, NSWMA receivables turnover ratio showed a declining trend during the review period. The ratio fell to 0.97 in FY2017/18 from 1.45 in FY2016/17 and following an uptick in FY2019/20 to 1.38, subsequently fell to 0.95 in FY2020/21. Similarly, days receivables outstanding fluctuated but remained relatively high during the period ranging from 251 days in FY2016/17 to a high of 383 days in FY2020/21 signalling that the NSMWA continued to be challenged in collecting outstanding receivables. (**Chart 7**).

**Chart 7: NSWMA Receivables Turnover Ratio and Average No. of days Receivables Outstanding**



Source: NSWMA's Audited Financial Statement

- 2.15 The NSWMA's policy is to extend 30 days credit for trade receivables and to impair those that fall due over 270 days. As at March 2021, NSWMA's total provision for impairment or expected loss was \$579.9 million or 56.9 per cent of total receivables of \$1.0 billion. Of the total provision for impairment, \$307.6 million or 53.0 per cent was fully impaired. For FY2020/21, provision for expected loss (impairment) was increased by 358.9 per cent from \$126.3 million in FY2016/17, suggesting a worsening of the NSWMA's receivables management (**Table 3**). In its FY2017/18 Annual Report, NSWMA indicated that a comprehensive business plan was developed to address the issue of aged receivables. This was reinforced in its FY2018/19 Annual Report which highlighted that the reorganising of the entity's commercial operations and employment of collection officers in all regions, had yielded a \$99 million reduction in aged receivables. Despite additional measures in FY2020/21, including a review of all commercial contracts, procurement of software to manage commercial and trucking operations and improving the ticket process, NSWMA's the days receivables outstanding rose significantly as previously indicated.

**Table 3: NSWMA Aged Receivables for FY2016/17 to FY2020/21**

	FY2020/21	FY2019/20	FY2018/19	FY2017/18	FY2016/17
Item (\$ '000)					
30 days	10,667.0	7,611.0	107,938.0		
31-180 days (6 months)	312,211.0	319,788.0	125,622.0	NI	NI
181-270 days (9 months)	388,420.0	243,110.0	254,688.0		
over 270 days (9 months)	307,619.0	331,411.0	290,015.0		
Total Trade Receivable/ Total Receivables	<b>1,018,917.0</b>	<b>901,920.0</b>	<b>778,263.0</b>	<b>677,369.0</b>	<b>506,937.6</b>
Provision/Impairment	- 579,882.0	- 532,913.0	- 448,765.0	- 337,018.0	-126,340.4
Non-trade Receivables	83,470.0	276,746.0	36,451.0	124,440.0	NI
Balance	<b>522,505.0</b>	<b>645,753.00</b>	<b>365,949.0</b>	<b>464,791.0</b>	<b>380,597.2</b>

Source: NSWMA Audited Financial Statement

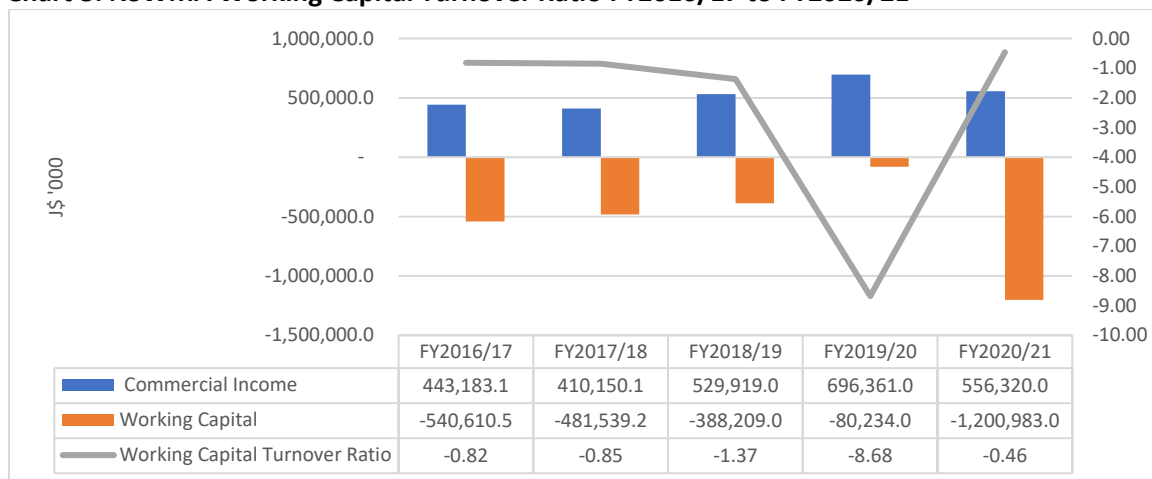
NI – Information not included in Audited Financial Statement

### NSWMA Working Capital generally negative, reflected in its working capital turnover ratio



- 2.16 The NSWMA did not meet the criteria established in the FAA Regulations, related to the attainment of positive working capital throughout the period reviewed. Working capital refers to the day-to-day management of an entity’s short-term assets and liabilities. The NSWMA working capital though negative, improved steadily to minus \$0.80 million in FY2019/20 relative to minus \$540.6 million for FY2016/17 (**Chart 8**). However, the gains were sharply reversed in FY2020/21 as working capital fell to negative \$1.2 billion based on a simultaneous reduction in Current Assets and increase in Current Liabilities relative to FY2019/20. This was underpinned by a 57.3 per cent reduction in Cash & Cash Equivalent and 35.5 per cent increase in payables.
- 2.17 Given the persistent negative working capital, NSWMA’s working capital turnover ratio was also negative. At FY2020/21, NSWMA’s working capital turnover ratio was 0.46 relative to 0.82 in FY2016/17. This indicated that NSWMA was unable to generate income for every dollar of working capital used to cover its immediate liabilities and operating expenses and instead had to fully rely on external sources to support its operations.

**Chart 8: NSWMA Working Capital Turnover Ratio FY2016/17 to FY2020/21**



Source: NSWMA’s Audited Financial Statement

### Growth in Assets contributed to declining trend in NSWMA’s Debt Ratio

- 2.18 NSWMA Debt to Asset ratio ranged between 0.60 and 0.92 over the review period. The debt to assets ratio measures the portion of a company’s assets that are financed by debt. In other words, this ratio shows how many assets and entity would have to sell to pay off all its liabilities. A higher ratio means that the firm has high insolvent risk. NSWMA recorded a steady decline in its debt ratio up to FY2019/20. Improvements in NSWMA debt to asset ratio were driven by increases in Property, Plant & Equipment (132.6 per cent), Account Receivables (37.3 per cent) and Cash and Cash Equivalents (84.5 per cent) from FY2016/17 to FY2020/21. The reversal of the trend in FY2020/21 was based on a 35.5 per cent increase in Account Payables compared to FY2019/20 (**Table 4**).

**Table 4: NSWMA Debt Ratio FY2016/17 to FY2020/21**

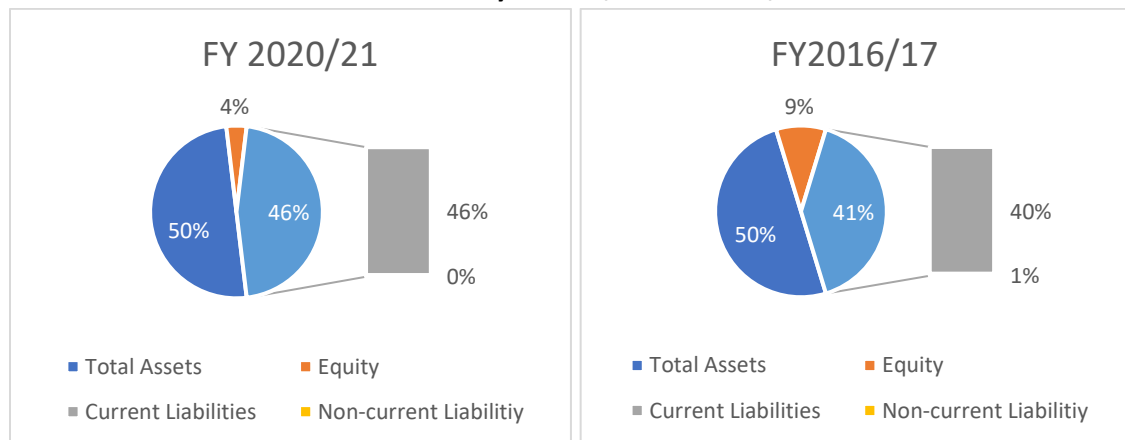
Item	2020/2021 \$'000	2019/20 \$'000	2018/19 \$'000	2017/18 \$'000	2016/17 \$'000
<b>Total Assets</b>	2,254,978.0	2,591,716.0	2,310,046.0	1,848,218.0	1,388,361.5
<b>Total Liabilities</b>	2,084,099.0	1,551,610.0	1,459,668.0	1,340,752.0	1,127,240.2
<b>Equity</b>	170,879.0	1,040,106.0	850,378.0	936,288.4	261,121.4
<b>Accounts Payable &amp; Provisions</b>	2,053,475.0	1,515,830.0	1,449,483.0	1,323,710.0	1,098,045.9
<b>Of which: Statutory Liabilities</b>	900,395.0	624,976.0	648,795.0	703,800.0	495,782.5
<b>Debt to Assets</b>	0.92	0.60	0.63	0.73	0.81
<b>Debt-Equity Ratio</b>	12.20	1.49	1.72	1.43	4.32

Source: NSWMA Audited Financial Statements

**NSWMA’s long debt-to-equity ratio reflected a declining trend**

2.19 NSWMA debt-to-equity ratio (debt including short-term payables) ranged from 1.43 to 12.20 over the five-year review period. The Debt-to-Equity (D/E) Ratio measures the degree to which a company is financing its operations through debt versus equity. A ratio higher than 1 implies that the entity’s funding is more concentrated in debt; however, debt is more expensive to maintain and as such, a balance between debt and equity would be more desirable. NSWMA’s payables on average accounted for 98.3 per cent of its liabilities. The build-up in payables throughout the period was attributed to delays in payment of Statutory Liabilities, an interest-bearing liability, which accounted for an average of 45.6 per cent of Accounts Payable and Provisions for the period (**Chart 9**).

**Chart 9: NSWMA Balance Sheet Summary FY2016/17 & FY2020/21**

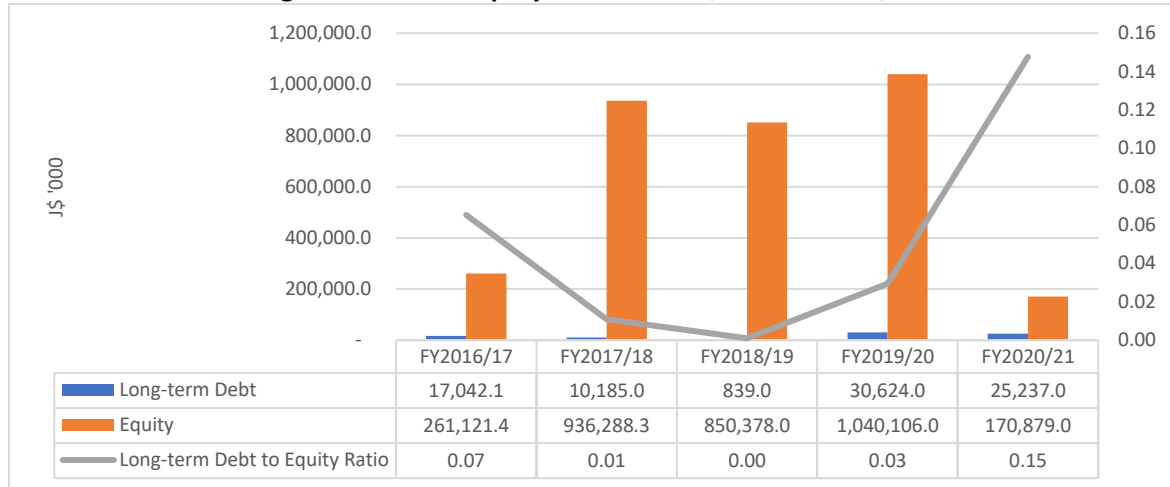


Source: NSWMA Audited Financial Statements

2.20 Excluding the short-term liabilities, NSWMA recorded an average long-term debt to equity ratio of 0.05. The long-term debt to equity ratio measures the amount of long-term debt a company carries versus total shareholder equity. NSWMA’s long-term debt to equity ratio displayed a declining trend for FY2016/17 to FY2018/19, reflective of debt amortization related to the

acquisition of NSWMA’s head office building. There was a reversal in this trend in FY2019/20 and FY2020/21 due to the renewal of the entity’s long-term lease agreements. Of note, the long-term debt to equity ratio did not breach the leverage standard outlined in the Fiscal Responsibility Framework Regulations throughout the period (**Chart 10**).

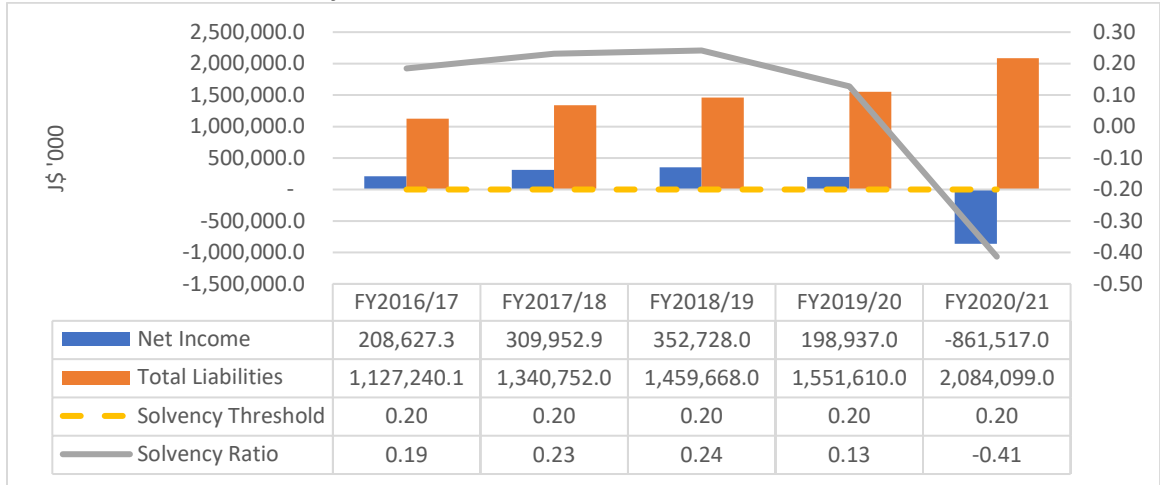
**Chart 10: NSWMA Long-term Debt to Equity Ratio FY2016/17 to FY2020/21**



Source: NSWMA’s Audited Financial Statements

2.21 NSWMA’s solvency ratio was negative 0.41 in FY2020/21, relative to 0.19 in FY2016/17, although over the five-year review period, the ratio fluctuated around the solvency threshold of 0.2. The solvency ratio measures an entity’s ability to meet its liabilities in the long-term. Hence, a negative or low ratio indicates a greater likelihood of the entity defaulting on its obligations. Notwithstanding, given the guarantee of Government’s funding support, the risk of NSWMA defaulting on its obligation would be minimal if any. Nonetheless, the movement in NSWMA’s solvency ratio was driven by changes in Government Subvention (inflows) on the one hand, and Other Payables (outflows) on the other. Whereas Government Subvention income generally increased during the period, in the latter years, inflows were outpaced by a rise in Trade Payables and Statutory Liabilities as reflected in an increase in the ratio between FY2016/17 and FY2018/19, and a decline thereafter (**Chart 11**).

**Chart 11: NSWMA Solvency Ratio FY2016/17 to FY2020/21**



Source: NSWMA's Audited Financial Statements

## Appendix 1: Definitions of Selected Ratios and Formulas

### Activity Ratios

**Working Capital Turnover ratio** – refers to the ratio of sales to working capital (current assets less current liabilities). This measures the company’s efficiency in its use of working capital.

$$\text{Formula} = \frac{\text{Sales (Commercial Income)}}{\text{Working Capital}}$$

**Receivable Turnover ratio** - refers to the ratio that measures the rate at which a company collects its accounts receivables.

$$\text{Formula} = \frac{\text{Credit Sales (Commercial Income)}}{\text{Average Accounts Receivables}}$$

### Liquidity Ratios

**Cash Ratio** – refers to the ratio of cash and cash equivalents to current liabilities and measures an entity’s ability to pay off its current liabilities with only cash and cash equivalents.

$$\text{Formula} = \frac{\text{Cash} + \text{Cash equivalents}}{\text{Current Liabilities}}$$

**Current Ratio** - refers to the ratio of current assets to current liabilities and indicates an entity’s ability to meet current liabilities with its current assets.

$$\text{Formula} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

### Debt and Solvency Ratios

**Debt-to-Assets (Debt Ratio)** – refers to the ratio of an entity’s debt to total assets and measures the proportion of assets that are financed with debt.

$$\text{Formula} = \frac{\text{Total Liabilities}}{\text{Total Assets}}$$

**Debt-to-Equity** – refers to the ratio of an entity’s debt to total equity and indicates the relative use of debt and equity as sources of capital to finance the entity’s assets.

$$\text{Formula} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

**Long-term Debt to Equity** – refers to the ratio of an entity’s long-term debt to equity. It is used to gauge the risk of the entity becoming bankrupt.

$$\text{Formula} = \frac{\text{Long term Debt}}{\text{Equity}}$$

**Solvency Ratio** – this ratio provides an indication of the company’s ability to meet its long-term debt obligations. It indicated whether a company’s cash flow is sufficient to meet its long-term liabilities and thus is a measure of its financial health.

$$\text{Formula} = \frac{\text{Net Income}}{\text{Total Liabilities}}$$

### **Profitability Ratios**

**Net Profit Margin** – refers to the ratio of an entity’s net income to sales and measures how much of each dollar of sales is left over after all expenses.

$$\text{Formula} = \frac{\text{Net Income}}{\text{Sales}}$$

**Rate of Return on Assets** – refers to the ratio of net income to total assets. This indicates the amount earned on each dollar of assets.

$$\text{Formula} = \frac{\text{Net Income}}{\text{Total Assets}}$$

**Return on Equity** – refers to the profitability of a business in relation to their equity. This indicates the efficiency of an entity at generating income from its equity financing.

$$\text{Formula} = \frac{\text{Net Income}}{\text{Total Equity}}$$

**Total Asset Turnover Ratio** – refers to the ratio of sales to assets and indicates the extent to which an entity’s investment to total assets results in sales.

$$\text{Formula} = \frac{\text{Sales}}{\text{Total Assets}}$$

## Appendix 2: Selected Criteria for Public Entities not forming part of the specified public sector

### Criteria for Financial Standards - FAA Act (Amended) 2015, Regulations:

Selected Criteria for Public Entities not forming part of the specified public sector	Met/ Not Met	Remarks
1. The auditor of the public body has expressed an unqualified opinion on the financial statements of the public body, including an opinion that the accounts comply with the International Financial Reporting Standards (IFRS).	Met	Unqualified Financial Statements for the last three financial years. Financial Statements were qualified for Y/E March 2018
2. Annual reports, including audited financial statements of the public body have been submitted in accordance with section 3(2) of the <i>Public Bodies Management and Accountability Act</i> .	Met	
3. The public body has, on average over the three preceding financial years, recorded a positive net profit after tax, on a stand-alone basis or, if applicable, on a consolidated basis.	Not Met	NSWMA made a net loss for the Y/E March 2021, which contributed to an average net loss over the last three years
<p>4. At least one of the following provisions apply in respect of a public body -</p> <p>a) The average long-term debt to equity ratio of the public body (on a stand-alone basis, or, if applicable, on a consolidated basis) over the three preceding financial years is no more than 2.5, where long term debt means debt that is due over a period that is longer than one year,</p> <p>b) The positive working capital and current ratio of the public body (on a stand-alone basis, or if applicable, on a consolidated basis) is at least 1.2, where current ratio means current assets divided by current liabilities.</p>	<p>Met</p> <p>Not Met</p>	<p>Notwithstanding, NSWMA has been carrying significant short-term payables to which it faces difficulty meeting such obligations.</p> <p>The current ratio averages 0.7 over the last three year, which would also result in negative working capital.</p>