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# St Maarten

## Public Expenditure Review

October 20, 2020

MTI



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## **Currency and Equivalent Units**

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## Acronyms

ACE	All Children Education
AGO	The lowest level of secondary Labor Market Oriented Education (LMOE) ( <i>Arbeidsmarkt gericht onderwijs</i> )
ALOS	Average length of stay
AOV	Old age pension ( <i>Algemene Ouderdomsverkering</i> )
APS	Civil Servants' Pension Fund ( <i>Algemeen Pensioen Fonds Sint Maarten</i> )
ASVE	National Institute for Professional Advancement (same as NIPA)
AVE	Board of Adult Vocational Education
AVE-NIPA	AVE National Institute for Professional Advancement
AVBZ	General Insurance for Exceptional Medical Expenses ( <i>Algemene verzekeing bijzondere ziektekosten</i> )
AWW	Widow/Widower's and Orphans Insurance ( <i>Algemene Weduwen- en Wezenverzekering</i> )
CAPE	Caribbean Advanced Proficiency Examination (CXC)
CBA	Charlotte Brookson Academy of Performing Arts
CBCS	Central Bank of Curacao and Sint Maarten
CIA	Caribbean International Academy
CCSLC	Caribbean Certificate of Secondary Level Competence (CXC)
CCRIF	Caribbean Catastrophe Risk Insurance Facility
Cft	Financial Supervisory Board ( <i>College financieel toezicht</i> )
CGHE	Central government health expenditure
CSEC	Caribbean Secondary Education Certificate (CXC)
CXC	Caribbean Examinations Council
Cycle 1	Students enrolled in cycle 1 of primary education are 4-8 years of age
Cycle 2	Students enrolled in cycle 2 of primary education are 8-12 years of age
DPE	Division of Public Education
DPE- LCS	Leonald Connor School
DPE- MGdW	Marie Genevieve de Weever
DPE- MLK Jr.	Martin Luther King Jr.
DPE- Oranje	Oranje School
DPE- PWAS	Prins Willem Alexander School
DPE- RLS	Ruby Labega School
DPE-SMVTs	St. Maarten Vocational Training School
DRF	Disaster Risk Financing
DRN	Disaster Risk Management
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
EIB	European Investment Bank
FAVE	Foundation for Advanced Vocational Education
FAVE-PSVE	St. Maarten Academy Preparatory Secondary Vocational Education
FAVE- SXM AC	St. Maarten Academy Academic
FBE	Foundation-Based Education
FTE	Fulltime equivalent
FZOG	Medical Expenses Fund for Government Retirees
GDP	Gross Domestic Product
GEBE	Water and Electricity Utility
GFSM	Government Finance Statistics Manual
GGHE	General government health expenditure
GHI	General Health Insurance

GOB	Gross Operating Balance
GP	General Practitioner
GVS	Pharmaceutical Remuneration System ( <i>Geneesmiddelen vergoedings systeem</i> )
HAVO	5-year general secondary program ( <i>Hoger Algemeen Voortgezet Onderwijs</i> )
HBS	Household Budget Survey (Department of Statistics)
IB	International Baccalaureate
ICPC	International Classification of Primary Care
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
LMOE	Labor market-oriented education
LPG	List of preferred generic drugs ( <i>Lijst preferentiele geneesmiddelen</i> )
LU	Learning Unlimited Preparatory School
MAC	Methodist Agogic Center
MAC- BFM	Browlia F. Maillard
MAC- JAG	John A. Gumbs
MAC-CSE	Comprehensive Secondary Education
MDG	Millennium Development Goal
MECYS	Ministry of Education, Culture, Youth, and Sport
Montessori	St. Maarten Montessori School
MTEF	Medium term expenditure framework
NAf (ANG)	Netherlands Antillean Florin or Guilder
NCDs	Noncommunicable diseases
NIPA	National Institute for Professional Advancement
NAO	National Accountability Ordinance ( <i>comptabiliteits landsverordening Sint Maarten</i> )
NOB	Net Operating Balance
NRPB	National Recovery Program Bureau
NRRP	National Recovery and Resilience Plan
OECD	Organization for Economic Co-operation and Development
OECS	Organization of Eastern Caribbean States
OOPS	Out-of-pocket expenditures
OV	Accident Insurance ( <i>Ongevallen verzekering</i> )
OZR	Civil servants medical expenses regulation ( <i>Overheidsdienaren ziektekosten regeling</i> )
PBL	Practical basic vocational track ( <i>Praktische Basis Leerweg</i> )
PCCP	Pharmaceutical Cost Containment Program
PER	Public Expenditure Review
PFM	Public financial management
PKL	Practically oriented vocational track ( <i>Praktische Kader Leerweg</i> )
PIPC	Program for Improvement Primary Care Sint Maarten
PIRLS	Progress in International Reading Literacy Study
PISA	Program for International Student Assessment
PJIAE	Princes Juliana International Airport operating company
PJIAH	Princes Juliana International Airport holding company
PP	Government medical expense regulation for the indigent population
PSVE	Preparatory secondary vocational education that is organized at four levels: LMOE, PBL, PKL and TKL
Rft	Kingdom Act Financial Supervision Curacao and Sint Maarten ( <i>Rijkswet financieel toezicht Curacao en Sint Maarten</i> )
SDA	Seventh Day Adventist
SER	Social Economic Council ( <i>Sociaal Economische Raad</i> )

SKOS	St. Maarten Catholic Education Foundation ( <i>Stichting Katholiek Onderwijs St. Maarten</i> )
SKOS- SBS	Sr. Borgia School
SKOS- SDPS	St. Dominic Primary School
SKOS- SJS	St. Joseph School
SKOS- SML	Sr. Marie Laurence
SKOS- SMS	Sr. Magda School
SKOS- SRS	Sr. Regina School
SKOS-SDHS	St. Dominic High School
SMMC	Sint Maarten Medical Center
SMTF	Sint Maarten Training Foundation
SOAB	Government audit agency ( <i>Stichting Overheidsaccountantsbureau</i> )
SPCOBE	Protestant Christian Education Windward Islands Foundation ( <i>Stichting Protestant Christelijk Onderwijs Bovenwindse Eilanden</i> )
SPCOBE- ASC	Asha Stevens Campus
SPCOBE- HSC	Helmich Snijders Campus
STAT	Department of Statistics Sint Maarten
SVOBE	Secondary Education Foundation Windward Islands ( <i>Stichting Voortgezet Onderwijs Bovenwindse Eilanden</i> )
SVOBE- SUN	Sundial School
SVOBE-MPC-HAVO	Milton Peters College – Hoger Algemeen Vormend Onderwijs (Senior general secondary)
SVOBE-MPC-PBL	Milton Peters College – Praktische Basis Leerweg (practical basic vocational education)
SVOBE-MPC-PKL	Milton Peters College – Praktische Kader Leerweg
SVOBE-MPC-TKL	Milton Peters College – Theoretische Kader Leerweg
SVOBE-MPC-VWO	Milton Peters College – Voortgezet Wetenschappelijk Onderwijs (pre-university)
SZV (USZV)	Social and Health Insurances ( <i>Uitvoeringsorgaan Sociale- en ziektekosten verzekeringen Sint Maarten</i> )
TEAT	Ministry of Tourism, Economic Affairs, Transport and Telecommunication
TEE	Total education expenditure
THE	Total health expenditure
Telem	Sint Maarten Telecommunication Holding Company
TIMSS	Trends in International Mathematics and Science Study
TKL	Theoretical vocational track ( <i>Theoretische Kader Leerweg</i> )
TPE	Total public expenditure
TSA	Tourism Satellite Accounts
UHC	Universal Health Coverage
UIS	UNESCO Institute of Statistics
USM	University of St. Maarten
VROMI	Ministry of Public Housing, Spatial Planning, Environment and Infrastructure
VSA	Ministry of Public Health, Social Development and Labor
VSBO	Preparatory Secondary Vocational Education ( <i>Voorbereidend Secundair Beroepsonderwijs</i> )
VWO	Six-year, pre-university program ( <i>Voorbereidend Wetenschappelijk Onderwijs</i> )
WHO	World Health Organization
ZV	Health Insurance ( <i>Ziektekosten verzekering</i> )

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## Chapter 1: Executive Summary and Synthesis

### *Executive Summary*

**Sint Maarten is a high-income small island state in the Caribbean with a largely tourism-based economy.** GDP per capita is estimated at US\$29,189 substantially above the average of comparable smaller island states in the Caribbean at US\$17,216. Severe damage to the country's tourism-related infrastructure led to an accumulated economic contraction estimated at 12 percent in 2017 and 2018. A gradual recovery of economic activity that started in 2019 was projected to bring real GDP back to its pre-hurricane level by 2022. The COVID-19 pandemic is leading to a major setback as GDP is unlikely to be back at its previous level until 2024-2025.

**Rising public debt levels emphasize the need for substantial and structural fiscal adjustment.** The government of Sint Maarten has access to long-term, low-cost financing from the government of the Netherlands for approved capital expenses and recently, on an exceptional basis, for liquidity support to finance deficits on the government's operating balance. Already before the hurricanes, Sint Maarten had been unable to comply with the golden fiscal rule that all current spending must be covered by current revenue. Strict constraints on borrowing for capital spending allowed public debt to be kept within the limits of a medium-term debt anchor of 40 percent of GDP. Nevertheless, the debt ratio is projected to surpass this threshold in 2020 and additional liquidity support following the current COVID-19 related economic crisis will further add to public debt.

**Sint Maarten has low tax and public revenue collection in relation to the level of public goods and services that is expected from its public sector.** The sum of tax revenue and social security contributions is at 25.7 percent of GDP not very different from some other island states in the Caribbean, though considerably below the level of 34.4 percent observed on average in OECD countries. Modest tax collection is not an issue of low tax rates, though tax evasion and tax avoidance seem to be widespread. Strengthening the tax administration should reduce evasion and avoidance as well as generate reliable data on which informed changes to tax policy can be made.

**Central government current expenditures do not show an upward trend.** The level of current expenditure has been contained by the operational budget balance requirement. The control of gross compensation of employees plays a major role in the containment of current expenditure and has mainly taken place by reducing the number of staff. This has started to affect the operation of government and the control of gross compensation may have to shift its focus to the level of remuneration or to the cost of fringe benefits. The latter, mainly consisting of healthcare and pension contributions, make up more than a third of the gross compensation.

**Health spending in Sint Maarten is considerably higher than other countries in the region and has been rapidly increasing.** Total health expenditure has been nearly 12 percent of GDP in 2018 compared to an average in OECD countries of 8.8 percent. A lack of economies of scale and the need for medical referrals abroad explain the relatively high level of spending, but not the rapid increase in recent years. Health expenditures are skewed toward secondary and tertiary care with limited funds allocated toward primary care despite the cost-effectiveness and equity implications of primary care services.

**The two key issues facing Sint Maarten are the epidemiological and demographic transition, and a social health insurance scheme that is inefficient, inequitable, and financially unsustainable.** Ongoing reforms could have a substantial impact on health expenditures going forward and include an emphasis on primary care and information technology that should create a better evidence base and improved incentives for the

achievement of health outcomes, a pharmaceutical cost containment program and several actions to reduce the number and cost of medical referrals abroad. Efforts to reduce costs and improve the quality of care are expected to reduce, but not eliminate, the deficits on the public health insurance funds. Transitioning to a General Health Insurance model would improve health coverage and outcomes while putting the health system on a firm financial footing. Such a transition would enhance resource mobilization and simplify the system yielding further benefits in terms of reduced administrative costs.

**Pension payments are the main driver of increased social protection spending.** Sint Maarten's social protection system mainly consist of a basic pension for all residents (AOV), a supplementary pension for public sector workers, and a residual social assistance system to provide financial assistance to those of limited means on an *ad hoc* basis. The AOV operates as a pay-as-you-go scheme though had built up significant reserves which represents a modest buffer against the demographic changes already afoot. Civil servants are covered in addition by a fully funded supplemental pension fund which grants beneficiaries a top-up monthly pension.

**Increased life expectancy and a demographic transition have motivated parametric reforms to the country's pension system.** Although Sint Maarten currently benefits from one of the youngest populations in the Caribbean, it is set to experience, as a result, the most rapid population ageing over the coming decades. In 2015, reforms to both pension systems raised the retirement age to 62. In addition, the AOV monthly benefit was increased as for many old-age citizens the AOV is their only income and old-age poverty is a significant problem. Additional parametric reforms, including an increase of the retirement age from 62 to 65, have been prepared for both pension systems among others to improve the financial sustainability of the civil service pension fund and reduce the required pension contributions paid by the government. Given that the civil servants pension functions as a top-up on the AOV pension it makes sense for the retirement age of both systems to be aligned. Implementation of proposed pension reforms should be followed by timely preparation for the next phase of pension reforms that will undoubtedly be needed during the coming decade.

**Education spending made up nearly a quarter of total government spending though there is no indication that Sint Maarten has excessive education expenditures.** Government education spending funds public schools and subsidizes non-profit schools. The subsidized system dominates the provision of education as enrolments in subsidized schools constitute 80 percent of all enrollments. Per capita costs at the primary, secondary, and post-secondary, non-tertiary levels are lower than those for the average OECS and OECD country. Public spending on education in Sint Maarten is equitable as education is compulsory from ages 4-18 and truant officers monitor attendance. Areas of opportunity to attain efficiency gains are alternatives to high repetition and social promotion, mitigating teacher absenteeism, particularly in public schools, and possibly the cost of school buses.

**Sint Maarten faces many challenges and opportunities to enhance public sector performance and achieve sustainable public finances.** Plans, programs and legislative proposals for reform in several of the critical areas highlighted in this Public Expenditure Review have been prepared. Implementation of these plans and programs has oftentimes suffered from a lack of continuity and follow-up due to insufficient funding, frequent change in government and a lack of political willingness to tackle tough issues or take on vested interests. Attempts to strengthen fiscal sustainability would benefit from building further on some of this existing work elaborated within the public sector, often with the assistance of external consultants.

**A significant improvement in data quality and availability is needed to improve policy analysis and design.** Data limitations ranging from reliable population figures and macro-economic data to timely and readily available public financial statements and sector specific



detailed information hamper the identification and analysis of policy issues as well as the design and assessment of policy alternatives. The need to improve the collection, quality and availability of data is a common thread throughout this PER which is also echoed by a similar observation about macroeconomic analysis and surveillance in the most recent IMF Art. IV Staff Report (IMF 2020).

**The ongoing COVID-19 pandemic and related global economic crisis increases the urgency of a broader agenda of structural reforms In Sint Maarten.** Whereas most of the analysis, data and information gathering for this PER took place previous to the ongoing COVID-19 related economic crisis, the main observations and recommendations remain highly relevant. The crisis is creating an additional impetus to reform as demonstrated by the recently adopted pension reform. The analysis and policy recommendations in the areas of social (health) insurance and the education sector have been updated, incorporating the possible impact of the COVID-19 crisis. The crisis is bringing the need for social health insurance reform to the fore as the overall social insurance reserves may reach a critically low level already by 2023/24. In the area of public education, in the process of reopening schools the policy recommendation to provide after-school assistance for lagging students instead of grade repetition or social promotion is becoming all the more relevant.

## **Synthesis Report**

### **Introduction**

**1.1 Sint Maarten is a high-income small island state located in the Caribbean that occupies the southern half of the island shared with the French overseas collectivity of Saint Martin.** Sint Maarten is one of the six islands in the Caribbean that form part of the Kingdom of the Netherlands and since the dissolution of the former Netherlands Antilles on October 10, 2010 it has an autonomous constitutional status as a separate country within the Kingdom.<sup>1</sup> As a small island state, Sint Maarten has an open and largely tourism-based economy. The island belongs to the Leeward Islands, a group of islands located where the northeastern Caribbean Sea meets the western Atlantic Ocean within the Caribbean hurricane belt. Sint Maarten has been exposed to numerous hurricanes, including Luis in 1995, Lenny in 1999, and Irma and Maria in 2017.

**1.2 Hurricane Irma, a category 5 hurricane, hit the island on September 6, 2017 and was shortly followed by another smaller-scale hurricane Maria on September 19, 2017.** Total damages and losses from hurricanes Irma and Maria were estimated at \$2.7bn, with projected needs for recovery and future resilience valued at \$2.3bn (NRRP, 2018). After the devastation caused by hurricanes Irma and Maria, the Government of the Netherlands pledged an amount of €550m for the recovery and reconstruction of the country of which up to €470m is being channeled through a World Bank-managed Trust Fund to support the recovery and reconstruction of Sint Maarten and to strengthen the country's resilience to disasters.

**1.3 Within the framework of the SXM Trust Fund, the World Bank was requested to conduct a Public Expenditure Review (PER).** The objective of the PER is to identify and analyze policy options that may enhance public revenue and rationalize public spending in terms of efficiency, effectiveness and equity to achieve the needed fiscal consolidation in the aftermath of the hurricane damage. Work on the PER mostly took place throughout 2019 by a multidisciplinary team of World Bank staff and consultants in close cooperation with the government of Sint Maarten, in particular with staff from the Ministries of General Affairs, Finance, Education, Culture, Youth & Sports (MECYS) and Health, Social Development & Labor (VSA) as well as with staff from the social insurance institute (SZV), the Sint Maarten Medical Center (SMMC), the Civil Servants Pension Fund (APS), the General Audit Chamber and the Financial Supervisory Board (Cft).

**1.4 The PER consists of four interconnected chapters:**(i) Macro-fiscal developments, (ii) Health, (iii) Social Protection, and (iv) Education. The main findings of these detailed chapters are brought together and summarized in this synthesis report. The focus of the PER on challenges in revenue generation and tax administration, public financial management, health and long-term care, social protection and pension systems, and education is motivated by the potential impact of policy and institutional reform in each of these areas on public finance.

**1.5 The findings and recommendations of the PER are part of a broader agenda of structural reforms for a more inclusive, sustainable and resilient development of Sint Maarten.** Areas of priority include improving of the business climate by facilitating business permits and reducing red-tape, flexibilization of the labor market simplifying the dismissal process and transforming the severance payments framework into a proper unemployment benefit scheme, enhancing the financial sustainability of the social insurance (health and

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<sup>1</sup> The Kingdom of the Netherlands consist of four countries (the Netherlands, Aruba, Curacao and Sint Maarten). The other three islands in the Caribbean that form part of the Kingdom (Bonaire, Sint Eustatius and Saba), collectively referred to as the BES islands, have the status of special municipalities in the Netherlands.

pension) systems, strengthening public sector capacity and public financial management including a significant improvement of the country's tax administration. Plans for policy and institutional reforms as well as for a modernization of administrative practices and procedures have been developed in several of these areas. Lack of political stability and the ability to construct broader societal consensus, vested interests and financing constraints have inhibited major progress on this reform agenda.

## **Economic Outlook and Developments**

**1.6 Sint Maarten is a high-income small island state with a largely tourism-based economy.** The early stages of tourism development in Sint Maarten date back to the 1960's. Proximity to the US allowed it to attract foreign investment into the construction and operation of tourist resorts. Fast growth in the volume of tourist arrivals occurred with the introduction of the timeshare product in the 1980's and 90's and eventually the emergence of large-scale cruise ship tourism. In 2016, before the hurricanes, gross receipts from tourism were some \$857m, equivalent to 71.4 percent of the country's foreign exchange earnings. Assuming a domestic value-added share at about 70 percent, tourism generated 47.5 percent of GDP in Sint Maarten before the hurricanes.

**1.7 The rapid development of the tourism industry concurred with high levels of immigration to supply the necessary workforce.** Sint Maarten's population, though small in absolute numbers, has grown rapidly and is challenging to estimate. The latest official population estimate according to the authorities was 40,614 people at the beginning of 2018. Nonetheless, there are wide discrepancies in both unofficial and official population estimates as, for example, between the Census and the Civil Registry Department. Some estimates put the actual population upwards of 50,000 while, as of October 2019, the civil registry numbered 61,750 persons. On the one hand, those who leave the island often do not formally de-register with the Civil Registry Department, so that there is a lag in removing these people from the Registry while newly arrived immigrants may not have registered at all as they may not qualify for a residence or work permit.

**1.8 Compared to other small island states in the Caribbean, Sint Maarten has a high level of GDP per capita.** The extensive tourism development allowed the country to attain one of the higher levels of GDP per capita in the region. Most of the growth in GDP and GDP per capita took place during the earlier stages of its rapid tourism expansion, and average annual GDP growth in the years prior to the 2017 hurricanes had already fallen back to about 1 percent. Based on the latest population estimate, GDP per capita is estimated at US\$29,189<sup>2</sup> substantially above the average of comparable smaller island states in the Caribbean at US\$17,216.

**1.9 Severe damage to the country's tourism-related infrastructure led to a sharp economic downturn in 2017 and 2018.** The cumulative contraction of GDP in 2017 and 2018 is estimated at 12 percent (STAT, 2020) as tourism receipts dropped to about 50 percent of their pre hurricane level from the 3<sup>rd</sup> quarter of 2017 to the end of 2018. Tourism receipts fell due to the partial or complete shutdown of tourism-related businesses for repairs and reconstruction. The severe damage to the airport's main terminal building and the sharp reduction in available hotel rooms led to a sharp contraction in stayover tourism, down to a third of the per-hurricane levels. Cruise tourism rebounded faster than expected with even higher levels of passenger arrivals as of the 2<sup>nd</sup> quarter of 2018. Reconstruction of the

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<sup>2</sup> The GDP per capita estimate is substantially higher than previous estimates as a result of recently released GDP calculations. Updates in the methodologies to compile the system of national accounts, including implementation of the fourth revision of the International Standard Classification of All Economic Activities (ISIC Rev 4) and a rebasing of the GDP series from base year 2011 to 2014 led to an upward revision of GDP in current prices for the years 2014-2016 by 17.7 percent, on average (STAT, 2020).

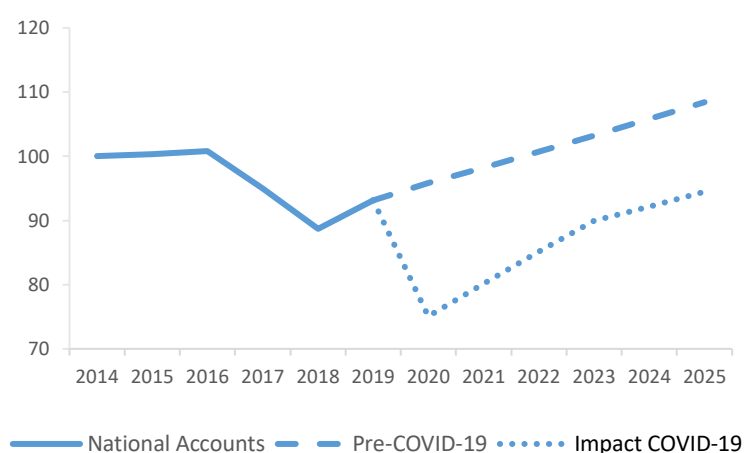
damaged infrastructure, supported by the payout of private insurance, mitigated the decline in the tourism related sectors.

**1.10 Economic activity started its gradual recovery in 2019.** The economic expansion in 2019, estimated at an annual growth of 5 percent (IMF 2020, CBCS 2020), was driven primarily by a sharp increase in domestic demand along with higher foreign exchange earnings from the return of tourism. Gross receipts from tourism were up by 50 percent and back to 79 percent of their pre-hurricane level. Consumption increased due to the improved labor market, particularly in the tourism sector, and private investment continued above its pre-hurricane level due to sustained reconstruction.

**1.11 Before the COVID-19 pandemic, a further recovery of economic activity was projected to bring real GDP back to its pre-hurricane level by 2022.** A further gradual recovery of stay-over tourism, from 70 percent of its pre-hurricane level at the end of 2019, together with an increase in domestic demand was anticipated to lead to an annual average growth of 2-3 percent. This would bring back GDP, in real terms, to its pre-hurricane level over the next couple of years (Figure 1.1).

**Figure 1.1 Sint Maarten GDP 2014-2025**

(Real terms, Index 2014 = 100)



Source: STAT and staff estimates

**1.12 The COVID-19 pandemic is leading to a major downturn in economic activity and a setback in the recovery.** Despite a lot of uncertainty worldwide on the impact of the COVID-19 pandemic, the Sint Maarten economy stands to be heavily affected due to its strong international tourism orientation. In a scenario in which gross tourism receipts fall in 2020 to 40 percent of what they would have been without the pandemic, GDP is projected to drop by more than 20 percent this year.

**1.13 GDP is unlikely to be back at its pre-COVID level until 2024-25.** A gradual recovery of tourism in subsequent years may give rise to high annual growth rates over the next few years, though the level of GDP is unlikely to be back at its pre-COVID level until 2024-25 and still below its pre-hurricane level.

**1.14 Liquidity support and a rundown of assets mitigate the decline in GDP.** Payout of insurance contributed to a relatively quick rebound of economic activity after the hurricanes. Liquidity support to partially finance a shortfall in tax revenue also allowed the public sector to maintain its level of activity, at the time. An even larger amount of liquidity support will be

needed in the wake of the current crisis due to a steeper downturn in economic activity and related tax revenue. In addition, expenditures incurred due to payroll support to businesses for furloughed employees and income support for newly unemployed or self-employed require further liquidity support and a rundown of reserve assets in the social insurance system. The current liquidity support, in the form of zero interest loans from the government of the Netherlands, mitigates the decline in GDP and, more importantly, should ease the hardship encountered by households.

**1.15 Liquidity support raises the level of public debt which will eventually require more fiscal adjustment.** Even though the size and duration of liquidity support is not yet known as it depends, among others, on the severity and duration of the economic downturn, it is estimated that it may raise public debt and the debt-to-GDP ratio by some 25 percentage points (from the pre-COVID GDP level). This bleak economic outlook and gloomy public finance picture emphasizes the need for substantial and structural fiscal adjustment.

### **Public Sector and Public Finance**

**1.16 The country of Sint Maarten is a parliamentary democracy.** There is a legislative power (the parliament), an executive power (the government) and an independent judiciary. As a country within the Kingdom of the Netherlands, there is a governor as the representative of the head of state of the Kingdom on the island. Some specific government tasks, among others those related to defense (Coast Guard, Military Police and the Navy) and foreign affairs, are matters of the Kingdom.

**1.17 The Council of Ministers is the highest policy-making body in St. Maarten.** The Council of Ministers consists of 7 ministers, each with their respective responsibilities: General Affairs; Finance; Justice; Education, Culture, Youth & Sports (MECYS); Tourism, Economic Affairs, Traffic & Telecommunication (TEATT); Housing, Physical Planning, Environment & Infrastructure (VROMI); and Health, Social Development & Labor (VSA). The Council of Ministers is presided over by the Prime Minister who is at the same time Minister of General Affairs. In addition to Parliament, there are several Independent Advisory Councils that are involved in the legislative process and control over government's policies. These include the Council of Advice, the General Audit Chamber, the Ombudsman, the Social Economic Council and the recently created Integrity Chamber.

**1.18 The judiciary part of law enforcement in Sint Maarten consists of a Joint Court of Justice of Aruba, Curacao, Sint Maarten and the BES islands as well as the Attorney General's Office of Curacao, Sint Maarten and the BES islands.** The countries of Curacao, Sint Maarten and the Netherlands with regard to the BES islands each have their own Public Prosecutor's Office. At the head of the Public Prosecutors is a joint Attorney General. The Joint Court of Justice, the Attorney General and Public Prosecutors Offices and the Law Enforcement Council are all guided by consensus Kingdom Acts and the contributing countries jointly finance the budget of these institutions.

**1.19 Sint Maarten also counts with several independent administrative organizations.** The social and health insurances implementing body (SZV), subsidized schools and their school boards as well as the hospital (SMMC) are some examples of legally independent organizational units but with a significant degree of dependence on the government as a subsidy provider or as a service recipient. The government of Sint Maarten also has an equity participation in some 15 limited liability companies including Sint Maarten Telecommunication Holding Company (Telem), Princess Juliana International Airport Holding Company (PJIAH), SXM Harbour Holding Company and the Water and Electricity Utility (GEBE).

**1.20 Monetary policy, the promotion of financial stability and supervision of the financial sector is carried out by the Central Bank of Curacao and Sint Maarten (CBCS).**

The CBCS is an independent administrative institution jointly owned by the governments of Curacao and Sint Maarten. The central bank maintains a common monetary policy focused on maintaining a fixed exchange rate with respect to the US dollar (at NAf 1.79 per US\$).

**1.21 Fiscal policy in Sint Maarten is conducted based on rules set out in its National Accountability Ordinance (NAO).** The NAO derives several of its regulations from a consensus Kingdom law on Financial Supervision on Curacao and Sint Maarten (Rft). The rules stipulate, among others, that the government can only borrow to invest, not to finance current expenses. This so-called golden rule of government spending implies that all current spending must be covered by current revenue and that no deficit is allowed on the operating balance of government.

**1.22 Ever since acquiring its autonomy, Sint Maarten has been unable to comply with a surplus or balanced operating balance.** The country did not meet the balanced budget requirement for the first six years after its autonomy (2011-2016), particularly when considering corrections to its annual financial statement as identified by its internal auditors (SOAB), the General Audit Chamber and the Financial Supervisory Board (Table 1.1).

**Table 1.1 Sint Maarten: Current Revenue and Expenses, 2011-2019 (million NAf)**

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue	402.6	450.9	489.5	429.7	459.3	473.0	407.6	380.8	434.0
Expense	407.7	434.3	489.0	450.2	468.5	481.4	480.6	479.2	468.4
<b>Net Operating Balance (NOB)</b>	<b>-5.1</b>	<b>16.6</b>	<b>0.5</b>	<b>-20.6</b>	<b>-9.1</b>	<b>-8.4</b>	<b>-73.0</b>	<b>-98.4</b>	<b>-34.4</b>
<b>NOB after corrections</b>	<b>-6.8</b>	<b>-0.5</b>	<b>-36.3</b>	<b>-21.2</b>					

Source: Annual financial statements 2011-2016; Cft advices financial statements 2013-2016; Quarterly reports 2017-2019

**1.23 Public investment can be financed by net borrowings, though has been limited.** The limit on public investment is formally set in the fiscal framework by an interest charge norm stating that interest charges of the collective sector may not exceed 5 percent of the average annual revenue over the previous three years. Low interest rates have made the interest charge norm a non-binding constraint. Lack of compliance with the surplus or balanced operating balance condition and a requirement of past deficit compensation has been used instead as an argument to contain additional borrowing and investment expenditure.

**1.24 The government of Sint Maarten has access to long-term, low-cost financing for its approved capital expenses.** Bonds to finance capital expenses are issued on behalf of the Sint Maarten government by the CBCS at an interest rate based on the Dutch yield curve and count with a standing subscription by the government of the Netherlands. This means that Sint Maarten can borrow at the credit risk of the government of the Netherlands and that the latter, in practice, is the sole creditor for the government of Sint Maarten's longer-term borrowings. The outstanding long-term debt by 2019 had an average interest rate of 2.0 percent and a remaining average maturity of more than 15 years. There is an implicit agreement that the loans can be refinanced upon maturity under the same standing subscription arrangement.

**1.25 An escape clause to the fiscal rule allowed for a deficit on the operating balance in the aftermath of the hurricanes, to be financed by liquidity support.** A deficit on the operating balance as incurred in the years after the hurricane (2017-2019) has been allowed through annual authorizations by the Kingdom Council of Ministers following advice of the Cft. The substantial downturn in economic activity led to a significant decline in tax revenue whereas public expenditures roughly maintained their level (in nominal terms) thus creating major deficits on the operating balance of the government. These deficits were to be met with

liquidity support lending, eventually using the same structure as the long-term financing of capital expenses.

**1.26 The government also incurred arrears with some of the independent administrative organizations.** As long-term finance was limited to approved capital expenses (and, as of 2017, to liquidity support needs), the government incurred arrears with its social insurance institute (SZV), civil servants' pension fund (APS) and state-owned utilities (Telem and GEBE) to finance recurrent deficits on its operating balance. Some of the arrears can also be attributed to drawn-out settlements of the division of assets and liabilities from the former Netherlands Antilles.

**1.27 Government debt, defined as the sum of long-term finance and arrears, has been kept well within a medium-term debt anchor of 40 percent of GDP.** Cft advice on borrowing capacity of Sint Maarten refers to a medium-term debt anchor of about 40 percent of GDP, recurrently brought up in IMF reports as a level that is consistent with the objectives of fiscal sustainability and resilience in a small island state such as Sint Maarten (IMF 2020). Previous to the COVID-19 crisis, the debt-to-GDP ratio was projected to surpass the threshold in 2020 and beyond due to the need for additional borrowings related to pending liquidity support for 2019 and 2020, approved capital expenses for 2020, and a European Investment Bank (EIB) loan for the rehabilitation and reconstruction of the airport terminal. Liquidity support to mitigate the impact of the downturn in economic activity and tourism due to the COVID-19 pandemic will add to an increase in the debt-to-GDP ratio (initial estimates point to a possible increase in the debt ratio by some 25 percentage points).

**1.28 Policy advice on a fiscal framework that includes a long-term debt-to-GDP anchor should be accompanied by a discussion on the relevant concept of debt to be limited or targeted.** Whereas the authorities and the Cft have been using the sum of long-term finance and arrears of the collective sector as the relevant measure of public debt, the IMF in recent reports (IMF 2019 and 2020) has included a broader collection of liabilities in addition to long-term debt and arrears of the central government in its measurement of public debt. In addition, the on-lending of the EIB loan through the government to the airport makes clear that there is an important distinction between gross and net public debt. Whereas the EIB loan increases the gross debt by about 4 percent of GDP, it does not change net debt as the government acquires a financial asset by the on-lending operation in addition to the liability. Similarly, the government has had to finance itself partially by running down its cash balance to a dangerously low level and which shows up in an increase of net debt, though does not change gross debt.

**1.29 An overall or primary balance target consistent with the long-term debt anchor becomes more relevant in dealing with increased debt levels.** The current fiscal framework of a balanced operational budget and a non-binding interest charge constraint does not provide any operational guidance for public investment. In practice, Cft advice has constrained additional borrowings for capital spending to 2-3 percent of GDP. Such a level, close to the expected nominal growth of GDP, keeps the debt-to-GDP ratio constant. Instead of a balanced operational budget and an annual, discretionary determination of borrowing space for capital spending consistent with a debt target, an overall or primary balance target would confront policymakers with the trade-off between current and capital spending. The target may be adjusted every few years in consultation with the Cft based on observed progress made towards achieving the longer-term debt anchor. This becomes even more relevant in a context of a high debt level that has to be brought back to more manageable proportions.

**1.30 As Sint Maarten remains highly vulnerable to natural hazards, the country should put in place a comprehensive Disaster Risk Management (DRM) policy with a Disaster Risk Financing (DRF) strategy.** Sint Maarten should have in place a

comprehensive national DRM policy designed to identify and reduce physical risk associated with disasters, strengthen preparedness and emergency response operations, as well as reconstruct in resilient ways when disasters do strike. A DRM policy should include a financial planning or DRF strategy, so that the governance processes and institutional and financial architecture are already in place before a disaster.

**1.31 A risk layered approach to disaster risk finance includes a diversity of risk retention and risk transfer instruments.** including a reasonable level of liquidity or cash balance, a contingency fund, contingent credit facilities and insurance such as parametric hurricane and excess rainfall coverage through the Caribbean Catastrophe Risk Insurance Facility (CCRIF). Losses from low frequency events have also been addressed through assistance from within the Kingdom through grants and liquidity support to cover some of the reconstruction and recovery needs though the disbursement of this type of ex post financial assistance may not be as timely or within the control of Sint Maarten policy makers as it could be. Having contingency funds and fast disbursement mechanism like a contingent credit instrument or (parametric) insurance in place can reduce the likelihood of attritional losses. All these instruments require some fiscal consolidation to take place in better times, either to set funds apart to increase cash balances or contingency funds, pay insurance premia or to maintain a moderate level of public debt to create space to contract additional debt when disaster hits.

**1.32 Sint Maarten has a low level of revenue related to level of public goods and services that is expected from its public sector.** In 2016, prior to the hurricanes, central government revenue as a share of GDP was 20.9 percent with tax revenue at 16.2 percent of GDP.<sup>3</sup> Social security contributions, managed outside the central government, amounted to another 9.5 percent of GDP. Whereas the sum of tax revenue and social security contributions at 25.7 percent of GDP is not very different from some other island states in the Caribbean, it is considerably below the level of 34.4 percent observed on average in OECD countries. Whereas Sint Maarten raises a slightly higher share of GDP in social security contributions, it is considerably weaker in the collection of taxes on goods and services at 66 percent of the average share in OECD countries and on income and profits at 72 percent.

**1.33 Challenges in tax administration will have to be addressed before informed decisions on major tax policy changes can be made.** The main taxes are a wage and income tax, a profit tax and a turnover tax that together are responsible for nearly 95 percent of tax revenue. With a top marginal wage and income tax rate at 47.5 percent and a statutory effective profit tax rate at 34.5 percent, modest tax collection is not an issue of low tax rates. Instead, tax evasion and tax avoidance seem to be widespread. Strengthening the tax administration, after years of underinvestment in staffing and equipment, should reduce evasion and avoidance as well as generate reliable data based on which informed tax policy changes can be made.

**1.34 Central government current expenditures, in nominal terms, do not show an upward trend in contrast to benefit payments of the social security system.** Annual average central government current expenditures amounted to Naf 476 million over the last five years, equal to nearly 21 percent of GDP prior to the hurricanes. The level of current expenditure up to 2016 was contained by the balanced operational budget requirement and continued to display substantial inertia over the past three years. In contrast, benefit payments of the social security system did show a significant increase at an annual average rate of growth of 10.6 percent from Naf 162 million in 2015 to Naf 220 million in 2018. While social security contributions did not show a commensurate increase, the social security system was

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<sup>3</sup> Fiscal variables expressed as a share of GDP have been adjusted to the recently released nominal GDP calculations (STAT 2020). The substantial upward revision of GDP in current prices (on average by 17.7 percent for the years 2014-2016) result in substantially lower revenue-, expenditure- and debt-to-GDP ratios than referred to in previous discussions and documents.



able to cover the increase in benefit payments from accumulated reserves. The challenges posed by increased social security (health and pension) benefit payments are dealt with in subsequent sections and detailed chapters of the PER on health and social protection.

**1.35 Budget formulation and execution use administrative and economic classifications of expenditure though it is not based on a functional classification.** A functional classification of spending organizes government activities according to their objectives (e.g. education, health, law enforcement etc.) and is useful in analyzing the allocative efficiency of expenditure among and within sectors. The lack of a functional classification of spending limits the ability to link resource allocation to results and policy priorities and to analyze the sectoral allocation of spending over time or across countries. In this PER, the administrative classification of expenditure is used to approximate a broad sectoral allocation of spending in the education, health and social protection chapters.

**1.36 The central government reports many vacancies that have been left unfilled, among others, to contain current expenditure.** Compensation of employees represents 40-45 percent of current expenditures. Subsidies to school, representing another 15-16 percent of current expenditures, also mainly consist of wages and salaries for teaching and support staff. Controlling gross compensation thus plays a major role in the containment of current expenditure. Over the past few years, the control of gross compensation has taken place by reducing the number of staff. Full-time occupied positions in the central government were down to 1,782 positions in 2019 from 2,097 in 2011. At the same time, the number of vacancies reported increased to 728 position in 2019, with vacancies as a share of required staff ranging from 25-33 percent among the different ministries. As the policy of reducing the number of occupied staff positions may have started to affect the operation of government, the control of gross compensation could shift its focus to the level of remuneration or to the cost of fringe benefits. The latter, mainly consisting of healthcare and pension contributions, make up more than a third of the gross compensation and the costs of these can be reduced without affecting, in a major way, the attractiveness of public sector employment for higher-level skilled employees.

**1.37 Public investment has been limited due to financing and capacity constraints as well as political instability.** Capital expenses, net of debt repayments, amounted to an annual average of about 1 percent of GDP over the past nine years (2011-2019). Study loans made up about a fifth of these capital expenses, leaving an annual average of 0.8 percent of GDP for public investment. The average of public investment spending in OECD countries is 3.3 percent of GDP, within a range of 1.4 to 5.3 percent of GDP. The structure of government with several independent administrative organizations and state-owned enterprises may have contributed to this dismal performance of public investment activity by the central government. In addition, tight controls on public sector borrowings, limited public investment management capacity and frequent change in government are also likely to have played their part. Most of the post-hurricane reconstruction is taking place outside of the central government budget through the parallel SXM Trust Fund operation.

**1.38 Major challenges to improve and strengthen public financial management have been signaled from the beginning of Sint Maarten as an autonomous country.** Deadlines for the preparation and approval of critical documents in the budget cycle, such as the budget, quarterly execution reports and annual financial statements, are often greatly exceeded. Too many exemptions to regular procedures are used because financial controller functions are under the responsibility of each ministry and not well controlled by the Ministry of Finance. The IT systems used within the public administration are obsolete and not integrated. As a result of major shortcomings in public financial management, external auditors have not been able to issue an unqualified opinion on the government's annual financial statements.

**1.39 Procurement of public works and of goods and services above specified thresholds must take place by public tender by law, though regulations and controls have not been sufficiently developed.** Thresholds specified in the law are not systematically respected and contract amounts are often changed after the contract has been awarded. An exception to the law states that derogation may take place by state decree if the public procurement is in public interest. This has been broadly interpreted and gives room for ministries to use it for bypassing normal procedures for non-urgent operations.

**1.40 Implementation of priority action plans to transform the tax administration and to improve public financial management is awaiting the allocation of financial resources.** Ambitious action plans to overhaul in a period of 2-3 years the tax administration aimed at increasing tax revenue and public financial management to enable the timely presentation of correct budget information and reinforce internal control have been designed and designated priority projects by the government. Despite a broad consensus on the urgency of acting on these two areas, a lack in continuity in government and the availability of financing has thus far prevented the plans to be executed.

### Health

**1.41 Health spending in Sint Maarten is considerably higher than other countries in the region and has been rapidly increasing.** Total health expenditure was 7.2 percent of GDP in 2014, higher than most peer countries. It has since grown and is likely to have been closer to 14 percent of GDP in 2018. For comparison, the OECD average in 2018 was 8.8 percent, a figure that has been relatively stable for the past five years. A lack of economies of scale explain the relatively high level of spending, but not the rapid increase in recent years.

**1.42 The two key issues facing Sint Maarten are the epidemiological and demographic transition, and a social health insurance scheme that is inefficient, inequitable, and financially unsustainable.** Sint Maarten has seen a growing burden of disease due to noncommunicable diseases (NCDs), and a rapidly ageing population. The existing healthcare system, including financing aspects, does not adequately respond to this disease profile. The social health insurance system is fragmented, and existing schemes are not administered as designed. There are differences in benefit packages and incentives. At the same time, essential services such as preventive and primary care are not prioritized. As a result, there are gaps in coverage with the government ultimately bearing financial responsibility.

**1.43 Efforts to address these challenges through ongoing reforms could have a substantial impact on health expenditures going forward.** Major initiatives include the construction of a new hospital site and introduction of new specialties at the Sint Maarten Medical Center (SMMC), an overhaul of the overseas referrals process, and reforms to the pharmaceutical sector. In addition, Sint Maarten is considering a transition to a General Health Insurance (GHI) model to contribute to the achievement of Universal Health Coverage and improve the financial sustainability of the public health system.

**1.44 Sint Maarten is facing a rapid demographic and epidemiological transition.** Like many countries in the Caribbean, Sint Maarten is seeing a steady increase in NCDs and has a rapidly aging population, with the share of the population age 60 and older going from 5 percent (2002) to 11 percent (2012); this figure is projected to increase to 39 percent by 2050. Population ageing and the growing burden of NCDs - resulting, for example, in an increase in the prevalence of chronic conditions as the population ages and the emergence of chronic conditions in younger age cohorts - represent significant long-term structural threats to the financial sustainability of the system.

**1.45 Purchaser-provider agreements do not promote equal treatment of patients, accountability or results.** Ongoing reform efforts now require agreements with providers, but

these do not standardize provider payments. Achievement of standardized provider payments will be challenging unless the social health insurance schemes are revised. Providers will also need to be held accountable for the achievement of results. This is particularly important considering the high prevalence rates of NCDs, as well as the high share of the population who do not have their chronic condition under control.

**1.46 There continues to be a focus on curative care and hospital care, with a negligible amount of funds going to primary and preventive care.** Integration of care is poor, and there are few, if any, clinical guidelines and no referral (or counter-referral) systems. Health expenditures are skewed toward secondary and tertiary care (both domestic and international referrals), with limited funds allocated toward primary care despite the cost-effectiveness and equity implications of primary care services. Proposed reforms which emphasize primary care and information technology suggest that there will be a better evidence base and improved incentives for the achievement of health outcomes going forward.

**1.47 The main sources of funds for health and long-term care in Sint Maarten are social insurance and allocations from the central government.** Only a modest share of funds originates from outside the public sector, in the form of private health insurance (20 percent) and patient co-payments for SMCC (2 percent). The public and private insurance pools are segmented, with private insurers cherry-picking low-risk, low-cost patients.

**1.48 Social health insurance schemes are fragmented, with overlapping beneficiary populations and differences in contribution rates, benefits, and provider compensation mechanisms.** Six public sub-systems are administered by the social and health insurances implementing body (SZV) which cumulatively cover about 70 percent of the population. SZV administers separate schemes for the formal, private sector employees with income below a limit (ZV/OV), civil servants (OZR), retired civil servants (FZOG), chronic/elderly care (AVBZ) and the indigent (PP). These are distinct schemes, with different financial contribution requirements, benefits, and provider remuneration. Each of the schemes is individually administered and cover a specific set of services for distinct populations. This fragmentation leads to inefficiencies on many fronts, including a failure to maximize economies of scale, curtailing the possibility of strategic purchasing and resource redistribution, and increase administrative costs.

**1.49 There continues to be a share of the population without any health insurance.** This segment of the population lacks access to health services, and thus turn up for care at late stages of illness or in an emergency, requiring the government/providers to absorb the cost of their treatment. This gives rise to significant potential inequalities in health outcomes and high out-of-pocket payments for the uninsured. In addition, it results in inefficiencies in treatment and ultimately a higher financial burden on the state as patients are treated at a later stage than would have been the case had they had health insurance. For this population, the public sector serves as the “insurer of last resort.”

**1.50 SZV is the critical agent in health financing in Sint Maarten, responsible for collecting insurance premiums and paying healthcare providers for their services.** It operates the four health insurance funds (ZV/OV, AVBZ and FZOG) and the two PAYGO schemes (OZR and PP) targeted at different population segments. Financed through a combination of insurance premiums collected directly from households and employers and central government transfers, SZV’s health spending amounted to NAf 149.5m in 2018.

**1.51 Substantial financing gaps have emerged in the public health insurance funds.** The ZV, OV and FZOG funds have recorded annual deficits since 2014. In 2014 and 2015, these deficits were more than covered by the annual surplus of the AVBZ fund. From 2016, the collective deficits of the ZV, OV and FZOG funds exceeded the AVBZ surplus such that

the accumulated reserves of the four funds began to become depleted. By 2017, as the consolidated accumulated reserves of the four funds turned negative, the financing gap is being funded on an ad hoc basis through cross-lending from the AOV and AWW, the SZV-managed general pension schemes.

**1.52 Public health insurance funds' financial difficulties were exacerbated by the twin hurricanes of September 2017, which both increased expenditure and reduced premium income.** By end-2018, the net accumulated reserves of the ZV, OV, FZOG and AVBZ funds had reached NAf -135.7m, or 7.7 percent of GDP. Notwithstanding policy measures to contain costs with respect to pharmaceuticals and off-island medical referrals, projections suggest that in the absence of further reforms, the ZV, OV and FZOG funds will remain in deficit, with the accumulated funding gap continuing to grow through 2030, reaching some 12% of GDP.

**1.53 Administrative costs incurred by SZV for the four public health insurance funds amounted to NAf 17.7m in 2018, accounting for 11.8 percent of total health care benefits paid out by those funds.** This represented a modest decline in absolute terms on the administrative costs incurred in 2016 and 2017 and suggests some improvement in efficiency at the margin by SZV. Nevertheless, operational costs are still relatively high, reflecting *inter alia* the lack of scale economies due to systemic fragmentation and the small size of the country. For the purposes of comparison, administrative costs in Aruba's general health insurance scheme was around 4 percent of total in 2013.

**1.54 Total central government health expenditure increased from NAf 46.3m in 2014 to NAf 68m in 2018.** This significantly outpaced growth in total central government expenditure over the period, such that the share of health spending in government expenditure increased from 10.3 to 14.3 percent. Most of the central government health expenditure corresponds to transfers to SZV. In 2018, these consisted of NAf 48.1m to cover the cost of the two PAYGO schemes (OZR for current public servants and PP cards for those of limited means), NAf 7.9m in respect of former employees covered by the ZV fund, and employer contributions of NAf 1.5m to the AVBZ and FZOG on behalf of current public servants.

**1.55 Sint Maarten has embarked on a national health reform effort.** Key projects include several information technology systems, a pharmaceutical cost containment program and several actions to reduce the number and cost of medical referrals abroad. Projects related to information technology include the introduction of Health Information Systems at General Practitioners' Offices, a Pharmacy Information System, development of a central data interface (Health Service Bus), the introduction of Health Identification Numbers and of the International Classification of Primary Care at the General Practitioner level as well as the development of a Health Information Management System. Over time, projects related to information technology are expected to improve the evidence base for decision making and policy guidance.

**1.56 Medical referrals abroad (plus associated ancillary costs) and pharmaceuticals (outpatient) represented two of the largest categories of medical expenditure over the 2017-2018 period, at 29 and 15 percent, respectively, of total medical expenses incurred by SZV.** Sint Maarten is not of sufficient scale to be able to provide a full universe of medical treatments efficiently within its own borders, relying instead on medical referrals abroad where necessary. While the construction of a new hospital will result in greater availability of specialist care on the island, there will be a residual need for off-island referrals. There is evidence that significant savings can be made through the revamping and streamlining of the referral process, as well as associated protocols. Similarly, evidence suggests that substantial financial savings in the purchase of pharmaceuticals can be made through the systematic switch to generic medicines where they are available as well as through centralized procurement to benefit from economies of scale. Reforms focusing on the process of medical

referrals abroad and on improving the efficiency of pharmaceutical expenditures are expected to make a significant contribution to flattening the cost curve, helping improve the financial performance of the public health insurance system over the 2019-2023 period.

**1.57 Unsustainable funding gaps in the public health insurance system are giving rise to an urgent need for reform.** Efforts to reduce costs and improve compliance in the payment of premiums are expected to reduce, but not eliminate, the annual aggregate deficits on the SZV health funds. Transitioning to a General Health Insurance (GHI) model would improve health coverage and outcomes while putting the health system on a firm financial footing. Further, such a transition would enhance resource mobilization and simplify the system yielding further benefits in terms of reduced administrative costs.

**1.58 Switching to a GHI is expected to improve risk-pooling by bringing younger, healthier, and higher-income beneficiaries into the public health insurance system.** The PER includes a financial modelling exercise, benchmarking financial projections under a GHI scenario against the *status quo ante* as well as a plausible parametric reform scenario. Sensitive to a variety of assumptions, the total net annual cost to government of transitioning to a GHI is expected to be lower than under a parametric reform scenario, and far lower than under the *status quo*, with differentials expected to increase over the medium term. The improved financial performance under a GHI despite a significant increase in the coverage rate is essentially due to the much greater increase in premiums collected than in expenses incurred. The key driver here is the assumption that the newly insured cohort will generate fewer medical expenses than those already covered.

**1.59 Over the long term, the cost of providing medical procedures and services is the most important determinant of financial sustainability of any public health insurance system.** The primary factors resulting in increases in medical expenditures are increases in income and changing medical practices, with population ageing playing a more limited role. Indeed, the differential between wage inflation and medical cost inflation is the key driver of long-term financial performance of the health insurance funds, which is projected therefore to gradually and inexorably deteriorate under any of the scenarios examined. This major risk to long-term financial sustainability of the GHI will have to be mitigated through careful design and appropriate built-in flexibility of the system, as well as flanking policy reforms to future cost control measures.

**1.60 A GHI model could in time achieve near-universal health insurance coverage, deliver economies of scale, close the current financing gaps, and reduce the direct fiscal burden of the health system.** The success of such a transition would depend on the ability of Sint Maarten to curtail the growing burden of disease attributable to NCDs and the design of the benefits package. It will also require careful consensus building and policy design to ensure social consensus around GHI by smoothing the transition for those population segments likely to be most significantly and negatively financially impacted, notably public servants, high-income workers and employers of undocumented, and heretofore uninsured, migrant workers.

## **Social Protection**

**1.61 Social protection spending has increased significantly since Sint Maarten achieved constitutional autonomy in 2010.** In 2014, total social spending by general government amounted to NAf 87.8m, or 4.6 percent of GDP, of which NAf 5.4m consisted of central government spending. By 2018, total social spending had risen to NAf 122.3m, or 7.0% of GDP, of which NAf 6.4m was by central government.

**1.62 Increased social insurance benefit payouts have been the key driver in increased social protection spending.** Already in 2013, social insurance payments administered by the

SZV and APS (essentially pension benefits for private and public sector workers) accounted for 95.2% of total social protection spending

**1.63 Sint Maarten's social protection system relies in the first instance on basic social insurance programs.** Essentially, these consist of a basic pension for all residents (AOV), a supplementary pension for public sector workers, and a backstop to cover employees' severance payments in the event that private sector employers are unable to pay (Cessantia). In addition, there is a residual social assistance system to provide financial assistance to those of limited means on an *ad hoc* basis.

**1.64 There is no official poverty line in Sint Maarten.** The authorities have not established an official poverty line, which complicates efforts to determine the poverty rate or to calibrate social protection policy. Since 2020, the minimum wage for those aged over 21 has been set at NAf 1,516 based on a 40-hour working week. The maximum amount that one can receive in social assistance payments for an independent single-person household is NAf 983 per month. Sint Maarten's Social and Economic Council (SER) posits these monthly amounts, respectively, as likely upper and lower bounds of any official poverty line and, for the purposes of policy analysis, sets an indicative poverty line of NAf 1,213 per month, equivalent to 80 percent of the minimum wage.

**1.65 Sint Maarten has a modest social assistance system spending amounts comparable to regional peers on cash transfers.** Total financial assistance payments progressed from NAf 3.3m in 2016 to NAf 3.8m in 2017 and NAf 4.8m in 2018. Data limitations render challenging the benchmarking of social spending among peer countries, particularly in the Caribbean. According to the World Bank Atlas of Social Protection – Indicators of Resilience and Equity (ASPIRE), Grenada and the Seychelles each devoted 0.5 percent of GDP to unconditional cash transfers in 2015. By comparison, Sint Maarten spent 0.2 percent of GDP on financial assistance in the same year.

**1.66 Sint Maarten's statutory retirement age is below the regional average, but life expectancy at age 60 is above average.** As life expectancy has increased with levels of social and economic development, many countries have already moved to increase their statutory retirement ages to improve the financial sustainability of their pension systems. In the Caribbean, life expectancy at age 60 is highest in Barbados followed by Sint Maarten. However, the statutory retirement age in Barbados has risen progressively to reach 67 by 2018, compared to 62 in Sint Maarten and to the Caribbean average of 63. Recent years have seen phased increases in retirement ages in Barbados, Dominica, Jamaica, and St. Vincent & the Grenadines. Some of these (e.g. Jamaica, 2016) were part of broader parametric reforms to pension systems.

**1.67 The *Algemene Ouderdomsverzekering* (AOV) pension is a social pension scheme based on the solidarity principle.** It guarantees a basic pension to those who have spent all or part of their working-age life in Sint Maarten and who have reached the statutory retirement age. Premium contributions are payable by all those earning an income in Sint Maarten (or in the Netherlands Antilles before 2010), while everyone who has lived (or declared income tax) in Sint Maarten is entitled to benefits irrespective of their nationality or employment status. Benefit entitlements are dependent on the number of years that the recipient has been resident (or declaring income tax) in the (former) Netherlands Antilles such that a recipient who has spent a portion of their career (calculated on the basis of 45 years of AOV contributions) outside Sint Maarten (or the former Netherlands Antilles prior to 2010) would see a *pro rata* reduction in their pension benefit entitlement.

**1.68 In 2015, a reform to the AOV extended the retirement age to 62.** The maximum monthly AOV benefit was also increased significantly, from NAf 726 to NAf 1,051. The full AOV pension benefit was NAf 1,115 per month for 2019.

**1.69 Having spent periods living and working off-island, many pensioners have not accrued the maximum entitlement by the time of their retirement.** This means that, in practice, many pensioners receive significantly less than the maximum monthly payment. On average in 2018, pensioners received 64% of the maximum entitlement. Old-age poverty is a significant problem.

**1.70 The AOV operates as a pay-as-you-go scheme, managed by SZV, though had built up significant reserves.** AOV reserves amounted to NAf 396.3m by end-2018, which represents a modest buffer against the demographic changes already afoot. Upwards of a fifth of these reserves are committed as cross-lending to deficit health insurance funds, essentially as zero-interest investment with an as-yet-undefined payback date.

**1.71 Legislation that would increase the retirement age from 62 to 65, while modestly increasing benefit levels is at an advanced stage of preparation.** While the need for reforms to bolster the financial situation has been evident for several years, the possibility of increasing benefits was also flagged. According to the *status quo ante* parameters (i.e. retirement age set at 62; maximum monthly benefit set at NAf 1,115 in 2019 and indexed annually), in the absence of further reforms, it is estimated that the AOV's annual operational balance would turn negative in 2027-2029, while accumulated reserves would be extinguished in 2039-2041. Extending the retirement age to 65 while increasing the maximum monthly benefit amount by NAf 125, as proposed, would see the annual operational balance remain in surplus until 2030-2032 and reserves remain positive until 2041-2043. Roughly, speaking, increasing the retirement age from 62 to 65 extends by 5-7 years the timeline for the annual operational balance to turn negative and by 6-8 years the timeline for reserves to be extinguished, with these extensions shortening as the benefit level increases. Similarly, a once-off increase in benefits of NAf 125 reduces by 2-4 years the timeline for the annual operational balance to turn negative and by 4-6 years the timeline for reserves to be extinguished.

**1.72 Social insurance contributions are relatively high in Sint Maarten.** Between the contribution rates for the social pension (AOV, 13 percent) and disability and survivors' pension (AWW, 1 percent), the aggregate contribution to the tax wedge on wage income is 14 percent. This is significantly above the regional average (10.5 percent in 2014) and second (jointly with Guyana) only to Barbados (18 percent). This is exacerbated by Sint Maarten's reliance on direct taxation, notably personal income tax, as well as large social health insurance contributions.

**1.73 Employees of the government, institutions affiliated with the government and employees in subsidized schools are covered by the *Algemeen Pensioenfonds Sint Maarten* (APS).** The APS is a fully funded supplemental pension fund which grants beneficiaries a top-up monthly payment, bringing their total monthly pension benefits (i.e. AOV plus APS supplement) up to 70 percent of their final monthly salary before retiring from the public service. As of June 2019, the APS had nearly 2,700 active participants, nearly 600 former participants and more than 1,100 pensioners.

**1.74 Analogously to the extension of the AOV retirement age in 2015, the APS retirement age was increased from 60 to 62 effective as of 2016.** This had an immediate accounting impact, explaining in large part the improvement in the APS coverage ratio of pension liabilities from 92.6 percent in 2015 to 99.6 percent in 2016. Nonetheless, this was insufficient to exceed the 105 percent threshold targeted by the APS.

**1.75 Total pension contributions amounting to 25 percent of an employee's salary are paid to the APS by the employer.** Total premium income to the APS amounted to NAf 39.1m in 2018. Total assets of the APS fund stood at NAf 686m at end-2018 and covered 97.6 percent of actuarially determined pension liabilities at end-2018.

**1.76 Recognizing the precarious financial situation of the fund with respect to future pension obligations, legislation to increase the APS retirement age from 62 to 65 was submitted to parliament in late-2018.** Given that the APS functions as a top-up on the AOV pension, it makes sense – at the least for reasons of administrative simplicity – that the retirement ages of both the AOV and APS are aligned. Another key element of the proposed reform is to move from using the final salary to average career salary as the basis for calculating APS benefit payouts, while the contribution rate would fall from 25 to 18 percent generating annual savings to central government in the region of NAf 8.7m. APS estimates that the reform will have once-off positive impact on the coverage ratio of approximately 5 percentage points.

**1.77 Administrative costs of social insurance funds have risen to high levels.** Administrative costs as a share of premiums collected have remained elevated, albeit relatively stable, at the APS, averaging 13-14 percent. Recent years have seen this ratio double at the SZV-managed pension funds (AOV and AWW) to around 12 percent and remaining stable around that level for the Cessantia fund. While these ratios are not excessive by Caribbean standards (average of 14.7 percent, and a range from 5 to 26.9 percent in 2014), their rapid rise should give cause for concern. Although they have scope to benefit from economies of scale in a manner unavailable to most Caribbean countries, the respective ratios in the U.S. and Canada were 0.8 and 3.0 percent in 2014.

**1.78 A lack of reliable data or analytical work is a barrier to optimum policy design.** While the Census and Labor Force Survey provide a useful information base, there remains nonetheless significant uncertainty around some basic metrics such as, for example, population levels. This complicates efforts to construct reliable projections of the financial performance of the AOV. Further analytical work is also needed to establish a national poverty line, as well as appropriate measures for absolute poverty and deprivation, to inform the design and calibration of social protection policies.

**1.79 Pension benefits are likely insufficient on their own to ensure the retired population are not in poverty.** Although data is limited as to the age cohorts of low-income households and given that there is not in any case a defined national poverty line, it is difficult to assess the full extent of old-age poverty. Nonetheless, anecdotal evidence suggests that it is relatively widespread.

**1.80 Timely implementation of proposed AOV and APS pension reforms should be followed by timely preparation for the next phase of pension reforms that will undoubtedly be needed during the coming decade.** Although Sint Maarten currently benefits from one of the youngest populations in the Caribbean, it is set to experience, as a result, the most rapid population ageing over the coming decades. Notwithstanding the planned reforms to the AOV and APS, the financial sustainability of these schemes will be called into question in light of demographic dynamics. The number of AOV recipients, for example, is expected to double by 2035. It takes time to design, implement and build political support for pension reforms, as evidenced by the lengthy period required already to increase the pension age to 65.

**1.81 The COVID-19 related economic crisis is bringing the need for social insurance reform to the fore.** As mentioned above (paragraphs 49 and 55) the social health insurance system has been running sustained deficits that have been financed by cross-lending from the social pension system over the past few years. By the end of 2018, the combined social health insurances (ZV, OV, FZOG and AVBZ) owed NAf 101.8 million to the combined social pension insurances (AOV and AWW). Several quality enhancing and cost reducing programs are projected to reduce (though not fully eliminate) the deficits in the health insurance system. At the same time, pension reform along the lines described in paragraph 69 is being implemented extending the period of sufficiency of the social pension insurances. Nevertheless, a significant



decline in wage and income-linked social insurance premium payments as a result of reduced levels of employment and average wage reductions due to the COVID-19 related economic crisis will quickly drain the existing reserves of the social insurance system. This makes additional policy action focused on stemming the deficits of the social health insurances even more urgent.

**1.82 A projection of social insurance funds' balances and the overall reserves shows that the latter may reach a critically low level by 2023/24.** The financial projection models described in chapter 3 and 4 to evaluate the impact of health and pension reform, respectively, were modified in order to estimate the possible impact of a reduction in wage-linked social insurance premium payments from 2020 to 2024. Premium payments are assumed to fall to 80, 75, 80, 90 and 95 percent of their pre-COVID-19 projected levels for the years 2020 to 2024, respectively, whereas pension and health expenditures are not affected by the crisis. As a result, and in the absence of any government support for missed premium payments, the combined reserves of the SZV health and pension funds could fall to NAF 198.4 million by 2024 from NAF 405.6 million attained by the end of 2018 (Table 1.2). This is a critically low level of reserves, particularly considering that a significant part of SZV's assets are held in longer-term investment properties and receivables. As can be seen from the projections, social health insurances are the main contributor to the increasing deficits on SZV's insurances operating balances (despite the cost containment measures already incorporated in these projections). Broadening the base and unifying the different public health insurances under a single GHI may come some way to stem these deficits and assure the medium-term sustainability of the social insurance system.

**Table 1.2 Financial data and projections SZV insurance 2015-2025**

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
<b>Pension (AOV/AWW)</b>											
Premium revenue	106.9	113.2	113.8	102.3	108.3	91.9	91.3	103.2	120.2	131.3	143.0
Pension payments	69.2	74.3	77.8	81.1	84.0	90.7	108.3	112.7	112.7	112.8	117.4
Administrative costs	10.9	12.3	13.5	11.7	12.4	13.2	14.0	14.9	15.4	16.0	16.6
Operating balance	26.8	26.6	22.5	9.5	11.9	-12.0	-31.1	-24.3	-7.9	2.5	9.0
Return on reserves	0.2	14.3	32.8	-9.2	16.2	15.7	13.8	11.3	9.3	8.3	7.9
Reserves	412.1	452.9	508.0	507.4	539.7	543.4	526.0	513.0	514.3	525.1	542.1
<b>Health(ZV/OV/FZOG/AVBZ)</b>											
Premium revenue	94.9	101.5	100.7	100.1	110.4	97.2	100.0	110.9	127.1	136.6	146.4
Medical expenses	92.5	114.5	128.8	138.4	133.2	131.1	125.2	129.2	132.6	135.8	139.2
Administrative costs	16.1	18.0	19.7	17.6	18.1	18.6	19.0	19.5	20.1	20.5	21.0
Operating balance	-13.7	-31.0	-47.8	-55.9	-40.9	-52.5	-44.2	-37.8	-25.6	-19.7	-13.8
Return on reserves	-0.5	3.2	6.1	-2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Reserves	24.5	-3.2	-44.7	-101.8	-142.7	-195.2	-239.4	-277.2	-302.9	-322.6	-336.4
<b>SZV pension and health insurance funds</b>											
Premium revenue	201.8	214.7	214.5	202.4	218.7	189.1	191.3	214.1	247.3	267.9	289.4
Pension/medical exp.	161.7	188.8	206.6	219.5	217.2	221.8	233.5	241.9	245.3	248.6	256.6
Administrative costs	27.0	30.3	33.2	29.3	30.5	31.8	33.0	34.4	35.5	36.5	37.6
Operating balance	13.1	-4.4	-25.3	-46.4	-29.0	-64.5	-75.3	-62.1	-33.6	-17.2	-4.8
Return on reserves	-0.3	17.5	38.9	-11.2	16.2	15.7	13.8	11.3	9.3	8.3	7.9
Reserves	436.6	449.7	463.3	405.6	392.8	344.0	282.4	231.6	207.3	198.4	201.5

Source: Bank staf estimates based on Annual reports SZV (2015-2018) and SXM health insurance and AOV projection models

## Education

**1.83 Sint Maarten's education system is modeled on the Dutch system, with some influence from Anglo-Saxon countries.** Education is compulsory from the ages of 4 to 18 years. The government's education financing model for primary and secondary education is the Dutch one: it funds public schools and subsidizes non-profit schools, many of them with a religious foundation. The subsidized system dominates the provision of education as enrolments in subsidized schools constitute 80 percent of all enrollments across all levels of education.

**1.84 Education spending made up nearly a quarter of total government spending.** The Ministry of Education Culture and Sports (MECYS) makes up 26 percent of total government spending. Education spending represents 93 percent of the budget of MECYS and about two-thirds of this spending is carried out through subsidies to non-profit schools. The country's public education spending as a share of GDP at 5.7 percent exceeds the average OECS expenditure of 4.1 percent and the average OECD expenditure of 4.5 percent. Although Sint Maarten's education as a percent of GDP is outside of the range for the OECS countries, it is at the upper end of the OECD range.

**1.85 Sint Maarten puts a higher proportion of its education spending into primary and secondary education.** Sint Maarten spends 9.2 percent of public financing on post-secondary non-tertiary and tertiary education. The average OECS country spends 15.7 percent. The average OECD country spends about three times the percent of GDP on post-secondary non-tertiary and tertiary education as Sint Maarten.

**1.86 The lower share of spending on post-secondary non-tertiary and tertiary education** may be due to direct funding by households themselves and application by Dutch citizens to Dutch universities for academic or higher professional education with study financing from the government of the Netherlands. The government of Sint Maarten also extends grants and loans for post-secondary non-tertiary and tertiary education in Sint Maarten and abroad.

**1.87 The data do not indicate that Sint Maarten has excessive public expenditures for education.** Per capita costs at the primary, secondary, and post-secondary, non-tertiary levels are lower than those for the average OECS and OECD country. For example, the cost for subsidized primary schools in Sint Maarten of \$5,222 per student falls in the lower range of the OECD per capita costs for this level (\$2,874-20,892).

**1.88 As education spending makes up a large component of total government spending an analysis of the sector has been included in the PER.** The efficiency, effectiveness and distributional impact are the main concepts that are assessed based on data about spending program's inputs, outputs or outcomes, unit costs, performance indicators and household income and expenditure. The methodologies employed depended on the availability of data and the main findings on each of these dimensions are subsequently summarized.

**1.89 Public spending on education in Sint Maarten is equitable.** Data available from a household income and expenditure survey does not allow to do a benefit incidence analysis. Nevertheless, public spending on education in Sint Maarten is fairly equitable based on the observation that education is compulsory from ages 4-18 and truant officers monitor attendance. The major part of primary and secondary education in the country takes place in public or subsidized schools, that are fully or almost fully financed by public spending. The relatively low share that Sint Maarten spends on public financing of tertiary education that tends to benefit higher income households disproportionately, supports the finding that spending on education is likely to be reasonably equitable.

**1.90 High fragmentation of the education system comes at a cost in terms of efficiency.** Sint Maarten's education system is quite fragmented in terms of different types of programs, different languages of instruction, and different examination/certification regimes. Fragmentation almost always reduces economies of scale—e.g., deployment of classrooms for distinct curricula, variations in textbooks, deployment of teachers with different language skills. Even though per capita costs are lower than those for the average OECS and OECD country, the structure of the education system may impose efficiency costs.

**1.91 Efficiency is measured by variations in per capita costs of multiple variables between public and subsidized schools as well as comparing with those of OECS and OECD countries.** The concept efficiency and effectiveness are often confused with each other. A service or good may be efficiently produced, but not effective. Similarly, it may be effective but not efficiently produced. Variables included in determining efficiency of the education system in Sint Maarten include student-classroom, student-school and student-teacher ratios, teacher and student absenteeism rates, teacher and student time on task and repetition and social promotion rates. Several of these variables are also part of the criteria to determine the size of the subsidy received by subsidized schools.

**1.92 High repetition and social promotion rates are areas of opportunity for efficiency gains.** Analysis across all variables points at subsidized schools being more efficient than public schools in Sint Maarten and at least as efficient or more than the averages observed in OECS and OECD countries. Areas opportunity to attain efficiency gains are alternatives to high repetition and social promotion. Public schools show at least double the repetition and social promotion rates as the subsidized schools and relative to the OECD and OECS comparators, Sint Maarten's repetition and social promotion number are very high. Other areas of opportunity include mitigating teacher absenteeism, particularly in public schools as well as at the secondary level of subsidized schools, and possibly the cost of school buses.

**1.93 In terms of effectiveness, four areas of opportunity to enhance the average learning effectiveness are identified:** use of repetition and social promotion, language of instruction, early tracking, and class size norms.

- **Use of repetition and social promotion.** Repetition means that the student repeats a grade. Social promotion occurs when a student has not attained the required basic grade level for a second (consecutive) year and is promoted due to age. The costs of repetition and social promotion are different. Repetition means that Government pays twice for one year of schooling. Social promotion means that the student will lack some of the foundation skills required to absorb the material of the next grade adequately—a wastage in learning terms. Recent years have shown repetition rates of 5-6 percent and social promotion of 7 percent at the primary level. Relative to the OECD and OECS comparators, these numbers are high.
  - **Alternatives to repetition and social promotion are not costless but are more effective and cheaper.** The OECD (2012) identifies an effective alternative to grade repetition and social promotion. This strategy identifies students at risk for retention through continuous assessment during the school year. It then immediately and aggressively intervenes to catch them up to their peers. After-school assistance and mandatory summer instruction, if needed, are some of the interventions used. If students have not achieved the minimum competencies to move forward to the next school year, the student is promoted but only with a structured plan of continued support. At the least, repetition is limited to the subject or module failed rather than the repetition of the whole year. Although this alternative policy entails costs, they are certainly lower than paying for the repeat of an entire grade.
- **Language of instruction.** The shrinking Dutch language base at the primary level may require rethinking the language of instruction and examinations for major programs at the secondary level. Some students will still want intensive immersion in Dutch—for example, to prepare them to enter universities in the Netherlands. These needs might be met by establishing special Dutch language programs, while aligning all instruction at the primary and secondary levels around English.
- **Early tracking at the secondary level.** All countries have some form of tracking at the secondary level. However, they vary in the age at which selection starts from age 10 to 16. The median for the OECD countries is 15 years (OECD, 2010b). Sint Maarten—following the Dutch policy—tracks early in the student’s life (age 12)—73 percent of OECD countries initially select at ages older than 12 with 40 percent starting tracking at age 16. Evidence consistently shows that early tracking increases the variance in learning outcomes between students. For example, analyses of data from PISA confirm that countries with more differentiated instruction have greater inequality of performance between students, although there are no significant effects on the average performance.
- **Class size norms at the primary level of education.** The average student/classroom ratio, especially for Sint Maarten’s subsidized schools, conforms to MECYS norms for class sizes at the primary level (24 students/class for cycle 1 of primary, 26, for cycle 2). The subsidized schools average 24 students per class; public schools 18 students per class. The average class size across school boards for St. Maarten is higher than that for the OECS countries slightly higher than the average for OECD schools. Although the OECD countries range from 16 to 28 per class, most are clustered around the average of 21.
  - The average student/classroom ratio, especially for Sint Maarten’s subsidized schools, is a case where efficiency and learning effectiveness may diverge. It appears that reducing student/teacher ratios to about 15/1 can have significant long-term effects on student achievement. These effects seem to be largest when introduced in the earliest grades and for students from less advantaged family backgrounds. The average class size especially for the subsidized schools is

efficient, but questionably effective especially for the primary level as smaller class sizes tend to support more student learning.

**1.94 Sint Maarten has not participated in any international assessments of learning.**

At the conclusion of grade 6 all students take the foundation-based education (FBE) examination, which provides a common basis for evaluating the performance of students. The FBE examination is designed as a selection examination for purposes of allocating students into different post-primary secondary programs. Their results only tell us how sixth graders in different schools performed relative to each other, not relative to absolute learning standards. Although some post-primary programs are associated with examinations, the secondary level is fragmented into multiple curricula and lacks a single check on learning outcomes. Thus, the education system does not know how its students are performing relative to the its learning goals.

**1.95 Public school students may pose more learning challenges than those of subsidized schools.** Students in public schools did worse on every subject in the FBE examination than students in subsidized schools. The performance of the public schools cannot be differentiated from that of the composition of their student bodies. Public schools are open to all students and must admit any student who applies. Subsidized schools are not obligated to take any student who wishes to enter. The only way to differentiate a school's performance from the characteristics that students bring to school that affect their learning is to move to value-added assessments.

**1.96 The COVID-19 pandemic raises at least three issues for the education sector: potential budget cuts, students' learning losses, and re-opening schools safely.** The budgetary implications for the education sector of the country's decline in economic activity are unknown. These depend on Government's choices of revenue sources and its expenditure priorities. Simulations indicate that the pandemic will reduce learning by students and their school attachment, even with remote learning mitigation measures. The learning loss will not be major if Sint Maarten can limit its school closures this year to three months.

**1.97 The main recommendations to build on the strengths and address some of the challenges faced by the country's education system have been amended to reflect and incorporate the impact of the COVID-19 pandemic.** The first two recommendations to (i) wring inefficiencies out of the sector's expenditures and (ii) compensate students' learning losses during the pandemic through the use of an adjusted curriculum for the whole class and after-school assistance for lagging students, should be pursued immediately. Whereas the recommendations to (iii) measure learning relative to learning objectives and through an international learning assessment, (iv) build on the State of Education report and expand it to include data on expenditure, and (v) establish a strong policy analysis and policy trialing unit within the Ministry, should allow MECYS to assess, in the medium-term, how efficiently, effectively and equitably it is spending its resources.

### **Concluding Remarks**

**1.98 Sint Maarten faces many challenges and opportunities to enhance public sector performance and achieve sustainable public finances.** Plans, programs and legislative proposals for reform in several of the critical areas highlighted in this Public Expenditure Review have been prepared. Implementation of these plans and programs has oftentimes suffered from a lack of continuity and follow-up due to insufficient funding, frequent change in government and a lack of political willingness to tackle tough issues or take on vested interests. Some of the major plans and programs reviewed in this Public Expenditure Review include:

- Transformation of the **tax administration** to enhance tax collection and reduce evasion and avoidance as well as generate reliable data based on which informed tax policy changes can be made.
- Improvement of **public financial management** to enable the timely presentation of correct budget information and reinforce internal controls.
- The introduction of **health care information technology and communication systems** to improve the quality of health care and support evidence base for decision making, such as a Health Information System at General Practitioners' Offices, a Pharmacy Information System, a central data interface (Health Service Bus), a Health Identification Number, the use of International Classification of Primary Care at the General Practitioner level and the development of a Health Information Management System.
- A **pharmaceutical cost containment program** consisting of a systematic switch to generic medicines where they are available as well as through centralized procurement of pharmaceuticals to benefit from economies of scale in the procurement.
- A broader program to **reduce the number and cost of medical referrals abroad** consisting, among others, of increasing the availability of specialist care on the island including through the construction of a new hospital. While there will be a residual need for off-island referrals, significant savings can be made through the revamping and streamlining of the referral process as well as of the associated protocols.
- The introduction and transitioning towards a **General Health Insurance** model to improve healthcare coverage and outcomes while putting the health system on a firm financial footing, improving risk-pooling by bringing younger, healthier, and higher-income beneficiaries into the public health insurance system.
- A significant decline in social insurance premium payments due to the COVID-19 related economic crisis will quickly drain the existing reserves of the social insurance system. The combined reserves of the SZV health and pension funds could fall to a critically low level by 2024 with social health insurances the main contributor to the deficits on SZV's insurances operating balances. This is bringing the need for **social health insurance reform** to the fore.
- **Parametric reforms to the country's pension systems** to improve the financial sustainability of the civil service pension fund while reducing the required pension contributions paid by the government, and to extend the period of sufficiency of contributions to the pay-as-you-go AOV pension system. While the reforms encompass changes to several parameters of the pensions systems, they are often characterized by the increase in the retirement age from 62 to 65 years.
- Learning losses are manageable if Sint Maarten can limit its school closures this year to three months and compensate students' learning losses during the pandemic through the use of an adjusted curriculum for the whole class and **after-school assistance for lagging students**. The latter is more efficient and effective compared to current grade repetition and social promotion practices.

**1.99 Attempts to strengthen fiscal sustainability would benefit from building further on some of this existing work.** These plans and programs have been elaborated within the public sector, often with the assistance of external consultants, for quite some time and often require a multi-year implementation. Building on the elements of existing plans and, where possible, speeding up their implementation may be the shortest and safest route to sustainably enhance the fiscal position of the broader public sector in Sint Maarten.

## Chapter 2: Macro-Fiscal Developments and Public Financial Management

### *Introduction*

**2.1 Sint Maarten is a high-income small island state located in the Caribbean that occupies the southern half of the island shared with the French overseas collectivity of Saint Martin.** Sint Maarten is one of the six islands in the Caribbean that form part of the Kingdom of the Netherlands and since the dissolution of the former Netherlands Antilles on October 10, 2010 it has an autonomous constitutional status as a separate country within the Kingdom.<sup>4</sup> As a small island state, Sint Maarten has an open and largely tourism-based economy. The island belongs to the Leeward Islands, a group of islands located where the northeastern Caribbean Sea meets the western Atlantic Ocean within the Caribbean hurricane belt. Sint Maarten has been exposed to numerous hurricanes, including Luis in 1995, Lenny in 1999, and Irma and Maria in 2017.

**2.2 Hurricane Irma, a category 5 hurricane, hit the island on September 6, 2017 and was shortly followed by another smaller-scale hurricane Maria on September 19, 2017.** Total damages and losses from hurricanes Irma and Maria were estimated at \$2.7bn, with projected needs for recovery and future resilience valued at \$2.3bn (NRRP, 2018). After the devastation caused by hurricanes Irma and Maria, the Government of the Netherlands pledged an amount of €550m for the recovery and reconstruction of the country of which up to €470m is being channeled through a World Bank-managed Trust Fund to support the recovery and reconstruction of Sint Maarten and to strengthen the country's resilience to disasters.

**2.3 The PER consists of four interconnected chapters:**(i) Macro-fiscal developments, (ii) Health, (iii) Social Protection, and (iv) Education. The main findings of these detailed chapters are brought together and summarized in this synthesis report. The focus of the PER on challenges in revenue generation and tax administration, public financial management, health and long-term care, social protection and pension systems, and education is motivated by the potential impact of policy and institutional reform in each of these areas on public finance. This chapter of the PER analyzes and discusses the overall macro-economic developments and public finance framework.

**2.4 The findings and recommendations of the PER are part of a broader agenda of structural reforms for a more inclusive, sustainable and resilient development of Sint Maarten.** Areas of priority include improving of the business climate by facilitating business permits and reducing red-tape, flexibilization of the labor market simplifying the dismissal process and transforming the severance payments framework into a proper unemployment benefit scheme, enhancing the financial sustainability of the social insurance (health and pension) systems, strengthening public sector capacity and public financial management including a significant improvement of the country's tax administration. Plans for policy and institutional reforms as well as for a modernization of administrative practices and procedures have been developed in several of these areas. Lack of political stability and the ability to construct broader societal consensus, vested interests and financing constraints have inhibited major progress on this reform agenda.

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<sup>4</sup> The Kingdom of the Netherlands consist of four countries (the Netherlands, Aruba, Curacao and Sint Maarten). The other three islands in the Caribbean that form part of the Kingdom (Bonaire, Sint Eustatius and Saba), collectively referred to as the BES islands, have the status of special municipalities in the Netherlands.

## ***Economic Developments and Outlook***

**2.5 Sint Maarten is a high-income small island state with a largely tourism-based economy.** The early stages of tourism development in Sint Maarten date back to the 1960's. Proximity to the US allowed it to attract foreign investment into the construction and operation of tourist resorts, initially catering to the higher-end, high value segment of a nascent international tourism sector. Fast growth in the volume of tourist arrivals eventually led to the decline of the high-end tourism and a further massification of tourism with the introduction of the timeshare product in the 1980's and 90's and eventually the emergence of large-scale cruise ship tourism.

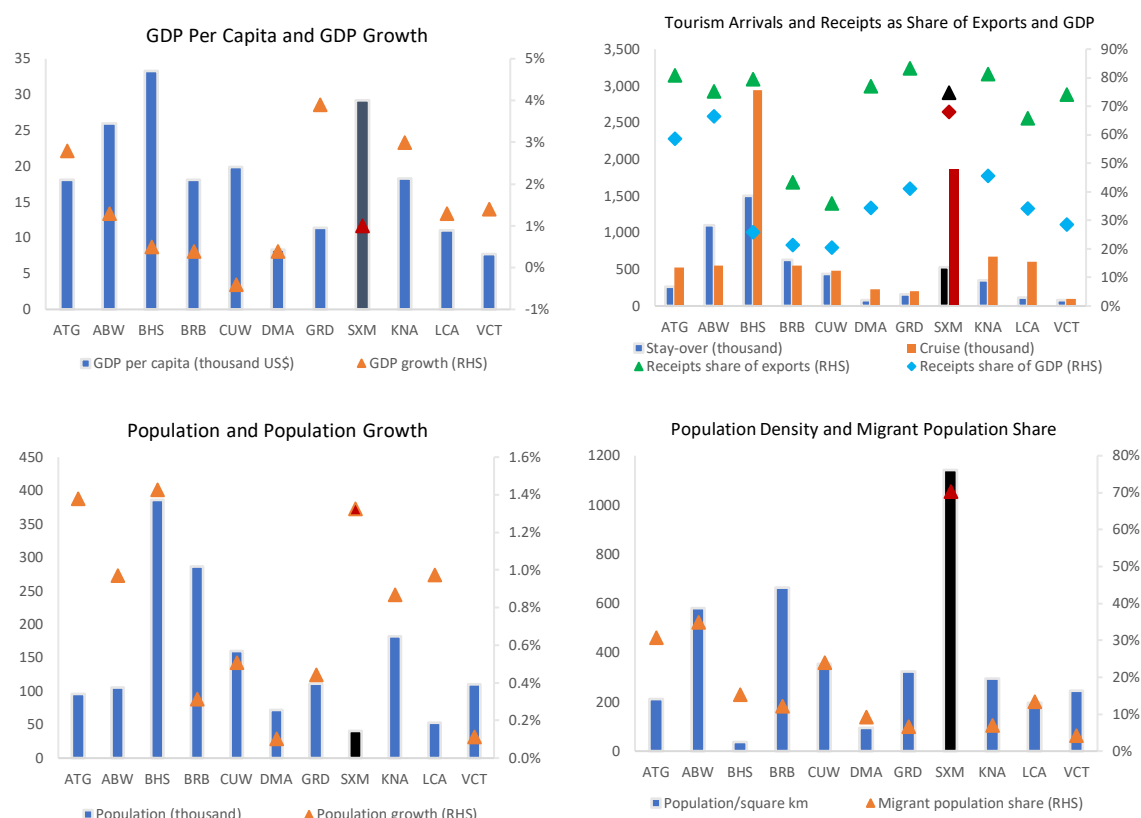
**2.6 The rapid development of the tourism industry concurred with high levels of immigration to supply the necessary workforce.** The remarkably rapid development experienced by Sint Maarten between 1960 and 1990 is demonstrated by an extraordinarily high population growth. In this period, the population increased tenfold or at an average annual rate of population growth of 8.1 percent, sustained for three decades. A large part of this population growth can be attributed to labor-demand driven migration, largely from neighboring countries in the Caribbean. Over the past three decades, (net) migration moderated significantly and population growth diminished accordingly to an average annual rate of 1.3 percent. The significant reduction in migration and population growth points to the limits of a mostly volume-oriented tourism development model (Alberts, 2016).

**2.7 Sint Maarten's population has grown rapidly, though is challenging to estimate.** The latest official population estimate according to the authorities was 40,614 people at the beginning of 2018. Nonetheless, there are wide discrepancies in both unofficial and official population estimates as, for example, between the Census and the Civil Registry Department. Some estimates put the actual population upwards of 50,000 while, as of October 2019, the civil registry numbered 61,750 persons. On the one hand, those who leave the island often do not formally de-register with the Civil Registry Department, so that there is a lag in removing these people from the Registry while newly arrived immigrants may not have registered at all as they may not qualify for a residence or work permit.

**2.8 The large stock of migrants in the country's labor force contributes to its resilience to external shocks.** Heavy reliance of an economy to a single product or commodity is often identified with a high vulnerability to external shocks. The tourism sector in the Caribbean has not displayed such higher levels of volatility to major business cycle fluctuations or other major external shocks over the past decades. Elements intrinsic to the tourism sector may contribute to this low-level vulnerability and, in the case of the Caribbean, high levels of in/out and circular migration have also served as an important coping mechanism at the individual or household level. Several Caribbean small island states attract migrant workers, documented or undocumented, in times of growth and shed parts of this labor force after heavy external shocks (Alberts and Baldacchino, 2017). Sint Maarten has a high share of migrants among its population and labor force who maintain the ability to migrate, often back to their country of origin. The experience of Sint Maarten following the damage inflicted by hurricanes Luis (1995) and Lenny (1999) is a case in point where the loss of employment led to a significant outflow of people, showing up in the country's population statistics.



**Figure 2.1 Sint Maarten in the Context of Caribbean Smaller Island States**



Source: International Monetary Fund, World Economic Outlook Database. World Bank, World Development Indicators Database.

**2.9 Compared to smaller island states in the Caribbean, Sint Maarten has a high level of GDP per capita.** The extensive tourism development that has taken place in Sint Maarten as of the 1960's allowed the country to attain one of the higher levels of GDP per capita in the region (Figure 2.1). Most of the growth in GDP and GDP per capita took place during the earlier stages of its rapid tourism expansion, as average annual GDP growth (prior to the 2017 hurricanes) had already fallen back to about 1 percent. Modest growth is a more common feature in the Caribbean, though countries such as Antigua and Barbuda, Grenada, and St. Kitts and Nevis do display significant catch-up growth. Based on the latest population estimate, GDP per capita is estimated at US\$ 29,189<sup>5</sup> substantially above the average of comparable smaller island states in the Caribbean at US\$ 17,216.

**2.10 Sint Maarten has a largely tourism-based economy.** In 2016, before the hurricanes, gross receipts from tourism were some \$857m, equivalent to 71.4 percent of the country's foreign exchange earnings. Sint Maarten does not count with a Tourism Satellite Account (TSA) that would include an estimate of the domestic value-added share of non-resident tourism. Assuming a domestic value-added share at about 70 percent, tourism generated 56 percent of GDP in Sint Maarten before the hurricanes. For comparison, the domestic value-added of non-resident tourism is 89 percent on average in OECD countries, with the remaining share coming from imports (OECD 2020). The share of domestic value added tends to be higher in larger economies with stronger backward linkages, whereas smaller economies have

<sup>5</sup> The GDP per capita estimate is substantially higher than previous estimates as a result of recently released GDP calculations. Updates in the methodologies to compile the system of national accounts, including implementation of the fourth revision of the International Standard Classification of All Economic Activities (ISIC Rev 4) and a rebasing of the GDP series from base year 2011 to 2014 led to an upward revision of GDP in current prices for the years 2014-2016 by 17.7 percent, on average (STAT, 2020).

a larger import content in their tourism product. As an example, the domestic value-added share ranges from 60 percent in Luxembourg to 94 percent in the United States.

**2.11 Severe damage to the country's tourism-related infrastructure led to a sharp economic downturn in 2017 and 2018.** The cumulative contraction of GDP in 2017 and 2018 is estimated at 12 percent (STAT, 2020) as tourism receipts dropped to about 50 percent of their pre hurricane level from the 3<sup>rd</sup> quarter of 2017 to the end of 2018. Tourism receipts fell due to the partial or complete shutdown of tourism-related businesses for repairs and reconstruction. The severe damage to the airport's main terminal building and the sharp reduction in available hotel rooms led to a sharp contraction in stayover tourism, down to a third of the per-hurricane levels. Cruise tourism rebounded faster than expected with even higher levels of passenger arrivals as of the 2<sup>nd</sup> quarter of 2018. Reconstruction of the damaged infrastructure, supported by the payout of private insurance, mitigated the decline in the tourism related sectors.

**2.12 Economic activity started its gradual recovery in 2019.** The economic expansion in 2019, estimated at an annual growth of 5 percent (IMF 2020, CBCS 2020), was driven primarily by a sharp increase in domestic demand along with higher foreign exchange earnings from the return of tourism. Gross receipts from tourism were up by 50 percent and back to 79 percent of their pre-hurricane level. Consumption increased due to the improved labor market, particularly in the tourism sector, and private investment continued above its pre-hurricane level due to sustained reconstruction.

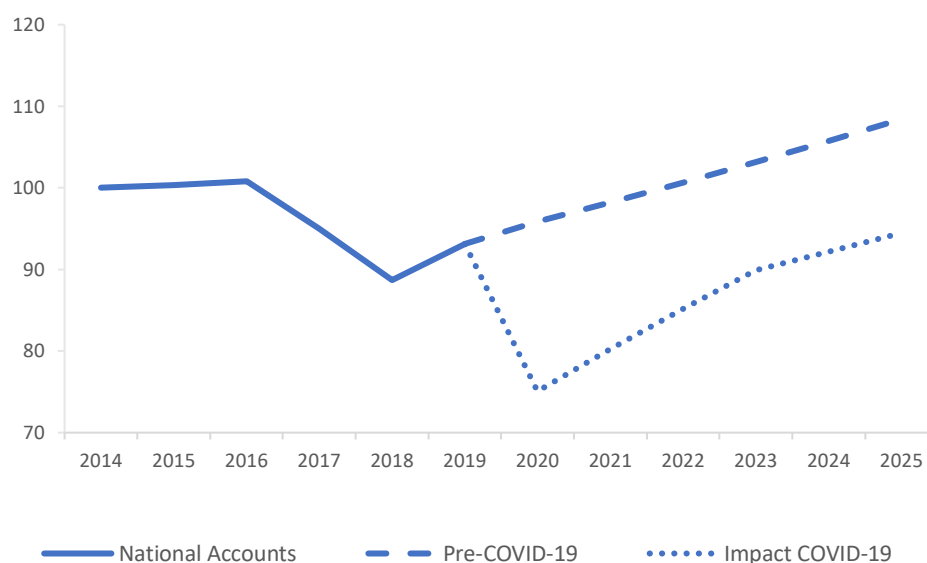
**2.13 Before the COVID-19 pandemic, a further recovery of economic activity was projected to bring real GDP back to its pre-hurricane level by 2022.** A further gradual recovery of stay-over tourism, from 70 percent of its pre-hurricane level at the end of 2019, together with a sound increase in domestic demand led to annual average growth projections of 2-3 percent which would bring back GDP, in real terms, to its pre-hurricane level over the next couple of years (Figure 2.2).

**2.14 The COVID-19 pandemic is leading to a major downturn in economic activity and a setback in the recovery.** Despite a lot of uncertainty worldwide on the impact of the COVID-19 pandemic, the Sint Maarten economy stands to be heavily affected due to its strong international tourism orientation. In a scenario in which gross tourism receipts fall in 2020 to 40 percent of what they would have been without the pandemic, GDP is projected to drop by more than 20 percent this year.

**2.15 GDP is unlikely to be back at its pre-COVID level until 2024.** A gradual recovery of tourism in subsequent years may give rise to high annual growth rates over the next few years, though the level of GDP is unlikely to be back at its pre-COVID level until 2024-2025 and still below its pre-hurricane level.

**Figure 2.2 Sint Maarten GDP, 2014-2025**

(Real Terms, Index 2014 = 100)



Source: STAT and staff estimates

**2.16 Liquidity support and a rundown of assets mitigate the decline in GDP.** Payout of insurance contributed to a relatively quick rebound of economic activity after the hurricanes. Liquidity support to partially finance a shortfall in tax revenue also allowed the public sector to maintain its level of activity, at the time. An even larger amount of liquidity support will be needed in the wake of the current crisis due to a steeper downturn in economic activity and related tax revenue. In addition, expenditures incurred due to payroll support to businesses for furloughed employees and income support for newly unemployed or self-employed require further liquidity support. The current liquidity support, in the form of zero interest loans from the government of the Netherlands, mitigates the decline in GDP and, more importantly, should ease the hardship encountered by households.

**2.17 Liquidity support raises the level of public debt which will eventually require more fiscal adjustment.** Even though the size and duration of liquidity support is not yet known as it depends, among others, on the severity and duration of the economic downturn, it is estimated that it may raise public debt and the debt-to-GDP ratio by some 25 percentage points (from the pre-COVID GDP level). This bleak economic outlook and gloomy public finance picture emphasizes the need for substantial and structural fiscal adjustment.

### **Structure of Government**

**2.18 The country of Sint Maarten is a parliamentary democracy.** There is a legislative power (the parliament), an executive power (the government) and an (independent) judiciary. As a country within the Kingdom of the Netherlands, there is a governor as the representative of the head of state of the Kingdom on the island. The governor represents the interests of the Kingdom and heads the Sint Maarten government, though the governor is not part of the Council of Ministers. The governor is assisted by a cabinet that advises on all draft national ordinances, state laws and national decrees. Expenses related to the office of the Governor are borne by the Netherlands. Some specific government tasks, among others those related to defense (Coast Guard, Military Police and the Navy) and foreign affairs, are matters of the Kingdom and paid for by the Netherlands.

**2.19 The Council of Ministers is the highest policy-making body in St. Maarten.** It gives direction to and usually stands at the beginning of every policy development. The Council of Ministers consists of 7 ministers, each with their respective responsibilities: General Affairs; Finance; Justice; Education, Culture, Youth & Sports (MECYS); Tourism, Economic Affairs, Traffic & Telecommunication (TEATT); Housing, Physical Planning, Environment & Infrastructure (VROMI); Health, Social Development & Labor (VSA). The Council of Ministers is presided over by the Prime-Minister who is at the same time Minister of General Affairs.

**2.20 In the design of the government a distinction is made between core responsibilities and core tasks.** Policy development, monitoring and evaluation, legislation, accountability, inspection and execution are all core responsibilities of the Government. Inspection and execution, however, are not core tasks. This means they can be outsourced or carried out by implementing departments or agencies with greater management authority than the policy departments within a ministry.

**2.21 A Parliament, consisting of 15 elected Members of Parliament, has the tasks to act as co-legislator to the government and to exercise control over government's policies.** In addition to Parliament, there are several Independent Advisory Councils that are involved in these two tasks. These include the Council of Advice, the General Audit Chamber, the Ombudsman, the Social Economic Council and the recently created Integrity Chamber with responsibilities established in the country's Statute or through separate national ordinances. The cost of Parliament, its secretariat and the advisory councils is included in the budget under the heading of Parliament and Higher Councils of State.

**2.22 The judiciary part of law enforcement in Sint Maarten consists of a Joint Court of Justice of Aruba, Curacao, Sint Maarten and the BES islands as well as the Attorney General's Office of Curacao, Sint Maarten and the BES islands.** The countries of Curacao, Sint Maarten and the Netherlands with regard to the BES islands each have their own Public Prosecutor's Office. Those three independent Public Prosecutor's Offices each have a Public Prosecutor in first instance under the leadership of a Chief Prosecutor. At the head of the Public Prosecutors is a joint Attorney General. There is also a Law Enforcement Council charged with the general inspection of the organizations of the judicial chain in Curacao, Sint Maarten and the BES islands. The Joint Court of Justice, the Attorney General and Public Prosecutors Offices and the Law Enforcement Council are all guided by consensus Kingdom Acts and the contributing countries jointly finance the budget of these institutions. In the case of Sint Maarten its financial contribution is included under the heading of subsidies granted by the Ministry of Justice.

**2.23 Sint Maarten also counts with several independent administrative organizations.** This usually concerns service-providing organizational units. The degree of independence and legal form takes place in various modalities, depending on the nature of the service. An independent organization can exist in the form of a limited liability company, a foundation or sui-generis public legal entity. Some service-providers become a fully autonomous legal entity with its own business risk, whereby the government only pays for specific transactions. Other organizational units will have their own legal entity, but with a significant degree of dependence on the government as a subsidy provider or as a service recipient. The social insurance institute (SZV), subsidized schools and their school boards as well as the hospital (SMMC) are some examples of the latter. Similarly, the government of Sint Maarten has an equity participation in some 15 limited liability companies including Sint Maarten Telecommunication Holding Company (Telem), Princess Juliana International Airport Holding Company (PJIAH), SXM Harbour Holding Company and the Water and Electricity Utility (GEBE).

**2.24 Monetary policy, the promotion of financial stability and supervision of the financial sector is carried out by the Central Bank of Curacao and Sint Maarten (CBCS).** The CBCS is an independent administrative institution jointly owned by the governments of

Curacao and Sint Maarten. The central bank maintains a common monetary policy focused on maintaining a fixed exchange rate with respect to the US dollar.

### ***Fiscal Rule, Budget Balances and Public Debt***

**2.25 Fiscal policy in Sint Maarten is conducted based on rules set out in its National Accountability Ordinance (NAO).** The NAO derives several of its regulations from a consensus Kingdom law on Financial Supervision on Curacao and Sint Maarten (Rft). The rules stipulate, among others, that the government can only borrow to invest, not to finance current expenses. This so-called golden rule of government spending implies that all current spending must be covered by current revenue and that no deficit is allowed on the Net Operating Balance (NOB) of government (see also Box 2.1). The golden rule in fiscal policy has been implemented in several countries and particularly at subnational levels of government to prevent deficit spending and an excessive accumulation of debt.

**2.26 Ever since acquiring its autonomy, Sint Maarten has been unable to comply with a surplus or balanced NOB.** A quick look at the evolution of current revenue and expenses in Sint Maarten (Table 2.1) shows that the country did not meet the balanced budget requirement for the first six years after its autonomy (2011-2016), particularly when taking into account corrections to its annual financial statement as identified by its internal auditors (SOAB), the General Audit Chamber and the Financial Supervisory Board (Cft). The accumulated deficit incurred on the NOB over the 2011-2016 period is relevant as the Rft requires the administration to indicate what measures will be taken to compensate for past deficits (Art. 18.6). The Financial Supervisory Board (Cft), in its reaction to the Financial Statements for 2016, estimated the total pending NOB deficit compensation at NAf 62.7-63.8 million.<sup>6</sup>

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<sup>6</sup> Letter Cft 201900057 dated May 10, 2019 on [www.cft.cw](http://www.cft.cw)

## Box 2.1. Government Finance Statistics and Accounting Practices in Sint Maarten

To manage the operations of government and assess their impact on the economy, these activities must be organized in a framework within which they can be summarized and analyzed. The GFS framework is designed to facilitate fiscal analysis in a broader

<b>Statement of Operations</b>	
<b>Transactions Affecting Net Worth:</b>	
<b>1</b>	<b>Revenue</b>
11	Taxes
12	Social Contributions
13	Grants
14	Other revenue
<b>2</b>	<b>Expense</b>
21	Compensation of Employees
22	Use of goods and services
23	Consumption of fixed capital
24	Interest
25	Subsidies
26	Grants
27	Social benefits
28	Other expense
<b>NOB/GOB</b>	<b>Net/Gross operating balance (1-2) *</b>
<b>Transactions in Nonfinancial Assets:</b>	
31	Net/gross investment in non-financial assets **
<b>2M</b>	<b>Expenditure (2+31)</b>
NLB	Net lending (+)/ Net Borrowing (-) (1-2-31 = 1-2M = 32-33)
<b>Transactions in Financial Assets and Liabilities:</b>	
32	Net acquisition of financial assets
33	Net incurrence of liabilities

\*The net operating balance equals revenue minus expense. The gross operating balance equals revenue minus expense other than consumption of fixed capital.

\*\*The net investment in nonfinancial assets equals acquisitions minus disposal minus consumption of fixed capital. The gross investment in nonfinancial assets equals acquisitions minus disposals.

macroeconomic context. The framework consists of a set of financial statements in which all changes in stock positions (such as reflected in the balance sheet) result from flows. The *Statement of Operations* presents transactions in revenue and expense, as well as investment in nonfinancial assets, the acquisition of financial assets and incurrence of liabilities. Two important analytical balances are derived in the Statement of Operations: revenue minus expense equals the (gross/net) operating balance, and the subsequent deduction of the investment in nonfinancial assets result in net lending/net borrowing which is also equal to the net result of transactions in financial assets and liabilities. This basic indicator of the fiscal balance can be measured from “above the line” as revenue minus expenditures (including investment in nonfinancial assets) or from “below the line” as the difference between transactions in financial assets and liabilities. Government accounting practices in Sint Maarten include a statement of

current activities (*gewone dienst*), a statement of capital activities (*kapitaaldienst*), a balance sheet and a statement of cash flows. The statement of current activities closely follows revenue, expense and the *Net Operating Balance* of the GFS framework. Revenue and expense are allocated to the years to which the associated services relate, and expense thus includes a depreciation allowance for physical assets. In the annual financial statement, the current revenue and expense account also includes holding gains and losses of assets and liabilities, a concept dealt separately in the GFS framework. The statement of capital activities includes investments in physical capital as well as related transactions in financial assets and liabilities.

Source: Government Finance Statistics Manual 2014

**Table 2.1. Sint Maarten: Current Revenue and Expenses  
2011-2019 (million NAf)**

	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenue	402.6	450.9	489.5	429.7	459.3	473.0	407.6	380.8	434.0
Expense	407.7	434.3	489.0	450.2	468.5	481.4	480.6	479.2	468.4
<b>Net Operating Balance (NOB)</b>	<b>-5.1</b>	<b>16.6</b>	<b>0.5</b>	<b>-20.6</b>	<b>-9.1</b>	<b>-8.4</b>	<b>-73.0</b>	<b>-98.4</b>	<b>-34.4</b>
<b>NOB after corrections</b>	<b>-6.8</b>	<b>-0.5</b>	<b>-36.3</b>	<b>-21.2</b>					

Source: Annual financial statements 2011-2016; Cft advices financial statements 2013-2016; Quarterly reports 2017-2019

**2.27 Following the hurricanes in September 2017 and the related downturn in economic activity, the country incurred in substantial deficits on its NOB as revenue fell while expenses roughly maintained their level.** An escape clause to the balanced current budget rule, that is part of both the NOA and Rft (Art. 25), has been invoked and granted on an annual basis for each of the years 2017, 2018, 2019 and 2020. Liquidity support through lending by the government of the Netherlands is being agreed to cover the actual deficit on the NOB over this period on a quarterly basis. Liquidity support for 2017 and the first two quarters of 2018 has been agreed and disbursed, while additional conditions for further liquidity support set in April 2019 has led to an interruption of these borrowings. No formal statement or agreement on the compensation of deficits allowed under the escape clause or of liquidity support borrowings has been made public yet.

**2.28 Public investment can be financed by net borrowings, though has been limited.** A separate capital service (*kapitaaldienst*) registers all formal transactions in terms of nonfinancial and financial assets and incurrence of liabilities.<sup>7</sup> The limit on public investment is formally set in the fiscal framework by an interest charge norm that states that interest charges of the collective sector may not exceed 5 percent of the average realized joint income of that sector over a period of three years prior to the year in which the budget is submitted (Rft Art. 1 and 15). Low interest rates have made the interest charge norm a non-binding constraint, though Cft advice on budget compliance with the fiscal responsibility framework refers to a prudential limit to the debt-to-GDP ratio of about 40 percent. Repetitive lack of compliance with the surplus or balanced net operating budget requirement and pending past deficit compensation is also referred to as a reason to contain additional borrowings (and investment expenditure). Study loans extended annually are also included as a capital expense, though repayment of these loans, if any, should be reported as a capital revenue. No such revenue entry has been reported ever since 2011, indicating either difficulties in the loan recovery process wrongful booking of the concept under the operational account.

<sup>7</sup> Like the regular service, the capital service registers revenue and expenses with revenue consisting of resources raised from new borrowings and the depreciation allowance and expenses consisting of gross investment, (study) loans extended and amortizations. In terms of the overall fiscal balance concept used in the GFSM (see box) the inclusion of a depreciation allowance as an expense on the operating balance and as a revenue of the capital service cancel each other out as both are "above the line" transactions. In the case of Sint Maarten, including the depreciation allowance is relevant as the balanced budget rule is formulated in terms of the Net Operating Balance.

**Table 2.2 Sint Maarten: Capital Expenditures, 2011-2018 (million NAf)**

	2011	2012	2013	2014	2015	2016	2017	2018
Investment	17.9	30.0	15.3	52.9	26.4	12.2	8.7	1.7
Study loans	4.9	3.7	3.9	3.4	4.2	5.1	4.7	5.0
<b>Capital Expenses</b>	<b>22.8</b>	<b>33.7</b>	<b>19.2</b>	<b>56.3</b>	<b>30.6</b>	<b>17.3</b>	<b>13.4</b>	<b>6.7</b>
(as percent of GDP)	1.4	1.9	1.0	3.0	1.6	0.9	0.7	0.4

Source: Annual financial statements 2011-2016; 4<sup>th</sup> Quarter reports 2017-2018

**2.29 The government of Sint Maarten has access to long-term, low cost financing for its approved capital expenses.** Bonds to finance capital expenses are issued on behalf of the Sint Maarten government by the Central Bank of Curacao and Sint Maarten (CBCS) at an interest rate based on the Dutch yield curve and count with a standing subscription by the government of the Netherlands. This means that Sint Maarten can borrow at the credit risk of the government of the Netherlands and that the latter, in practice, is the sole creditor for the government of Sint Maarten's longer-term borrowings. This arrangement, that is also used to issue bonds for approved liquidity support, allowed for a 30-year bond issue by Sint Maarten in May 2019 at a yield of 0.74%. In comparison, the government of Aruba, that does not count with a standing subscription arrangement, issued 12 and 13-year bonds in February of 2019 at a yield of about 5.0%. The outstanding long-term debt by 2019 had an average interest rate of 2.0% and a remaining average maturity of more than 15 years. Regarding amortization of existing loans acquired for capital spending, there seems to be an implicit agreement that the loans can be refinanced upon maturity under the same standing subscription arrangement, if still in place by that time.

**2.30 An escape clause to the fiscal rule allowed for a deficit on the operating balance in the aftermath of the hurricanes, to be financed by liquidity support.** A deficit on the operating balance as incurred in the years after the hurricane (2017-2019) has been allowed through annual authorizations by the Kingdom Council of Ministers following advice of the Cft. The substantial downturn in economic activity led to a significant decline in tax revenue whereas public expenditures roughly maintained their level (in nominal terms) thus creating major deficits on the operating balance of the government. These deficits were to be met with liquidity support lending, eventually using the same structure as the long-term financing of capital expenses.

**2.31 The government also incurred arrears with some of the independent administrative organizations.** As long-term finance was limited to approved capital expenses (and, as of 2017, to liquidity support needs), the government incurred arrears with its social insurance institute (SZV), civil servants' pension fund (APS) and state-owned utilities (Telem and GEBE) to finance recurrent deficits on its operating balance. Some of the arrears can also be attributed to drawn-out settlements of the division of assets and liabilities from the former Netherlands Antilles.

**2.32 Government debt, defined as the sum of long-term finance and arrears, has been kept within a threshold of 40 percent of GDP.** Cft advice on borrowing capacity of Sint Maarten refers to a prudential limit on the debt-to-GDP ratio of about 40 percent, recurrently brought up in IMF reports as a level that is consistent with the objectives of fiscal sustainability and resilience in a small island state such as Sint Maarten (IMF 2020). Previous to the COVID-19 crisis, the debt-to-GDP ratio was projected to surpass the threshold in 2020 and beyond due to the need for additional borrowings related to pending liquidity support for 2019 and 2020, approved capital expenses for 2020, and a European Investment Bank (EIB) loan for the rehabilitation and reconstruction of the airport terminal. Liquidity support to mitigate the impact of the downturn in economic activity and tourism due to the COVID-19 pandemic will



add to an increase in the debt-to-GDP ratio (initial estimates point to a possible increase in the debt by some 25 percentage points).

**2.33 Policy advice on a fiscal framework that includes a long-term debt-to-GDP anchor should be accompanied by a discussion on the relevant concept of debt to be limited or targeted.** On the one hand, the authorities and the Cft have been using the sum of long-term finance and arrears of the collective sector as the relevant measure of public debt based on the availability of timely information on these concepts in budget documents and quarterly financial reports. They refer to a broader collective sector rather than the central government alone because the interest charge norm in the fiscal framework is casted in terms of the collective public sector. While in the recent past entities included in the collective sector other than the central government did not have major amounts of debt (or interest payments), in the near future the building of a new hospital will add substantially to the level of debt of the collective sector. On the other hand, the IMF in recent reports (IMF 2019 and 2020) has included a broader collection of liabilities in addition to long-term debt and arrears of the central government in its measurement of public debt, aligning itself to the broader GFS definition of Gross Public Debt. As recent data on financial liabilities of the central government other than long-term debt and arrears are not readily available the IMF assumed, for the time being, that there is no change in those liabilities from its last published figure in the 2016 financial statements and balance sheet of the central government (IMF 2019).

**Table 2.3 Sint Maarten Government debt, 2014-2019 (Naf million)**

	2014	2015	2016	2017	2018	2019
Total debt	762	758	855	837	916	976
Long-term	504	503	502	525	601	661
Other liabilities	258	255	353	312*	315*	315*
o.w. Arrears	122	163	214	174	189	120
Financial assets	182	168	319	263	245	236
Cash and Bank deposits	103	71	130	102	83	47
Debtors	49	56	57	57*	57*	57*
Other accounts receivable	30	40	133	105*	105*	105*
Gross debt, percent of GDP	34.2	33.8	37.8	39.2	43.2	43.5
Net debt, percent of GDP	26.3	23.7	26.9	31.6	33.0	34.6

\*Other liabilities except for Arrears and Financial assets (debtors and other accounts receivable for 2017-2019 assumed to be equal to their value reported in the 2016 Financial Statement).

Source: Annual Financial Statements 2014-2016 and Quarterly Financial Reports 2017-2019

**2.34 Another relevant distinction that should be considered when discussing public debt sustainability is the difference between gross and net debt.** Gross debt is important because it must be financed, but gross debt does not give a complete picture of the financial position of the government. In addition to gross debt one should also monitor the evolution of net debt to obtain a more complete picture of fiscal sustainability. Net debt is the gross debt minus financial assets excluding shares and derivatives.<sup>8</sup> In the case of Sint Maarten, the central government had to run down its cash balance to an extremely low level by the end of 2019 as the transfer of liquidity support was being delayed thus creating a sharper increase in the net debt-to-GDP ratio than that of gross debt between 2016 and 2019. In the near future, the difference between gross and net debt will be exacerbated by the financial arrangements put in place for the airport terminal reconstruction. In this case, an SXM Trust Fund grant and

<sup>8</sup> The IMF World Economic Outlook database includes series for gross debt and net debt, with net debt calculated as gross debt minus financial assets corresponding to debt instruments. These financial assets are monetary gold and SDRs, currency and deposits, debt securities, loans, insurance, pension, and standardized guarantee schemes, and other accounts receivable.

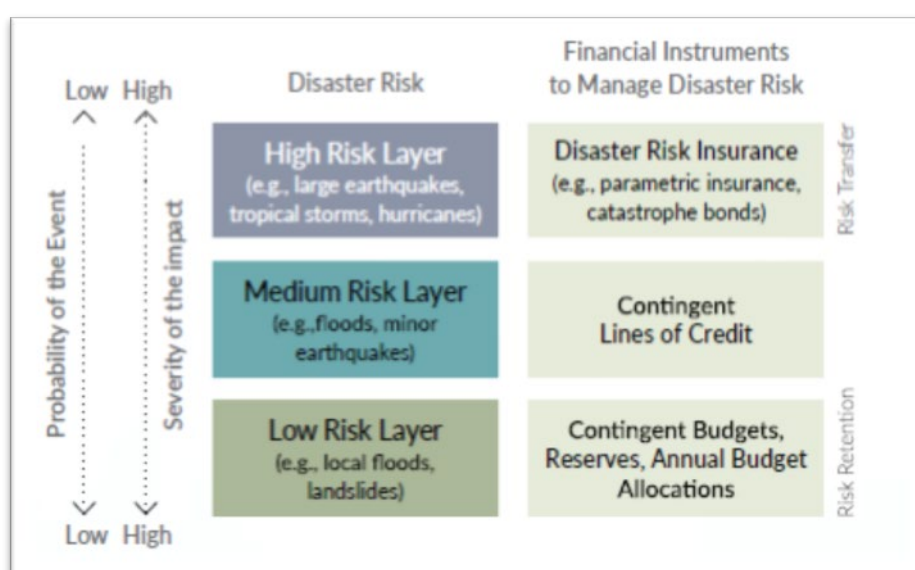
an EIB loan for the reconstruction of the terminal are on-lent by the central government to the airport company. Whereas the EIB loan increases the gross debt by about 4 percent of GDP, it does not change net debt as the government acquires a financial asset by the on-lending operation in addition to the liability. At the same time, the SXM Trust Fund grant does not raise gross debt but lowers net debt by about 4-6 percent of GDP depending on the final size of the grant as the government acquires a financial asset by the on-lending of the grant to the airport.

**2.35 An overall or primary balance target consistent with the long-term debt anchor becomes more relevant in dealing with increased debt levels.** The current fiscal framework of a balanced operational budget and a non-binding interest charge constraint does not provide any operational guidance for public investment. In practice, Cft advice has constrained additional borrowings for capital spending to 2-3 percent of GDP. Such a level, close to the expected nominal growth of GDP, keeps the debt-to-GDP ratio constant. Instead of a balanced operational budget and an annual, discretionary determination of borrowing space for capital spending consistent with a debt target, an overall or primary balance target would confront policymakers with the trade-off between current and capital spending. The target may be adjusted every few years in consultation with the Cft based on observed progress made towards achieving the longer-term debt anchor. This becomes even more relevant in a context of a high debt level that has to be brought back to more manageable proportions.

**2.36 As Sint Maarten remains highly vulnerable to natural hazards, the country should put in place a comprehensive Disaster Risk Management (DRM) policy with a Disaster Risk Financing (DRF) strategy.** High winds, rainfall and flooding are the principal risk factors while the country is also vulnerable to earthquakes. To date, disaster management has mainly consisted of operational aspects such as planning and response to occasional tropical weather, which has led to ad hoc responses without a clear strategy for reducing future risks. Countries should have in place a comprehensive national DRM policy designed to identify and reduce physical risk associated with disasters, strengthen preparedness and emergency response operations, as well as reconstruct in resilient ways when disasters do strike. At the same time, natural catastrophes, including health-related events, can negatively affect economic growth and development progress, particularly if resources are not readily available to cope with the impact of the event in a timely manner. Small states like Sint Maarten are proportionately more vulnerable to natural disasters as a highly concentrated economic base, “unfavorable” location in the hurricane belt, and capital constraints for risk reduction investments contribute significantly to vulnerabilities that result from the severity, frequency, and duration of natural disasters (IMF, 2016). A DRM policy should thus include a financial planning or DRF strategy, so that the governance processes and institutional and financial architecture are already in place before a disaster.

**2.37 A risk layered approach to disaster risk finance includes a diversity of risk retention and risk transfer instruments** (Figure 2.1). Governments may choose to self-insure through the establishment of an emergency response or contingency fund to address low severity, more frequent events. The importance of contingency funds has been demonstrated in other national contexts in building a fiscal framework that is able to generate savings that can later be used when shocks materialize. A reasonable level of liquidity or cash balance also serves as a mechanism to cope with unforeseen, adverse developments in public revenue or expenditure. As a rule of thumb, a cash balance of 3 months of expenditure is often used and makes up part of the fiscal framework of smaller island states such as the Cook Islands.

**Figure 2.3 Disaster risk layered approach**



**2.38 Sint Maarten has purchased parametric hurricane and excess rainfall coverage through the Caribbean Catastrophe Risk Insurance Facility (CCRIF).** The CCRIF is a regional risk pool for Caribbean governments designed to limit the financial impact of disasters by quickly providing financial liquidity when a policy is triggered. However, the CCRIF products alone are not enough to cover all fiscal risk, and they are most effective when used strategically with other risk transfer and risk retention instruments. Complementary financial instruments combined with an enabling legal and policy framework that promotes risk-informed decision making and planning are the backbone of a DRF strategy.

**2.39 Medium-to-high severity, low frequency events may be dealt with through a combination of risk transfer and risk retention mechanisms.** Insurance like the CCRIF are most cost effective for medium-to-high severity, low frequency events and allow for a fast disbursement of resources to cover some of the immediate fiscal needs. Insurance may have to be complemented by other facilities, such as additional contingent credit facilities (e.g. pre-arranged support from within the Kingdom or external partner through grants and borrowing facilities). In order to be able to borrow in such events the ex-ante medium-term target debt ratio should be kept relatively low. Contingent credit facilities allow for loan or grant financing to be disbursed quickly with an ex ante agreement on a trigger mechanism and financing terms. Finally, further losses from medium to high-risk events, low frequency events can be addressed through assistance from within the Kingdom through grants and liquidity support to cover further reconstruction and recovery needs though the disbursement of this type of ex post financial assistance may not be as timely or within the control of Sint Maarten policy makers as it could be. Having a fast disbursement mechanism in place like a contingent credit instrument can reduce the likelihood of attritional losses from secondary disaster impacts, like health emergencies.

**2.40 To put thing in perspective and provide some order of magnitude, the SPHERA tropical cyclone (TC) and excess rainfall (XSR) loss assessment model utilized by CCRIF estimated Sint Maarten's long-term average annual loss from TC and XSR-induced impacts as US\$39m.** This includes public and private sector building stock, infrastructure and crops. A proxy of 30% (US\$11.7m) can be used to estimate public sector losses. This US\$11.7m is an estimate of the government's average annual losses (AAL) from hydrometeorological events. Thus, utilizing the risk layering approach described above, the government would be advised to have access to immediate liquidity, typically through a

reserve fund or dedicated contingency budget line, at the minimum amount of US\$11.7m to cover its losses in any given year—from hydrometeorological events alone. This minimum amount would be recommended for countries with limited fiscal space, or a moderately high-risk appetite. This is equal to roughly one half of Sint Maarten’s monthly expenditures. Low risk, high frequency events are most cost-effectively dealt with through contingency funds or enough cash liquidity on hand, to avoid reallocating funds from existing government programs and further delay development goals. Such reserve fund would also be tapped for moderate to severe events to cover emergency losses while other funds are mobilized. Sint Maarten does not currently have a contingency fund for disaster response though it includes within the annual budget an allocation for line items related to disaster risk management.

**2.41 Based on the current parameters of the selected CCRIF SPC coverage, the government would receive a maximum payout of approximately US\$14m for a high intensity, low frequency hydrometeorological event.** To put this in perspective, probable maximum loss for a 100-year return period tropical cyclone in Sint Maarten is about US\$383m. Relying heavily on ex-post financing mechanisms to manage sovereign disaster risk contributes to volatile and open-ended fiscal exposure.

### *Public Revenue and Taxation*

**2.42 Sint Maarten has a low level of revenue related to level of public goods and services that is expected from its public sector.** In 2016, prior to the hurricanes, central government revenue as a share of GDP was 20.9 percent with tax revenue at 16.2 percent of GDP.<sup>9</sup> Social security contributions, managed outside the central government, amounted to another 9.5 percent of GDP. Whereas the sum of tax revenue and social security contributions at 25.7 percent of GDP is not very different from some other island states in the Caribbean, it is considerably below the level of 34.4 percent observed on average in OECD countries. Whereas Sint Maarten raises a slightly higher share of GDP in social security contributions, it is considerably weaker in the collection of taxes on goods and services at 66 percent of the average share in OECD countries and on income and profits at 72 percent.

**2.43 Challenges in tax administration will have to be addressed before informed decisions on major tax policy changes can be made.** The main taxes are a wage and income tax, a profit tax and a turnover tax that together are responsible for nearly 95 percent of tax revenue. With a top marginal wage and income tax rate at 47.5 percent and a statutory effective profit tax rate at 34.5 percent, modest tax collection is not an issue of low tax rates. Instead, tax evasion and tax avoidance seem to be widespread. Strengthening the tax administration, after years of underinvestment in staffing and equipment, should reduce evasion and avoidance as well as generate reliable data based on which informed tax policy changes can be made.

### *Public Expenditure*

**2.44 Central government current expenditures, in nominal terms, do not show an upward trend in contrast to benefit payments of the social security system.** Annual average central government current expenditures amounted to Naf 476 million over the last five years, equal to nearly 21 percent of GDP prior to the hurricanes. The level of current expenditure up to 2016 was contained by the balanced operational budget requirement and continued to display substantial inertia over the past three years. In contrast, benefit payments of the social security system did show a significant increase at an annual average rate of growth of 10.6 percent from Naf 162 million in 2015 to Naf 220 million in 2018. While social

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<sup>9</sup> Fiscal variables expressed as a share of GDP have been adjusted to the recently released nominal GDP calculations (STAT 2020). The substantial upward revision of GDP in current prices (on average by 17.7 percent for the years 2014-2016) result in substantially lower revenue-, expenditure- and debt-to-GDP ratios than referred to in previous discussions and documents.

security contributions did not show a commensurate increase, the social security system was able to cover the increase in benefit payments from accumulated reserves. The challenges posed by increased social security (health and pension) benefit payments are dealt with in subsequent sections and detailed chapters of the PER on health and social protection.

**2.45 Budget formulation and execution use administrative and economic classifications of expenditure though is not based on a functional classification.** A functional classification of spending organizes government activities according to their objectives (e.g. education, health, law enforcement etc.) and is useful in analyzing the allocative efficiency of expenditure among and within sectors. The lack of a functional classification of spending limits the ability to link resource allocation to results and policy priorities and to analyze the sectoral allocation of spending over time or across countries. In this PER, the administrative classification of expenditure is used to approximate a broad sectoral allocation of spending in the education, health and social protection chapters.

**2.46 The central government reports many vacancies that have been left unfilled, among others, to contain current expenditure.** Compensation of employees represents 40-45 percent of current expenditures. Subsidies to school, representing another 15-16 percent of current expenditures, also mainly consist of wages and salaries for teaching and support staff. Controlling gross compensation thus plays a major role in the containment of current expenditure. Over the past few years, the control of gross compensation has taken place by reducing the number of staff. Full-time occupied positions in the central government were down to 1,782 positions in 2019 from 2,097 in 2011. At the same time, the number of vacancies reported increased to 728 position in 2019, with vacancies as a share of required staff ranging from 25-33 percent among the different ministries. As the policy of reducing the number of occupied staff positions may have started to affect the operation of government, the control of gross compensation could shift its focus to the level of remuneration or to the cost of fringe benefits. The latter, mainly consisting of healthcare and pension contributions, make up more than a third of the gross compensation and the costs of these can be reduced without affecting, in a major way, the attractiveness of public sector employment for higher-level skilled employees.

**2.47 Public investment has been limited due to financing and capacity constraints as well as political instability.** Capital expenses, net of debt repayments, amounted to an annual average of about 1 percent of GDP over the past nine years (2011-2019). Study loans made up about a fifth of these capital expenses, leaving an annual average of 0.8 percent of GDP for public investment. The average of public investment spending in OECD countries is 3.3 percent of GDP, within a range of 1.4 to 5.3 percent of GDP. The structure of government with several independent administrative organizations and state-owned enterprises may have contributed this dismal performance of public investment activity by the central government, tight controls on public sector borrowings, limited public investment management capacity and frequent change in government are also likely to have played their part. Most of the post-hurricane reconstruction is also taking place outside of the central government budget through the parallel SXM Trust fund operation.

### ***Public Financial Management***

**2.48 Major challenges to improve and strengthen public financial management have been signaled from the beginning of Sint Maarten as an autonomous country.** Deadlines for the preparation and approval of critical documents in the budget cycle, such as the budget, quarterly execution reports and annual financial statements, are often greatly exceeded. Too many derogatory procedures are used because financial controller functions are under the responsibility of each ministry and not well controlled by the Ministry of Finance. The IT systems used within the public administration are obsolete and not integrated. As a result of

major shortcomings in public financial management, external auditors have been able to issue an unqualified opinion on the government's annual financial statements.

**2.49 Procurement of public works and of goods and services above specified thresholds must take place by public tender by law, though regulations and controls have not been sufficiently developed.** Thresholds specified in the law are not systematically respected and contract amounts are often changed after the contract has been awarded. An exception to the law states that derogation may take place by state decree if the public procurement is in public interest which has been broadly interpreted and gives room for ministries to use it for bypassing normal procedures for non-urgent operations.

**2.50 Implementation of priority action plans to transform the tax administration and to improve public financial management is awaiting the allocation of financial resources.** Ambitious action plans to overhaul in a period of 2-3 years the tax administration aimed at increasing tax revenue and public financial management to enable the timely presentation of correct budget information and reinforce internal control have been designed and designated priority projects by the government. Despite a broad consensus on the urgency of acting on these two areas, a lack in continuity in government and the availability of financing has thus far prevented the plans to be executed.

## References

- Alberts, Arjen. 2016. Immigration-Dependent Extensive Growth in Small Island Tourism Economies: The Cases of Aruba and Sint Maarten. *International Development Planning Review* 38 (1): 75-93
- Alberts, Arjen and Godfrey Baldacchino. 2017. Resilience and Tourism in Islands: Insights from the Caribbean. In *Tourism and Resilience*, edited by Richard W. Butler, 150-162. Wallingford, UK: CAB International
- Belastingdienst BES. 2018. Rapportage Quick Scan Belastingdienst Sint Maarten.
- Centrale Bank van Curacao en Sint Maarten (CBCS). Annual Report 2017, 2018
- . Quarterly reports, several issues
- College financieel Toezicht Curacao en Sint Maarten (Cft). Multiple advices on draft budget, reactions on quarterly financial reports and annual financial statements. <https://www.cft.cw/>
- . PEFA inventarisatie financieel beheer Sint Maarten 2015 <https://www.cft.cw/>
- Department of Statistics. Factsheet Population 2018. Philipsburg, Sint Maarten: Department of Statistics.
- . 2019. Labor Force Survey 2018. Philipsburg, Sint Maarten: Department of Statistics.
- . 2020. Real growth down by 6.6% in 2018. Philipsburg, Sint Maarten: Department of Statistics.
- . 2017. Statistical Yearbook 2017. Department of Statistics STAT.
- General Audit Chamber. 2016. Compliance Audit: Financial Statements of Sint Maarten 2015.
- General Audit Chamber. 2019. Compliance Audit: Financial Statements of Sint Maarten 2016.
- International Monetary Fund. 2014. Government Finance Statistics Manual 2014. Washington, D.C.: International Monetary Fund, 2014.
- . 2019. Kingdom of the Netherlands-Curacao and Sint Maarten: 2018 Article IV Consultation, Staff report
- . 2020. Kingdom of the Netherlands-Curacao and Sint Maarten: 2019 Article IV Consultation, Staff report
- . 2018. Second Generation Fiscal Rules: Balancing Simplicity, Flexibility, and Enforceability. IMF Staff Discussion Note SDN/18/04, International Monetary Fund, Washington DC.
- . 2019. World Economic Outlook Database October 2019 Edition <https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/weoselgr.aspx>
- Jacobs, Davina, Jean-Luc Helis, and Dominique Bouley. 2009. Budget Classification. IMF Fiscal Affairs Department
- Lukkezen, Jasper and Wim Suyker. De naakte feiten over de Nederlandse overheidsschuld (*The bare facts about the Dutch government debt*). CPB Background document part of CPB Policy Brief 2013/05
- Michielse, Geerten and Sijbrand Cnossen. 2018. Aruba Toward a Sustainable Tax System. IMF Country Report No. 18/363. Washington, D.C.: International Monetary Fund, 2018
- Ministry of Finance. Voorlopige Financiële Concernrapportage/Uitvoeringsrapportage. Vierde Kwartaal 2017 (*Financial Report 4th quarter 2017*).
- . Financiële Concerrapportage/Uitvoeringrapportage. 4<sup>e</sup> Kwartaal 2018. (*Financial Report 4th quarter 2018*).
- . Financiële Concernrapportage/Uitvoeringrapportage. 4<sup>e</sup> Kwartaal 2019. (*Financial Report 2nd quarter 2019*).
- . Concept Begroting 2014, 2015, 2016, 2017, 2018, 2019 (*Concept Budget, several years*).
- . Jaarrapport 2012, 2013, 2014, 2015 and 2016 (*Annual Financial Statement, several years*).
- OECD. 2020. Tourism Trends and Policies 2020. OECD Publishing, Paris
- . 2020. Global Revenue Statistics Database. <https://stats.oecd.org/>
- Schlotterbeck, Stephane. 2017. Tax Administration Reforms in the Caribbean. Challenges, Achievements, and Next Steps. IMF Working Paper WP/17/88 Washington, D.C.: International Monetary Fund, 2017.

Sint Maarten Government. Landsverordening inrichting en organisatie landsoverheid (*Ordinance on the organization of the national government*). AB 2010, GT No. 6

----- . Comptabiliteitslandverordening. (*National Accountability Ordinance*). AB 2010, GT No.23

----- . Organisatienota van het Land Sint Maarten. (*Organizational Memorandum*) BC080408,24

----- . Concept Budget 2014, 2015, 2016, 2017, 2018, 2019, 2020 (*Draft Budget, several years*)

----- . (2018) Sint Maarten National Recovery and Resilience Plan. A roadmap to Building Back Better.

Staatsblad van het Koninkrijk der Nederlanden. Rijkswet financieel toezicht Curacao en Sint Maarten. (*Kingdom Act financial supervision Curacao and Sint Maarten*) Staatsblad 2010, 334.

World Bank. 2020. World Development Indicators.  
<https://databank.worldbank.org/source/world-development-indicators>



## Chapter 3: Health

### *Executive Summary*

**3.1 Like many countries in the region, Sint Maarten has seen improvements in health outcomes in areas such as infant and maternal mortality, and now faces the challenges of an aging population and a growing burden of noncommunicable diseases.** Health spending in per capita terms and as a share of GDP is considerably higher than other countries in the region and has been rapidly increasing. Some of this is attributable to the small population size and the inability to benefit from economies of scale, but analysis of available data suggests areas for improving the equity and efficiency of health spending. At the same time, there is limited data available to allow for a comprehensive analysis of health financing, including in areas such as out-of-pocket expenditures, which make it difficult to fully understand the equity and efficiency implications of current expenditures.

**3.2 Sint Maarten's healthcare system currently faces several important challenges, and efforts to address these through ongoing reforms could have a substantial impact on health expenditures going forward.** A broad reform agenda is currently underway, involving the introduction of Health Information Systems, pharmaceutical cost control efforts, and a revamp of the medical referrals abroad, among others. Nonetheless, there continues to be room for improvement. Increased attention will need to be paid to primary care to ensure noncommunicable diseases are identified early and under control. In addition, provider payment mechanisms should be aligned among the different insurance schemes and should promote accountability for results.

**3.3 Hurricanes Irma and Maria exacerbated underlying structural weaknesses in the social health insurance funds, which are likely to be further accelerated by underlying demographic and epidemiological trends.** There is limited fiscal space available for the health sector, and at present, the package of services delivered contradicts the available public finance envelope. Due consideration will need to be given to streamlining or consolidation of the social health insurance funds. In addition, the ability to collect revenue to finance these schemes, and the adherence of these funds to legislation should be ensured. This should become easier as investments in Health Information Systems are made, strengthening the evidence-base for decision-making.

**3.4 Sint Maarten should develop a strategic plan for the health sector to define its vision for the health sector and the reforms needed to make this a reality.** This could be accompanied by a Health Financing Strategy, to define changes to be implemented in the next five to ten years to areas such as revenue raising, pooling, purchasing, benefit design, and overall system architecture and governance.<sup>10</sup> Doing so would contribute to the achievement of Universal Health Coverage (UHC) in a fiscally responsible manner, and help ensure that all stakeholders are on the same page.

### *Introduction*

**3.5 This chapter examines health spending in Sint Maarten and its evolution over the period 2014-2019.** To the extent possible, it examines the efficiency, equity, and impact of health expenditures in Sint Maarten relative to comparable countries in the Latin America and the Caribbean (LAC), particularly the countries in the Caribbean that form part of the Kingdom of the Netherlands. This chapter also provides an overview of health indicators and utilization dynamics and evaluates current trends against the backdrop of demographic and epidemiological transitions. It describes how the healthcare system is organized and functions,

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<sup>10</sup> Developing a National Health Financing Strategy: A reference guide. World Health Organization, 2017.

taking into consideration aspects relevant to Sint Maarten, such as the small island context and the impact of Hurricane Irma.

**3.6 A number of topics typically considered within the framework of a World Bank Public Expenditure Review (PER) are covered in this chapter.** The World Bank considers PERs to be a key diagnostics instrument used to evaluate the effectiveness of public finances. The Core Guidance on PER in Human Development notes that the fundamental role of a sector PER is to explore how well the sector spends public resources in terms of efficiency and equity.

**3.7 The two key issues facing Sint Maarten are the epidemiological and demographic transition, and a social health insurance scheme that is inefficient, inequitable, and financially unsustainable.** Sint Maarten has seen a growing burden of disease due to NCDs, and a rapidly ageing population. The existing healthcare system, including financing aspects, does not adequately respond to this disease profile. Poor management of NCDs suggest that there is room for improvement in the quality of care delivered. The social health insurance system is fragmented, and existing schemes are not administered as designed. There are differences in benefits packages and incentives; at the same time, essential services such as preventive and primary care are not prioritized. As a result, there are gaps in coverage with the government ultimately bearing financial responsibility.

**3.8 These challenges have not gone unnoticed, and several health sector reforms were initiated in the aftermath of Hurricanes Irma and Maria.** Major initiatives include the construction of a new hospital site and introduction of new specialties at SMMC, an overhaul of the overseas referrals process, and reforms to the pharmaceutical sector. While these initiatives are promising, it is too soon to assess their impact. In addition, Sint Maarten is considering a transition to a General Health Insurance (GHI) model to contribute to the achievement of Universal Health Coverage (UHC) and improve the financial sustainability of the public health system. This effort has been led by the Ministry of Public Health, Social Development and Labor (VSA), and reflects growing concern regarding the gaps in coverage offered to the population as well as an increased recognition of the need to provide affordable, and sustainable healthcare. At the request of the Government of Sint Maarten, this chapter includes an Annex (Annex 1) benchmarking financial projection under parametric and structural (General Health Insurance (GHI)) reform scenarios against the *status quo ante*. Several other considerations in expanding coverage are also provided in this report. In the no reform or *status quo ante* scenario, the accumulated balances are expected to incur growing deficits going forward.

**3.9 This report is structured as follows: Section II briefly describes the organization and governance of the public health system in Sint Maarten.** Section III examines the challenges – in terms of physical inputs, physical outputs and outcomes – of the health system. Section IV reviews trends in public health expenditures and Section V presents an analysis of efficiency and equity of public expenditures in the current health system. Section VI provides an overview of reform efforts and Section VII concludes with recommendations for policymakers.

### ***Organization of the Health Sector***

**3.10 Responsibility for health in Sint Maarten involves three main entities, namely the Ministry of Public Health, Social Development, and Labor (VSA), the Social and Health Insurances Implementing Body of Sint Maarten (SZV, or USZV, used interchangeably) and the Sint Maarten Medical Center (SMMC).** VSA is responsible for the development of legislation, guidelines, and policies for the delivery of quality health care. VSA is also responsible for establishing legally binding tariffs and the tariff structure for healthcare, medical

inspections, and medical licensing. The Ministry consists of three policy departments and six executing agencies. The Public Health Department, Collective Prevention Services, the Ambulance Services and the inspectorate mainly focus on the health-related aspects of the Ministry, such as surveillance and vaccination programs.

**3.11 Social health insurance schemes are fragmented, with overlapping beneficiary populations, with differences in contribution rates, benefits, and provider compensation mechanisms.** Six public sub-systems are administered by SZV, an independent administrative body, on behalf of the government which cumulatively cover about 70 percent of the population. SZV was established in 2010 under the oversight of VSA and operates as an autonomous administrative body. SZV administers separate schemes for the formal, private sector employees with income below the limit (ZV/OV), civil servants (OZR), retired civil servants (FZOG), chronic/elderly care (AVBZ) and the indigent (PP). Around 40,000 people, or about 70% of the population of Sint Maarten, are covered by these insurance funds, the largest of which is the ZV fund, which accounts for 69% of the total.<sup>11</sup> These are distinct schemes, with different financial contribution requirements, benefits, and provider remuneration as shown in Table 3.1. Each scheme is regulated by a different national ordinance, with SZV provided with the legal mandate to function as insurer for the ZV/OV scheme only. There is no written agreement between SZV and the government for the other schemes, where it plays a more limited role focused on the procurement of care, serving as front office for those insured, and administering and paying medical expenses.<sup>12</sup>

**Table 3.1. Overview of Social Health Insurance Schemes in Sint Maarten, 2018**

Fund	Purpose / population coverage	Employee contribution	Employer contribution	Client base	Notable features
AVBZ	Long-term care	1.5%	0.5%	373 persons; 253 preexisting (2018)	-
National Ordinance for Medical Expenses Fund for Government Retirees (FZOG)	Retired public servants	<u>Active</u> 2%  <u>Retired</u> 3.75% (first ANG 500 p.m.) 10% (excess)	0.72%	1,206 persons (2018)	Beneficiaries co-insured for free. Average payout more than tripled between 2014 and 2018.
National Ordinance for Sickness Insurance (OV)	Private sector workers, for workplace accidents	-	0.5-5% (risk-based)	146 persons; 29 preexisting (2018)	N/A; average payout more than doubled between 2015 and 2018

<sup>11</sup> For practical purposes the authorities use as a rule of thumb a population of 50,000 which is also used here.

<sup>12</sup> Advice and assistance for a new referral process and tender regarding foreign hospitals. Grant Thornton. August 2019.

National Ordinance for Sickness Insurance (ZV)	Private sector workers, dependents and ( <i>de facto</i> ) many retirees following Ministerial Decree in 2009 to cover those aged 60 and older who contribute 10.4 percent of AOV (old-age pension)	<u>Active</u> 4.2%  <u>Retired</u> 10.4% of AOV	<u>Active</u> 8.3%  <u>Retired</u> none	34,330 persons including 2,152 elderly (2018)	Basic health insurance for those earning below ANG 67,816.32 per annum and retirees. General practitioners paid annual per patient fee (capitation).  Beneficiaries co-insured for free - more than 50 percent of pool are non-contributory/reduced. Estimated 50 percent increase in average benefits paid between 2015 and 2017 due to 35 percent increase in hospital tariffs and increased medical costs following 2017 hurricanes.
National Ordinance for Medical Expenses for Public Servants, Equivalents and Family Members (OZR) (PAYGO) <sup>13</sup>	Current public servants	1.25%	Balance covered by government	-	More extensive benefits than ZV/OV. General practitioners paid per visit (fee-for-service).  All beneficiaries contribute. Co-payments are charged for care, but these are rarely collected in practice.
National Ordinance for Medical Expenses for those without Financial Means (PP-cardholders) (PAYGO)	Those of limited means; administered together with OZR	None	None	2,080 persons (2018)	Those earning more than NAF5,000 per month are not eligible. Most basic package.  Rapidly increasing client base following economic downturn after hurricanes; currently at 4.3 percent of population.

Source: Authors, based on information from SZV and VSA.

### 3.12 The private health insurance market represents a small player in the overall health system, covering about 15 percent of the population, and is responsible for a

<sup>13</sup> A pay-as-you-go scheme is one whereby benefits are directly tied to the contributions paid by the individual participants.

**limited share of total health expenditures.** Private insurers provide coverage for those unable to obtain coverage through other means, such as new arrivals to the island, private sector workers earning more than the income limit, or those desiring supplementary insurance. Private insurers are not obligated to provide coverage for those interested in receiving coverage. It is not unusual for private insurers to increase premiums as the patient population becomes older and sicker, and to exclude certain population groups from being eligible for coverage altogether, such as those with preexisting conditions and the elderly, raising concerns around equity. One in seven have no health insurance at all, public or private, with the government / providers eventually absorbing the cost of their emergency treatment where they are unable to pay out-of-pocket. As such, the government has become the “insurer of last resort.”

**3.13 The non-profit and private sectors are almost entirely responsible for service delivery.** Primary health services are largely provided through private providers, including foundations. At present, there are 23 general practitioners (private), dental care providers, the White and Yellow Cross Foundation (primary care, nursing home and specialized ambulatory care), the Turning Point Foundation (drugs and rehabilitation), the AIDS Foundation, the Diabetes Foundation and 15 pharmacies. Secondary health services are delivered by the Sint Maarten Medical Center (SMMC) which is a non-profit foundation endorsed by the Government as the sole provider of hospital services in the country. The pool of services available at SMMC is enhanced by visiting specialist consultants as well as the provision of services off-island.

**3.14 The purchase of healthcare by the public sector is done largely through SZV, with SMMC consisting of the lion's share of expenditures.** The Care Procurement department of SZV negotiates contracts with healthcare providers ranging from general practitioners to SMMC on the nature, price and quality of care to be provided. Based on the '*Landsbesluit Medisch Tarief Sociale Verzekeringen St. Maarten*,' a budget is set by SZV for the ZV, OZR, and FZOG funds based on the estimated demand of care to be provided by SMMC. This is paid through monthly advance payments of the annual budget. SZV represents approximately 75 percent of the revenue of SMMC through the main funds (ZV, OZR, FZOG funds), while the government makes direct payments for PP-card holders. Until 2016, tariffs from 2004 were applied, and from 2011-2016, SMMC incurred significant net losses resulting from increase of expenses from hospital care. In 2017, Hurricane Irma resulted in a disruption of hospital services, and in 2018, SZV started implementing a full budget system based on expected treatments and tariffs per care-path.

**3.15 SZV also contracts with General Practitioners to provide care, with different provider payment mechanisms by scheme.** Providers are reimbursed differently for different groups of patients. The OZR scheme, which covers current public servants, operates on a fee-for-service basis and provides more extensive benefits than the ZV scheme which reimburses providers on a capitation basis. In the absence of clinical guidelines, this may result in inequitable treatment due to better quality treatment provided those covered under the fee-for-service model relative to those covered under the capitation model. It may also result in inefficiency if unnecessary treatments are provided in some instances. However, an understanding of whether this is the case is not possible due to the absence of a health information system at the primary care level.

**3.16 Provider contracts do not presently include details on performance management and monitoring.** The absence of an integrated Health Information System (HIS) makes it challenging to monitor health outcomes and provider performance, hold providers accountable, and to compensate providers based on performance. Without an integrated HIS, implementation of disease-specific clinical care pathways, and the identification of certain key groups of patients such as those with multiple conditions who may require a different care modality due to their high-need, high-cost profiles, is severely limited.

The lack of a HIS also impedes the information base available for evidence-based decision making. Reforms to the Information Systems are currently underway, with the introduction of an Information System at GPs and Pharmacies as well as introduction of a Health Information Number. This will include requiring the International Classification of Primary Care (ICPC) coding for each consult, as well as quality indicators for GPs and pharmacies. These improvements are targeted toward reducing cost and improving the quality of healthcare services available in Sint Maarten.

**3.17 SZV contracts with off-island providers for services that are not available on the island.** As a small island, Sint Maarten cannot benefit from the economies of scale necessary to provide a full spectrum of health services and treatments. Thus, there is a significant residual provision of healthcare to Sint Maarten residents by foreign providers, particularly where complex treatments are necessary. The extent to which overseas referrals are covered differ by the various funds, though in practice, SZV covers medical referrals abroad for all the various schemes.<sup>14</sup> Analysis of referrals abroad is challenging prior to 2017 as the utilization of the registration system for referrals abroad was initiated only in 2016. The selection of foreign health care providers is not based on clear procurement policies and procedures, and is done in an unstructured manner, for example, in the case of Colombia, hospitals presented themselves to SZV and were subsequently selected. Neither SMMC nor the Inspectorate of Public Health were involved in the process.<sup>15</sup> Invoices, often of poor quality, are paid by the Department of Medical Expenses, and exert a substantial administrative burden. Over the 2017-2018 period, General Practitioners comprised the main source of referrals for treatment overseas. General practitioners were permitted to directly refer patients for treatment abroad following approval of the SZV medical advisor. Due to poor communications and undefined clinical care pathways, patients were until recently referred overseas for treatment that may be available on-island or prior to the completion of all necessary pre-clearances. In response to this issue, SZV began requiring patients to be referred to SMMC prior to patients receiving treatment abroad. As of November 1, 2019, referrals abroad originating from General Practitioners were no longer permitted, and Addendum to the Care Contract between SZV and SMMC was signed on November 19, 2019. This reform, as well as other reform efforts is discussed in greater detail in Section VI.

### ***Health Outcomes and Utilization Rates***

**3.18 This section examines key public health outcomes in recent years and compared to other countries in order to understand challenges facing the health system.** This section also assesses the performance of physical inputs and outputs to the extent possible. The selection of comparators for benchmarking depended on available data and appropriateness of comparison, as described in the footnotes of each section. A key challenge to understanding the health profile of Sint Maarten and its evolution over time is the lack of data. Owing to the small population size, viewing available data in the context of long-term trends is important as minor fluctuations in raw numbers may suggest a major impact when considered as a percentage.

**3.19 Sint Maarten is facing a rapid demographic and epidemiological transition.** Improvements have been seen in areas such as maternal and child mortality, while population aging and the growing burden of noncommunicable diseases (NCDs) are likely to exert considerable pressure on financing and provision of health services in the near future.<sup>16</sup> Average life expectancy in Sint Maarten is 78.1 years, comparable to life expectancy in Aruba

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<sup>14</sup> For the ZV/OV fund, medical referrals overseas are explicitly excluded, while the FZOG and OZR funds require out-of-pocket contributions where applicable; no out-of-pocket contributions are mentioned for the PP scheme.

<sup>15</sup> More details are available in Grant Thornton: Advice and Assistance for a New Referral Process and Tender Regarding Foreign Hospitals. 2019.

<sup>16</sup> <https://www.paho.org/salud-en-las-americanas-2017/?p=4304>

at 76.8 years and Curacao at 78.3 years but lower than the Netherlands which is 81.5 years (2015).<sup>17</sup> Like many countries in the Caribbean, Sint Maarten is seeing a steady increase in noncommunicable diseases and has a rapidly aging population, with the share of the population age 60 and older going from 5 percent (2002) to 11 percent (2012);<sup>18</sup> this figure is projected to increase to 39 percent by 2050.

**3.20 Available evidence suggests that Millennium Development Goals 4 and 5 which refer to issues of child mortality and maternal health have generally been achieved in Sint Maarten.**<sup>19</sup> However, verification of these achievements is challenging due to a lack of digitalized statistical data. Further, there is often a large discrepancy in figures reported from different sources. Nonetheless, the figures available suggest that child and maternal mortality are exceedingly rare events in Sint Maarten, and that there is good vaccination coverage for children under five years old. All registered births occur in the hospital attended by skilled health professionals. Achievement of MDG 6 focused on combatting HIV/AIDS, malaria, and other diseases is less clear considering the multitude of relevant indicators and continued challenges posed by infectious diseases, with new cases of HIV/AIDS being diagnosed, the emergence of new mosquito-borne diseases such as chikungunya, and the rapid surge in the prevalence of noncommunicable diseases (NCDs).

**3.21 NCDs present a growing area of concern for Sint Maarten.** Ischemic heart disease was the leading cause of death in 2010 and 2012, and diabetes mellitus the second leading cause of death over the same period. Survey data from 2015<sup>20</sup> suggest that almost one in three adults are hypertensive (31.4 percent) and that 13.5 percent of the population have diabetes.<sup>21</sup> This is compared to a global prevalence of 8.3 percent and a prevalence of 16.2 percent in Aruba for diabetes. Among those with diabetes, almost one in five have diabetes-related complications suggesting poor management of the condition. Almost weekly an amputation has to be performed due to complications from diabetes – a large percent of patients receiving amputations is younger than 65 years and some are younger than 50 with an upward trend.<sup>22</sup> A similar upward trend is observed for people who need renal dialysis and referrals abroad because of diabetes-related complications.<sup>23</sup> Deaths due to cancer have also been increasing in recent years. Taken together, this suggests poor quality of care for NCDs.

**3.22 Changes in nutritional patterns are evident in the growing incidence of overweight and obesity.** Two-thirds of the population are overweight. Among children aged 0-4, one third are overweight, and among that group, nearly half are obese (2009). Meanwhile, among youth aged 12-18 years old, 40 percent were overweight, of which around 54 percent were obese (2010).<sup>24</sup> Children and teenagers who are obese are at higher risk of chronic disease as adults.

**3.23 There has been growing demand for health services at SMMC in recent years, as shown in Table 3.2.**<sup>25</sup> SMMC has seen an increase in demand for inpatient and outpatient services, with outpatient services almost doubling from 2015 to 2018. These trends also reflect

<sup>17</sup> <https://www.paho.org/salud-en-las-americas-2017/wp-content/uploads/2017/09/Print-Version-English.pdf>

<sup>18</sup> Two figures are cited in the report, 11 percent and 16 percent. The lower figure is reported here

<sup>19</sup> The Millennium Development Goals Report. Sint Maarten 2011-2015 and beyond. UNDP.

<sup>20</sup> Observatoire Sint Maarten and Saint Martin. 2015 Crossborder Health Study. University of the Virgin Islands, University of St. Martin.

<sup>21</sup> While there is some variation around these figures, the estimates are generally comparable. For example, PAHO reports diabetes prevalence of 10.2 percent and hypertension prevalence of 25.5 percent in 2016. (Health in the Americas, PAHO). A notable exception is the figure reported in the Sint Maarten Statistical Yearbook 2017, which places the prevalence of hypertension at 40 percent.

<sup>22</sup> Health Systems Reform Sint Maarten. Advanced Care Solutions and Insights for Optimization White Paper, 2018.

<sup>23</sup> Detailed estimates on cost and referrals for dialysis were not available.

<sup>24</sup> Youth Obesity Research, Students Hanze Hogeschool, Groningen, 2009 and 2010.

<sup>25</sup> Data from primary care providers is not available.

an expansion in the services provided at SMMC, such as the introduction of urology in 2018. The average length of stay (ALOS) at SMMC was 4.0 days in 2018, almost half the OECD average at 7.7 days in 2017. However, the ALOS at SMMC is an underestimate of the ALOS of the population of Sint Maarten as it does not consider case complexity, or the number and complexity of referrals abroad into consideration.<sup>26</sup> For services not available at SMMC, patients are referred abroad with the cost of treatment covered by their insurer, which, in most instances, is SZV.<sup>27</sup> As more specialized services become available at SMMC, fewer referrals abroad will be necessary.

**Table 3.2 Utilization of SMMC (2015-2018)**

Year	Total number of admissions	Average length of stay (# days)	Total number of regular outpatient visits
2015	3,706	4.3	19,433
2016	3,800	4.6	25,576
2017 <sup>28</sup>	3,410	4.7	28,978
2018	4,266	4.0	38,294

**3.24 As the specialisms and patient load at SMMC have grown, there has been a decline in the referrals abroad.** From 2017 to 2018, the number of referrals for the combined insurance schemes decreased by 11 percent to 5,004. Referrals for treatment abroad are most often made by family physicians (usually comprising general practitioners), who made 83 percent of referrals in 2018, though in many instances the referral originates from the specialist with the family physician tasked with registering the referral through SZV's system (HECINA).<sup>29</sup> It is worth noting that referrals abroad are mostly made to Saint Martin (the French side of the island), which received about 50 percent of referrals abroad in 2018, the majority of which were for ophthalmology which, in general, are less costly and less complex than the average referral. Other countries receiving patients from Sint Maarten include the Dominican Republic, Colombia, and Curacao.

<sup>26</sup> Death rates per 1000 discharges were not assessed as minor fluctuations in the total number of deaths may yield considerable variation once converted to the standard denominator of 1000 discharges.

<sup>27</sup> Grant Thornton. Advice and assistance for a new referral process and tender regarding foreign hospitals. August 2019.

<sup>28</sup> Hospital services were disrupted following Hurricane Irma in 2017, and while figures for 2017 are presented here, they are not taken into consideration when determining long-term trends.

<sup>29</sup> HECINA is the system used for data warehousing and communication of international referral data of SZV.



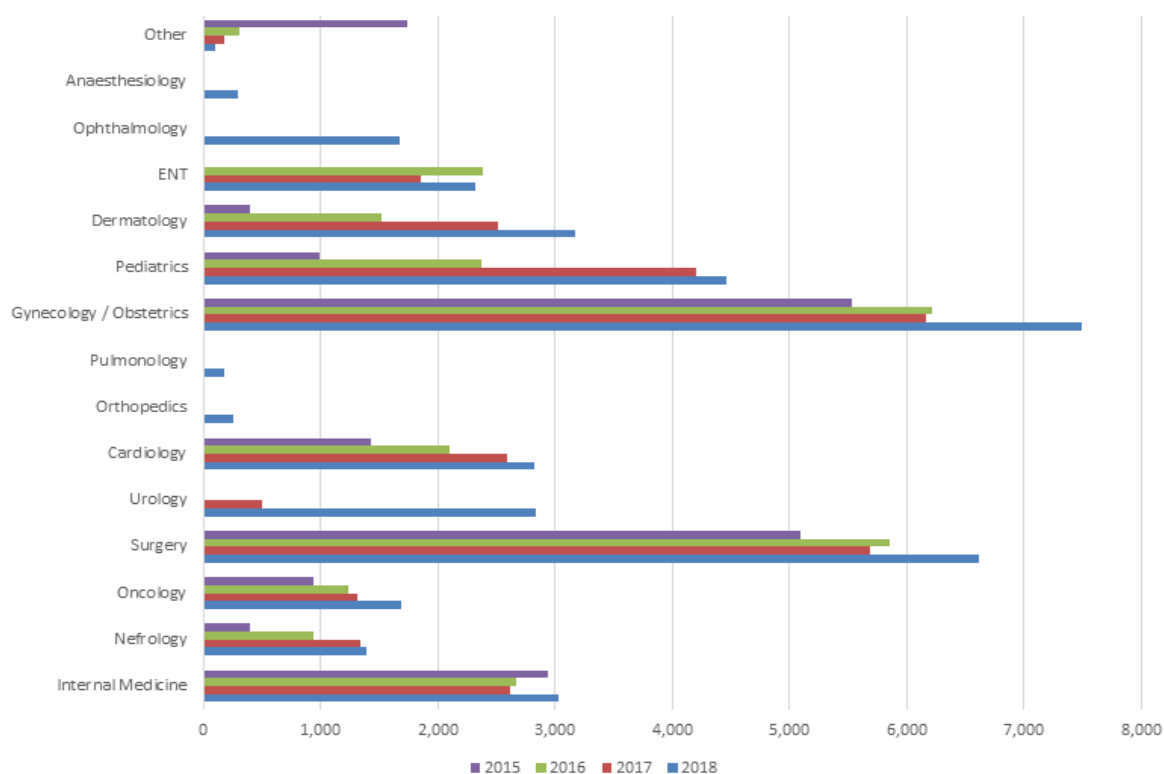
**Table 3.3 Referrals Per Referring Specialty Abroad (2017-2018)**

<b>Attending Specialty</b>	<b>2017</b>	<b>2018</b>
Ophthalmology	3072	2638
Hospital Care	669	550
Orthopedics	353	473
Neurology	208	321
Neurosurgery	279	226
Urology	276	25
Surgeon	93	84
Cardiologist	79	64
Pulmonology	83	75
Radiology	48	76
Child Cardiology	50	63
Plastic Surgery	56	46
Pediatrics	50	32
Other	326	331
<b>Total</b>	<b>5842</b>	<b>5004</b>

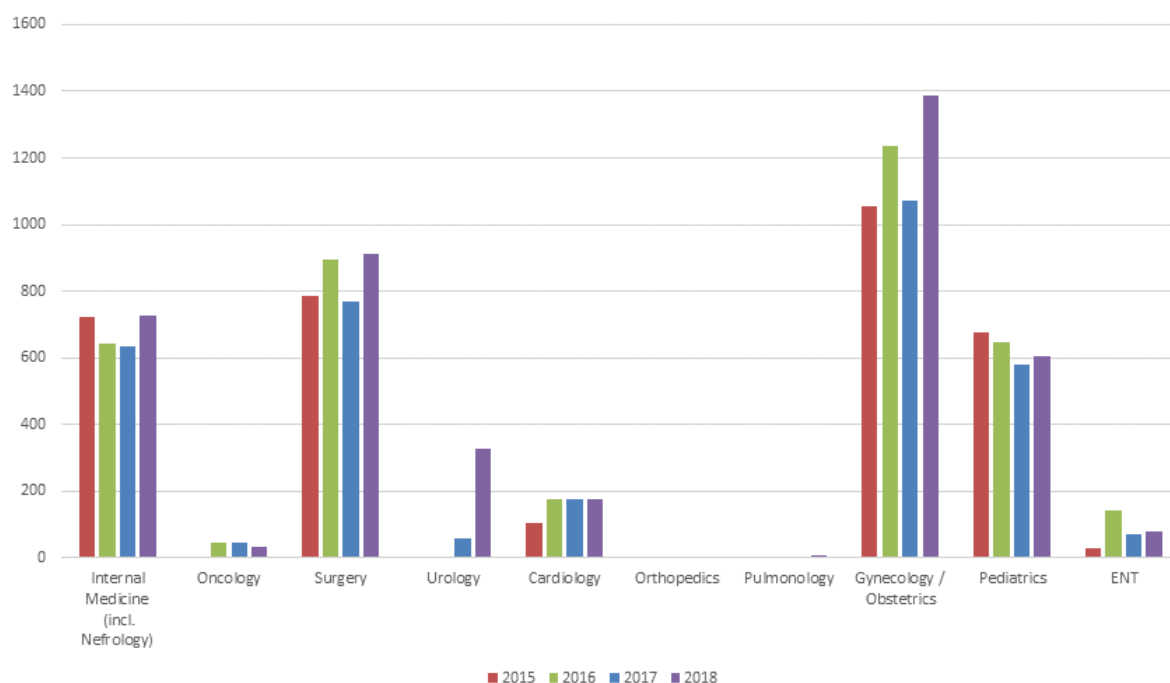
Source: Advice and assistance for a new referral process and tender regarding foreign hospitals. Grant Thornton. August 2019.

**3.25 In 2018, the majority of referrals abroad were for ophthalmology, which comprised 52 percent of all referrals made outside of Sint Maarten (Table 3.3).** Hospital care and orthopedics made up around 10 percent of referrals each. Following the introduction of urology as a specialty at SMMC, the number of referrals abroad for urology dropped from 276 (2017) to 25 (2018). Ophthalmology services were introduced at SMMC in late 2018, which is expected to reduce the number of referrals abroad going forward. At SMMC, outpatient consultations are most often for gynecology/obstetrics, surgery, and pediatrics, which have seen a surge in demand (Figure 3.1). These specialties also represent the most common reasons for admissions, though internal medicine takes the place of pediatrics for the third most common reason for admission (Figure 3.2). A decline in the average length of stay (ALOS) is observed in some specialties such as pediatrics and gynecology/obstetrics, while increases are seen in areas such as internal medicine and oncology (Figure 3.3).

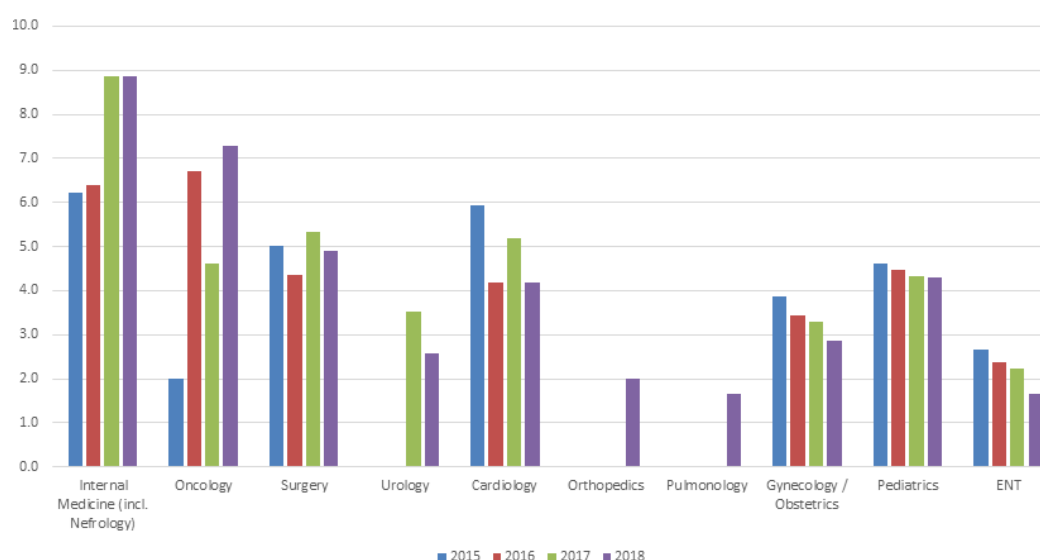
**Figure 3.1 Number of Outpatient Consultations  
Sint Maarten Medical Center (2015-2018)**



**Figure 3.2 Number of Admissions, Sint Maarten Medical Center (2015-2018)**



**Figure 3.3 Average Length of Stay, Sint Maarten Medical Center (2015-2018)**



**3.26** As of 2017, health services in Sint Maarten were delivered by 135 doctors (including visiting specialists), 14 dentists/orthodontists, 18 pharmacists, and 145 nurses, 8 nursing assistants and 2 midwives, as well as other allied health professionals such as physical therapists and speech therapists.<sup>30</sup> This results in the following staffing of service delivery facilities per 10,000 population (Table 3.3), which is comparable (to the extent data is available) to Aruba and Curacao, islands that also depend on overseas referrals though Sint Maarten has greater physician density. It is worth noting that minor differences in absolute numbers will result in large differences in relative rates owing to the small populations. Sint Maarten's number of health human resources surpasses WHO recommendation (23 health workers per 10,000 population to achieve primary health care needs) and even those of Aruba and Curacao, though lower than St. Kitts and Nevis (which has a similar population) and the OECD average (Table 3.4).

**Table 3.4. Staffing of Health Facilities in Sint Maarten, Aruba and Curacao, 2017**

	Sint Maarten	Aruba	Curacao	St. Kitts and Nevis	OECD Average <sup>31</sup>
Physician density (including specialists)	17	11.4	7.6	23.3	35
Dentist density	2.6	3.9	2.7	3.5	N/A
Nurse and midwife density	31	N/A		36.6	88 <sup>32</sup>
Pharmacist density	3.6	N/A	1.8	N/A	N/A
Health worker density	54.4	N/A	N/A	N/A	N/A

Source: Data for Sint Maarten obtained from the Sint Maarten statistical yearbook and includes visiting physicians. Data for Aruba obtained from the Aruba statistical yearbook and is for 2015. Figures for Curacao obtained from <https://www.paho.org/salud-en-las-americas-2017/?p=2382>. Data for St. Kitts and Nevis is for 2015.

<sup>30</sup> Figures for nursing personnel from SMMC in 2015. Figures for doctors based on number of doctors registered by their specialization; excludes allied health professionals. Data obtained from Sint Maarten Statistical Yearbook 2017. For practical purposes the authorities use as a rule of thumb a population of 50,000 which is also used here.

<sup>31</sup> OECD Health Statistics 2019. Health At A Glance. OECD. 2019.

<sup>32</sup> Nurses only.

**3.27 To summarize, Sint Maarten is facing growing demand for health services as a result of the aging population and the growing burden of disease due to NCDs.** Ongoing reform efforts aim to address some of these issues in a manner that ensures improvements in quality and efficiency going forward. This is described in more detail in Section VI and includes the introduction of Health Information Systems among General Practitioners and Pharmacies. In addition, SMMC is responding to this demand by increasing its capacity, but there continues to be a need for medical referrals abroad.

### ***Health Financing***

**3.28 Next, we turn to an assessment of health sector financing in Sint Maarten, looking at the sources of financing and key expenditures, focusing on their evolution over time and in comparison with other countries.** This section starts with a brief overview of financing flows followed by an analysis of trends over time. This section also examines the level and composition of expenditure by the two main public sector entities: VSA and SZV. Total health expenditure (THE) covers both public and private health expenditure, while General government health expenditure (GGHE) is defined in this report as expenditure from VSA, other Government Ministries, as well as the SZV (as insurer and administrator of the PAYGO OZR and PP schemes).<sup>33</sup> This section concludes with a brief commentary on fiscal space and challenges for health financing in Sint Maarten.

**3.29 The flow of funds on health in Sint Maarten are presented in Figure 3.4.** The main sources of funds in Sint Maarten are pooled, prepaid public health expenditures (social insurance premiums) (49 percent) and allocations from the central government to VSA for health (28 percent)<sup>34</sup> (see Figure 3.4)<sup>35</sup>. A limited amount (<1 percent) is also provided by the Ministry of Justice for the health care of prisoners. Only a modest share of funds originates from outside the public sector, in the form of pooled private health spending (private health insurance premiums) (20 percent)<sup>36</sup> and patient co-payments for SMCC (2 percent). No data are available for other private out-of-pocket expenditures (OOPS)<sup>37</sup>.

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<sup>33</sup> The World Health Organization's definition of General Government Health Expenditure also includes health-related expenditure from social security schemes.

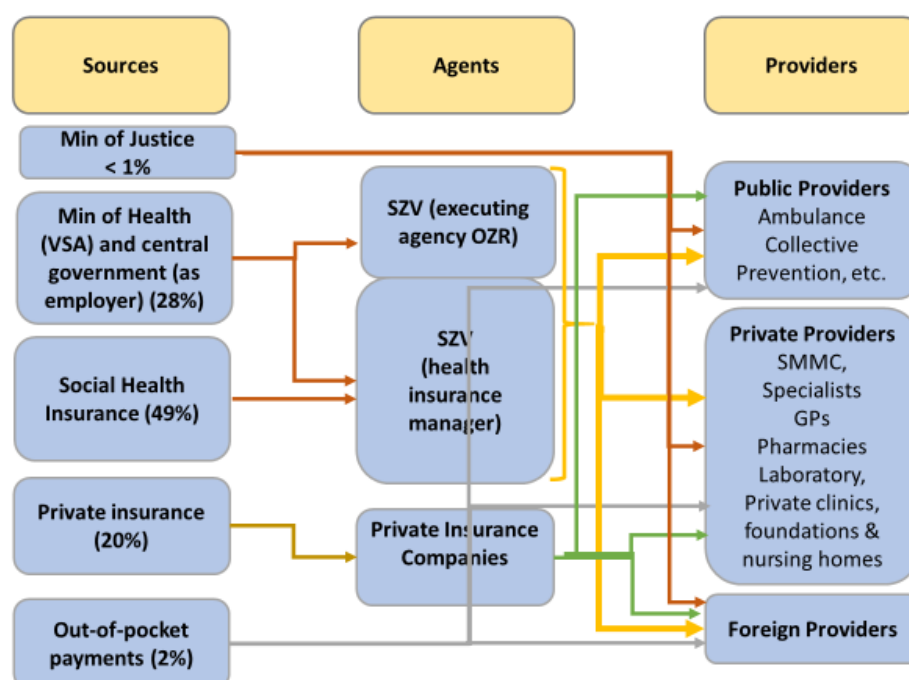
<sup>34</sup> The health-related expenditures of the VSA assumes that one third of the overhead costs of the VSA are assigned to health, as the Ministry is responsible for public health, social development and labor.

<sup>35</sup> A number of NGOs and private foundations also provide health care services and financing, but these have been excluded from the analysis on the basis of unavailability of data. These are not thought to be substantial.

<sup>36</sup> The only available estimate for private insurance premiums is for 2014, as described in the SMMC business plan.

<sup>37</sup> Data on out-of-pocket expenditure is only available for Sint Maarten Medical Centre, i.e. for hospital care, that this must be considered a significant under-estimate of total out-of-pocket expenditure. It follows, therefore, that estimates for total private health expenditure and Total Health Expenditure (THE) should be considered lower bound estimates.

**Figure 3.4 Financing Flows in Sint Maarten's Health Sector, 2014<sup>38</sup>**



Source: Authors' calculations based on data provided by VSA, SZV, SMMC

**3.30 ZV is the critical agent in health financing in Sint Maarten, responsible for collecting insurance premiums and paying healthcare providers for their services, ultimately executing more than 90 percent of GGHE and more than 70 percent of THE.** Established by law in 2010, and fully operational since 2011, SZV is a semi-independent executing agency responsible for managing and administering the national health and social insurance schemes of Sint Maarten. In particular, it operates the four health insurance funds (ZV/OV, AVBZ and FZOG) and the two PAYGO schemes (OZR and PP) targeted at different population segments as described in Table 3.4. Financed through a combination of insurance premiums collected directly from households and private sector employers and central government transfers, SZV's health spending amounted to ANG 149.5m in 2018. This was equivalent to some 93% of GGHE. In 2014, the last year for which more comprehensive data on private health spending is available, the SZV executed 71% of THE.

**3.31 Substantial financing gaps have emerged in the public health insurance funds.** The ZV, OV and FZOG funds have recorded annual deficits since 2014. In 2014 and 2015, these deficits were more than covered by the annual surplus of the AVBZ fund. From 2016, the collective deficits of the ZV, OV and FZOG funds exceeded the AVBZ surplus such that the accumulated reserves of the four funds began to become depleted. By 2017, the consolidated accumulated reserves of the four funds turn negative, the financing gap being funded on an ad hoc basis through cross-lending from the AOV and AWW, the SZV-managed general pension schemes. Already in 2015, the Kingdom Council of Ministers instructed the Sint Maarten authorities to "take measures before the end of 2016 to keep the health care system and the elderly care/pensions structurally affordable." While some policy initiatives were introduced to contain costs and to improve revenue collection through increased compliance, the three deficit funds' financial difficulties were exacerbated by the twin hurricanes of September 2017, which both increased expenditure and reduced premium income. By end-2018, the net accumulated reserves of the ZV, OV, FZOG and AVBZ funds had reached ANG -135.7m, or 6.5% of GDP. Notwithstanding policy measures adopted and

<sup>38</sup> The figure on OOP is likely to be an underestimate considering the limited data available.

due for implementation to contain costs (notably with respect to pharmaceuticals and off-island medical referrals), projections suggest that in the absence of further reforms, the ZV, OV and FZOG funds will remain in deficit, with the accumulated funding gap (net of the positive balance in the AVBZ fund) continuing to grow through 2030, reaching some 10.2% of GDP (Annex 1). The urgency of healthcare and health financing reform is heightened due to the fact that, even after planned pension reforms are enacted, the reserves of the public pension funds from which the health funds are currently being cross-financed are themselves expected to be extinguished by the mid-2030s.

**Table 3.5 Overview of Public Health Insurance Funds in Sint Maarten (Million ANG)**

Fund	2018 premiums	2018 expenses	2018 operational balance <sup>39</sup>	End-2018 reserves <sup>40</sup>
ZV	ANG 66.5m	ANG 109.2m	ANG -42.7m	ANG -164.5m
OV	ANG 8.1m	ANG 14.6m	ANG -6.5m	ANG -35.7m
FZOG	ANG 6.3m	ANG 13.9m	ANG -7.6m	ANG -24.4m
AVBZ	ANG 19.2m	ANG 18.4m	ANG -1.3m <sup>41</sup>	ANG 88.9m

Source: SZV, VSA.

### ***Trends Over Time***

**3.32 Total Health Expenditure (THE) was 6.1 percent of GDP in 2014, higher than most peer countries (see Table 3.6).** It has since grown and is likely to have been closer to 12 percent of GDP in 2018. Sint Maarten has the smallest population of all selected peer countries for which comparative health spending data is available, even including other high-income small island nations such as the Saint Vincent and the Grenadines and the Seychelles. A lack of ability to reap economies of scale, and the need for off-island treatments in some instances contribute to the relatively high health spending in Sint Maarten. By contrast, THE as a share of GDP was 3.4 percent in the Seychelles and 3.7 in Saint Vincent and the Grenadines in 2014, both of which have approximately double the population of Sint Maarten. For comparison, the OECD average in 2018 was 8.8 percent, a figure that has been relatively stable for the past five years. A lack of economies of scale explain the relatively high level of spending, but not the rapid increase in recent years.

**3.33 An increase in THE as a share of GDP has been driven by the increase in GGHE.** GGHE, which constitutes the lion's share of health expenditures, has increased significantly, from 4.8 percent of GDP in 2014 to 7.7 percent of GDP in 2018, translating to a compound annual growth rate of 8.3 percent over the period. While some care should be taken in interpreting figures from 2018, due to the effect of the 2017 hurricanes on both the numerator and denominator, it should be noted that year-on-year growth in GGHE was 21.9 percent in 2016 alone. Hospital tariffs had not been adjusted since 2004, and as a result, were increased by 41.8 percent in 2018.<sup>42</sup> Data is scarce on private health expenditure – regardless of source – which was estimated at 1.6 percent of GDP in 2014. More recent data available on a subset of private health expenditure, collected by SMMC from private insurers and OOPS from households, suggests that private health expenditure may have increased at a faster rate than GGHE over the 2014-2018 period. Despite this increase, private health expenditure comprises a limited share of total health expenditure.

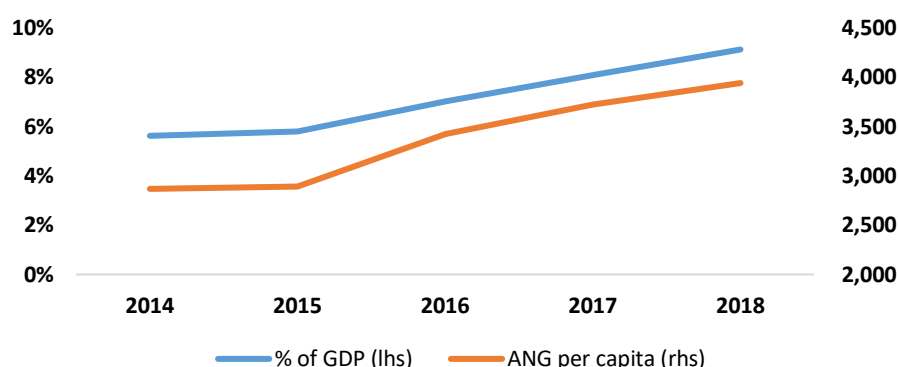
<sup>39</sup> Total Income (inc. premiums and investment income) – Total Expenditure (inc. loss of wages, health expenses and operational costs)

<sup>40</sup> Net of legal reserves.

<sup>41</sup> Net of investment losses amounting to ANG 2.4m.

<sup>42</sup> Medical costs have outpaced inflation over the past three years, according to Kees Klarenbeek, Director of Sint Maarten Medical Center.

**Figure 3.5 General Government Health Expenditure in Sint Maarten, 2014-2018**  
(ANG per capita, % of GDP) <sup>43</sup>



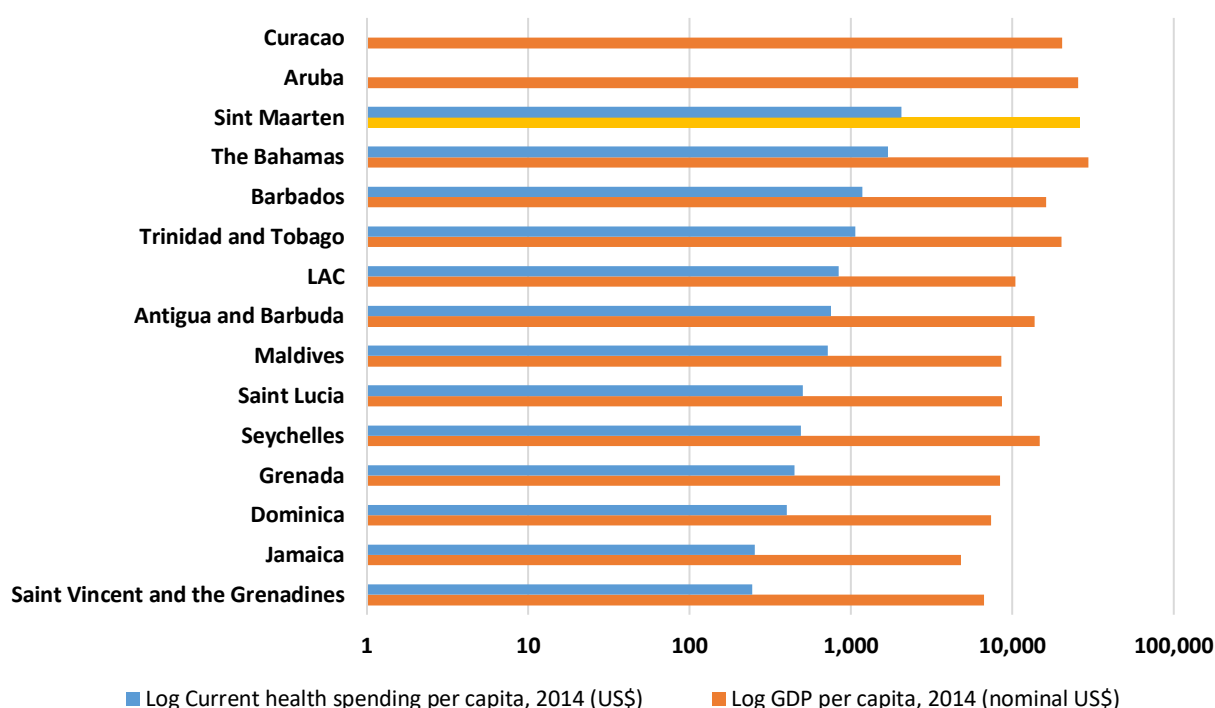
Source: VSA, SZV, IMF.

**3.34 The increase in THE as a share of GDP has also translated to an increase in THE per capita.** THE per capita was USD 2,056 in 2014, already significantly higher than peer countries, even those such as The Bahamas that have higher GDP per capita (see Table 3.5).<sup>44</sup> Even if total private health expenditure were conservatively to be held constant at 1.6 percent of GDP, and notwithstanding a significant population increase between 2014 and 2018, THE per capita would have increased to USD 2,586 by 2018, representing a 5.9 percent compound annual growth rate over the 2014-2018 period.

<sup>43</sup> Total health expenditure is defined as the sum of public and private health expenditure. Public health expenditure consists of recurrent and capital spending from government (central and local) budgets, external borrowings and grants (including donations from international agencies and NGOs), and social (or compulsory) health insurance grants.

<sup>44</sup> Population statistics are notoriously unreliable in Sint Maarten, due to the large – and unknown – number of undocumented migrants. While the last official census took place in 2011, numbering 33,609 inhabitants, and the next is under preparation, the latest official estimate according to the authorities was 40,614 at the beginning of 2018. The civil registry, however, documents around 60,000 inhabitants, understood to be beyond the upper bound of the likely population. For practical purposes, as well as to reflect the fact that the SMMC also serves surrounding islands (Anguilla, Bonaire, St. Eustacia, Saba), the authorities use as a rule of thumb a population of 50,000. As such, our calculation of per capita GDP using the official population estimates should be considered an upper bound.

**Figure 3.6 Total Health Expenditure and GDP Per Capita in Sint Maarten and Peer Countries, 2014**



Sources: Authors' calculations based on data from the Global Health Expenditure Database (World Health Organization). World Health Organization Global Health Expenditure database, United Nations Population Division, World Bank national accounts data, Sint Maarten government data, IMF Article IV staff reports, Chang, Angela Y., et al. "Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995–2050." The Lancet (2019); World Health Organization. "Tracking universal health coverage: 2017 global monitoring report." (2017).

**3.35 SZV health spending has been rising rapidly.** In 2014, SZV spending amounted to ANG 97.1m, increasing to ANG 149.5m in 2018. This represents an increase of 54 percent, averaging 11.4 per annum. More than half this increase took place before the 2017 hurricanes, and a significant proportion can be attributed to the 35 percent hike in hospital tariffs in 2016. Operational costs incurred by SZV for the four public health insurance funds amounted to ANG 17.7m in 2018, accounting for 11.8 percent of total health care benefits (other than loss of wages) paid out by those funds. This represented a modest decline in absolute terms on the operational costs incurred in 2016 and 2017 and a significant medium-term improvement in terms of its share of total health care benefits paid out. The latter had been as high as 15.7 percent as recently as 2015 and exceeded 14 percent in 2017. This suggests some improvement in efficiency at the margin at SZV, but operational costs are still relatively high, reflecting *inter alia* the lack of scale economies due to systemic fragmentation and the small size of the country. For the purposes of comparison, administrative costs in Aruba's AZV (general health insurance) scheme was around 4 percent of total in 2013, eleven years after the introduction of AZV.<sup>45</sup>

<sup>45</sup> More recent figures are not publicly available. It is worth noting that in the years following the introduction of the AZV, insurance premiums were insufficient to cover expenditures, resulting in budgetary transfers. Kingdom of the Netherlands – Aruba: 2010 Article IV Consultation Discussions. IMF. 2010. Washington, DC.



**Table 3.6 Total Health Expenditure: Sint Maarten and Comparator Countries<sup>46</sup>**

Country	Current health spending per capita, 2014 (US\$)	Current health spending /GDP, 2014 (%)	Govt health spending/total health spending, 2014 (%)	Annualized rate of change in health spending, 1995-2016 (%)	UHC coverage index (2015)	Population, 2014 (thousands)	GDP per capita, 2014 (nominal US\$)
Antigua and Barbuda	\$750	5.8	69.3	3.98	75	93	13,781
Barbados	\$1,178	7.1	46.2	2.21	79	285	16,180
Dominica	\$398	5.5	60.4	1.45	NA	71	7,365
Grenada	\$446	5.2	39.8	0.82	72	109	8,370
Jamaica	\$254	5.2	58.1	1.76	60	2,875	4,818
Maldives	\$716	7.9	62.0	NA	NA	435	8,499
Saint Lucia	\$501	5.8	37.9	0.58	69	178	8,651
Saint Vincent and the Grenadines	\$244	3.7	73.1	1.49	65	109	6,685
<b>Sint Maarten</b>	<b>\$2,056</b>	<b>6.1</b>	<b>77.9</b>	<b>NA</b>	<b>70<sup>47</sup></b>	<b>38</b>	<b>33,536<sup>48</sup></b>
Seychelles	\$490	3.4	96.6	NA	NA <sup>49</sup>	91	14,700
The Bahamas	\$1,688	5.9	44.3	2.64	72	371	29,564
Trinidad and Tobago	\$1,061	5.3	50.3	5.79	75	1,362	20,170
LAC	\$835	8.2	45.9	NA	NA	616,620	10,405

Sources: Authors' calculations based on data from the Global Health Expenditure Database (World Health Organization). World Health Organization Global Health Expenditure database, United Nations Population Division, World Bank national accounts data, Sint Maarten government data, IMF Article IV staff reports, Chang, Angela Y., et al. "Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995–2050." *The Lancet* (2019); World Health Organization. "Tracking universal health coverage: 2017 global monitoring report." (2017).

**3.36 Next, we turn to Central Government Health Expenditure (CGHE), which is generally composed of spending from a central group of departments and ministries in the health sector (e.g., Ministry of Health and its Departments).<sup>50</sup>** CGHE is financed primarily through general taxation. The majority of CGHE (85 percent in 2018) corresponds to central government transfers to the SZV. In 2018, these consisted of ANG 48.1m (71 percent of CGHE) to cover the cost of the two PAYGO schemes (OZR for current public servants and PP cards for those of limited means), ANG 7.9m (12 percent) in respect of former employees covered by the ZV fund, and employer contributions of ANG 1.5m to the AVBZ and FZOG on behalf of current public servants. VSA also bears direct costs relating to its own administrative overheads. These amounted to ANG 10.3m (15 percent of CGHE) in 2018, up from ANG 9.1m in 2014. The biggest line item is the ambulance service, which was allocated ANG 3.8m and also receives fees-for-service from the SZV as well as from private insurers. A further ANG 3.2m was allocated to collective prevention services such as vaccinations. Together, these two largest line items accounted for 68 percent of VSA overheads in 2018. The remaining

<sup>46</sup> Data for Aruba and Curacao were not available.

<sup>47</sup> In the case of Sint Maarten, this figure represents estimated coverage of the SHI schemes based on data from the 2011 census. There are, however, significant uncertainties around the population, with an official population of 40,614 in 2018, for example, but other data sources and estimates ranging much higher. As a rule of thumb, the authorities estimate that the social health insurance funds and PAYGO schemes cover 70% of an estimated population of 50,000.

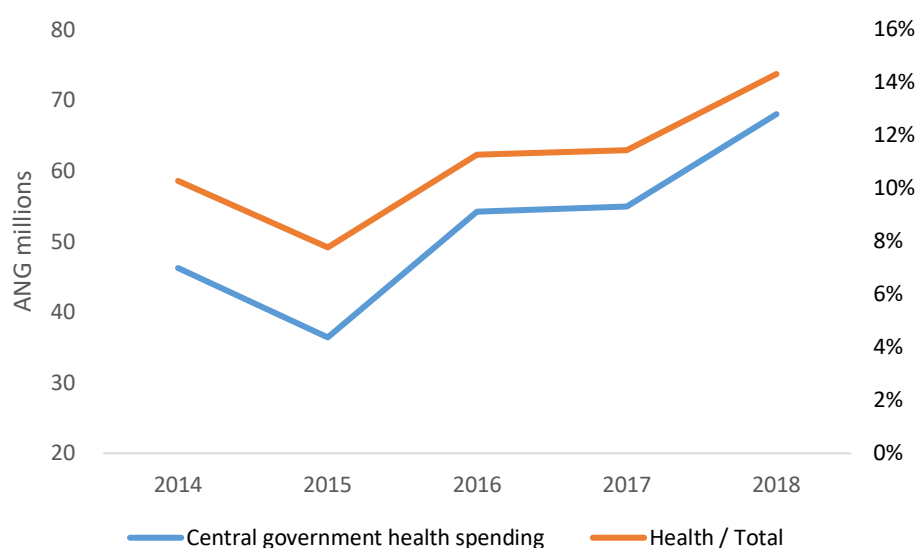
<sup>48</sup> Based on the latest review of GDP figures (STAT, 2020)

<sup>49</sup> While the UHC coverage index is not available for the Seychelles, different measures of universal health coverage show that the country has largely assured for its population a wide range of available services and a high level of utilization of relatively good quality services, with high levels of user satisfaction and financial risk protection. (Workie, Netsanet Walelign, et al. "Who Needs Big Health Sector Reforms Anyway? Seychelles' Road to UHC Provides Lessons for Sub-Saharan Africa and Island Nations." *Health Systems & Reform* 4.4 (2018): 362-371.)

<sup>50</sup> According to the IMF's Government Finance Statistics Manual, "[the central government] is generally composed of a central group of departments or ministries that make up a single institutional unit plus, in many countries, other units operating under the authority of the central government with a separate legal identity and enough autonomy to form additional government units." (p.13)

budget allocation was assigned to public servants' salaries, other operational costs and relatively minor subsidies to private foundations offering care for, respectively, AIDS and diabetes. Other government agencies, such as the Ministry of Justice (in respect of the prisoner population), also channel funds directly to health providers, though these are fairly limited (ANG 245,000 per annum over the 2015-2018 period, or 0.4 percent of CGHE in 2018) relative to the funds spent by the VSA. Total central government health expenditure increased by 47 percent in nominal terms, from ANG 46.3m in 2014 to ANG 68m in 2018 for an annual compound growth rate of 10.1 percent over the period. This significantly outpaced growth in total central government expenditure over the period, such that the share of health spending increased from 10.3 percent to 14.3 percent.

**Figure 3.7 Central Government Health Expenditure as % of Central Government Expenditure & Primary Spending, 2014-2018**



Source: Authors' calculations based on data from VSA

**3.37 Private health expenditure as a share of THE is estimated to have been 22.1 percent in 2014, with the lion's share of funds going toward premium payments for private health insurance (Figure 3.4).** This figure is likely an underestimate, due to a lack of data or reliable estimates for OOPS on items other than domestic hospital care or for health spending by NGOs and donors. It is worth noting that the limited evidence on OOPS which places it at 2.3 percent of THE in 2014 is far below the WHO recommended upper limit of 20 percent.<sup>51</sup> However, the share of the population at risk for catastrophic expenditure for health (defined as expenditure consisting of more than 20 percent of household consumption, though cutoffs of 10 percent are also used) is unknown. Overall, available evidence suggests that GGHE as a share of THE is relatively high in Sint Maarten, translating into a relatively low figure for private expenditure as a share of THE (see Table 3.5).

### ***Allocation of Expenditure***

**3.38 This sub-section examines the level and composition of SZV expenditure, considering that SZV comprises the vast bulk of GGHE.** The expenditure of SZV is broken down by fund or scheme, which is in turn divided by the relevant number of clients covered to

<sup>51</sup> It is recommended that countries limit OOPS to less than 20 percent of THE, as the incidence of financial catastrophe and impoverishment decline substantially when OOPS falls below 20 percent. World Health Organization, Regional Office for the Eastern Mediterranean. (2010). *Technical discussion on Strategic directions to improve health care financing in the Eastern Mediterranean Region: moving towards universal coverage 2011–2015*. Cairo: The World Health Organization.

yield per capita expenditure by fund. Spending is further broken down into level/composition, which includes primary, secondary, tertiary, facilitative, long-term and preventative healthcare, as well as loss-of-wages and administrative costs.

**3.39 Medical expenses accounted for the largest share of expenditures (88 percent) by SZV in 2018, of which the ZV fund accounted for 51 percent (Table 3.6).** The OZR and PP PAYGO schemes together accounted for a further 27 percent of medical expenses, while the AVBZ, OV and FZOG respectively accounted for 7-8 percent each. On a per capita basis, beneficiaries of the ZV fund received benefits of ANG 2,840 in 2018, up from ANG 1,800 in 2015. Beneficiaries of the OV fund received on average ANG 92,060 in 2018, up from ANG 36,530 in 2015. FZOG beneficiaries saw their average benefits increase from ANG 8,870 in 2015 to ANG 14,070 in 2018. Beneficiaries of the AVBZ fund received on average ANG 41,000 in 2018, down from ANG 70,680 in 2015, during which period the number of clients approximately doubled from 178 to 373. In 2018, there were some 1811 public servants and 2080 PP card holders benefiting from the OZR scheme. While a simple average would yield benefits per beneficiary amounting to some ANG 12,300, there are two distinct sub-groups (i.e. public servants and PP card holders) benefiting from different levels of coverage, and thereby likely to generate systematically different medical expenses. In general, the variation in average benefits received reflect differences in the population groups covered and the benefits provided, with the OV scheme (which covers workplace accidents) incurring the highest average cost per beneficiary followed by the AVBZ scheme (which covers long-term care).

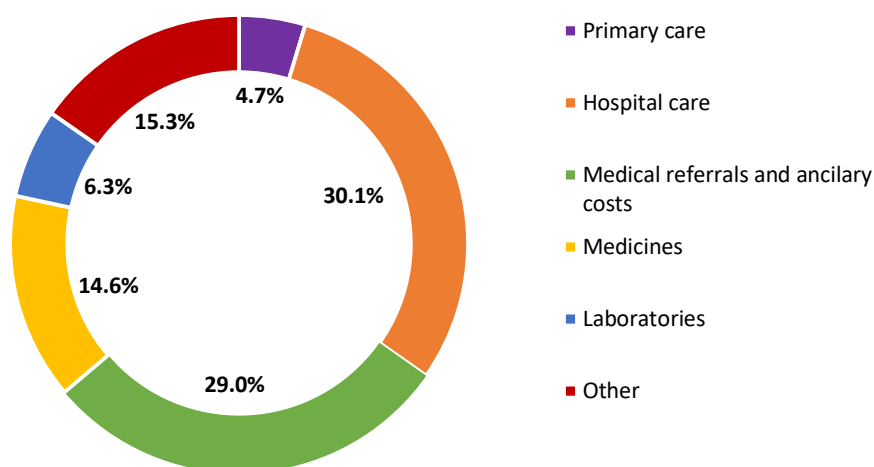
**Table 3.7 SZV Income and Expenditure by Fund and Scheme, 2018**

<b>ANG millions</b>	<b>ZV</b>	<b>OV</b>	<b>FZOG</b>	<b>AVBZ</b>	<b>OZR / PP</b>	<b>Total</b>
Premium income	66.5	8.1	6.3	19.2	2.1	102.2
Other income	0	0	0	-2.0	0	-2.0
Total income	66.5	8.1	6.3	17.2	2.1	100.2
Medical expenses	91.5	12.6	12.4	15.3	47.9	179.7
Loss of wages	5.8	0.8	0	0	0	6.6
Operational costs	11.9	1.1	1.5	3.1	0.2	17.8
Total expenses	109.2	14.6	13.9	18.4	48.0	204.2
Operational balance	-42.7	-6.5	-7.6	-1.3	45.9 <sup>52</sup>	N / A
Beneficiaries	34,300	146	880	373	3891	N / A
Average benefits per beneficiary (ANG thousands)	2.84	92.06	14.07	41.0	12.3	N / A

Source: SZV

<sup>52</sup> The OZR and PP schemes are PAYGO schemes, thus in this case the 'operational balance' represents the net cost to central government net of employee (premium) contributions.

**Figure 3.8 SZV Expenditure by Function, 2017-2018<sup>53</sup>**



Source: SZV

**3.40 Across 2017 and 2018, secondary care accounted for 33 percent of SZV medical expenses while tertiary care accounted for a further 31 percent.<sup>54</sup>** Facilitating care (laboratories, medicines and medical devices) accounted for 22 percent, while long-term care and primary care accounted for, respectively, 9 percent and 5 percent. Primary care consists almost exclusively of General Practitioners. A negligible amount was spent by the SZV on preventive care, which may be due to the explicit exclusion of preventive care in the benefits package (such as for the ZV). Accounting for 30.1 percent of all SZV medical expenses, hospital care (SMMC) was the single biggest constituent element of secondary care. Hospital care includes related expenses, such as laboratory services and pharmaceuticals. Off-island medical referrals, together with associated transport costs, accounted for 29 percent of total SZV medical expenses and the majority of tertiary care costs. Pharmaceutical costs and long-term care costs accounted for approximately 15 percent and 9 percent of total SZV medical expenses.<sup>55</sup>

**3.41 There is a very low level of expenditure on primary care at US\$26.9 per capita in 2018.** It is worth noting that several countries at lower levels of development, such as the Dominican Republic, the Philippines, and Haiti, spend several times what Sint Maarten spends on primary care. It is worth noting that in the Netherlands, primary health care expenditure per capita was US\$1,608 in 2017.<sup>56</sup> Spending is skewed toward hospitals, and at current levels of expenditure, it is unlikely that primary care services are adequately used. Indeed, the number of hospital outpatient visits doubled between 2015 and 2018 (see Table 3.2 above). Greater use of primary care is associated with lower overall costs, fewer hospitalizations and

<sup>53</sup> Analysis of SZV budget by expenditure category is not presented as the budgets were not prepared in the same format to allow for historical comparison.

<sup>54</sup> Due to the impact of Hurricanes Irma and Maria in September 2017 on the timing of payments (many non-urgent procedures and treatments postponed until 2018, for example), it is more analytically useful to assess medical expenditures averaged across 2017 and 2018. In absolute terms, moreover, it is likely that medical expenses during this period were somewhat more elevated than what could be considered normal due to the impact of the storms themselves. For example, there was an increased need for evacuations immediately after the storm, while those who had at the time been referred off-island had to remain there for a longer period than foreseen, giving rise to extra costs.

<sup>55</sup> Laboratories and health care devices accounted for a further 6.3 percent and 1.2 percent of total SZV medical expenses respectively. Of approximately 8.8 percent of long-term care costs, 7.6 of total SZV medical expenses related to after care and the remaining 1.2 percent to home care.

<sup>56</sup> World Health Organization. Global Health Expenditure database. Data Accessed July 22, 2020.

emergency department visits, and lower mortality. In addition, primary care is associated with a more equitable distribution of health in populations.<sup>57</sup>

**Table 3.8 Per Capita Current Primary Health Care Expenditure<sup>58</sup>**

Country	Per capita primary health care expenditure (US\$) <sup>59</sup>	Year
Barbados	741	2016
Dominican Republic	179	2017
Haiti	35	2016
Saint Kitts & Nevis	533	2016
Sint Maarten <sup>60</sup>	26.9	2018
Trinidad & Tobago	682	2016

### ***Efficiency and Equity Implications of Existing Health System***

**3.42 There are several aspects of efficiency in the health sector.** Overall efficiency measures the combined effect of allocative and technical efficiency. Allocative efficiency refers to how different resource inputs are combined to produce a mix of different outputs (or in other terms, doing the right things). Technical efficiency on the other hand is concerned with achieving maximum outputs with the least cost (also understood as doing things the right way).

**3.43 Population ageing and the growing burden of noncommunicable diseases (NCDs) - resulting, for example, in an increase in the prevalence of chronic conditions as the population ages and the emergence of chronic conditions in younger age cohorts - represent significant long-term structural threats to the financial sustainability of the system.** In the case of NCDs, it is worth emphasizing that the poor are likely to be disproportionately affected – they are more likely to suffer from chronic conditions, and once diagnosed, are less able to manage them. The high rate of amputations suggests that the existing system is not delivering high-quality care, as reflected by the poor management of chronic conditions. This can have cost implications as the need for dialysis and costly cancer treatments grows. Even in the unlikely event that the number of people with chronic conditions does not increase going forward, poor management of this group would lead to an increase in comorbidities, which can have a major impact on medical costs. Further, poor management of chronic conditions would lead to disability and exclusion from the labor force. Meanwhile, ageing is associated with a functional decline and an increased need for long-term care.

**3.44 The existing health system does not adequately respond to the health needs of the population, though reform efforts show promise.** There continues to be a focus on curative care and hospital care, with a negligible amount of funds going to primary and preventive care. Integration of care is poor, and there are few, if any, clinical guidelines and no referral (or counter-referral) system. Health expenditures are skewed toward secondary and tertiary care (both domestic and international referrals), with limited funds allocated toward primary care despite the cost-effectiveness and equity implications of primary care services. However, the proposed reforms which emphasize primary care and information technology

<sup>57</sup> Starfield, Barbara, Leiyu Shi, and James Macinko. "Contribution of primary care to health systems and health." *The Milbank Quarterly* 83.3 (2005): 457-502.

<sup>58</sup> Data on Aruba and Curacao was not available.

<sup>59</sup> WHO Global Health Expenditure Database.

<sup>60</sup> Primary health care expenditure of 5 percent of SZV budget (48.1 ANG in 2018), and a population of 50,000. Even with the assumption that all of out-of-pocket expenditures go toward primary health care, Sint Maarten is underspending relative to other countries at lower levels of development.

suggest that there will be a better evidence base and improved incentives for the achievement of health outcomes going forward. Nonetheless, there continues to be outstanding areas of inequity and inefficiency as described below.

**3.45 From a technical efficiency standpoint, features of the current public health financing system are market segmentation and fragmentation in risk pooling.**<sup>61</sup> The public and private insurance pools are segmented, with private insurers cherry-picking low-risk, low-cost patients. In some instances, patients are underinsured by private insurers. Each of the five distinct schemes are individually administered and cover a specific set of services for distinct populations. This fragmentation leads to inefficiencies on many fronts, including a failure to maximize economies of scale, curtailing the possibility of strategic purchasing and resource redistribution, and enhanced administrative costs. At the same time, there continues to be a share of the population without any coverage. This segment of the population lacks access to health services, and thus turn up for care at late stages of illness or in an emergency, requiring the government/providers to absorb the cost of their treatment where they are able to pay out-of-pocket. In the case of emergency evacuation of those who are both undocumented immigrants and lacking in health insurance, for example, the bill is paid by SZV and recorded as an expense under the OZR PAYGO sub-system, and then billed to government.<sup>62</sup> In other cases, the cost of treatment is absorbed by health providers themselves, notably the hospital which can result in losses. This state of affairs gives rise to significant potential inequalities in health outcomes and high out-of-pocket payments for the uninsured. In addition, it results in inefficiencies in treatment and ultimately a higher financial burden on the state as patients are treated at a later stage than would have been the case had they had health insurance. For this population, the public sector serves as the “insurer of last resort.”

**3.46 The design and administration of the social health insurance schemes have resulted in insufficient resource mobilization.**<sup>63</sup> Contributions are not always in line with the solidarity principle, and several schemes provide coverage to dependents without the need for corresponding contributions. As a result, insufficient resources are mobilized for the various schemes. Two of the funds (ZV and FZOG) provide free co-insurance to dependents, resulting in a substantial share of those covered by the SZV schemes making no or minimal financial contributions. Finally, poor enforcement of the OZR co-payments by public servants also contribute to the lack of resources.

**3.47 Legislation for the social health insurance funds is not adhered to and is outdated.** The different schemes are currently regulated under different ordinances, and it is unclear as to how the benefits package for each scheme is determined. Under existing legislation, treatment abroad is explicitly excluded for those under the ZV fund, but it is included in the care package. The ZV fund has become a quasi-universal health insurance fund, though it lacks commensurate funding sources. While originally designed for private sector workers, it has admitted clients aged 60 and over since 2009 who pay reduced contributions but who generate medical costs nearly three times the average.

**3.48 Purchaser-provider agreements do not promote equal treatment of patients, accountability or results.** Ongoing reform efforts now require agreements with providers, but these do not standardize provider payments. Achievement of standardized provider payments will be challenging unless the social health insurance schemes are revised but are important to keep in mind. Providers will also need to be held accountable for the achievement of results. This is particularly important considering the high prevalence rates of NCDs, as well as the

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<sup>61</sup> Pooling, or the accumulation of funds to ensure sharing and cross-subsidization of the financial risk of paying for care is spread among the population (e.g. from rich to poor and from low-risk to high-risk groups), allows the removal of financial barriers to care for the population.

<sup>62</sup> This amounted to NAF 908,000 in 2018.

<sup>63</sup> Resource mobilization refers to available funding sources, mechanisms, and collection to pay for health services.

high share of the population who do not have their chronic condition under control. Going forward, it will be important to use improvements in health information systems to ensure accountability and the achievement of results.

**3.49 The financial sustainability of the existing system is under threat.** As a result of the substantial costs associated with NCDs and ageing, and limited funds allocation toward primary care, higher medical cost inflation and reduced funding levels can be expected as the number of dependents grows faster than the number of contributors. During the 2015-2017 period, medical costs increased much faster than inflation, making out-of-pocket payments increasingly expensive for the population without insurance coverage and impacting negatively on the financial performance of the public schemes.

### ***National Health Reform***

**3.50 Sint Maarten has embarked on a National Health Reform effort and is looking to introduce GHI to achieve Universal Health Coverage.** Reference to this National Health Reform effort has been made in several presentations and publications, but there is no available document that outlines the proposed reform effort and the path for reform.<sup>64</sup> Nonetheless, a description of key reform efforts are provided in the document *Program for Improvement Primary Care Sint Maarten (PIPC)*. Twelve projects are underway under this program, and clear progress is seen in the monthly progress reports.

**3.51 Key projects include several related to information technology and a Pharmaceutical Cost Containment Program.** Projects related to information technology include the introduction of Health Information Systems at GP Offices, introduction of a Pharmacy Information System, development of a central data interface (Health Service Bus), the development of Health Identification Numbers, introduction of the International Classification of Primary Care at the GP level and the eventual development of a Health Information Management System. Over time, projects related to information technology are expected to improve the evidence base for decision making and policy guidance. Other reforms include the introduction of new specialisms at SMMC to reduce the number and cost of medical referrals abroad, improvements to the selection and contracting of foreign hospitals, changes to the referral process to have General Practitioners refer patients to SMMC prior to referrals abroad. While these reforms are not expected to change the structure of the health system in Sint Maarten, they are expected to enhance the strategic purchasing of healthcare services and improve the efficiency of healthcare expenditure. Outside of the PIPC, improvements in the capacity of SMMC are also ongoing as is a revamp of the procedures for medical referrals abroad.

**3.52 Medical referrals abroad (plus associated ancillary costs) and pharmaceuticals (outpatient) represented two of the largest categories of medical expenditure over the 2017-2018 period, at 29 and 15 percent, respectively, of total medical expenses incurred by the SZV.** Like other small jurisdictions, Sint Maarten is not of sufficient scale to be able to provide a full universe of medical treatments efficiently within its own borders, relying instead on medical referrals abroad where necessary. While the construction of a new hospital will result in greater availability of specialist care on the island, there will be a residual need for off-island referrals. There is evidence that significant savings can be made through the revamping and streamlining of the referral process, as well as associated protocols. Similarly, evidence suggests that substantial financial savings in the purchase of pharmaceuticals can be made through the systematic switch to generic medicines where they are available as well as through centralized procurement to benefit from economies of scale. Reforms focusing on the process of medical referrals abroad and on improving the efficiency of pharmaceutical expenditures are expected to make a significant contribution to flattening the cost curve,

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<sup>64</sup> See, for example, the PAHO Sint Maarten Country Cooperation Strategy 2015-2019.

helping improve the financial performance of the public health insurance system over the 2019-2023 period.

**3.53 In addition to upgrades at the existing operating theater, which is expected to be completed by 2020, the new Sint Maarten Medical Center (SMMC) is expected to be fully operational by 2023 with increased availability of medical treatments and specialisms.** A revamp of the medical referral procedures focused on establishing new protocols for referrals abroad as well as a tender process for receiving hospitals is expected to yield substantial cost savings. The current process involves review of requests of treatment abroad by the SZV Medical Referral Unit, and patients are referred abroad for services not available at the SMMC. The majority of requests for treatment abroad are from General Practitioners (75-85 percent of requests from 2016-2018), who serve as primary care providers, with the balance originating from specialists. A review of the medical referrals process identified potential challenges which may impact efficiency and cost. These include a lack of knowledge on the availability of specialists at SMMC (as some are on a rotating schedule), and the lack of completion of certain tests and pre-clearances at SMMC prior to patients being sent for treatment abroad.

**3.54 A Cooperation Agreement was signed in 2019 between the SZV and SMMC to allow greater collaboration with specialists at SMMC in the referrals process, and to ensure that patients are sent abroad for treatment following completion of required pre-clearances and in the absence of treatment options at SMMC.** The revision of the medical referrals process, together with other reforms such as the introduction of additional specialties at SMMC and an improvement in the tender process for medical facilities providing referrals abroad, are expected to reduce the number of unnecessary<sup>65</sup> medical referrals abroad by 85 percent and the cost of treatment by 50 percent by 2021 relative to the 2018 figure. Results are already being seen, with a 79 percent reduction (Q1-Q3 2019 compared to Q1-Q3 2017) in the number of medical referrals abroad.

**3.55 Of the PCCP measures currently underway, the procurement of pharmaceuticals from international wholesalers to expand the competitiveness of pricing has advanced and is showing promise.** Proposals have been received from two international wholesalers. Application of the most financially attractive proposal to all pharmaceuticals procured in 2018 would have yielded a price decrease of 58 percent on the cost of medication. Applied together with other PCCP measures, a cost reduction of 54 percent would have been seen in 2018.

**3.56 Other cost reduction measures include increasing the use of generics, changes to the pharmacy compensation model, and the rollout of a Pharmacy Information System.** A Pharmaceutical Remuneration Systems Committee (*Geneesmiddelen Vergoedings Systeem*, GVS) was appointed through a national decree regulating the remuneration cost of pharmaceuticals in June 2018. The GVS is expected to expand the initial list of 100 preferred generic drugs (*Lijst Preferentiele Geneesmiddelen*, LPG) to all drugs going forward. These drugs are provided at a fixed price, with doctors obliged to prescribe them in place of branded equivalents. SZV maintains a preference list and provides reimbursement for about 30 products. In this context, the GVS will be tasked with determining the maximum price for those insured through SZV. Further, pharmacies are in the process of transitioning from the current 'fixed-fee plus mark-up' compensation model to a 'line-item' model. Finally, a Pharmacy Information System was rolled out to all pharmacies in 2019.

**3.57 As part of the National Health Reform, a proposal to switch to a GHI model to improve risk-pooling, i.e. bringing younger, healthier, and higher-income beneficiaries into the public health insurance system has also been made.** An Annex benchmarking financial projections under parametric and structural (GHI) reform scenarios against the *status*

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<sup>65</sup> Defined as referrals abroad for conditions which can be treated at SMMC.



*quo ante* is provided alongside this report. The transition to GHI would provide an estimated 90 percent of the population with coverage for services currently included in the AVBZ package. Under the parameters proposed by the authorities, a GHI model could in time achieve near-universal health insurance coverage, deliver economies of scale, close the current financing gaps, and reduce the direct fiscal burden of the health system though the success of such a transition would depend on factors such as the ability of Sint Maarten to curtail the growing burden of disease attributable to NCDs and the design of the benefits package. Some aspects to be considered, such as the inclusion of quality measures in provider contracts, are expected to be in place by the end of 2019. Other aspects, such as the need to reimburse providers in a manner that recognizes the epidemiological and demographic transition faced by Sint Maarten, should also be considered. It is worth noting that a transition to a GHI model would also avoid having to make difficult choices about cutting costs or to raise premium levels, which together with a reliance of the tax system on personal income tax already results in a significant tax wedge.

### **Concluding Remarks**

**3.58 In general, an analysis of health sector expenditure finds that the most pressing issue is the large and growing funding gaps in the public health insurance funds.** Public health expenditures do not translate to the achievement of health outcomes as expected at current levels of expenditure.

**3.59 Several important reform initiatives are underway, but there is no document that outlines the Health Sector Strategy or the proposed National Health Reform.** The PIPC documents and recommendations on a new medical referral process,<sup>66</sup> among others, will serve as useful starting point for the development of a more comprehensive guidance on reform efforts going forward. Such a document should be developed to ensure consistency and coordination among the different actors in the health sector on the national vision, priorities, and course of action. It is worth emphasizing that the National Health Reform process can be incremental, as seen in Sint Maarten. Complementary to this should be a National Health Financing Strategy to ensure the ability to deliver the proposed reform. At present, the package of services promised contradicts the available public finance envelope.

**3.60 Fiscal space for healthcare in Sint Maarten is limited.** Measured as a share of GDP and on a per capita basis, Sint Maarten already devotes significant resources to the provision of healthcare when compared to peer countries. Moreover, these costs have increased rapidly in recent years – even before the impact of the 2017 hurricanes is taken into account – while spending pressures will continue to mount in the future as the as-yet relatively young population ages. There is scope to improve domestic resource mobilization and gradually increase tax revenue as a share of GDP through reforms to tax policy and in particular, the tax administration system, though the extent to which this can reasonably be expected to lead to increased budget allocations to healthcare are limited. While possible to raise additional revenues from alcohol and tobacco taxes, the greater benefit of such measures will be changed consumer behavior, feeding through to better health outcomes and ultimately to reduced need for health expenditures in the future.<sup>67</sup>

**3.61 Due consideration will need to be given as to whether financing through SHI is sufficient and best suited to Sint Maarten, or if general taxation or other funding**

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<sup>66</sup> Advice and assistance for a new referral process and tender regarding foreign hospitals. Grant Thornton. August 2019.

<sup>67</sup> The impact of sin taxes on behavior change can be seen in countries such as Tonga (Using Taxation to Address Noncommunicable Diseases: Lessons from Tonga. *World Bank*. 2019) and Mexico (Colchero, M. Arantxa, et al. "In Mexico, evidence of sustained consumer response two years after implementing a sugar-sweetened beverage tax." *Health Affairs* 36.3 (2017): 564-571.)

**sources may be more appropriate.**<sup>68</sup> Aruba launched a national health insurance scheme in 2001, but has been challenged by insufficient premiums and persistent funding shortfalls requiring budgetary transfers as well as tax introductions and increases (e.g. BAZV). It is worth noting that both in Aruba and Sint Maarten, there is a focus on curative rather than preventive healthcare as seen through the benefits packages. Going forward, a focus on aspects such as integrated primary care services is critical if the growing burden of disease due to NCDs is to be appropriately managed.<sup>69</sup>

### **3.62 Lessons from around the world suggest that there is no single path to the achievement of Universal Health Coverage.<sup>70</sup> Any transition to a GHI model should also take the following aspects into consideration:<sup>71</sup>**

- a. **The proposed model:** The GHI currently proposes a solidarity payment for those who choose to opt out of participating. Sint Maarten may wish to consider a mandatory enrolment without an opt-out provision for reasons of efficiency (administrative costs), discouraging adverse selection, and equity. Compulsory contributions should be required for those who are able to pay, with government subsidies for those who are unable to do so. The population groups excluded from premium contributions should be linked to existing social security systems (such as the indigent and elderly) to the extent possible, with contributions for special groups such as children defined clearly (e.g. fully subsidized, subsidized under certain conditions such as living in a poor household). Similarly, persons with disabilities will need to be defined using clear criteria and a transparent system. Enforcement of premium collection should take the large informal sector into consideration and may wish to consider strategies from the international experience. Ensuring contributions from those who are self-employed and those in the informal sector can pose a challenge, and there may be a need for general revenue financing considering the challenges faced by most countries in enrolling these segments of the population. Some examples include checking on whether premium collections are up to date at various points of interaction with the state, such as driver's license renewal, business license renewal, housing tax payment, though the success of such approaches will depend on well-integrated systems. Eventually, Sint Maarten may wish to follow the path of many developed countries, which rely on diverse sources of revenue and consider a blended system of finance.
- b. **Benefits package:** There should only be one benefits package to which all residents<sup>72</sup> are entitled, with reimbursement provided at the same price. This benefits package should address the health needs of the population in as cost-effective manner as possible while ensuring financial protection for those in need. The existing health system does not appropriately address the health needs of the population, as evidenced by the limited spending on primary care, and poor control of conditions such as diabetes and hypertension. This benefits package should be costed to ensure that it fits within the available fiscal space. In the event that it is not affordable, one option may be to start with a more limited package that is expanded over time, such as was done in Chile. In this context, the private insurance sector could serve a new role, such as providing supplementary coverage. Coupled with this is the need to ensure

<sup>68</sup> Recognizing the challenges associated with SHI (see, for example, Wagstaff, Adam. "Social health insurance reexamined." *Health economics* 19.5 (2010): 503-517), many countries have mixed/hybrid sources of funding.

<sup>69</sup> Jakab, Melitta, et al. *Health systems respond to noncommunicable diseases: time for ambition*. WHO Regional Office for Europe, 2018.

<sup>70</sup> The country examples provided here are meant to be indicative rather than comprehensive. The relevant examples will be refined and expanded as relevant based on decisions made by Sint Maarten on the path forward and further discussions regarding ongoing and upcoming efforts to reform the health sector.

<sup>71</sup> Simulations conducted should be expanded further to include these proposed parameters.

<sup>72</sup> The definition of resident will be up to Sint Maarten to decide and should be aligned with obligations/entitlements of residents to other benefits.

consistent, high-quality services using clinical treatment protocols, including for referrals and counter-referrals. A first step toward this is currently underway at SMMC but could be expanded further to include primary care services. More ambitious reforms could reorient the health system to focus on primary health care. An institutional mechanism for updating the benefits package on a regular basis should be developed to ensure that it responds to the health needs of the population in a cost-effective manner and that new technologies are considered and adopted as appropriate.

- c. **Policy, legal and contracting perspective:** There is a strong need for a robust information base to inform policy. The development of an information system at the primary care level is included in the PIPC, and it will be important to ensure that reporting requirements are reflected in provider payment contracts. If the government decides to pursue it, the legal and institutional framework for the GHI will need to be formulated to ensure the scheme is delivered as designed, and not that the benefits package contradicts the legal framework as is the case with the existing schemes, such as the ZV. The role of the private sector should also be assessed to determine whether there is a need to better regulation (such as in the case of denial of coverage) or new regulation (such as if they were to change roles from substitutive private health insurance to complementary or supplementary private health insurance).
- d. **Provider payment mechanisms:** In addition to the provider payment mechanism considerations mentioned above, one additional area to consider is the introduction of performance-based financing. As information systems are introduced and eventually become used on a routine basis, this would support the use of standard operating procedures (thereby ensuring equity) and pay for performance (thereby contributing to efficiency).
- e. **Utilization of technology:** The PIPC will improve the available information base, making it possible for the transition to a GHI to leverage data to improve health outcomes while reducing costs. Possible avenues through which this can be done include the provision of specialist care through telemedicine; the self-management of chronic conditions, including for those with comorbidities; and identification and implementation of proactive care management plans for high-need patients. Over time, the investments in information systems with a focus on outcomes and costs will be key to moving to a value-based care system.

## **Annex 3.1 Reforming Sint Maarten's Health Financing System to Ensure Sustainability<sup>73</sup>**

### ***Executive Summary***

**A3.1.1 Unsustainable funding gaps have emerged in the public health insurance system in recent years, giving rise to an urgent need for reform.** While health sector reform efforts are currently underway, it is too soon to assess their impact on ensuring the sustainability of the public health insurance system. This Annex focuses on health financing reform, namely, the transition to a General Health Insurance scheme.

A3.1.2 Broadly speaking, we explore two possible approaches to health financing reform: parametric and structural. Parametric reform would entail adjustments to premium contribution schedules, eligibility criteria, and / or benefits packages while maintaining the overarching architecture. Structural reform would involve more fundamental changes to the health financing model or architecture.

A3.1.3 Preparations are at an advanced stage in Sint Maarten for legislation underpinning a transition to a General Health Insurance model as part of efforts to achieve Universal Health Coverage, or UHC, while improving the financial sustainability of the public health system as a whole.

A3.1.4 Key features of the current public health financing system are insufficient resource mobilization<sup>74</sup> and fragmentation in pooling<sup>75</sup> as seen through the five distinct public sub-systems, which collectively cover an estimated 70% of the population. Each of these cover a specific population, are individually administered, and cover a specific set of services, resulting in inequalities in contribution and coverage between various population cohorts. This limits the scope for resource redistribution, leads to inefficiencies such as duplication of administrative costs, and curtails the possibility for strategic purchasing and other economies of scale.

A3.1.5 Among the privately insured, covering approximately 15% of the population, equity is a concern due to the denial of coverage to those with preexisting conditions and to those above a certain age. About one in seven of the population have no health insurance at all, public or private, with the government / providers eventually absorbing the cost of their emergency treatment.

A3.1.6 In effect, the ZV fund, by far the most important with some 35,000 clients, has become a *de facto* universal health insurance fund, albeit without commensurate funding sources. Originally designed for private sector workers, it has since 2009 admitted clients above the retirement age, who pay reduced contributions, but who generate medical costs nearly three times the average, as well as former workers, for whom proxy contributions are paid by the government. Dependents may also avail of free co-insurance, meaning that approximately half of those with ZV coverage now make no or minimal financial contributions.

A3.1.7 Hurricanes Irma and Maria exacerbated the underlying structural deterioration in the financial performance of the ZV, OV and FZOG funds, as well as increasing the cost of the means tested PAYGO PP card scheme, which has seen a surge in new clients.

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<sup>73</sup> Data presented in this Annex are based on figures from SZV up to 2018. Figures for 2019 and beyond are projected based on assumptions and information available up to December 2019 when this Annex was finalized. As a result, the Annex does not consider the COVID-19 pandemic impact on health costs or premium payments.

<sup>74</sup> Resource mobilization refers to available funding sources, mechanisms, and collection to pay for health services.

<sup>75</sup> Pooling, or the accumulation of funds to ensure sharing and cross-subsidization of the financial risk of paying for care is spread among the population (e.g. from rich to poor and from low-risk to high-risk groups), allows the removal of financial barriers to care for the population.

A3.1.8 Although Sint Maarten has the youngest demographic profile in the Caribbean, it is also likely as a result to experience the most rapid ageing in the region from this low base, further undermining the financial sustainability of the public health insurance system in the years ahead.

A3.1.9 Other than demographics, the key driver of financial performance of the public health system over the longer term will be the differential between the wage inflation rate and medical cost inflation rate, a factor that will remain in play irrespective of the reform path chosen.

A3.1.10 Three of the four existing public health insurance funds are in substantial deficit (ZV, OV and FZOG, plus the AVBZ, which is expected to remain in surplus), without a credible path to full cost coverage, such that substantial negative balances will continue to accrue in the absence of dramatic remedial policy action. The aggregate negative balance of the four funds is projected to reach 10% of GDP in 2020 and is being financed essentially *via* zero-interest cross-lending from the AOV and AWW pension funds.

A3.1.11 Continuing on the current path is unsustainable, while there is a pending instruction from the Government of the Kingdom – issued upon the advice of the CFT –to “take measures before the end of 2016 to keep the health care system and the elderly care / pensions structurally affordable.”

A3.1.12 Efforts to reduce costs – notably of pharmaceuticals and medical referrals – and improve compliance in the payment of premiums are expected to reduce, but not eliminate, the annual aggregate deficits on the SZV health funds, over the medium term. Such cost-control measures will need to be institutionalized and built upon going forward, such as through structured health technology assessments, alignment of physician incentives with results, and improvements to contract design with primary care physicians.

A3.1.13 One option for reform, the parametric approach, which should satisfy the 2015 instruction of the Kingdom Council of Ministers to make the health insurance system “structurally affordable”, would be to take administrative measures to control costs – such as removing automatic ZV coverage from those aged over 60, more rigorously enforce the collection of co-payments from current and former public servants, remove the ZV coverage entitlement from Ministers and Parliamentarians, and ending the practice of the ZV financing off-island medical referrals. In this scenario, the accumulated legacy negative balances could be paid down gradually by 2030, with a marginal increase in OV contribution rates for private sector workers and a near doubling of FZOG contribution rates for active and former public servants. In addition, under this scenario upwards of NAF 20m would be added to direct government health spending, notably through the increased annual cost of the PP card scheme.

A3.1.14 Transitioning from a Social Health Insurance (SHI) model to a General Health Insurance (GHI) model is expected to increase the share of the population covered from approximately 70 percent to an estimated 95 percent. This would have the benefit of improving health coverage and outcomes while putting the health system on a firm financial footing, and without either increasing the tax wedge in the private sector or having to significantly curtail benefits. Further, such a transition would be expected to improve resource mobilization and to increase the share of health spending that is pooled instead of paid out-of-pocket. In addition, simplification of the system can be expected to yield further benefits in terms of reduced administrative costs and, potentially, improved compliance.

A3.1.15 Sensitive to a variety of assumptions, the total net annual cost to government of transitioning to GHI is expected to be lower than under the parametric reform scenario, and far lower than under the *status quo*, with differentials expected to increase over the medium term. The GHI fund would be projected to maintain at least 100% cost coverage through 2040.

### ***Current Health Insurance Model***

A3.1.16 Six distinct health insurance sub-systems, collectively covering around 85% of the island's population, are currently in operation in Sint Maarten. Collectively, the five public sub-systems cover approximately 70% of the population (see Box A3.1.1) while some 15% avail of private, tailored, risk-based health insurance. The remainder have no health insurance, public or private.

A3.1.17 The five state-run schemes are managed by the *Social and Health Insurances Implementing Body of Sint Maarten* (SZV, or USZV, used interchangeably), an independent administrative body, on behalf of the government since its establishment in 2010. Each scheme covers distinct population segments, offering different benefits<sup>76</sup> and subject to varying financial contributions. Three of the five public schemes (ZV/OV, FZOG, AVBZ) operate as funds, administered by the SZV, while the remaining schemes (PP and OZR; both technically designated as OZR, but serving different population cohorts, with different contribution arrangements and benefit packages) are PAYGO schemes for which administration is also carried out by the SZV, but which are reimbursed by government and financed directly through the government's annual budget.

- a) **ZV / OV:** Private sector employees earning below NAF 67,816.32 per annum must be registered by their employer with the SZV for basic health insurance which covers certain medical costs as well as income lost due to sick leave under the ZV sickness fund insurance. The OV accident fund insurance covers registered employees for on-the-job accidents and medical costs resulting from them. Cash payments are also made to employees who are disabled due to illness (ZV) and to employees and their survivors involved in a work-related accident (OV). The ZV and OV are operated as two distinct funds, with distinct premium schedules, but are financed by contributions from similar population segments. ZV covers all private sector employees up to age 67, in addition to their dependents. The OV covers all private sector employees, regardless of income, but does not cover dependents. The ZV fund numbered 34,330 clients in 2018, representing some 69% of the estimated population (see Box A3.1.1). While originally envisaged as a health insurance fund solely for current private sector workers and their dependents, the ZV's coverage was extended by Ministerial decree in 2009 to cover those aged 60 and over (since increased to 62, in line with the increase in the retirement age for private sector workers<sup>77</sup>) while the legislation also allows for the coverage of former private sector workers. Both of these groups make reduced financial contributions to the ZV fund. Former employees make a contribution of 4.2% of their (former) income, albeit this is in practice contributed at least in part by the government in the form of a block contribution, which amounted to NAF 7.9m in 2018. In any case, this represents a significant underpayment for the coverage of this 'formerly employed' cohort. Over 60s make a 10.4% contribution deducted from their AOV pension, the gross amounts of which tend to be far lower than the average

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<sup>76</sup> The basic package of medical services for all five state-run health insurance sub-systems includes general practitioner care (with the exception of alternative medicine), hospitalization, specialist care, referral abroad where necessary, allied health services (albeit some being subject to prior approval, e.g. psychologist, dietician and physical or speech therapist), basic maternity hospital, prenatal care, therapeutic abortion, basic dental care, maxillofacial dental surgery and long-term nursing, psychiatric or home care (the latter being subject to prior approval. For a detailed list, see Appendix IV.

<sup>77</sup> Reforms under preparation for the pension system envisage the further phased increase in the retirement age to 65. This would be mirrored by an increase in the maximum age for eligibility for ZV insurance.

wages of current workers. At the same time, those aged 60+ generate medical costs which are nearly three times the average for the population covered by the fund as a whole. Dependents meanwhile benefit from free (non-contributory) co-insurance coverage. Over time, the ratio of contributory to non (or reduced) contributory insured individuals has fallen, a trend that has accelerated in more recent years, approaching 50/50 by 2018. For example, the number of those aged over 60 covered by the ZV doubled from 1,086 in 2014 to 2,152 in 2018. In this respect, the ZV has come to resemble a *de facto* universal health insurance scheme, albeit without universal contributions. This has given rise to structural weaknesses in the fund's financial performance. Premium contributions for the ZV fund are 8.3% for employers plus 4.2% for employees while contributions to the OV fund is dependent on the risk class of the employer and range from 0.5% to 5%. The application of the income threshold creates perverse incentives whereby individuals may under-declare their income for tax purposes so as to ensure eligibility for health insurance, thereby undermining tax collection, or they may refuse a promotion on the basis that the increase in income would be insufficient to compensate for the loss of health coverage where income in the new role surpasses the threshold. Expenditure by the ZV fund has also become inflated by the practice of its absorption of the cost of medical referrals abroad. Prior to 2010, such costs were met by the government of the Netherlands Antilles rather than by the ZV fund while, formally speaking, the legislation underpinning the ZV fund stipulates that the Minister for Health must approve any such foreign referrals. Since it last recorded a surplus of premiums over benefits in 2013, the deficit in the ZV fund has progressively widened to reach an estimated NAF -42.7m in 2018, while net accumulated reserves had fallen to NAF -164.5m<sup>78</sup> by year end. An estimated 50% increase in average benefits paid between 2015 and 2017 was the key financial driver, resulting from a 35% increase in hospital tariffs in 2016<sup>79</sup> as well as increased medical costs in the aftermath of the 2017 hurricanes. Although it only served 146 clients in 2018, of which 29 pre-existing cases, the OV fund average payouts had increased by a factor of about 2.5 since 2015, leading to an annual deficit of NAF -6.5m and accumulated reserves of NAF -35.7m by end-2018.

- b) **AVBZ:** Based on the solidarity principle, and in operation since 1997, the General Insurance for Exceptional Medical Expenses (AVBZ) fund covers those with disabilities or with long-term chronic illnesses, and who are not covered by alternative health insurance arrangements. It covers the cost of treatment, nursing and care for those in need of nursing or care to such a degree that they can no longer function independently in society, rendering them in need of full-time assistance. The AVBZ premium is set at 2% of total income, covering both private and public sector workers. In the case of employees, the employer reimburses 0.5% of income to the employee by way of a contribution to AVBZ, so that the net cost to the employee is 1.5% of earned income. The fund served 373 clients in 2018, of which 253 long-term patients. It consistently runs an operating surplus (i.e. ignoring the impact of investment income), although this amounted to only an estimated NAF 1.2m in 2018, with accumulated reserves reaching NAF 89.0m by end-year. Currently, Sint Maarten boasts one of the youngest demographics in the Caribbean region. From this relatively low base, however, it is expected to experience the most rapid population ageing in the region as it follows the demographic trajectory of neighboring and other high-income countries. As such, the maintenance of a financial buffer in the long-term care fund, in particular, could be understood as setting aside resources to protect the scheme against the future impact of ageing.

<sup>78</sup> This is a gross amount, against which may be netted the NAF 28.5m in accumulated legal reserves.

<sup>79</sup> Tariffs had not been adjusted since 2004. A further tariff adjustment in early 2019 has given rise to an aggregate increase of around 40% since 2016.

- c) **FZOG:** The medical expenses of retired public servants and officials, including staff retired from subsidized entities (notably schools), and their immediate family members, are covered by the FZOG insurance fund. Financial contributions to the FZOG come from three sources: the retired public servants and officials themselves contribute 3.75% of the first NAF 500 of monthly income, and 10% of the balance. By way of inter-generational cross-subsidy, active public servants and officials contribute 2% of their income, while their employer, the government, contributes a further 0.72%. The fund served 1,206 clients in 2018. Since last recording a surplus in 2014, the deficit has progressively widened, largely due to average payouts more than trebling over the period, to reach NAF -7.6m by 2018, and accumulated reserves falling to NAF -24.3m by year-end.
- d) **OZR:** The medical expenses of current public servants and officials, including staff at subsidized entities such as schools, are covered by OZR insurance, a contributory PAYGO scheme administered by the SZV but financed directly by the government through its annual budget. Public servants are required to contribute 1.25% of their salary. These are far below contributions made by their private sector counterparts to the ZV and far from sufficient to cover the costs of medical care. The balance is covered by government. In addition to receiving more extensive benefits, in exchange for which they pay much lower contributions than their ZV-covered private sector counterparts, differing incentive structures can also have the effect of providing better quality of care to OZR beneficiaries. For example, general practitioners receive per treatment payments for their OZR patients but an annual per patient fee for their ZV patients. As with the ZV scheme, dependents benefit from free co-insurance. While civil servants are required to make 10% co-payments towards medical costs, and 25% towards ancillary costs such as accommodation, these stipulations are not rigorously enforced by the government in practice, which serves to increase the net annual cost to government.
- e) **PP:** The PP is a non-contributory PAYGO scheme for those of limited means. The most basic of the publicly provided health insurance packages, the PP covers the medical expenses of those eligible and not insured elsewhere. Those eligible are Dutch nationals registered with the census office at least three months before application; non-Dutch nationals aged at least 60 who both possess a valid permanent residence permit and are registered with the census office for at least 5 years before application; and persons registered as unemployed and who are actively seeking employment. Those earning more than NAF 5,000 per month are not eligible. The number of PP cards has been increasing rapidly, in part due to the economic downturn brought on by the impact of the twin hurricanes of September 2017. Efforts to encourage those aged above the retirement age to opt for PP cards rather than the ZV fund in recent years are also understood to have contributed to the increase. Between 2016 and 2018 alone, the number of PP cards increased by 43% from 1,456 to 2,080, the latter representing an estimated 4.2% of the population. The PP scheme is budgeted to cost the government NAF 13.2m in 2019. Together, the total cost to government (net of public servants' contributions) of the OZR and PP schemes (these are not disaggregated) was NAF 45.9m in 2018.
- f) **Private health insurance:** Those who are not covered by other health insurance arrangements, or who desire supplementary cover, and with the financial means to do so may opt to contract health insurance from a private provider. Since private insurers are not obliged to provide cover and operate on the basis of risk-based actuarial rather than solidarity principles, they may opt not to cover certain individuals or medical treatments, or to make it prohibitively expensive to obtain such cover. For example, it is typical for private insurers to discontinue coverage at age 60 and to exclude pre-existing conditions from the insurance package on offer. Typically, higher



risk population segments, entailing higher medical costs, tend to be covered disproportionately by the public sector. Nagico is the dominant player in the private health insurance market on the island, accounting for 5,130 clients in 2018. Together, the top five providers accounted for more than 8,000 clients.

A3.1.18 This fragmented system leads to significant inefficiencies in healthcare financing, failure to maximize economies of scale, overlapping coverage, lack of transparency and disjointed information and data systems. As outlined above, a number of the health insurance sub-systems also face significant idiosyncratic challenges, while the inequities of care received, and contributions made by public servants *vis-à-vis* other population cohorts can give rise to social resentment. More broadly, the health system faces a number of cross-cutting challenges which impact on the cost, quality and accessibility of care:

- Medical costs continue to rise faster than premiums collected, so that the net cost to government is expected to rise inexorably in a no-reform scenario. During the 2015-2017 period, medical costs increased much faster than inflation, making out-of-pocket payments increasingly expensive for the population without insurance coverage and impacting negatively on the financial performance of the public schemes.
- Population ageing and the growing burden of noncommunicable diseases (NCDs) - resulting, for example, in an increase in the prevalence of chronic conditions as the population ages and the emergence of chronic conditions in younger age cohorts - represent significant long-term structural threats to the financial sustainability of the system. These are likely to manifest themselves through both higher medical cost inflation and reduced funding levels as the number of dependents grows faster than the number of contributors. Even in the unlikely event that the number of people with chronic conditions does not increase going forward, poor management of this group could lead to an increase in comorbidities, which can have a major impact on medical costs. Further, poor management of chronic conditions could lead to disability and exclusion from the labor force.
- Compliance in the payment of premiums in the private sector has ranged from 60-65% since about 2016, while the current estimated compliance rate is 70%. The government has introduced measures to increase compliance, including a dedicated compliance team within the SZV, targeting a rate of 85% by 2021, above the estimated pre-2016 compliance rate of nearly 80%. While failure to achieve this target would further call into question the financial sustainability of the existing system, even its achievement will leave a large segment of free riders. Further, longer-term structural reform will likely be necessary to improve the compliance rate much beyond 85%.
- Financial sustainability of the five public health insurance sub-systems is further compromised by the extent of arrears in the payment of government contributions with respect to its payments for the PAYGO schemes etc., amounting to NAF 84.3m by end-2018. In addition, financial shortfalls in three of the state-run health insurance funds (ZV, OV, FZOG) have been covered by borrowing from other public sources, notably the main AOV pension fund (as well as the AWW pension fund), which is also administered by the SZV and which had accumulated reserves of NAF 386.1m at end-2018 (plus a further NAF 121.3m in the AWW fund). By contrast, the SZV-managed health insurance funds (ZV, OV, FZOG, AVBZ) collectively had negative accumulated reserves in the order of NAF -133.5m by end-2018.
- Despite recent, ongoing and forthcoming efforts to increase the availability of specialist medical care on the island, notably including construction of a new hospital by 2023, a large proportion of such treatments currently involve costly off-island referrals. Heretofore, the authorities have had limited scope to assess the cost-effectiveness of

referrals made by general practitioners, or to direct that a patient opt for a less expensive alternative, even where the government bears the financial burden for the decision. The number of referrals amounted to 2,634 in 2017, of which 1,046 to the Dominican Republic, 794 to Curacao, 755 to Colombia and 39 to Aruba. There were a further 3,852 to the ophthalmologist on the French side of the island. Efforts were under way in 2019 to review and reform the medical referral process with a view to making significant financial savings in the shorter term. It is estimated that medical referral costs can be further reduced by 50% from their 2020 level by the time the new hospital becomes fully operational in 2023.

- Destruction wrought by Hurricanes Irma and Maria in September 2017 resulted in a 24% year-on-year decline in premiums, due to both the significant decline in population as residents fled the island as well as lower wage income resulting from lower employment, but only a 10% decline in medical costs. By the first half of 2019, premium income was about 7% higher than its 2017 level in nominal terms, while medical costs were broadly in line with their 2017 level for the same period. The cost of referrals was exceptionally elevated in the immediate aftermath of the hurricanes as adjustments needed to be made for patients being referred abroad and for those having already been referred abroad and requiring transfer back to the island. This involved, for example, longer-than anticipated stays abroad for referred patients while some flights had to be chartered to replace cancelled commercial flights. In addition, some medical referrals were postponed from late 2017 to early 2018, resulting in a surge in medical referral costs in 2018. By the first half of 2019, medical referral costs were running a fifth lower than their 2017 level, suggesting a degree of normalization. While the impact of the 2017 hurricanes cannot be considered to be structural, it was nonetheless significant, exacerbating or accelerating underlying structural trends.
- As in many other jurisdictions, the cost of medicines has grown significantly in recent years, while perverse incentives on service and drug providers (for instance against prescribing generic medications) have tended to complicate cost control. In 2018, the authorities began implementing a pharmaceutical cost control project which was expected to generate significant savings from 2019 onwards and amounting to a structural reduction in the cost of medicines of up to 40% by 2023. Through the first five months of 2019, pharmaceutical costs were marginally lower than in each of the three preceding years. For the purpose of modeling financial projections as part of our analysis, the achievement of cost savings of 35% is assumed by 2023, and these should apply irrespective of the reform path ultimately chosen. The authorities estimate that these savings could ultimately reach 40%.
- The SZV suffers from legacy 'branding' issues, partly due to the reputation of its predecessor organization. It engenders low levels of trust among the population and poor perceptions of its client service performance. A high incidence of fraud, for example, leads to a high administrative burden, which further manifests itself in terms of negative perceptions of the standard of service provided.

A3.1.19 An estimated 15% of the population does not currently have any health insurance at all, due to personal choice, financial constraints and / or ineligibility for one of the five public sub-systems. Whether directly or indirectly, the state currently covers emergency medical costs for this cohort. In the case of emergency evacuation of those who are both undocumented immigrants and lacking in health insurance, for example, the bill is paid by SZV and recorded as an expense under the OZR PAYGO sub-system, and then billed to government. In other cases, the cost of treatment is absorbed by health providers themselves, notably the hospital. This state of affairs gives rise to significant potential inequalities in health outcomes and high out-of-pocket payments for the uninsured as well as inefficiencies in treatment and ultimately a higher financial burden on the state which, in practice, treats

patients at a later stage than would have been the case had they had health insurance.

### **Box A3.1.1 Population Estimates**

The population of Sint Maarten has grown twenty-fold since the 1960s as the Dutch side of the island cemented its place as a prime cruise terminal destination. This population growth slowed and became more uneven in the 1990s, but nonetheless remains relatively robust with both high inward migration and natural increase. While the last official census took place in 2011, and the next is under preparation, the latest official estimate according to the authorities was 40,614 as at the beginning of 2018. Nonetheless, there are wide discrepancies in both unofficial and official population estimates, for example, between the Census and the Civil Registry Department. On the one hand, those who leave the island often do not formally de-register with the Civil Registry Department, so that there is a lag in removing these people from the population estimates, while newly arrived emigrants may not have registered at all. The SZV maintains an even more extensive database containing anyone that has accrued any benefits to an AOV pension by virtue of their residence in Sint Maarten for any part of their working age life. Furthermore, there is a cohort of the population (non-citizens) that is not registered on the civil registry, but whom are nonetheless covered by public health insurance and pay health insurance premiums through their payroll. As a rule of thumb, many policymakers consider the effective population to be in the region of 50,000.

Anecdotal accounts suggest that recent years have seen a surge in unsanctioned immigration, particularly from Venezuela, while a number of residents are thought to have left the island, at least temporarily, in the wake of the twin hurricanes of September 2017 so that net migration was negative that year (-114, versus an average of +812 over the 2014-2016 period). Coupled with a natural increase of 191 persons, net population growth was 79 in 2017, compared to an average of 1135 (or around 3%) during the 2014-2016 period.

Sint Maarten has one of the youngest demographics in the Caribbean region but, largely due to the low base effect, also one of the most rapidly ageing. The size of the older age cohorts is increasing more rapidly than that of the working age cohorts, while net emigration of those in the 20-29 age range, mainly due to studying abroad, has led to a fall in the size of this cohort. These underlying demographic trends have potentially profound long-term implications for social security, pension and public health systems.

Two demographic concerns in particular should be taken into account with respect to putative health insurance reforms: 1) the wide range of population estimates presents a risk of under-estimating the extent of the increase in the covered population upon transition to GHI, and 2) under any reform scenario, the ageing population presents a risk of accelerated medical cost inflation in the future, coupled with continued increases in the age dependency ratio.

For modeling purposes, it is the ratio of the population covered by public health insurance that is the key variable, rather than the population in absolute terms. As a rule of thumb, it is estimated that 70% (of a population of 50,000) are currently covered by the public health insurance funds, while coverage is expected to increase to 95% upon implementation of a General Health Insurance (GHI) model. On the one hand, a greater than expected population would represent both upside (for premium income) and downside (for medical costs) risks. However, if the assumption holds that the uninsured population are *on average* younger and healthier than the cohort currently covered by one of the public health insurance schemes, then the aggregate impact of having under-estimated the country's total population can be expected to be positive in financial terms.

### ***Policy Development Process and State of Play***

A3.1.20 The buildup of arrears and challenges to the long-term structural sustainability of the current patchwork of public health insurance sub-systems have been in evidence for a number of years, even before the financial situation was exacerbated by the impact of the twin hurricanes of September 2017. Already in 2015, for example, the Government of the Kingdom – acting upon the advice of the CFT – instructed Sint Maarten both to “solve the payment arrears in a lasting manner” and “take measures before the end of 2016 to keep the health care system and the elderly care / pensions structurally affordable.”

A3.1.21 Operating in close consultation with the SZV, as well as a range of other public and private sector stakeholders, the Ministry of Public Health, Social Development and Labor has led reform efforts in recent years. While a range of stand-alone measures have been implemented, or are in preparation, with the aim of improving financial sustainability, the authorities are of the view that more far-reaching reforms will ultimately be necessary both to secure long-term financial sustainability of the state-run health insurance systems as well as to address a number of the structural challenges facing the health sector as a whole. While simply using a combination of increased premiums and reduced benefits – i.e. following the parametric approach to reform – so as both to close the recurring operating deficits and offset the impact of accelerated medical cost inflation could go some way towards improving financial sustainability, this would leave important structural issues unaddressed, notably the estimated 15% of the population currently uninsured.

A3.1.22 To address these twin objectives of achieving financial sustainability and addressing structural challenges in the health system, proposals were developed for the transition to a universal General Health Insurance (GHI) model which would amalgamate all five state-run sub-systems into a single public system, while allowing for the continuation of alternative private health insurance arrangements upon payment of an annual ‘opt out’ solidarity charge. The option to contract supplemental private health insurance, over and above what is covered under the GHI system, was also envisaged.

A3.1.23 Throughout 2017 and 2018, the Health Ministry developed the GHI proposal, including the preparation of draft ordinance, stakeholder consultation, and financial modeling. To accompany the authorities in this process, Willis Towers Watson was hired as an independent consultant serving a support and advisory function, notably with respect to financial modeling. Further stakeholder consultations, including review by the Social Economic Council SER, and public information campaigns were carried out in the first half of 2019 with a view to the passage of legislation by Parliament and ratification by the Governor in sufficient time to allow for full implementation of the transition from January 2021. As of December 2019, the draft legislation was ready for transmission to parliament for approval but remained on hold until at least the elections scheduled for January 2020.

A3.1.24 To support this process, the World Bank agreed to carry out an assessment and financial modelling exercise, benchmarking financial projections under the GHI scenario against the *status quo ante* as well as a plausible parametric reform scenario. This involves subjecting projections to a range of common underlying assumptions; the results of which exercise constitutes the remainder of this document.

## **Financial Projections**

### ***General approach and underlying assumptions***

A3.1.25 The aim is to construct a set of baseline projections, underpinned by consistent and reasonable assumptions, based on the *status quo ante*. Against this ‘no reform’ scenario baseline can be compared a range of scenarios ranging from minimal reform to full transition to a general health insurance model, including provisions for the gradual paydown of accumulated negative reserves.

A3.1.26 By default, the following assumptions are applied under all scenarios, albeit with the addition of sensitivity analysis (see section below) as necessary with respect to some of the key assumptions:

- Compliance in the payment of premiums in the private sector is estimated to have ranged from 60-65% during the 2016-2018 period, and is currently estimated to be about 70%, having been as high as nearly 80% prior to 2016. Efforts are underway to boost compliance, including a dedicated compliance unit in the SZV, and are expected to yield a gradual increase to 85% from 2021 onwards. This is a key assumption, under all scenarios, necessitating sensitivity analysis (see below) as to the implications of falling short of this ambitious target.
- According to the Central Bank, long-term wage inflation is projected to be 1.8%. This can be considered reasonable given the anchor to monetary policy and inflation dynamics engendered by the peg to the U.S. dollar. Moreover, it is expected that the *mass* of earned income will increase by a rate in excess of this long-term average over the 2019-2022 period, as gradual recovery from the 2017 hurricanes and their economic effects yields catch-up growth, and above-trend employment growth. This add-factor is assumed to be 2.5% per annum during the 2019-2022 period.
- Further to an analysis of historical medical costs in Sint Maarten and some neighboring jurisdictions carried out by the Sint Maarten authorities, medical cost inflation is projected to be 2.5% over the long-term. Notwithstanding this underlying rate, aggregate medical cost inflation in the medium term (2020-2023) is expected to be somewhat lower, given a range of cost containment measures that are planned or have already been implemented (see below). This assumption – and, more particularly, the differential between the respective inflation rates in wages and medical costs – is a key driver of financial performance under any of the scenarios examined in this study. Moreover, analysis of peer countries carried out by the World Bank suggests that 2.5% may be an optimistic assumption for long-term medical cost inflation, particularly given underlying demographic and epidemiological trends. For example, non-communicable diseases are expected to increase in prevalence going forward, and to affect younger age cohorts. Further, as costly medical technologies (including diagnostics and pharmaceuticals) become available, it will be necessary to consider their cost-effectiveness for inclusion as part of the benefits package. Both factors can be expected to exert upward pressure on medical cost inflation. These dynamics are explored in more detail below.
- The new Sint Maarten Medical Centre (SMMC) hospital is expected to be fully operational by 2023, in which year its total operational cost (including profit margin) is projected to be NAF 95.6m. Three quarters of this cost is expected to be borne by the public health insurance system, through the SZV, based on the existing institutional set-up in the health system (i.e. under the *status quo* or parametric reform scenarios), with a further 10% assumed by the islands of Bonaire, Sint Eustatius and Saba (collectively, the BES islands) and the remaining 15% accounted for by the privately

insured or non-insured. Under a GHI scenario, the bulk of this privately insured and non-insured population – with the exception of opt outs who prefer to continue contracting private health insurance and pay the associated solidarity payment as well as a residual number of mainly recently arrived undocumented immigrants or tourists, for example – would be covered by the public system, which would then take on the associated hospital charges.

- The increased availability of medical treatments and specialisms in the new hospital are expected to off-set the higher hospital costs through significant savings in medical referrals abroad and ancillary costs (such as transport and accommodation). By the time the hospital becomes fully operational in 2023, medical referral (and ancillary) costs are expected to be reduced by 50% compared to their 2020 level. Already, some new specialisms came on stream in 2018 and 2019, with more to follow even in advance of the new hospital becoming operational, which is expected to lead to savings under this heading even before 2023. In addition, the authorities were undertaking during 2019 a comprehensive review of medical referral processes with a view to improving cost effectiveness. This should facilitate achievement of the targeted 50% reduction in medical referral costs by 2023.
- The Pharmaceutical Cost Control Project was initiated in 2018, expected to deliver financial savings from 2019 onwards. These savings are expected to reach 35%, as per the baseline assumption in the projection model, albeit in an optimistic scenario these savings could be as high as 40%. Already, through the first five months of 2019, pharmaceutical costs were marginally less in nominal terms than during the same period in any of the three preceding years.
- Administrative costs are assumed to remain constant at 9% of premium income, albeit representing significant further scope for savings under a transition to a single-fund general health insurance model. The authorities have estimated, for example, that transitioning to a GHI, single fund model could yield annual savings in the region of NAF 4m through reduced administrative overheads. This would imply savings of upwards of 20% of administrative costs, and a reduction in the margin for operational costs from 9% to 7% of premium income.
- At present, projections do not explicitly incorporate the impact of population ageing nor of any underlying population growth. While the latter should not have major implications for financial sustainability under any of the scenarios, so long as the age profile and dependency ratio remains unchanged, the former – or any change to the dependency ratio for that matter – is likely to have major implications, and increasingly so over time. This is a major weakness of the current projection model, and an area for further potential refinement.

### **Status Quo: 'No Reform' Scenario**

A3.1.27 Under this scenario<sup>80</sup>, projections are carried out on a 'no policy change' basis, where cost containment policies already under way or at an advanced stage of preparation – such as with respect to the new hospital, medical referrals and pharmaceuticals – are continued, but no further legislative changes are foreseen while further administrative measures – such as strict application of eligibility criteria to the various health insurance funds, rigorous collection of co-payments from public servants – are not pursued. All of the underlying assumptions detailed above remain operative<sup>81</sup>.

A3.1.28 In broad terms, the financial performance of the four public health insurance funds (ZV, OV, FZOG, AVBZ) is expected to improve over the 2019-2022 period as cost containment measures and efforts to improve premium compliance bear fruit, and as the phased operationalization of the new hospital yield aggregate savings. Having posted a collective negative balance of -58.0m in 2018, the aggregate deficit of the four funds is expected to narrow to -7.2m by 2022. Thereafter, the differential between wage inflation and medical cost inflation is expected to be the main driver of financial performance, all else being equal, with a deterioration in the net annual balance expected from 2023 onwards as these underlying trends re-assert themselves.

A3.1.29 The total annual cost to general government of providing healthcare<sup>82</sup> under a 'business as usual' scenario was NAF 113.4m in 2018, projected to fall to NAF 59.1m in 2022 driven largely by the improved financial performance of the ZV fund (for which the annual deficit is projected to contract from NAF -42.7m to NAF -9.8m over the same period). Thereafter, the underlying structural driver – medical cost inflation exceeding wage inflation – is expected to reassert itself and cause a steady deterioration in the financial position of the health system so that the total cost to general government is projected to reach NAF 76.9m by 2030.

A3.1.30 Given that the three deficit funds (ZV, OV, FZOG) are expected to remain in deficit over the projection period, the aggregate accumulated negative balances are also expected to continue increasing, notwithstanding the positive annual and accumulated balances of the AVBZ fund. The net negative accumulated balances (of the four funds) are expected to increase in progressively smaller annual increments, as the annual aggregate deficits contract, from -135.7m at end-2018 to -220.4m in 2022, after which the gradually increasing annual deficits are expected to give rise to a re-acceleration in the accumulation of negative accumulated balances, projected to amount to -312.7m by 2030. As a share of GDP, the accumulated negative reserves amounted to an estimated -6.5% of GDP at end-2018. This is expected to increase to -8.8% by end-2020 and increase modestly from that level thereafter.

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<sup>80</sup> See Appendix I for detailed financial projections.

<sup>81</sup> Investment income is ignored while, for the purposes of simplicity, no further transfers to the funds legal reserves are envisaged (i.e. the reported 'accumulated balance' figure is net of any statutorily required requirement to set aside a proportion of expected medium-term costs, as in the ZV fund for example).

<sup>82</sup> The total annual cost to general government of providing healthcare is understood as the sum of the aggregate annual balance of the four existing health insurance funds (ZV, OV, FZOG, AVBZ) plus the annual cost of the OZR PAYGO scheme (including the cost of PP cards and net of contributions by public servants) plus the annual government contributions to the health funds (AVBZ, FZOG) by virtue of its responsibilities as an employer plus the government contribution in respect of reduced or non-contributory former employees to the ZV fund.

### **Parametric Reform Scenario**

A3.1.31 The parametric reform scenario<sup>83</sup> is elaborated on the basis that policy action is urgently required to restore financial sustainability to the public health insurance system and to ensure the long-term solvency of the various funds. On the other hand, this approach is rather minimalist with respect to the scope of reforms, essentially leaving the prevailing architecture intact but adopting administrative measures to control costs. In addition, the most significant of these administrative measures are expected to have the effect, whether directly or indirectly, of increasing the annual cost to government of the OZR.

A3.1.32 The financial situation of two of the public health insurance funds (OV, FZOG) has deteriorated to such an extent, moreover, that administrative measures *on their own* will be insufficient to restore financial sustainability, yet alone (in the case of the FZOG fund) to gradually pay down negative balances that have been accumulated in recent years. The parametric reform scenario therefore also envisages revenue raising measures, consisting of *pro rata* increases in the existing premium schedules<sup>84</sup> to the extent that – together with abovementioned administrative measures on the spending side – each of the funds achieves an annual surplus through 2030.

A3.1.33 A further ‘parametric+’ scenario is envisaged whereby each of the funds not only generates a surplus through 2030, but also progressively eliminates the accumulated negative reserves by 2030. For modeling purposes, it is assumed that the new administrative measures and contribution rates are operative from 2021 onwards<sup>85</sup>. ‘Parametric+’ differs from the ‘parametric’ reform scenario only in the extent to which there are *pro rata* increases in the existing premium schedules, i.e. there are no further measures envisaged on the spending side.

A3.1.34 Parametric reform measures aimed at containing costs essentially amount to implementing the letter of the law, moving away from practices which have become established in recent years, but which were not necessarily envisaged under the relevant primary legislation. For example, the ZV fund was envisaged as a health insurance fund essentially for current private sector workers and their dependents. While the legislation that underpins the fund envisages the possible coverage of former workers, it does not envisage the coverage of those past the retirement age, until recently age 60<sup>86</sup>. As of 2018, there were some 2,152 clients of the ZV aged 60+. While their removal from ZV coverage would improve the financial position of the fund, it is expected that a large proportion of this population cohort would be eligible for a PP card, so that this proportion will become the immediate financial responsibility of the government. For modelling purposes, it is assumed that implementing the letter of the law in this respect leads to a reduction of 2,000 in the number of clients of the ZV fund, with 1,000 (i.e. 50%) becoming eligible for PP cards. Other parametric reform measures of note include i) collecting civil servants co-payments for medical treatment and ancillary costs, ii) removing automatic OZR coverage from parliamentarians and Ministers, iii) removal of ZV coverage for former workers, and iv) reduction in the absorption by ZV of foreign medical referral costs in line with pre-2010 practices.

A3.1.35 To the extent that these spending measures are not fully implemented, there may be

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<sup>83</sup> See Appendix II for detailed financial projections.

<sup>84</sup> While the impact of such revenue raising measures on the tax wedge could be off-set by reducing by as much as a half the contributions to the AVBZ fund for long-term care, given the relatively solid financial situation of the fund in recent years, this is avoided for the purposes of modeling a parametric reform scenario on the basis that this fund is likely to be the most acutely exposed to the impact of demographic ageing, warranting the establishment of a substantial financial buffer over the medium-term.

<sup>85</sup> Investment income and any transfers to legal reserves are ignored.

<sup>86</sup> The retirement age has been increased to 62, while legislation is under preparation that would see a further increase to 65, first for public servants, then for all workers.



a need to replace them with compensatory measures, whether on the income or spending side. In addition to the abovementioned cost-containment administrative measures, and in order to meet the objective of eliminating annual deficits through 2030, premium contributions would need to increase for the FZOG fund<sup>87</sup> under the parametric reform scenario. More specifically, FZOG premiums would have to increase, from 2% to 3.8% for active public servants, from 0.72% to 1.37% for the government (as the employer of active public servants), and from 10% to 19% for retired civil servants.

A3.1.36 In order also to meet the objective of eliminating *accumulated* deficits by 2030, this 'parametric+' scenario envisages further increases to premiums as follows:

- a) ZV premiums would have to increase slightly to 13.1%, of which 8.7% for employees and 4.4% for employers.
- b) OV premiums would have to increase slightly, from the current risk-based range of 0.5-5% to 0.65-6.5%.
- c) FZOG premiums would have to more than double, from 2% to 4.90% for active public servants, from 0.72% to 1.76% for the government (as the employer of active public servants), and from 10% to 24.5% for retired civil servants.

A3.1.37 By construction, under both 'parametric' and 'parametric+', each of the four public health insurance funds delivers a surplus at least through 2030 although the FZOG fund would return to deficit early in the 2030s. Under the 'parametric+' scenario, moreover, the accumulated negative reserves of the ZV, OV and FZOG funds are gradually run down over the decade to 2030, by which point all funds would have positive reserves. Annual surpluses would be maintained in this scenario at least through 2040, allowing for the modest build-up of reserves. This could be considered to be a financial buffer against an eventual return to annual deficits, or an accelerated return to annual deficits in light of demographic change (which is outside the scope of the model).

A3.1.38 Under the parametric reform scenario, the ZV, OV, FZOG and AVBZ funds would *collectively* achieve a positive accumulated balance by the mid-2020s, as the growing positive balance in the AVBZ fund would by then more than offset the gradually declining negative balances in the other three funds. With the elimination of the negative accumulated balances in *each* of the three deficit funds by 2030 – and with the positive balance in the AVBZ continuing to grow – the aggregate balance of the four funds could be expected by then to reach some NAF 183.5m, or 5.3% of GDP, and to continue increasing thereafter into the 2040s.

A3.1.39 Given its relatively healthy financial position, AVBZ premiums would remain unchanged at 2% (1.5% for employees and 0.5% for employers) under both 'parametric' and 'parametric+' scenarios, enough to generate real terms increases in its accumulated surpluses through 2040. However, these projections do not take account of societal ageing, a phenomenon to which the AVBZ would be particularly exposed given the nature of the care it provides. While Sint Maarten currently has the youngest population in the Caribbean, from this low base it is expected to experience the most rapid ageing process in the coming decades as demographic trends emulate and catch up with regional peers.

A3.1.40 While the annual balances of the four existing health insurance funds (ZV, OV, FZOG, AVBZ) would be, by construction, positive through 2030, the reduction in the total net cost to

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<sup>87</sup> Insofar as the tax base for income taxation is calculated on the basis of income after social insurance premium deductions, an increase to the premiums could feed through to reduced income tax receipts to the government. This effect is not, however, taken into account as part of this scenario modelling.

general government of providing healthcare would be off-set to a large degree by the impact of some of the measures which would in effect cause the transfer of clients and their associated medical costs from the funds to the OZR PAYGO scheme, notably through the increased number of people becoming eligible for PP cards. Under both the parametric and parametric+ scenarios (since the only difference between these is on the income side), the net annual cost of running the OZR scheme is projected to be some 59% higher (NAF 67.3m v NAF 42.3m) in 2021 (and 52% higher in 2023; NAF 62.7m v 41.3m) than under a 'business as usual' scenario. This differential can be attributed to the baseline assumptions that i) 50% of those above the retirement age whose ZV coverage is removed would be eligible for a PP card by virtue of their limited means, and ii) 100% of medical referral costs undertaken by the ZV fund under a 'business as usual' scenario would instead be covered by the government through the OZR PAYGO scheme. These two measures would account for about 38% of the total cost of the OZR scheme in 2021, falling only gradually over time. Of course, the government could further reduce their outlays by opting not to cover the cost of off-island medical referrals at all, or to reduce such cost coverage to exceptional or emergency circumstances. Under 'parametric' ('parametric+'), the 'total cost to general government' would amount to NAF 46.7m (NAF 37.5m) in 2021, falling to NAF 44.3m (NAF 34.3m) in 2022, and increasing thereafter as underlying structural dynamics reassert themselves, reaching NAF 61.0m (NAF 50.2m) by 2030 (see Appendixes II and III).

### ***General Health Insurance***

A3.1.41 In addition to universalizing coverage, and thereby improving health outcomes across the population, transitioning to a General Health Insurance model would entail a number of important benefits that would put the public health system on a firmer financial footing.

A3.1.42 Other than its simplicity relative to the prevailing patchwork of health insurance sub-systems, the most distinctive characteristic of the GHI is its near-universal population coverage. Our model assumes that population coverage will increase from approximately 70% currently to 95% under GHI. The ability of the scheme to achieve this level of coverage will be affected by the relative generosity of the benefits package and premiums offered by private insurers, as well as the period required, if any, to access services through the public sector. For example, if the private sector provides a basic package (e.g. primary care) at a relatively low cost and the public sector can be relied upon to provide care for more costly services (e.g. hospitalizations), that may drive people of means to opt for contracting insurance from private sector. At this time, there is a one-year waiting period before new arrivals to Sint Maarten can access public services, but if they are able to easily switch back and forth once GHI is in place then they may only turn to the public sector once they need costly services that the private sector cannot or will not provide, and go back to the private sector when they don't need such services. Design of the GHI system must be cognizant of such perverse incentives and adverse selection issues.

A3.1.43 The Sint Maarten authorities have been considering GHI packages of health insurance benefits differentiated according to the insured person's citizenship or residency status. The 'gold' package would be available to permanent residents, with or without Dutch passports (but excluding some of the retired population who are not Dutch permanent residents). This package would be the most comprehensive, incorporating the standard package of GP care, hospital care, overseas referral, medicine and preventative care. In addition, it would include long-term care (as is currently provided by the AVBZ) as well as a 'health wallet', an amount that could be spent on elective treatments, such as vitamins, glasses and dental care. The latter would be operated by way of a smartcard system.

A3.1.44 The 'silver' package would be available to those who are above the retirement age, who are not Dutch permanent residents, and who have lived on Sint Maarten for less than ten years prior to reaching the retirement age. This package would include the same 'standard'

treatments as per the 'gold' package but would differ insofar as clients would be obliged also to purchase catastrophic risk insurance while they would also be permitted to opt out without having to pay the solidarity payment. This package would not include the 'health wallet' feature.

A3.1.45 The 'bronze' package would be available to those with temporary residence permits (whether for work or other reasons) as well as to undocumented employees who would nonetheless be required to pay health insurance premiums. The available benefits would be similar to the 'silver' package, but employers would be responsible for ensuring that their employees were covered by catastrophic risk insurance, while the clients themselves would not be permitted to opt out of the system for free. In addition, the benefits would be capped at a maximum of NAF 50,000 per annum (with the employer responsible for medical costs in excess of the cap, by way of privately contracted insurance for instance).

A3.1.46 The only residual segment of the population who would remain completely outside the scope of the GHI would be those undocumented residents who do not pay health insurance premiums. Even this residual population segment would not be denied emergency healthcare, being covered in the first instance by a guarantee fund established for the purpose. It is envisaged, however, that their employers could be ultimately held responsible for these health costs, thus creating an incentive for employers to register their employees as formal workers and to collect and remit health insurance premiums on their behalf.

A3.1.47 Given that a relatively large share of the population in need of high levels of care (mostly the elderly) are presently included in the approximately 70% covered by the SZV managed funds, it is not expected that medical costs would increase *pro rata* in line with population coverage. Although detailed data on the cohort of the population not covered by one of the public health insurance subsystems is in short supply, they are understood to be on average younger and healthier than the covered population, not least due to the structure of financial incentives currently in place. The authorities thus make what they describe as a cautious assumption that the additionally covered will on average consume 28% less in medical costs *per capita* than the presently covered population. All else being equal, a transition to GHI would result in a lower net cost to the government, roughly a third of the cost under the 'business as usual' scenario and less than half that under the 'parametric' reform scenario. The GHI would result in a lower net annual cost to general government even if the newly covered population consumed on average the same amount as those presently covered.

A3.1.48 While the current ZV fund has an income ceiling of NAF 67,816.32 per annum, the revised ceiling envisaged under GHI would be NAF 100,000 per annum. This means that premiums would be calculated on the basis of the full income up to this maximum. However, unlike the current ZV ceiling, the GHI ceiling would avoid perverse incentives with respect to the under-declaration of income so as to remain eligible, since those earning above the threshold would not be excluded from coverage, their premium contributions would merely be capped as a share of their income up to the NAF 100,000 ceiling. In this manner, it would be analogous to the income limit applying to social insurance contributions for the AOV pension.

A3.1.49 Although coverage under GHI is envisaged to be near-universal, private health insurance is not to be prohibited. People will be allowed to retain their existing – or take out new – private health insurance should they wish. Moreover, long-term care is considered to be uninsurable in the private market but is assumed to remain available also to those who may opt out of the GHI. However, in order to disincentivize opt-outs, which would serve to undermine the financial sustainability of the system as a whole, it is envisaged that an annual solidarity fee of NAF 5,000 would be paid in this case. It is estimated that for those earning above the envisaged premium wage limit of NAF 100,000, notional payment of AVBZ contributions at the current rate would amount to NAF 2,000 per annum. Thus, the remaining

NAF 3,000 (i.e. NAF 5,000 – NAF 2,000) can be considered to be the real “solidarity” element of this payment, with those opting out effectively cross-subsidizing the health coverage of those who remain in the system. For modeling purposes, it is assumed that 45% of the population who currently avail of private health insurance will opt out of the GHI and choose instead to pay the NAF 5,000 annual solidarity fee. However, the inclusion of an opt-out provision may continue to result in adverse selection, and the proposed solidarity payment of NAF 5,000 relative to the average expenditure on healthcare per year (NAF 2,375 in 2014) will need to be reviewed periodically in order to keep pace with medical cost inflation and increases in the prevalence of chronic conditions such as diabetes, where the cost of treatment per person can be much higher than the average health expenditure per capita.

A3.1.50 As in both the ‘no reform’ and ‘parametric’ reform scenarios, the major longer-term driver of financial performance under GHI is likely to be the differential between wage inflation and (higher) medical cost inflation. Even in the most optimistic of scenarios, medical cost inflation is expected to outpace wage inflation such that the growth in medical expenditures will outpace the growth in health insurance premium income.

A3.1.51 The authorities estimate that the GHI will require a continued government contribution to ensure cost coverage and financial sustainability. This is estimated to amount to circa NAF 22.6m in 2021, indexed thereafter to account for medical cost inflation. This should be considered in the context of previous government commitments in respect of the OZR PAYGO scheme, projected to amount to NAF 42.3m (net of public servants’ contributions) in 2021, in addition to a projected NAF 8.3m contribution to the ZV scheme in respect of former workers, for a total government contribution above and beyond its contributions by virtue of its responsibilities as an employer (NAF 1.6m in 2021) of NAF 52.2m.

A3.1.52 Thus, the total annual cost to general government under GHI is projected to be NAF 27.9m in 2021, falling progressively to a low of NAF 17.6m in 2023 as cost-containment efforts bear fruit, before increasing steadily thereafter as underlying structural dynamics reassert themselves. The GHI fund itself would achieve a funding level (income over expenditure) of 105% in 2021, its first year of operation and reach a peak of 111% in 2023 before falling steadily thereafter and expected to dip below 100% around 2040.

A3.1.53 One final issue for consideration is the extent to which accumulated arrears of the legacy funds should be assumed, in full or in part, by the GHI fund upon their merger, with a view to their gradual reduction over a number of years. To the extent that such legacy arrears would carry over to the GHI, the scope for the latter to build a financial buffer, against the expected impact of population ageing for example, would be curtailed. In turn, this would bring forward the date at which future revenue raising or cost containment measures would need to be introduced so as to ensure the GHI’s long-term financial sustainability.

A3.1.54 Ignoring legacy accumulated negative balances, the annual surpluses recorded by the GHI fund are projected to cumulate to NAF 185.2m or 6.3% of GDP by 2030. However, if one assumes that the legacy accumulated negative balances are inherited by the GHI fund in their totality (projected to amount to NAF 204.0m, or 10.4% of GDP, by end-2020, on the eve of the proposed transition to GHI), the annual surpluses would instead be used to pay down those negative balances. This is estimated to be completed by 2030, after which the annual surpluses generated by the GHI fund could be used to create a modest financial buffer (projected to amount to 1.9% of GDP by 2040).

### ***Medical Cost Inflation***

A3.1.55 Over the long term, the cost of providing medical procedures and services – and, in particular, the differential between this inflation rate and the wage inflation rate – is expected to be the most important determinant of financial sustainability.

A3.1.56 The primary factors resulting in increases in medical expenditures are increases in income and changing medical practices, with population ageing playing a more limited role.<sup>88</sup> From 1995-2016, the annualized rate of change in health spending in the Latin America and Caribbean region was 4.21 percent.<sup>89</sup> While the annualized rate of increase is expected to decline to 1.48 percent<sup>90</sup> going forward, evidence from surveys of private insurers suggest the opposite in recent years. Willis Tower Watson reports an average medical cost inflation of 10.6 percent in Latin America and the Caribbean against a global average of 7.6 percent, with figures for the former Netherlands Antilles estimated at 10 percent for each year between 2017-2019.<sup>91</sup>

A3.1.57 From 2006-2016, medical costs in Sint Maarten increased by 15.5 percent, for an annual inflation rate of 1.45%.<sup>92</sup> From 2017 onwards, the annual medical cost inflation rate increased substantially, to 8.2 percent in 2017 and 2018, while in 2019 the projected increase is expected to be 7.8 percent.<sup>93</sup> This would lead to an average annualized rate of 2.8 percent. Going forward, analysis of peer countries carried out by the World Bank suggests that 2.5 percent is an optimistic assumption for long-term medical cost inflation, particularly given underlying demographic and epidemiological trends. As such, the figure of 2.5 percent should be used as a lower bound for sensitivity analysis going forward. While some other countries in the region have historically had low annualized rates of change in healthcare expenditures, these have traditionally been associated with limited funds allocated to maintenance and capital improvements, while none of these countries have achieved UHC coverage at the levels envisioned by Sint Maarten under a transition to GHI (Table A3.1.1).

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<sup>88</sup> Savedoff, William D., et al. "Political and economic aspects of the transition to universal health coverage." *The Lancet* 380.9845 (2012): 924-932.

<sup>89</sup> Chang, Angela Y., et al. "Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995–2050." *The Lancet* (2019).

<sup>90</sup> Chang, Angela Y., et al. "Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995–2050." *The Lancet* (2019).

<sup>91</sup> Willis Tower Watson. Global Medical Trends Pulse Survey Report 2018.

<sup>92</sup> Consultancy to prepare the situational analysis of the prevention and control of non-communicable diseases in the Dutch Caribbean Islands. Pan- American Health Organisation. Revised 21 January 2018.

<sup>93</sup> <https://izlandbipbip.com/journaux/journaux-sint-maarten-sxm/hospital-director-klarenbeek-explains-tariff-increase/> Accessed June 2, 2019.

**Table A3.1.1 Comparative Health Data**

Country	Current health spending per capita, 2014 (US\$)	Current health spending per GDP, 2014 (%)	Government health spending per total health spending, 2014 (%)	Annualised rate of change in health spending, 1995-2016 (%)	UHC coverage index (2015)	Population, 2014 (thousands)	GDP per capita, 2014 (nominal US\$)
Antigua and Barbuda	\$750	5.8	69.3	3.98	75	93	13,781
Aruba	\$XXX	X.X	XX.X	X.XX	XX	104	25,534
Barbados	\$1,178	7.1	46.2	2.21	79	285	16,180
Curacao	\$XXX	X.X	XX.X	X.XX	XX	156	20,258
Dominica	\$398	5.5	60.4	1.45	NA	71	7,365
Grenada	\$446	5.2	39.8	0.82	72	109	8,370
Jamaica	\$254	5.2	58.1	1.76	60	2,875	4,818
Maldives	\$716	7.9	62.0	X.XX	XX	435	8,499
Saint Lucia	\$501	5.8	37.9	0.58	69	178	8,651
Saint Vincent and the Grenadines	\$244	3.7	73.1	1.49	65	109	6,685
<b>Sint Maarten</b>	<b>\$2,464</b>	<b>7.5</b>	<b>81.9</b>	<b>NA</b>	<b>69</b>	<b>38</b>	<b>33,536<sup>94</sup></b>
Seychelles	\$490	3.4	96.6	X.XX	XX	91	14,700
The Bahamas	\$1,688	5.9	44.3	2.64	72	371	29,564
Trinidad and Tobago	\$1,061	5.3	50.3	5.79	75	1,362	20,170
LAC	\$835	8.2	45.9	NA	NA	616,620	10,405

Sources: Authors' calculations based on data from the Global Health Expenditure Database (World Health Organization). World Health Organization Global Health Expenditure database, United Nations Population Division, World Bank national accounts data, Sint Maarten government data, IMF Article IV staff reports, Chang, Angela Y., et al. "Past, present, and future of global health financing: a review of development assistance, government, out-of-pocket, and other private spending on health for 195 countries, 1995–2050." *The Lancet* (2019); World Health Organization. "Tracking universal health coverage: 2017 global monitoring report." (2017).

A3.1.58 Irrespective of the health reform path ultimately chosen, controlling medical cost inflation will require constant vigilance, a robust institutional framework, and sometimes difficult choices which entail political trade-offs.

A3.1.59 Even in a best-case scenario, it is expected that medical cost inflation (with a lower bound of 2.5%) will outstrip wage inflation (long term forecast of the Central Bank is 1.8%). Once the cost containment projects already underway, or for which implementation is imminent, and the new hospital is fully operational, one can expect that this underlying long-term trend to reassert itself and for the financial performance of the public health insurance system to gradually deteriorate. This financial pressure will be exacerbated and accelerated by underlying demographic and epidemiological trends. These pressures will require continual countervailing efforts to contain costs, and eventually likely also a need for revenue raising measures.

A3.1.60 Legislating for the possibility for authorities to introduce co-payments for medical procedures and services by way of secondary legislation is an important element of the reform agenda, even if co-payments are not implemented immediately. Co-payments are not only a potential source of revenue but can introduce important behavioral incentives for patients to curb over-use of medical services, helping contain cost inflation. It would also be important to introduce protocols for regular health technology assessments to critically appraise the costs and benefits of newly available medical treatments, and whether these should be made available – with or without co-payments – through the public health insurance system. At the same time, it will be important to ensure a policy and institutional framework, as well as sufficient technical capacity, conducive to tackling fraud, collecting co-payments where they

<sup>94</sup> Based on the latest review of GDP figures (STAT, 2020)

are in place, and enforcing compliance in the payment of premiums.

### **Sensitivity Analysis**

A3.1.61 This sensitivity analysis is carried out on an 'everything else being equal' basis, such that one variable is changed in each iteration, with all others held constant. This will give a sense of the relative potential impact of key variables on the overall financial trajectory of the health insurance system under various reform scenarios. However, it ignores potential inter-dependencies, such as between wage inflation, on the one hand, and either medical cost inflation or compliance on the other hand. Thus, the impact could be multiplicative. This sensitivity analysis is not exhaustive with respect to the variables modeled but concentrates on those considered to be of the highest impact.

- 1. Wage inflation:** The main source of income for the health insurance funds, whether under the existing architecture or following a transition to GHI, is premiums levied on gross wages. Thus, the most important variable on the income side under any scenario will be the size of the base used to calculate the premiums. By default, the long-term wage inflation rate is set to 1.8% per annum, in line with Central Bank estimates. This is not unreasonable given that monetary policy is anchored by a fixed dollar peg and is broadly in line with wage inflation trends in recent years. A 0.5% increase in the underlying long-term wage inflation rate (from 1.8% to 2.3%, for example) serves to reduce the net total annual cost to general government in a *status quo* scenario by NAF 1.8m in 2021, NAF 2.5m in 2023 and NAF 8.7m in 2030. The impact under the parametric reform scenario would be NAF 1.9m, NAF 2.6m and NAF 9.1m respectively. The impact under GHI would be NAF 2.8m, NAF 4.7m and NAF 12.4m respectively. The latter translates to an improvement in the funding ratio for those years of 1.4%, 2.3% and 5.2% respectively.
- 2. Compliance:** In effect, premiums collected are not only a function of the size of the mass of wages, salaries and other income, or in their rate of increase, but also of the extent to which said income is declared for the purposes of payment of income tax and, specifically in this case, social security contributions. Where income is earned in the form of wages or salaries from the government, such as that paid to public servants, and these payments are administered by a government entity, one would expect that the compliance rate would be close to 100%. Since private sector income is understood never to be fully declared, the compliance rate can be considered to be unobservable. Sint Maarten has a weak tax administration system, marked by significant private sector non-declaration or under-declaration of income. In addition, the existence of the income ceiling for determining eligibility for health insurance coverage by the ZV fund creates perverse incentives to under-declare income. The private sector compliance rate is estimated to have been 70% in 2018, having been closer to 80% in the pre-2016 period. On foot of measures already being implemented or at the planning stage, notably including significant reform of and investment in the tax administration system as well as the creation of a compliance unit within the SZV, the authorities expect that the compliance rate will rise over the coming years. The baseline assumption under all scenarios is that the private sector compliance rate will rise to 75% in 2019, 80% in 2020 and 85% in 2021 and following years. This represents a relatively aggressive assumption around the improvement in compliance, particularly given the delays already experienced in initiating the tax administration investment programme. However, it would not represent a verge large improvement on the compliance rate estimated to have prevailed as recently as 2015. Compliance is, moreover, a high-impact variable. A 1% downward deviation from the baseline profile

(i.e. to 85% from 2021 onwards) serves to increase the net total annual cost to general government in *all* scenarios by NAF 1.4m in 2021, NAF 1.5m in 2023, and NAF 1.7m in 2030. This would translate into a deterioration in the funding ratio of about 0.7% in the GHI scenario for every 1% shortfall in the private sector compliance rate with respect to the baseline.

3. **Post-Irma recovery add-factor 2019-2022:** Hurricanes Irma and Maria devastated the island in September 2017, particularly the tourism infrastructure on which the island's economy depends. Damages and losses amounted to an estimated 260 percent of GDP while the economy contracted by about 12.5% from its 2016 level during the 2017-2018 period. It is expected that economic growth will remain above its long-term trend growth during the 2019-2022 recovery period. In parallel, it is expected that the labour market will gradually recover over this timeframe, as accelerated employment growth restores unemployment close to its 2016 level. In turn, this is expected to underpin a recovery in incomes, and therefore the base used to calculate social security contributions. By default, our baseline scenario envisages an 'add factor' of 2.5%, whereby premium income increases by an extra 2.5% over and above wage inflation in each of the four years 2019-2022. A 0.5% increase in this add-factor (from 2.5% to 3.0%) serves to reduce the net total annual cost to general government under the *status quo* scenario by NAF 1.8m in 2021, NAF 2.5m in 2023, and NAF 2.9m in 2030. Under the parametric reform scenario, the respective improvements would amount to NAF 1.8m in 2021, NAF 2.5m in 2023 and NAF 2.9m in 2030. Finally, the respective improvements under GHI would be NAF 2.1m, NAF 3.0m and NAF 3.4m respectively. The latter translate into an improvement in the funding ratio of 1.0% in 2021, and about 1.4% in subsequent years.
4. **Medical cost inflation:** The key driver of health insurance payouts is the cost of providing medical services. The constant advent of new medical technologies as well as demographic ageing are important reasons why the long-term underlying medical cost inflation rate exceeds the wage and consumer price inflation rates. Indeed, this differential is the key driver of long-term financial performance of the health insurance funds, which is projected therefore to gradually and inexorably deteriorate under any of the scenarios examined. A 0.5% increase in the underlying long-term medical cost inflation rate (from 2.5% to 3.0%, for example) serves to increase the net total annual cost to general government in a *status quo* scenario by NAF 2.0m in 2021, NAF 2.2m in 2023, and NAF 10.4m in 2030. The impacts under the parametric reform scenario would be NAF 1.9m, NAF 2.1m, and NAF 10.2m respectively. The impacts under GHI would be NAF 2.2m, NAF 2.4m and 11.1m respectively. The latter translates into a deterioration in the funding ratio for those years of 0.8%, 0.8% and 3.6% respectively.
5. **Reduced cost of newly covered cohort:** An important assumption underpinning the authorities' plans to transition to GHI is that those already covered by the existing public health insurance funds, as well as those benefitting from PP cards, are more likely to have higher-than-average medical costs, given the incentives in play. Research carried out by the authorities has given rise to a baseline assumption that the newly-covered group under GHI would generate per capita medical costs on average 28% lower than those already covered. This assumption only affects the GHI (and GHI+) scenario. A five-percentage point reduction in this discount factor – meaning that the newly-covered group would generate medical costs on average only 23% lower than those already covered – serves to increase the net total annual cost to general government under the GHI scenario by NAF 2.4m in 2021, NAF 1.5m in



2023 and NAF 1.8m in 2030. The latter translates into a deterioration in the funding ratio of 1.1% in 2021, and about 0.8% in 2023 and subsequent years. In a more extreme case, the elimination of this discount factor – meaning that the newly-covered group would generate average per capita medical costs equal to those who are already covered – serves to increase the net total annual cost to general government under the GHI scenario by NAF 13.2m in 2021, NAF 8.5m in 2023 and NAF 10.1m in 2030. The latter translates into a deterioration in the funding ratio of 6.0% in 2021, and about 4.2% in 2023 and subsequent years (trending downwards very slowly over time). Even in this extreme scenario, however, the net total annual cost to general government under GHI would be less than that under either the *status quo* or parametric reform scenarios.

**Table A3.1.2. Summary of Sensitivity Analysis, Impact of Change to Assumption on Net Total Annual Cost to Government, NAF Millions**

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<u><i>Status Quo scenario:</i></u>										
Wage inflation, +0.5%	-1.8	-2.5	-3.1	-3.8	-4.6	-5.3	-6.1	-7.0	-7.8	-8.7
Compliance, +1%	-1.4	-1.5	-1.5	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6	-1.7
Post-Irma add-factor, +0.5%	-1.8	-2.5	-2.5	-2.6	-2.6	-2.7	-2.7	-2.8	-2.8	-2.9
Medical cost inflation, +0.5%	+2.0	+2.1	+2.2	+3.2	+4.3	+5.4	+6.5	+7.8	+9.0	+10.4
Reduced cost newly covered, -5%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<u><i>Parametric reform scenario:</i></u>										
Wage inflation, +0.5%	-1.9	-2.6	-3.3	-4.0	-4.8	-5.6	-6.4	-7.3	-8.2	-9.1
Compliance, +1%	-1.4	-1.5	-1.5	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6	-1.7
Post-Irma add-factor, +0.5%	-1.8	-2.5	-2.5	-2.6	-2.6	-2.7	-2.7	-2.8	-2.8	-2.9
Medical cost inflation, +0.5%	+1.9	+2.0	+2.1	+3.1	+4.2	+5.3	+6.4	+7.6	+8.9	+10.2
Reduced cost newly covered, -5%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<u><i>GHI scenario:</i></u>										
Wage inflation, +0.5%	-2.8	-3.7	-4.7	-5.6	-6.7	-7.7	-8.8	-9.9	-11.1	-12.4
Compliance, +1%	-1.4	-1.4	-1.5	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6	-1.7
Post-Irma add-factor, +0.5%	-2.1	-3.0	-3.0	-3.1	-3.1	-3.2	-3.3	-3.3	-3.4	-3.4
Medical cost inflation, +0.5%	+2.2	+2.3	+2.4	+3.4	+4.5	+5.7	+7.0	+8.3	+9.6	+11.1
Reduced cost newly covered, -5%	+2.4	+1.9	+1.5	+1.6	+1.6	+1.6	+1.7	+1.7	+1.8	+1.8

### Conclusions

A3.1.62 As recognized by the Kingdom Council of Ministers as early as 2015, continuing on the current path is financially unsustainable. Three of the four existing public health insurance funds are in substantial deficit, without a credible path to full cost coverage, such that substantial negative balances will continue to accrue in the absence of dramatic remedial policy action. In addition, the significant outstanding arrears in payment by central government to SZV with respect to the financial obligations of the former (notably with respect to the OZR PAYGO sub-system) further undermine the financial integrity of the current system.

A3.1.63 Transitioning to a General Health Insurance model would have the benefit of improving health coverage and outcomes while putting the system on a firm financial footing without increasing the tax wedge in the private sector. In addition, simplification of the system can be expected to yield further benefits in terms of reduced administrative costs and, potentially, improved compliance as people gain more confidence in the integrity of the system. However, this will require careful consensus building and policy design to ensure sufficient buy-in from relatively disadvantaged population cohorts: notably public servants and high-income workers and employers of undocumented, and heretofore uninsured, migrants in the private sector.

A3.1.64 Most of the major risks to long-term financial sustainability of the GHI – notably the differential between wage inflation and medical cost inflation – would be in play in any case under the *status quo ante* or parametric reform scenarios. Moreover, many of these risks can be mitigated through careful design and appropriate built-in flexibility of the system, as well as flanking policy reforms to control costs. For example, the authorities envisage the possibility to vary the benefits on offer through the various GHI health insurance packages by way of secondary legislation, which would limit political barriers to future cost control measures.

A3.1.65 A suite of alternative, parametric – and, by comparison, minimalist – reforms to the public health system could also be envisaged. However, such a parametric reform scenario would require politically difficult executive decisions on the spending side as well as parliamentary decisions on the income side to make up any remaining shortfall. This challenge would be even more acute should the authorities target sufficient annual surpluses to be able to gradually pay down accumulated negative balances (by 2030, as in the ‘parametric+’ scenario, for example). Even in the most optimistic scenario for cost containment, administrative measures would still require significant increases in premium schedules for contributors to the FZOG fund so as to fully cover costs, yet alone to gradually pay down accumulated arrears. Moreover, by leaving the current architecture in place, the scope for achieving significant savings in operational costs is absent while a significant cohort of the population would remain without health insurance cover. At the same time, existing perverse incentives – such as to under-declare private sector income so as to fall below the income threshold for ZV eligibility – would remain unaddressed.

A3.1.66 Under a variety of assumptions, the total net annual cost to general government of transitioning to GHI is expected to be lower than that under the parametric reform scenario, with this differential expected to increase over the medium term. Under the baseline set of assumptions, the difference in the total net annual cost to general government between the GHI and the *status quo ante* would amount to 1.4% of GDP (or NAF 33.4m in nominal terms) in 2021, the first year of operation, increasing to a peak of 1.5% of GDP in 2023 before declining gradually over time. The difference in cost is nonetheless projected to remain in excess of 1.0% of GDP through 2040. A positive cost differential advantage in favor of GHI would remain even in a parametric reform scenario, although it would naturally be less dramatic than with respect to the *status quo ante* and is more dependent on assumption that the newly insured cohort would generate fewer medical expenses than the previously insured cohort.

A3.1.67 Given that cost coverage under GHI is projected to remain in excess of 100% through 2040, this would be sufficient both to pay down the accumulated legacy negative balances of the pre-GHI era by the late-2020’s and to build a significant reserve thereafter (amounting to about 2.5% of GDP by 2040). On the one hand, this would open the possibility to either modest reduced premium contribution rates or reduced annual government contributions without jeopardizing the financial integrity of the GHI fund. On the other hand, building such a financial buffer into the GHI from the beginning would improve its robustness in the face of longer-term financial pressures arising from population ageing.

A3.1.68 The improved financial performance under GHI compared to the *status quo* despite a significant increase in the coverage rate is essentially due to the much greater increase in premiums collected than in expenses incurred. While premiums are projected over the medium-to-long term to be about two thirds (67%) higher under GHI than they would be under the *status quo*, expenses incurred are projected to increase by a little over an eighth (13%). These compare to an increase in the number of clients covered by just over a third (36%).

A3.1.69 On the income side, a large part of the increase can be explained by the increase in government contributions. When this effect is removed (since this also represents an outflow in the annual budget), the increase over the *status quo ante* is a little over half (51%), albeit

this is some way ahead of what would be expected should premiums increase *pro rata* in line with the increased number of clients insured. The remainder of this 'excess' increase in premiums collected under a GHI scenario can be explained by three main factors:

- nearly two fifths (39%) is derived from contributions from those previously availing of private insurance, whether through paying premiums or solidarity payments,
- more than a third (35%) can be explained by increased *explicit* contributions made on behalf of public servants and staff in subsidized entities, on foot of the modest (0.95%) increase in the employee contribution rate and the *explicit* payment by government of an employer contribution (9%; this would also represent an outflow in the annual budget), and
- just over a fifth (22%) results from premiums collected from the previously uninsured.

A3.1.70 On the spending side, absorption by employers of 'loss of wages' due to sickness under GHI, which had heretofore been reimbursed by the ZV/OV health insurance funds, would generate significant savings, albeit this should be considered to be an implicit extra contribution or burden borne by private sector employers. Rationalization of the number of health insurance funds and schemes can be expected to yield savings in operational costs. Even on the baseline assumption that operational costs will continue to amount to 9% of premium income, it is projected that these will be only marginally (7%) higher in nominal terms under GHI than under the *status quo* despite the significant increase in clients served. By far the most important reason for the lower *pro rata* increase in costs under the GHI scenario, however, is the less than *pro rata* increase in medical expenses. The key driver here is the assumption that the newly insured cohort will generate less (28% less, on average, according to the baseline assumption) medical expenses than those already covered. Even if this latter differential was assumed to be zero, the total net cost to government of the GHI would still be less than the cost under the *status quo ante* or parametric reform scenarios, although the GHI fund itself would then achieve 100% cost coverage only through the mid-2030s, insufficient to generate surpluses necessary to pay down legacy accumulated negative balances.

### **Key Recommendations**

1. Clarify the extent of legacy accumulated surplus or deficit that GHI will inherit or start off from.
2. Assess the impact of population ageing and epidemiological transition on medical cost inflation under GHI, parametric and *status quo* scenarios over the medium and long-term.
3. Additional revenue raising measures in the form of Pigouvian 'sin' taxes on the consumption of tobacco, alcohol, sugary drinks and high-fat foods should be considered as a means of part-financing the 'additional government financial support' necessary to ensure the system's financial viability. In addition to increasing government income, such taxes should have the effect of reducing medical costs at the margin over the long-term as they discourage behaviors detrimental to a healthy lifestyle.
4. Since financial sustainability is sensitive to uncertain assumptions around claims and costs, particularly for those population segments entering the public health insurance system for the first time (i.e. the previously privately insured and the uninsured), maximum efforts should be made to structure incentives for both clients and service providers not to over-consume medical services or to avail of alternatives that may not provide value-for-money. The introduction of deductibles or co-payments, for example, should be considered not only for the purposes of revenue raising, but from the point of view of incentivizing positive behavioral change.

5. Calibrate accessibility to minimize adverse selection by high earners, whereby clients can easily opt in to GHI when they need costly medical services that are not provided by private insurers and opt out at other times.
6. Build into a comprehensive transition plan additional measures to tackle fraud, ensure tax compliance and control costs (i.e. disincentivize over-use of medical services). These should include, for example, protocols for systematic health technology assessments to critically appraise the costs and benefits of newly available medical treatments, and whether these should be made available – with or without co-payments – through the public health insurance system.
7. Establish *ex ante* criteria (or triggers) to establish when the authorities can – and when they *must* – adjust parameters of the GHI through secondary legislation so as to ensure long-term financial viability.
8. Mandate the SZV to elaborate a comprehensive business plan to deliver significantly reduced overheads under a GHI scenario.
9. Consider grandfathering mechanisms, if necessary, to ensure social consensus around GHI by smoothing the transition for those population segments likely to be most significantly and negatively financially impacted.

### Appendix 3.1 – Status Quo ‘No Reform’ Scenario Financial Projections

<b>Annual Balance NAf millions</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
(1) ZV	-42.7	-31.5	-21.9	-10.0	-9.8	-11.0	-11.9	-12.8	-13.7	-14.7	-15.8	-16.8	-18.0
(2) OV	-6.5	-4.1	-2.7	+0.7	+1.6	+2.4	+2.4	+2.4	+2.4	+2.3	+2.3	+2.3	+2.3
(3) FZOG	-7.6	-7.9	-8.1	-7.1	-6.9	-6.7	-6.9	-7.1	-7.4	-7.6	-7.8	-8.1	-8.3
(4) AVBZ	-1.3	+3.0	+4.9	+7.1	+7.9	+8.0	+8.0	+8.0	+8.0	+7.9	+7.9	+7.9	+7.9
(5) = (1)+(2)+(3)+(4)	-58.0	-40.5	-27.8	-9.2	-7.2	-7.3	-8.4	-9.6	-10.8	-12.1	-13.4	-14.7	-16.2
(6) OZR	-45.9	-47.0	-42.7	-42.3	-41.9	-41.3	-42.3	-43.4	-44.5	-45.6	-46.8	-48.0	-49.2
(7) Government employer contribution to AVBZ and FZOG	-1.5	-1.5	-1.5	-1.6	-1.6	-1.6	-1.7	-1.7	-1.7	-1.8	-1.8	-1.8	-1.8
(8) Government contribution to ZV (formerly employed)	-7.9	-8.0	-8.1	-8.3	-8.4	-8.6	-8.7	-8.9	-9.1	-9.2	-9.4	-9.6	-9.7
<b>Total = (5)+(6)+(7)+(8)</b>	<b>-113.4</b>	<b>-97.1</b>	<b>-80.2</b>	<b>-61.4</b>	<b>-59.1</b>	<b>-58.8</b>	<b>-61.1</b>	<b>-63.6</b>	<b>-66.1</b>	<b>-68.7</b>	<b>-71.3</b>	<b>-74.1</b>	<b>-76.9</b>

<b>Accumulated Balance NAf millions</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
(1) ZV <sup>1</sup>	- 164.5	- 196.0	-217.9	-227.9	-237.7	-248.7	-260.5	-273.3	-287.1	-301.8	-317.6	-334.4	-352.4
(2) OV	-35.7	-39.8	-42.5	-41.8	-40.2	-37.8	-35.4	-33.0	-30.7	-28.3	-26.0	-23.7	-21.5
(3) FZOG	-24.4	-32.2	-40.3	-47.4	-54.3	-61.0	-67.9	-75.0	-82.4	-90.0	-97.8	-105.9	-114.2
(4) AVBZ	+88.9	+91.9	+96.8	+104.0	+111.8	+119.8	+127.8	+135.7	+143.7	+151.6	+159.6	+167.5	+175.3
<b>Total = (1)+(2)+(3)+(4)</b>	<b>- 135.7</b>	<b>- 176.2</b>	<b>-204.0</b>	<b>-213.2</b>	<b>-220.4</b>	<b>+227.7</b>	<b>-236.1</b>	<b>-245.6</b>	<b>-256.4</b>	<b>-268.5</b>	<b>-281.9</b>	<b>-296.6</b>	<b>-312.7</b>
<b>Total (% of GDP)</b>	<b>-6.5%</b>	<b>-8.1%</b>	<b>-8.8%</b>	<b>-8.8%</b>	<b>-8.8%</b>	<b>-8.7%</b>	<b>-8.7%</b>	<b>-8.7%</b>	<b>-8.7%</b>	<b>-8.8%</b>	<b>-8.8%</b>	<b>-8.9%</b>	<b>-9.0%</b>

NB: estimates from 2019 onwards (OV estimates from 2018 onwards)

Premium schedule: ZV 12.5% (o/w employee 8.3%, employer 4.2%); OV min. 0.5%, max 5%; FZOG active 2.72% (o/w 2.0%, 0.72%); FZOG retired 10%; AVBZ 2% (o/w 1.5%, 0.5%)

1: This overstates the degree of negative equity by an amount equal to the ZV legal reserve at end-2018, or NAF 28,500. A legal change would be required to allow for netting.

### Appendix 3.2 – Parametric Reform Scenario Financial Projections

<b>Annual Balance NAf millions</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>(1) ZV</b>	-42.7	-31.5	-21.9	+23.2	+22.0	+18.7	+18.1	+17.6	+17.0	+16.4	+15.7	+15.0	+14.3
<b>(2) OV</b>	-6.5	-4.1	-2.7	+0.7	+1.6	+2.4	+2.4	+2.4	+2.4	+2.3	+2.3	+2.3	+2.3
<b>(3) FZOG</b>	-7.6	-7.9	-8.1	+0.2	+0.4	+0.7	+0.7	+0.6	+0.5	+0.4	+0.3	+0.3	+0.2
<b>(4) AVBZ</b>	-1.3	+3.0	+4.9	+7.1	+7.9	+8.0	+8.0	+8.0	+8.0	+7.9	+7.9	+7.9	+7.9
<b>(5) = (1)+(2)+(3)+(4)</b>	<b>-58.0</b>	<b>-40.5</b>	<b>-27.8</b>	<b>+31.2</b>	<b>+31.9</b>	<b>+29.8</b>	<b>+29.2</b>	<b>+28.5</b>	<b>+27.8</b>	<b>+27.1</b>	<b>+26.3</b>	<b>+25.5</b>	<b>+24.6</b>
<b>(6) OZR</b>	-45.9	-47.0	-42.7	-42.3	-41.9	-41.3	-42.3	-43.4	-44.5	-45.6	-46.8	-48.0	-49.2
<b>(7) Government employer contribution to AVBZ and FZOG</b>	-1.5	-1.5	-1.5	-2.3	-2.4	-2.4	-2.5	-2.5	-2.6	-2.6	-2.6	-2.7	-2.7
<b>(8) Government contribution to ZV (formerly employed)</b>	-7.9	-8.0	-8.1	-8.3	-8.4	-8.6	-8.7	-8.9	-9.1	-9.2	-9.4	-9.6	-9.7
<b>(9) Government cost of parametric reform transfer of clients etc. from ZV</b>				-25.4	-24.0	-21.9	-22.2	-22.6	-23.0	-23.3	-23.7	-24.1	-24.5
<b>Total = (5)+(6)+(7)+(8)+(9)</b>	<b>-113.4</b>	<b>-97.1</b>	<b>-80.2</b>	<b>-46.7</b>	<b>-44.3</b>	<b>-43.9</b>	<b>-46.2</b>	<b>-48.4</b>	<b>-50.8</b>	<b>-53.2</b>	<b>-55.8</b>	<b>-58.4</b>	<b>-61.0</b>
<b>Accumulated Balance NAF millions</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>(1) ZV'</b>	-164.5	-196.0	-217.9	-194.7	-172.7	-154.1	-135.9	-118.4	-101.4	-85.1	-69.3	-54.3	-39.9
<b>(2) OV</b>	-35.7	-39.8	-42.5	-41.8	-40.2	-37.8	-35.4	-33.0	-30.7	-28.3	-26.0	-23.7	-21.5
<b>(3) FZOG</b>	-24.4	-32.2	-40.3	-40.1	-39.7	-39.0	-38.3	-37.7	-37.2	-36.7	-36.4	-36.1	-36.0
<b>(4) AVBZ</b>	+88.9	+91.9	+96.8	+104.0	+111.8	+119.8	+127.8	+135.7	+143.7	+151.6	+159.6	+167.5	+175.3
<b>Total = (1)+(2)+(3)+(4)</b>	<b>-135.7</b>	<b>-176.2</b>	<b>-204.0</b>	<b>-172.7</b>	<b>-140.8</b>	<b>-111.0</b>	<b>-81.9</b>	<b>-53.4</b>	<b>-25.6</b>	<b>+1.5</b>	<b>+27.8</b>	<b>+53.3</b>	<b>+77.9</b>
<b>Total (% of GDP)</b>	<b>-6.5%</b>	<b>-8.1%</b>	<b>-8.8%</b>	<b>-7.2%</b>	<b>-5.6%</b>	<b>-4.2%</b>	<b>-3.0%</b>	<b>-1.9%</b>	<b>-0.9%</b>	<b>0.1%</b>	<b>0.8%</b>	<b>1.6%</b>	<b>2.2%</b>

NB: estimates from 2019 onwards; parametric reform measures implemented from 2021 onwards

Premiums: ZV 12.5% (o/w employee 8.3%, employer 4.2%); OV min. 0.5%, max 5%; FZOG active 5.17% (o/w 3.8%, 1.37%); FZOG retired 19%; AVBZ 2% (o/w 1.5%, 0.5%)

1: This overstates the degree of negative equity by an amount equal to the ZV legal reserve at end-2018, or NAF 28,500. A legal change would be required to allow for netting.

**Appendix 3.3 – Parametric+ Reform Scenario Financial Projections**  
**(Parametric Plus Increased Premium Rates to Pay Down Negative Reserves by 2030)**

<i>Annual Balance NAf millions</i>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>(1) ZV</b>	-42.7	-31.5	-21.9	+27.2	+26.2	+22.9	+22.5	+22.0	+21.5	+20.9	+20.4	+19.8	+19.2
<b>(2) OV</b>	-6.5	-4.1	-2.7	+2.7	+3.6	+4.5	+4.5	+4.5	+4.5	+4.5	+4.6	+4.6	+4.6
<b>(3) FZOG</b>	-7.6	-7.9	-8.1	+3.8	+4.1	+4.5	+4.5	+4.5	+4.5	+4.5	+4.5	+4.5	+4.4
<b>(4) AVBZ</b>	-1.3	+3.0	+4.9	+7.1	+7.9	+8.0	+8.0	+8.0	+8.0	+7.9	+7.9	+7.9	+7.9
<b>(5) = (1)+(2)+(3)+4)</b>	<b>-58.0</b>	<b>-40.5</b>	<b>-27.8</b>	<b>+40.9</b>	<b>+41.9</b>	<b>+39.9</b>	<b>+39.4</b>	<b>+39.0</b>	<b>+38.4</b>	<b>+37.9</b>	<b>+37.3</b>	<b>+36.7</b>	<b>+36.1</b>
<b>(6) OZR</b>	-45.9	-47.0	-42.7	-42.3	-41.9	-41.3	-42.3	-43.4	-44.5	-45.6	-46.8	-48.0	-49.2
<b>(7) Government employer contribution to AVBZ and FZOG</b>	-1.5	-1.5	-1.5	-2.8	-2.9	-2.9	-3.0	-3.0	-3.1	-3.1	-3.2	-3.2	-3.3
<b>(8) Government contribution to ZV (formerly employed)</b>	-7.9	-8.0	-8.1	-8.3	-8.4	-8.6	-8.7	-8.9	-9.1	-9.2	-9.4	-9.6	-9.7
<b>(9) Government cost of parametric reform transfer of clients etc. from ZV</b>				-25.4	-24.0	-21.9	-22.2	-22.6	-23.0	-23.3	-23.7	-24.1	-24.5
<b>Total = (5)+(6)+(7)+(8)</b>	<b>-113.4</b>	<b>-97.1</b>	<b>-80.2</b>	<b>-37.5</b>	<b>-34.9</b>	<b>-34.3</b>	<b>-36.4</b>	<b>-38.5</b>	<b>-40.7</b>	<b>-42.9</b>	<b>-45.3</b>	<b>-47.7</b>	<b>-50.2</b>
<b>Accumulated Balance NAf millions</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>(1) ZV</b>	-164.5	-196.0	-217.9	-190.7	-164.5	-141.6	-119.8	-97.2	-75.8	-54.8	-34.5	-14.7	+4.5
<b>(2) OV</b>	-35.7	-39.8	-42.5	-39.8	-36.2	-31.7	-27.2	-22.7	-18.2	-13.6	-9.1	-4.5	+0.1
<b>(3) FZOG</b>	-24.4	-32.2	-40.3	-36.5	-32.4	-27.8	-23.3	-18.8	-14.3	-9.8	-5.3	-0.9	+3.6
<b>(4) AVBZ</b>	+88.9	+91.9	+96.8	+104.0	+111.8	+119.8	+127.8	+135.7	+143.7	+151.6	+159.5	+167.4	+175.3
<b>Total = (1)+(2)+(3)+4)</b>	<b>-135.7</b>	<b>-176.2</b>	<b>-204.0</b>	<b>-163.1</b>	<b>-121.3</b>	<b>-81.4</b>	<b>-42.0</b>	<b>-3.0</b>	<b>+35.4</b>	<b>+73.3</b>	<b>+110.7</b>	<b>+147.4</b>	<b>+183.4</b>
	<b>-6.5%</b>	<b>-8.1%</b>	<b>-8.8%</b>	<b>-6.8%</b>	<b>-4.8%</b>	<b>-3.1%</b>	<b>-1.5%</b>	<b>-0.1%</b>	<b>+1.2%</b>	<b>+2.4%</b>	<b>+3.5%</b>	<b>+4.4%</b>	<b>+5.3%</b>

NB: estimates from 2019 onwards; Parametric reform measures implemented from 2021 onwards

Premiums: ZV 13.1% (o/w employee 8.7%, employer 4.4%); OV min. 0.65%, max 6.5%; FZOG active 6.66% (o/w 4.90%, 1.76%); FZOG retired 24.5%; AVBZ 2% (o/w 1.5%, 0.5%)

### Appendix 3.4 – GHI Financial Projections

<b>NAf millions</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
<b>(1) Annual Balance in GHI Fund</b>	+11.0	+18.3	+23.1	+22.2	+21.2	+20.2	+19.1	+18.0	+16.8	+15.6
<b>(2) Government contribution<sup>1</sup></b>	-22.6	-23.2	-23.8	-24.4	-25.0	-25.6	-26.2	-26.9	-27.6	-28.3
<b>(3) Government contribution as employer of public servants<sup>2</sup></b>	-16.3	-16.6	-16.9	-17.2	-17.5	-17.8	-18.1	-18.4	-18.8	-19.1
<b>Funding Level (%)<sup>3</sup></b>	105%	108%	111%	110%	109%	109%	108%	107%	107%	106%
<b>Accumulated Balance in GHI Fund<sup>4</sup></b>	+11.0	+29.3	+52.3	+74.5	+95.7	+115.8	+134.9	+152.9	+169.7	+185.2
<b>Accumulated Balance in GHI Fund (inc. legacy negative balances)<sup>5</sup></b>	-164.5	-146.2	-123.1	-101.0	-79.8	-59.7	-40.6	-22.6	-5.8	+9.8
<b>Total = (1)+(2)+(3)<sup>6</sup></b>	<b>-27.9</b>	<b>-21.5</b>	<b>-17.6</b>	<b>-19.4</b>	<b>-21.3</b>	<b>-23.2</b>	<b>-25.3</b>	<b>-27.4</b>	<b>-29.5</b>	<b>-31.8</b>

*Premium schedule:* Working age, 14.7% (o/w employee 9%, employer 5.7%); Above working age, 11%

1: The government contribution, or government support, is an annual, recurrent payment from the budget to the GHI fund. Estimated at NAF 20m in 2016, and indexed to medical cost inflation thereafter, this amount can be considered to replace the current government contributions in respect of a) OZR, covering the cost of PP cardholders on a social solidarity basis; and b) ZV, covering the cost of insuring former employees who do not otherwise make a financial contribution towards their health insurance. Collectively, these contributions under the existing health insurance architecture amounted to NAF XX.Xm in 2018, and are projected to amount to NAF XX.Xm in 2020 under a 'business as usual' scenario.

2: As the employer of civil servants and staff at subsidized entities, the government will make contributions to the GHI fund. These can be considered to replace the current government contributions in respect of a) AVBZ and FOZG, as the employer of civil servants and staff at subsidized entities; and b) OZR, covering the excess of costs over employee contributions from civil servants and staff at subsidized entities. Collectively, these contributions under the existing health insurance architecture amounted to NAF XX.Xm in 2018, and are projected to amount to NAF XX.Xm in 2020 under a 'business as usual' scenario.

3: Funding level equals GHI income over GHI expenditure but ignores government contributions.



4: In this scenario, the accumulated balance relates to the cumulative excess of expenditure over income in the initial years of implementation, before the funding level exceeds 100% (i.e. when income exceeds expenditures in any given year).

5: In this scenario, the accumulated balance relates to the cumulative excess of expenditure over income in the initial years of implementation, before the funding level exceeds 100% (i.e. when income exceeds expenditures in any given year).

6: Total annual net cost to government, including annual budget and annual balance on GHI fund.



### Appendix 3.5 – Benefits of Existing Health Packages<sup>95 96</sup>

Services	Services paid by your insurance			
	ZV/OV	FZOG	OZR	PP
<b>1) General practitioner</b>				
a) Consultations or visits to the general practitioner outlined on your insurance card		✓		
b) Small procedures; office procedures		✓		
c) Laboratory tests <sup>1)</sup>		✓ 		
d) X-rays, MRI, CAT scan, ultrasonography, echo (medically indicated)		✓		
e) Prescribed medication		Generic or equivalent according to SZV-approved list		
f) Wound dressings (bandages)		✓ 		
g) Alternative medicine		x		
h) Medically indicated nutritional support (Glucerna/Ensure)		✓		
<b>2) Hospitalization</b>				
a) Cost of hospitalization in the class insured		✓		
b) Emergency treatment in hospital		✓		
c) Additional costs when hospitalized (laboratory tests, x-rays, blood transfusion, anesthesia, etc.)		✓		
d) Daycare in hospital (outpatient treatment)		✓		
e) Radiation therapy		✓		
f) Chemo therapy		✓		
g) Alternative medicine		✓		
h) Medically indicated nutritional support (Glucerna/Ensure)		✓		

<sup>95</sup> This table is extracted from the Willis Towers Watson Final Report on the GHI Proposal (2018)

<sup>96</sup> Disclaimer: No rights can be derived from this sheet. This sheet is subject to change without notice.

Personal Responsibility: It is the personal responsibility of the insured party to pursue a healthy lifestyle and make conscious pro-health choices

Services	Services paid by your insurance			
	ZV/OV	FZOG	OZR	PP
<b>3) Specialist</b>				
a) Dermatologist, ENT specialist, general surgeon, gynecologist, pediatrician, internist, cardiologist, gastroenterologist, psychiatrist (available at SMMC)			✓	
a) Dialysis			✓	
b) Psychiatric hospitalization (inpatient treatment)			✓	
c) Psychiatric treatment (outpatient)			✓	
d) Psychiatric supervised living			✓	
e) Psychiatric daycare			✓	
f) Purchase or replacement of covered medical equipment (standard models, medically indicated)			✓	
<b>4) Allied Health Services</b>				
a) Physical therapy, speech therapy per person, psychologist, dietician, speech therapist			Subject to prior approval	
b) Rehabilitation			✓	
c) Dermatological outpatient procedures			✓	
d) Medically-required transportation by ambulance			✓	
<b>5) Maternity</b>				
a) Delivery in hospital and prenatal care			✓	
b) Consultation during pregnancy by specialist, general practitioner or midwife			✓	
c) Maternity care at home, following a stay of up to 4 days in hospital/maternity (postnatal) care, max. 10 sessions (subject to prior approval from SZV medical advisor) <sup>4)</sup>	x		✓ <sup>4)</sup>	x
d) Sterilization			x	
e) Oral contraceptives	x		✓	✓
f) Fertility treatment/artificial insemination			x	
g) Therapeutic Abortion <sup>6)</sup>			✓	

Services	Services paid by your insurance			
	ZV/OV	FZOG	OZR	PP
6) Dental				
a) Dental care 3)	Only if due to mouth disease not as a result of caries	✓ 3)		
b) Orthodontics 3)	x	✓ 3)	✓	
c) Maxillofacial surgeon	✓			
7) Glasses				
a) Glasses and contact lenses 5)	x	✓ 5)		
8) Medical referral abroad 7) 8)				
a) Medical costs	✓			
b) Travel expenses (airline ticket/air ambulance/ground ambulance, appointments transfers)	✓			
c) Daily allowance 7) 8)	✓			
d) Accommodation expenses 7) 8)	✓			
9) AVBZ				
a) Nursing home	✓			
b) Home care (district nursing)	Subject to prior approval			
c) Psychiatric care (specified section 3)	✓			
d) Home Care-Allied Health Services (specified section 4)	✓			
10) Various				
a) Traveler's vaccination and prophylactic care	x			

**Notes:**

1) Exclusions applicable. Overview of exclusions available at Customer Care

2) SZV policy specific

3) Dental care is covered in accordance with the dental policy of the Government. A separate brochure is available detailing the dental care coverage

4) Maternity care is covered in accordance with the maternity care policy of the Government. A separate brochure is available detailing the maternity care coverage

5) Coverage according to the health insurance plan of the Government, the FZOG and the PP. A separate brochure is available detailing the coverage for glasses and lenses.

6) Therapeutic abortion induced when pregnancy constitutes a threat to the physical or mental health of the mother or baby  
7) Prior approval of SZV's medical advisor is needed before travelling abroad for medical care that will be covered according to the SZV allowance sheet. If client travels without prior approval all medical costs abroad need to be paid by the client in advance and can be submitted by SZV through the reimbursement form. The medical bills need to be paid in full prior to submission. Costs will not be fully reimbursed, but only according to SZV tariffs and after SZV's medical advisor establishes that the medical care abroad was necessary.

8) All clients that are not referred abroad by SZV are advised to take out a travel health insurance when travelling abroad (anywhere outside of Sint Maarten). All health care plans only cover medical costs made in Sint Maarten or made abroad with prior approval by SZV's medical advisor.

### Appendix 3.6 Health Insurance Premium Schedules

#### **Private Sector Workers (Actual, as of 2019):**

	Employee	Employer	Total
1. ZV	4.2%	8.3%	12.5%
2. OV	-	0.5-5%	0.5-5%
3. AVBZ	1.5%	0.5%	2%
	5.7%	9.3-13.8%	15-19.5%

#### **Active Civil Servants (Actual, as of 2019):**

	Employee	Employer	Total
1. OZR	1.25%	-	1.25%
2. FZOG	2%	0.72%	2.72%
3. AVBZ	1.5%	0.5%	2%
	4.75%	1.22%	5.97%

#### **Retired Civil Servants (Actual, as of 2019):**

1. FZOG (first NAF 500)	3.75%
2. FZOG (additional income)	10%

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**Proposed Private Sector Worker Under the Parametric Reform Scenario:**

	Employee	Employer	Total
1. ZV	4.2%	8.3%	12.5%
2. OV	-	0.85-8.5%	0.5-5%
3. AVBZ	1.5%	0.5%	2%
	5.7%	9.65-17.3%	15 -19.5%

**Proposed Active Civil Servants Under the Parametric Reform Scenario:**

	Employee	Employer	Total
1. OZR	1.25%	-	1.25%
2. FZOG	3.8%	1.37%	5.17%
3. AVBZ	1.5%	0.5%	2%
	6.55%	1.85%	8.40%

**Proposed Retired Civil Servants Under the Parametric Reform Scenario:**

1. FZOG (first NAF 500)	7.125%
2. FZOG (additional income)	19%

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**Proposed Private Sector Worker Under ‘Parametric+’ (‘Parametric’ Plus Paydown of Accumulated Negative Reserves by 2030):**

	Employee	Employer	Total
1. ZV	4.4%	8.7%	13.1%
2. OV	-	0.65-6.5%	0.65-6.5%
3. AVBZ	1.5%	0.5%	2%
	5.9%	9.85-15.7%	15.75-21.6%

**Proposed Active Civil Servants Under ‘Parametric+’ (‘Parametric’ Plus Paydown of Accumulated Negative Reserves by 2030):**

	Employee	Employer	Total
4. OZR	1.25%	-	1.25%
5. FZOG	4.9%	1.76%	6.66%
6. AVBZ	1.5%	0.5%	2%
	7.65%	2.26%	9.9%

**Proposed Retired Civil Servants Under the Parametric Reform Scenario:**

3. FZOG (first NAF 500)	9.2%
4. FZOG (additional income)	24.5%

**Proposed Under GHI:**

	Individual	Employer	Total
1. GHI (workers)	5.7%	9%	14.7%
2. GHI (above working age)	11%	n/a	11.0%

**Proposed Under GHI (with Paydown of Accumulated Negative Reserves by 2030):**

	Individual	Employer	Total
1. GHI (workers)	5.7%	9%	14.7%
2. GHI (above working age)	11%	n/a	11.0%

## Chapter 4: Social Protection

### *Introduction*

**4.1 After providing socio-economic and demographic context and a short description of the relevant institutional actors in Sint Maarten, this chapter will explore the main trends and composition of social protection spending.** To the extent permitted by data availability, these will be benchmarked against peer countries. It will then describe the core social protection programs, categorized as social insurance, social assistance and active labor market policies (ALMPs). Where relevant, the main financial aspects, as well as recent and planned reforms and their likely impact on financial performance, will be outlined. This will be followed by a short section elaborating on social protection reforms proposed in recent years, but which have not as yet been implemented. The concluding section will draw lessons and make recommendations.

### *Country Context*

**4.2 Sint Maarten is a high-income country, with living standards significantly above the Caribbean average.** GDP per capita was \$23,622 in 2018<sup>97</sup>, far ahead of the average of \$9,023<sup>98</sup> in the Latin America and Caribbean region. Nonetheless, economic activity is estimated to have contracted during 2017-2018 by an estimated 12.5 percent compared to its pre-hurricane (2016) level. This led to a spike in unemployment, reduced household incomes and increased incidence of poverty. With no formal unemployment insurance, and only limited social assistance and anti-poverty measures, state capacity to cushion the impact on low-income households is constrained. Moreover, fiscal space to strengthen the social protection system will be limited over the medium term in light of the still-significant post-hurricane budget deficits.

**4.3 Sint Maarten's population has grown rapidly, is challenging to estimate, is relatively young and is set to age rapidly.** The population of Sint Maarten has grown twenty-fold since the 1960s as the island cemented its place as a prime cruise terminal destination. This population growth slowed and became more uneven in the 1990s, but nonetheless remains relatively robust with both high inward migration and natural increase. While the last official census took place in 2011, and the next is under preparation, the latest official population estimate according to the authorities was 40,614 as at the beginning of 2018. Nonetheless, there are wide discrepancies in both unofficial and official population estimates as, for example, between the Census and the Civil Registry Department. On the one hand, those who leave the island often do not formally de-register with the Civil Registry Department, so that there is a lag in removing these people from the population estimates while newly arrived emigrants may not have registered at all. Some estimates put the actual population upwards of 50,000 while, as of October 2019, the civil registry numbered 61,750 persons<sup>99</sup>. Recent years have seen a surge in unsanctioned immigration, particularly from Venezuela, while a number of residents are thought to have left the island, at least temporarily, in the wake of the twin hurricanes of September 2017 so that net migration was negative that year (-114, versus an average of +812 over the 2014-2016 period). Coupled with a natural increase of 191 persons, net population growth was 79 in 2017, compared to an average of 1135 (or around 3%) on average during the 2014-2016 period. Sint Maarten has one of the youngest demographics and lowest old-age dependency ratios in the Caribbean region but,

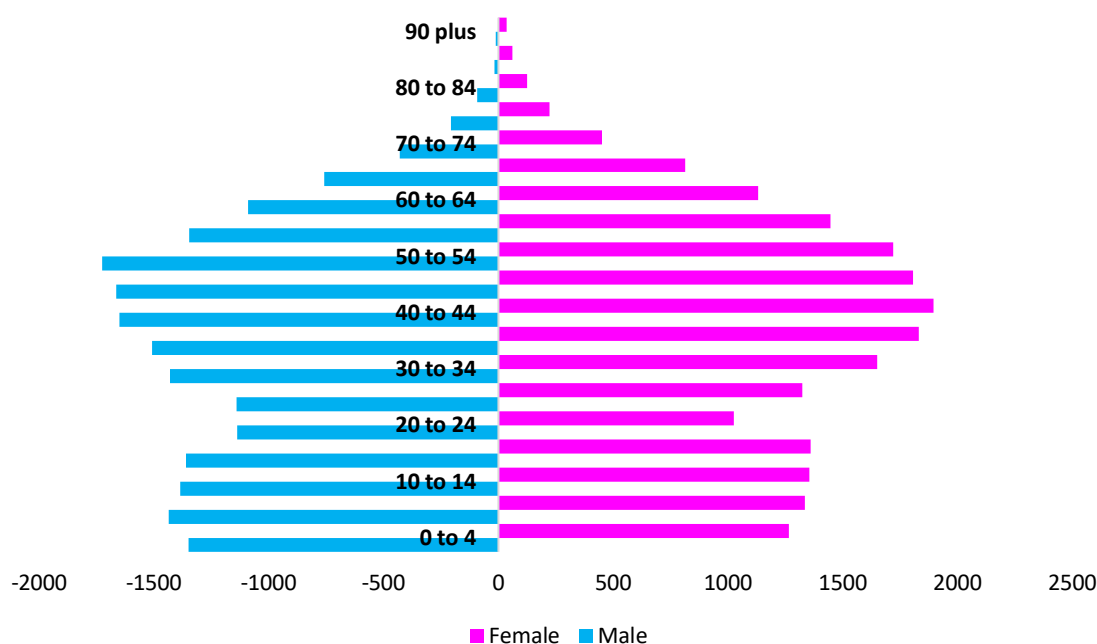
<sup>97</sup> International Monetary Fund, *Article IV*, 2019.

<sup>98</sup> World Bank Data, *GDP Per Capita (current US\$) – Latin America & Caribbean, 2018*. [https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=ZJ&year\\_high\\_desc=false](https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=ZJ&year_high_desc=false)

<sup>99</sup> The Daily Herald, *Now Registered in Civil Registry, Eligible to Vote*. <https://www.thedailyherald.sx/islands/91939-61-750-now-registered-in-civil-registry-23-130-eligible-to-vote-2>

largely due to the low base effect, also one of the most rapidly ageing. The size of the older age cohorts is increasing more rapidly than that of the working age cohorts, while net emigration of those in the 20-29 age range, mainly due to studying abroad, has led to a fall in the size of this cohort. In 2018, for example, there were 3,227 people (or 7.9% of the total) – of which 1,519 males and 1,708 females – aged 65+ with a further 5,018 – of which 2,439 males and 2,579 females – aged 55-64. Moreover, between 2014 and 2018 alone, Sint Maarten's old-age dependency ratio increased from 8% to 11%. These underlying demographic trends have potentially profound medium-to-long-term implications for social security, pension and public health systems (see Figure 4.1).

**Figure 4.1 Sint Maarten's Population is Young but Set to Age Rapidly**



Source: Sint Maarten Population Factsheet, 2019

**4.4 Unemployment increased significantly after the 2017 Hurricane season.** Although there are issues relating to the year-on-year comparability of figures<sup>100</sup>, there were clear trends in increased population, increased labor force, increased employment and a reduced unemployment rate over the 2011-2017 period, while the participation rate did not show a particular trend. The 2018 Labor Force Survey, the first to take place after Hurricanes Irma and Maria, showed that population increased only marginally year-on-year (as net migration had turned negative). The labor force also continued to grow while the number of economically inactive persons declined, as did the number employed. The number of persons unemployed increased by almost two-thirds while the unemployment rate increased from 6.2% to 9.9%, undoing much of the progress that had been made since 2011. It is encouraging that the participation rate increased by almost 2 percentage points between 2017 and 2018, suggesting

<sup>100</sup> The Labor Force Survey is carried out sporadically, and at different times of the year. For example, the population census was carried out in April 2011, while labor force surveys were carried out in June 2017, February 2017 and September 2018. Due to Sint Maarten's dependence on a highly seasonal tourist sector, this can complicate the comparability of labor force statistics. The 2011 and 2013 Surveys were carried out during high season while the 2013 and 2018 Surveys were carried out during low season.



the proportion of people willing and able to work has remained robust despite the economic challenges. Even when one takes account of the seasonal differences in the sampling periods, however, the lasting economic impact of the twin hurricanes of September 2017 is clear.

**Table 4.1 Labor Market Development 2011-2018, by Absolute Numbers**

	2011	2013	2017	2018	% change 2017-2018
Population	33,609	36,175	40,535	40,614	0.19%
Labor Force	19,337	21,071	22,342	23,146	3.60%
Economically Inactive	6,867	7,482	9,846	9,429	-4.23%
Employed	17,108	19,137	20,094	20,850	-0.50%
Unemployed	2,229	1,934	1,388	2,296	65.48%
Unemployment Rate	11.5%	9.2%	6.2%	9.9%	3.71%
Participation Rate	57.5%	58.2%	55.1%	57.0%	1.87%

Source: 2019 Labor Force Survey

**4.5 There were sharp differences in labor market changes by age and, in particular, by gender in 2018.** Between February 2017 and September 2018<sup>101</sup>, the share of the population who were economically inactive increased for women of all age cohorts but decreased for males of all age cohorts. The differences were most acute, however, among the younger age cohorts. The employment rate actually increased among males aged under 45, but decreased among females aged over 24, such that the gender employment gap widened among all age cohorts. On the contrary, the unemployment rate fell sharply among females under 25 and increased slightly among males under 25 such that the overall youth unemployment rate actually fell. Among older age cohorts the number of unemployed females is significantly higher than the number of unemployed males, with the unemployment rate among females aged 25-44, at 10%, double that among males of the same age (5%). People with lower levels of formal education, such as those with no formal education at all, are more likely to be economically inactive than to be employed. The same trend is in evidence in terms of unemployment, with the exception that those with no formal education are not significantly more likely to be unemployed than those with post-secondary non-tertiary education whereas those with only secondary and – in particular – primary education are more likely to be unemployed. Interestingly, 10% of economically inactive labor force survey respondents answered in the affirmative when asked whether Hurricane Irma had changed their economic status. Of these, three quarters said that the company for which they had worked had closed (66%) or that they had to close down their own company (10%). 31% of the employed survey respondents said that Hurricane Irma had impacted on their employment situation, the most common impact being reduced hours or temporary company closure.

<sup>101</sup> i.e. between high season pre-hurricane and low season post-hurricane.

**Table 4.2 Labor Market Development 2017-2018, by Population Share**

	Economically Inactive			Employed			Unemployed		
	2017	2018	% Diff.	2017	2018	% Diff.	2017	2018	% Diff.
<b>Total</b>									
15 – 24 years	58%	52%	-6%	32%	39%	7%	10%	9%	-1%
25 – 44 years	17%	14%	-3%	78%	78%	-	5%	8%	2%
45+ years	33%	34%	1%	65%	60%	-5%	2%	6%	4%
<b>Male</b>									
15 – 24 years	62%	48%	-14%	31%	42%	11%	7%	10%	2%
25 – 44 years	14%	7%	-7%	81%	88%	7%	5%	5%	-
45+ years	24%	24%	-1%	74%	72%	-2%	2%	5%	2%
<b>Female</b>									
15 – 24 years	53%	56%	3%	34%	36%	3%	13%	8%	-6%
25 – 44 years	19%	20%	1%	76%	70%	-6%	6%	10%	4%
45+ years	41%	42%	1%	58%	50%	-7%	1%	7%	6%

NB: total may differ due to rounding, as per source material Source: 2019 Labor Force Survey

**4.6 There is no official poverty line in Sint Maarten.** The authorities have not established an official poverty line, which complicates efforts to determine the poverty rate or to calibrate social protection policy. Nonetheless, data gleaned from the 2011 census and annual Labor Force Surveys give an indication of the income distribution while policy levers, such as the minimum wage and the basic financial assistance payment, give rise to rules of thumb used to inform discussions around poverty and policy in the country. Since 2016, the minimum wage for those aged over 21 has been set at ANG 8.83 per hour, amounting to ANG 1,442.75 based on a 40-hour working week. The basic amount that one can receive in social assistance payments for an independent single-person household is ANG 983 per month (or 68% of the monthly minimum wage). Sint Maarten's Social and Economic Council (SER) posits these monthly amounts, respectively, as likely upper and lower bounds of any official poverty line and, for the purposes of policy analysis, sets an indicative poverty line of ANG 1,154 per month, equivalent to 80% of the minimum wage<sup>102</sup>.

**4.7 At least one-in-five households can be classified as having low-incomes.** In 2017, 26.87% of households had an income equal to or less than the minimum wage level<sup>103</sup>. Moreover, according to the 2018 Labor Force Survey, there was a clear downward shift in the household income distribution between February 2017 and September 2018, subject again to the caveats around seasonality. The share of households with a monthly income of ANG 1,000 or less increased from 14% in 2017 to 19% in 2018, with the largest proportional increase (from 3% to 5% of all households) in those reporting no income at all. There was a further large increase, from 17% to 22%, in the share of households reporting a monthly income of ANG 1,001 to ANG 2,000. Thus, 41% of households reported a monthly income in 2018 equivalent to approximately 38% above the minimum wage or less. 74% of households are estimated to have an income of ANG 5,000 per month or less. Moreover, 26% of survey respondents reported that their income fell after Hurricane Irma.

<sup>102</sup> Social Economic Council, *Boost Sint Maarten!* (Philipsburg, 2015).

[https://www.bearingpointcaribbean.com/files/Uploads/2015/08/ser\\_20150317\\_Boost-Sint-Maarten-A-Conditional-Cash-Transfers-Program-to-reduce-poverty-in-Sint-Maarten.pdf](https://www.bearingpointcaribbean.com/files/Uploads/2015/08/ser_20150317_Boost-Sint-Maarten-A-Conditional-Cash-Transfers-Program-to-reduce-poverty-in-Sint-Maarten.pdf)

<sup>103</sup> United Nations Children's Fund (UNICEF), *The Situation of Children and Adolescents in Sint Maarten*, 2013. [https://www.unicef.nl/media/1359112/sint\\_maarten\\_sitan\\_public\\_version\\_28english\\_29.pdf](https://www.unicef.nl/media/1359112/sint_maarten_sitan_public_version_28english_29.pdf)

**Table 4.3 Household Income Shares 2017-2018**

<b>Household Income</b>	<b>2017</b>	<b>2018</b>	<b>% Change</b>
No Income	3%	5%	2%
ANG 1 – ANG 1,000	11%	14%	3%
ANG 1,001 – ANG 2,000	17%	22%	5%
ANG 2,001 – ANG 3,000	16%	14%	-2%
ANG 3,001 – ANG 4,000	12%	13%	-1%
ANG 4,001 – ANG 5,000	9%	7%	-2%
ANG 5,001 – ANG 6,000	8%	6%	-2%
ANG 6,001 – ANG 7,000	4%	5%	1%
ANG 7,001 – ANG 8,000	4%	3%	-1%
ANG 8,001 – ANG 9,000	3%	2%	-1%
ANG 9,001 – ANG 10,000	2%	1%	-1%
ANG 10,001+	10%	9%	-1%

Source: 2019 Labor Force Survey

### ***Institutional Arrangements***

**4.8 The Department of Social Services, under the Ministry of Public Health, Social Development and Labor (known by its Dutch acronym, VSA), is the branch of government charged with providing material and other social services to members of the public.** The Department is structured into two branches, Social Welfare Officers who handle matters pertaining to material aid, and Social Workers who provide advice and administer crisis care. These are overseen by the Senior Policy Execution Officer and Head of Department, responsible for management as well as final decisions on case-by-case decisions. The Minister and his or her cabinet lead policymaking efforts and has ultimate responsibility for oversight of the Social and Health Insurances (SZV).

**4.9 Social and Health Insurances (SZV) is a semi-autonomous government agency responsible for administration and management of the national health and social insurance schemes of Sint Maarten.** The SZV was established in 2010 as the country achieved new constitutional status and became fully operational from 2011. In addition to the public health insurance funds and pay-as-you-go schemes, the SZV manages two pension funds (the general pension fund, AOV, and widow[er]s and orphans' pension, AWW) as well as the severance pay insurance fund (Cessantia).

**4.10 Algemeen Pensioenfonds Sint Maarten (APS) is a semi-autonomous agency responsible for administering and managing the supplementary pension plan of employees of government and affiliated institutions.** Established in 2010 as a legal successor institution to the Algemeen Pensioenfonds Nederlandse Antillen (APNA), which managed these pensions prior to the constitutional change, the APS is governed by a four-member Board. The Board is chaired by an independent member and includes members representing both employers and employees. They, as well as members of the Investment Committee, are appointed by the Minister of Finance. As of mid-2019, the APS counted nearly 2,700 active participants, nearly 600 former participants, more than 1,100 pensioners, and had ANG 681m in assets under management. The APS is supervised by the Central Bank of Curacao and Sint Maarten and comes under control of the National Audit Office.

**4.11 In August 2018, parliament approved a National Recovery and Resilience Plan (NRRP), which included short and medium-term objectives for social assistance policy.**

This government document included inputs from across government, a wide array of national stakeholders, and a large number of domestic and international experts and organizations, notably including the World Bank. As such, it should be understood as a reasonable summary of the consensus around medium-term, high-level priorities and policy goals. In the short-term, priorities included social assistance to address “recovery needs, such as providing training and cash-for work programs to supplement household income.” Over the medium-to-long term, the NRRP objectives “will aim to build resilience and preparedness and will include improving employability in the labor force in key sectors (training and labor services); improving delivery of key social services by bringing them closer to the community via multipurpose centers; and developing an online beneficiary registry to improve coordination within the social protection system and to enhance preparedness for future post-disaster situations.” Finally, the NRRP signals “an intention to establish an unemployment insurance fund as a contingency instrument to cope with economic shocks.”

**4.12 The Social Economic Council (SER) is an independent advisory body established under Sint Maarten’s constitution to contribute to participatory and consensus-orientated governance.** In practice, the SER is consulted on all important legislation of a social or economic nature whereby the relevant Minister solicits advice on a draft law or policy. The SER may also issue unsolicited advice on a social or economic policy area deemed relevant to the community by its board. All SER advice, whether solicited or unsolicited, is transmitted to the Minister for General Affairs following board discussion and approval, being made public thereafter. The SER board consists of three representatives from employers’ organizations, three representatives from employees’ organizations, and three independent experts, all of which may designate a substitute member. The Chair of the board is an independent expert while the board’s work is assisted by a secretariat consisting of five staff.

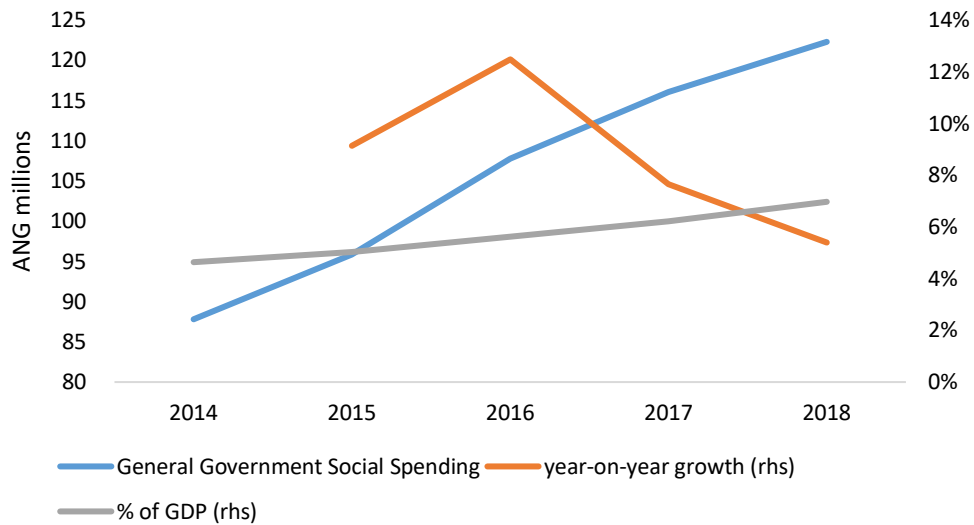
### ***Social Protection Spending Trends and Composition***

**4.13 Total social protection spending<sup>104</sup> has increased significantly since Sint Maarten achieved constitutional autonomy in 2010.** In 2014, total social spending by general government amounted to ANG 87.8m, or 4.6% of GDP, of which ANG 5.4m consisted of central government spending. By 2018, total social spending had risen to ANG 122.3m, or 7.0% of GDP, of which ANG 6.4m was by central government. This 8.6% compound annual growth in general government social spending was almost entirely driven by the increase in both benefits and administrative costs in the two PAYGO pension schemes managed by the SZV (AOV, AWW) and the APS pension fund of public servants. Central government social spending increased by 3.9% per annum on average during the period, but by 2018 accounted for only 5.2% of total social spending. The latter, having declined in absolute terms in 2015 and 2016, picked up rapidly in 2017 and 2018 as demand for social assistance surged in the aftermath of the twin hurricanes of 2017. By contrast, year-on-year growth in general government social spending peaked at 12.5% in 2016 before decelerating to 7.6% in 2017 and 5.4% in 2018. Despite rapid population growth, social protection spending *per capita* has also increased. Boosted by continued strong net inward migration up to 2016, the population increased by nearly 7.9% between 2014 and 2018. During the same period, however, total social protection spending *per capita* still increased by 27%, from \$2,365 to \$3,011.

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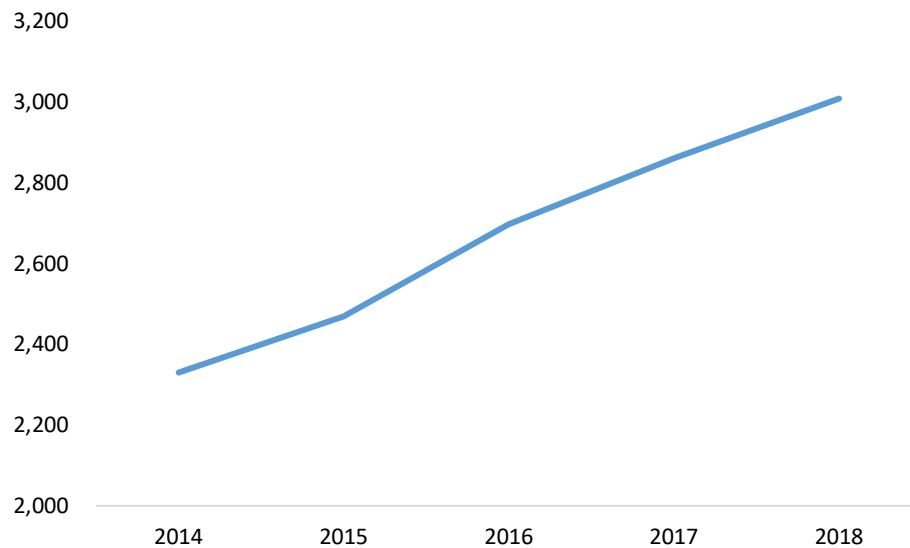
<sup>104</sup> Includes central government spending on social transfers and social services as well as social insurance benefit payouts and administrative costs incurred by SZV (i.e. AOV / AWW / Cessantia) and APS.

**Figure 4.2 Trends in Social Protection Spending, Sint Maarten 2014-2018**



Source: VSA, SZV, APS

**Figure 4.3 Trends in *Per Capita* Social Protection Spending, Sint Maarten 2014-2018**



Source: VSA, SZV, APS

**4.14 Sint Maarten spends amounts comparable to peers on cash transfers.** Data limitations render challenging the benchmarking of social spending among peer countries, particularly in the Caribbean. According to the World Bank Atlas of Social Protection – Indicators of Resilience and Equity (ASPIRE), Grenada and the Seychelles each devoted 0.5% of GDP to

unconditional cash transfers in 2015<sup>105</sup>. By comparison, Sint Maarten spent 0.2% of GDP on financial assistance in the same year<sup>106</sup>.

**4.15 Increased social insurance benefit payouts have been the key driver in increased social protection spending.** Already in 2013, social insurance payments administered by the SZV and APS (essentially pension benefits for private and public sector workers) accounted for 95.2% of total social protection spending. In absolute terms, social insurance benefits increased by more than a quarter (27.3%) in the three years to 2016 which, when combined with reduced central government spending, saw the share of social insurance benefits in total social protection spending rise to 96.2%.

**4.16 Social assistance spending by central government decreased sharply from 2011 onwards.** In 2011, the first full calendar year following the granting of national autonomy, social assistance spending by central government amounted to ANG 7.9m, equivalent to 0.5% of GDP. Over the following half decade<sup>107</sup>, it fell significantly in absolute terms, and even more dramatically as a share of GDP, reaching ANG 3.3m, or 0.2% of GDP, by 2016. Over the same period, social assistance spending fell from 1.9% to 0.7% of total central government spending. Essentially, the vast bulk of this spending (88% in 2016, up from 82% in 2011) consists of discretionary social transfers to low-income households, with the remainder comprising ‘other social services’ (including, for example, social care services). A large part of the decline in such transfers can likely be explained by the relatively strong labor market performance over the 2011-2016 period, resulting in higher household incomes and therefore reduced reliance by low-income households on social transfers. The magnitude of the decline, however, suggests that a tightening of discretionary eligibility criteria may also have been at play.

**4.17 Sint Maarten’s statutory retirement age is below the regional average, but life expectancy at age 60 is above average.** As life expectancy has increased with levels of social and economic development, many countries have already moved to increase their statutory retirement ages so as to improve the financial sustainability of their pension systems. People are living longer in retirement, such that the average period in retirement as a ratio to the average period in employment has been increasing. In the Caribbean, life expectancy for women at age 60 is highest in Barbados, at 25 years, followed by Sint Maarten at 24 years. However, the statutory retirement age in Barbados has risen progressively to reach 67 by 2018, compared to 62 in Sint Maarten, compared to the Caribbean average of 63. Life expectancy for men at age 60 is 20 in Sint Maarten, slightly ahead of the regional average (19) and close to the maximum (21) as seen in Antigua & Barbuda, Barbados and Dominica. Recent years have seen phased increases in retirement ages in Barbados, Dominica, Jamaica, and St. Vincent & the Grenadines. Some of these (e.g. Jamaica, 2016) were part of broader parametric reforms to pension systems.

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<sup>105</sup> These are the only countries from our list of peer comparators for which there is data. The database does not yet have information on social insurance: which would be the more interesting metric to compare.

<sup>106</sup> For the purposes of this comparison, and for this chapter more generally, the AOV pension is classified to be social insurance rather than social assistance, even though eligibility for benefits is determined by residence, not financial contributions.

<sup>107</sup> At the time of writing, granular data was unavailable from 2017 onwards.

**Table 4.4 Age for Receipt of Pension Benefits and Life Expectancy at 60, 2014**

	Statutory Pensionable Age (2019)		Life Expectancy at age 60 (2014)	
	Men	Women	Men	Women
Antigua & Barbuda	60	60	21	23
Bahamas	65	65	19	23
Barbados	67	67	21	25
Belize	65	65	19	23
Dominica	64	64	21	22
Grenada	60	60	16	23
Guyana	60	60	13	17
Jamaica	65	65	20	23
<b>Sint Maarten</b>	<b>62</b>	<b>62</b>	<b>20</b>	<b>24</b>
St. Kitts & Nevis	62	62	17	21
St. Lucia	65	65	19	23
St. Vincent & the Grenadines	62	62	20	22
Trinidad & Tobago	60	60	16	20
Caribbean average	63	63	19	22

Source: SZV, IMF<sup>108</sup>, national sources.

**4.18 Social insurance contributions are relatively high in Sint Maarten.** Between the contribution rates for the social pension (AOV, 13%, of which 6% borne by employee and 7% by employer) and disability and survivors' pension (AWW, 1%, of which 0.5% borne by employee and 0.5% by employer), the aggregate contribution to the tax wedge is 14% of the covered wage. This is significantly above the regional average (10.5% in 2014) and second (jointly with Guyana) only to Barbados (18%). This is exacerbated by Sint Maarten's reliance on direct taxation, notably personal income tax, as well as large social health insurance contributions (see chapter 3), to finance public spending.

**Table 4.5 Contribution Rates to Old Age, Disability and Survivors' Pensions, 2014**

(Percent of Covered Wage)

	Employee	Employer	Total
Antigua & Barbuda	2.7	5.0	7.7
Bahamas	3.9	5.9	9.8
Barbados	8.6	9.4	18.0
Belize	2.9	5.1	8.0
Dominica	3.8	7.0	10.8
Grenada	4.0	5.0	9.0
Guyana	5.6	8.4	14.0
Jamaica	2.5	2.5	5.0
<b>Sint Maarten</b>	<b>6.5</b>	<b>7.5</b>	<b>14.0</b>
St. Kitts & Nevis	5.0	5.0	10.0
St. Lucia	5.0	5.0	10.0

<sup>108</sup> Koffie Nassar, Joel Okwuokei, Mike Li, Timothy Robinson and Saji Thomas: *IMF Working Paper – National Insurance Scheme Reforms in the Caribbean*, 2016. <https://www.imf.org/external/pubs/ft/wp/2016/wp16206.pdf>

St. Vincent & the Grenadines	3.5	4.5	8.0
Trinidad & Tobago	4.0	8.0	12.0
Caribbean average <sup>109</sup>	4.5	6.0	10.5

Source: SZV, IMF<sup>110</sup>

### **Core Social Protection Programs**

**4.19 Sint Maarten’s social protection system relies in the first instance on basic social insurance programs<sup>111</sup>.** Essentially, these consist of a basic pension for all residents (AOV), pension benefits for dependents and the disabled (AWW), a supplementary pension for public sector workers (APS), and a backstop to cover employees’ severance payments in the event that private sector employers are unable to (Cessantia). There is no social insurance program for unemployment, although the authorities have signaled their intention to develop one. However, there is a residual social assistance system to provide financial, legal and medical assistance to those of limited means on an *ad hoc* basis. Active labour market policies (ALMPs) are in their infancy in Sint Maarten, notably including the Emergency Income Support and Training Program, its forerunner first introduced in late 2017 in the wake of hurricane Irma and subsequently part-financed by the World Bank-managed Sint Maarten Recovery and Resilience Trust Fund.

### **Social Insurance**

#### ***Algemene Ouderdomsverzekering (AOV)***

**4.20 The *Algemene Ouderdomsverzekering* (AOV) pension is a social pension scheme based on the solidarity principle.** It guarantees a basic pension to those who have spent all or part of their working-age life in Sint Maarten and who have reached the statutory retirement age. Premium contributions are payable by all those earning an income in Sint Maarten (or in the Netherlands Antilles before 2010), while everyone who has lived (or declared income tax) in Sint Maarten is entitled to benefits irrespective of their nationality or employment status. First instituted in the Netherlands Antilles in 1960, the AOV was split in 2010 between the constituent countries upon their achievement of national autonomy. In Sint Maarten, the AOV operates as a pay-as-you-go scheme, albeit it had built up significant reserves by 2018. At end-2018, there were 8,409 active pensioners in receipt of average annual AOV payments amounting to ANG 9,100.

**4.21 Reforms:** In 2015, the authorities legislated to extend the retirement age to 62 for all those born after December 31, 1957. The increased retirement age was phased in such that all those aged 58 or 59 as of 1 January 2016 were still able to retire with full AOV benefits at age 60, but those aged 57 or younger at that date would not be able to retire with their full entitlement to an AOV pension until age 62. At the time of the reform, the maximum monthly AOV benefit was also increased significantly, from ANG 726 to ANG 1,000 (with a further increase to ANG 1,051 on the basis of that year’s cost-of-living indexation. These increased benefits were legally back dated to 2013, although the higher payment level had in practice been paid since then. As part of the 2015 reform, the income limit above which AOV premium contributions would not be collected was

<sup>109</sup> Average calculated without including Sint Maarten.

<sup>110</sup> Koffie Nassar, Joel Okwuokei, Mike Li, Timothy Robinson and Saji Thomas: *IMF Working Paper – National Insurance Scheme Reforms in the Caribbean*, 2016. <https://www.imf.org/external/pubs/ft/wp/2016/wp16206.pdf>

<sup>111</sup> For the purposes of this chapter the AOV pension is classified to be social insurance rather than social assistance, even though eligibility for benefits is determined by residence, not financial contributions.



raised from ANG 77,000 to ANG 100,000 per annum as a means to further raise revenue and improve financial sustainability.

**Table 4.6 Retirement Age by Cohort, as of 2016 (Retirement Age = 62)**

Year of Birth	Age at end-2015	Retirement age	Retirement year
1956	59	60*	2016
1957	58	60*	2017
1958	57	62	2020
1959	56	62	2021

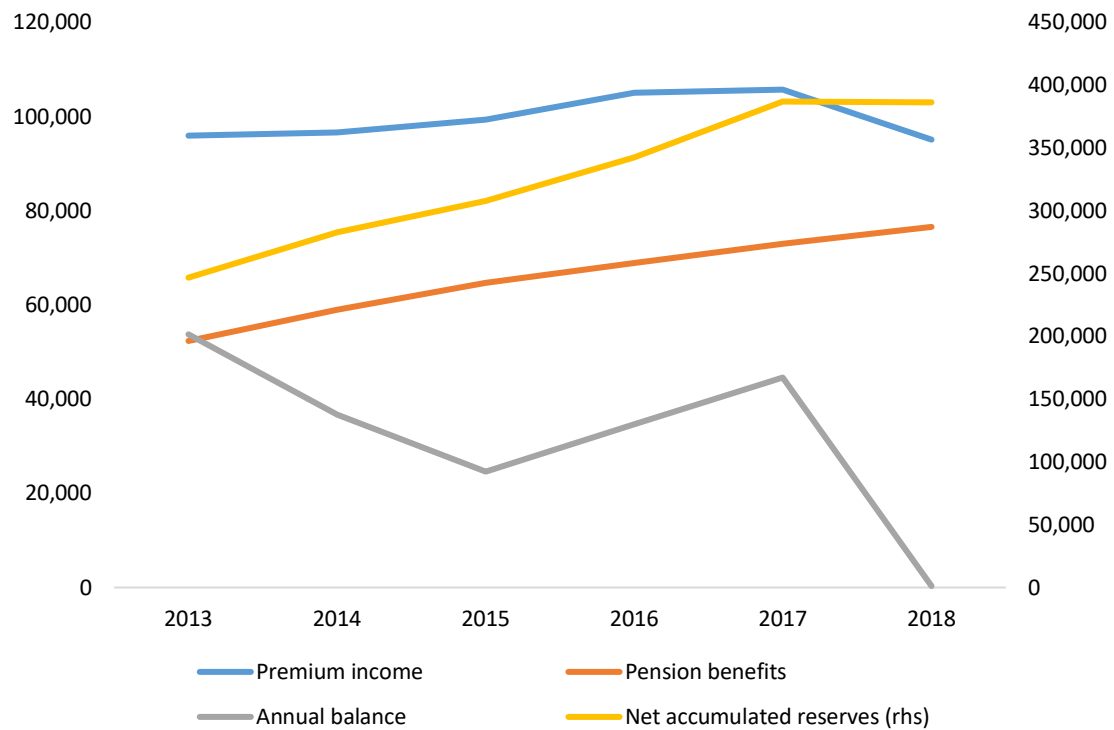
\* Transition arrangement for those due to retire, under the *status quo ante*, in the year the reform becomes effective, and the year after.

**4.22 Benefits:** Benefit entitlements are dependent on the number of years that the recipient has been resident (or declaring income tax) in the (former) Netherlands Antilles such that a recipient who has spent a portion of their career (calculated on the basis of 45 years of AOV contributions) outside Sint Maarten (or the former Netherlands Antilles prior to 2010) would see a *pro rata* reduction in their pension benefit entitlement. The full AOV pension benefit was ANG 1,115 per month for 2019. Nonetheless, even the maximum prevailing rate is lower, for example, than the indicative poverty line of ANG 1,154 per month used by the SER. Moreover, having spent periods living and / working off-island, many pensioners have not accrued the maximum entitlement by the time of their retirement. This means that, in practice, many pensioners receive significantly less than the maximum monthly payment. On average in 2018, pensioners received 64% of the maximum entitlement. Old-age poverty is therefore understood to be a significant problem. An additional ‘Christmas bonus’ is paid to pensioners still resident on the island each year at the same time as the monthly payment for December. A deduction of 1% of AOV payments is also made towards the public insurance scheme for long-term care (AVBZ). A one-time lump sum payment equivalent to four months AOV pension benefit is payable upon death to cover funeral costs.

**4.23 Premiums:** In 2019, AOV premiums were 13% of salary on that part of the salary under the maximum income limit of ANG 105,288. Total AOV premium income received by the SZV amounted to ANG 95m in 2018, less in nominal terms than the premiums collected in 2013 and 10% less than 2017, due essentially to the economic impact of the September 2017 hurricanes on the income base on which pension contributions are calculated.

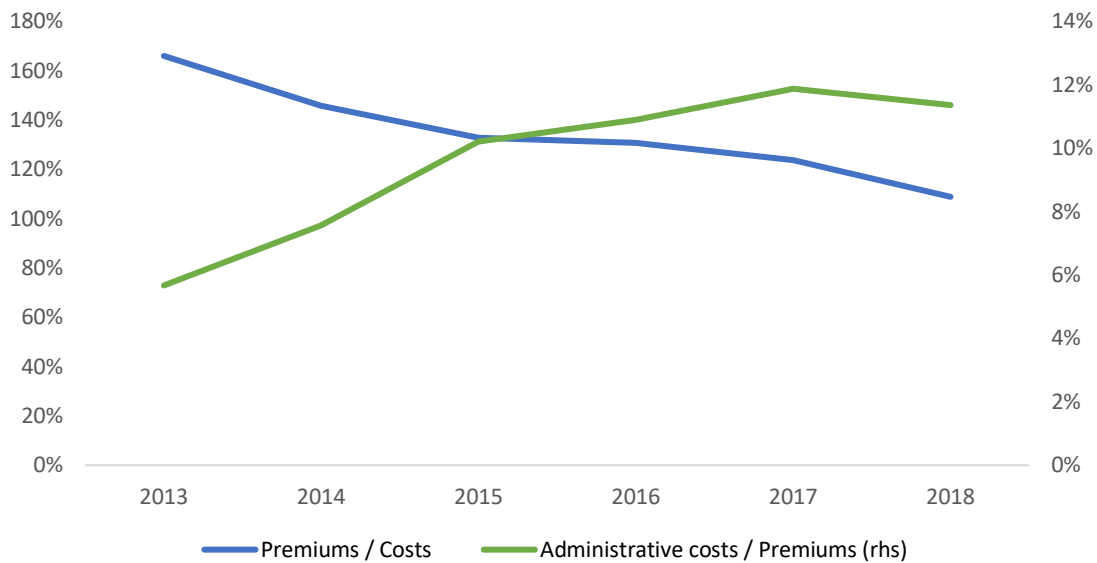
**4.24 Financial Situation:** Although the AOV is operated on a pay-as-you-go basis, managed by the SZV, it had nonetheless built up considerable positive reserves amounting to ANG 396.3m by end-2018. Despite premiums exceeding payouts and administrative costs in 2018, adverse performance in the investment portfolio saw the annual surplus for the year (ANG 0.3m) virtually extinguished (see Figure 4.5). Even though upwards of a fifth of these reserves (and those of the AWW) are committed as cross-lending to deficit health insurance funds – essentially as zero-interest investment with an as-yet-undefined payback date – this represents a modest buffer against the demographic changes already afoot. The cost coverage of premium income has already begun to decline precipitously, from 166% in 2013 to 109% by 2018 (see Figure 4.6). At the same time, administrative costs have over this period doubled, both in absolute terms (from ANG 5.4m in 2013 to ANG 10.8m in 2018) and as a share of premium income (from 5.7% to 11.4%).

**Figure 4.4 Evolution of AOV Premiums, Benefits, Balance and Reserves, 2013-2018**



Source: SZV

**Figure 4.5 Evolution of AOV Cost Coverage, 2013-2018**



Source: SZV

**4.25 Proposed reforms:** The pension reforms of late-2015 came on foot of an instruction from the Kingdom Council of Ministers *inter alia* to put the public pension system on a sustainable financial footing for the long term. The major element of these reforms was to be the phased

extension of the retirement age to 65, in line with the proposed increase in the retirement age for the supplemental civil servants' pension scheme (see section on APS, below). The 2015 reform represented the first phase of this reform. Draft legislation that would increase the retirement age from 62 to 65 on a phased basis, while modestly increasing benefit levels (increasing the maximum monthly AOV pension from ANG 1,115 to ANG 1,240), as well as the income ceiling (to ANG 117,091.61) up to which point employees would pay full contributions, is at an advanced stage of preparation. While the need for reforms to bolster the financial situation has been evident for a number of years, the possibility of increasing benefits was also flagged, for example, in the Governing Program 2018-2022, in light of perceived widespread old-age poverty.

**4.26 World Bank projections:** According to the *status quo ante* parameters (i.e. retirement age set at 62; maximum monthly benefit set at ANG 1,115 in 2019 and indexed annually), in the absence of further reforms, it is estimated that the AOV's annual operational balance would turn negative in 2027-2029, while accumulated reserves would be extinguished in 2039-2041. Extending the retirement age to 65 while increasing the maximum monthly benefit amount by ANG 125, as proposed, would see the annual operational balance remain in surplus until 2030-2032 and reserves remain positive until 2041-2043 (see Figure 4.6)<sup>112113114</sup>. Roughly, speaking, increasing the retirement age from 62 to 65 extends by 5-7 years the timeline for the annual operational balance to turn negative and by 6-8 years the timeline for reserves to be extinguished, with these extensions shortening as the benefit level increases. Similarly, a once-off increase in benefits of ANG 125 reduces by 2-4 years the timeline for the annual operational balance to turn negative and by 4-6 years the timeline for reserves to be extinguished, with these reductions lengthening as the retirement age increases (see Table 4.7). Furthermore, even with the

<sup>112</sup> This simple projection model is an extension and update of the model used by the SZV. The key underlying assumptions are for: i) an average yearly mortality rate of 1.85%, ii) average annual indexation of pension benefits of 1.84%, iii) administrative expenses to remain constant as a 9.5% share of total income, iv) underlying annual nominal growth in premium income of 3.5%, and v) an add-factor (or additional growth) to premium income of 2.5% per annum during the 2019-2022 period to allow for post-hurricane economic recovery. The main parameter changes under the reform scenario are for an increase in the retirement age from 62 to 65, effective from 2021, with a transitional arrangement for those born in 1959 (who would be allowed to retire at age 62 during 2021). The starting point for the model are the 2018 outturn for premium income and reserves.

<sup>113</sup> The baseline projection is based on the assumption that only 60% of newly eligible AOV recipients in any given year will apply for the pension, while the ratio of the average pension received to the maximum benefit remaining constant (at 63.54%). This approach is justified by the elevated level of inward and outward migration, with anyone who has spent any of their adult life in Sint Maarten having accrued at least some AOV benefit entitlements. Alternatively, with a more complete data set, one could model a dynamic ratio of average to maximum benefit receivable. This ratio is likely to fall over time as greater numbers of eligible recipients are added annually to the pension roll who have accrued significantly less than the maximum benefit entitlement. Nonetheless, one would expect in any case that behavioral responses would lead to somewhat less than 100% of eligible recipients to apply for the AOV pension. Where potential benefits are limited, and the eligible recipient lives off-island, the administrative burden in applying for the pension may not be justified by the financial incentive, even if they are aware of their entitlement. By way of example of magnitude, the SZV database includes 1,338 AOV participants due to become eligible for retirement at age 62 in 2020 whereas the population estimate based on the most recent census is that this age cohort contains 484 persons, a factor of 2.76 times less. If one carries out the same projection exercise (with a retirement age of 65 and a one-off benefit increase of ANG 125 from 2021 onwards) assuming 100% take-up as the upper bound (or 'worst case scenario' from a financial sustainability point of view), AOV's annual operational balance would instead turn negative in 2026-2028, while accumulated reserves would be extinguished in 2033-2035.

<sup>114</sup> For reasons of data availability, these projections do not account for the likely impact of the reform on premium income. One would expect that increasing the maximum income limit up to which AOV contributions are payable would increase premium income. One would also expect that increasing the retirement age from 62 to 65 would result in an increased labor force, and thereby in increased premium contributions. While both elements suggest that projected premium income is under-stated, they would not be expected to significantly alter the broad trajectory of AOV financial performance.

extension of the retirement age to 65 as of 2021, it is estimated that the number of recipients will double between 2019 and 2035 in light of underlying demographic dynamics.

**Table 4.7 Retirement Age by Cohort, Post-Reform<sup>115</sup> (retirement age = 65)**

Year of Birth	Age at end-2020	Retirement age	Retirement year
1958	62	62	2020
1959	61	62*	2021
1960	60	65	2025

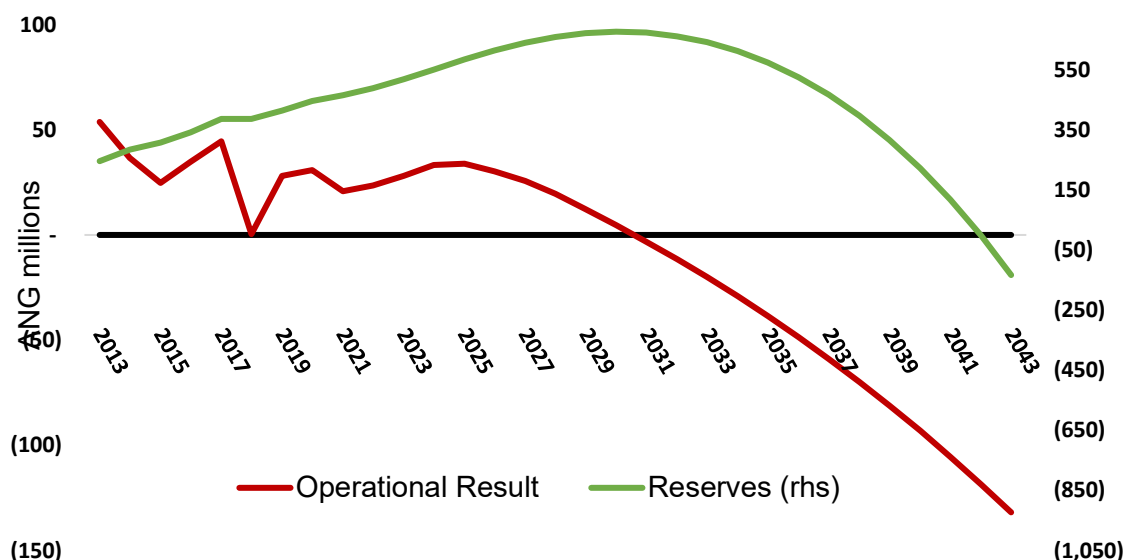
\* Transition arrangement for those due to retire, under the *status quo ante*, in the year the new reform becomes effective.

**Table 4.8 AOV Projected Financial Performance 2020-2050**

	Retirement Age: <b>62</b>	Retirement Age: <b>65</b>
One-time increase in maximum AOV benefit from 2021 onwards: <b>ANG 0</b>	Year operational balance turns negative: <b>2028</b> Year reserves extinguished: <b>2040</b>	Year operational balance turns negative: <b>2035</b> Year reserves extinguished: <b>2048</b>
One-time increase in maximum AOV benefit from 2021 onwards: <b>ANG 125</b>	Year operational balance turns negative: <b>2026</b> Year reserves extinguished: <b>2036</b>	Year operational balance turns negative: <b>2031</b> Year reserves extinguished: <b>2042</b>

Source: World Bank staff calculations on the basis of SZV data

**Figure 4.6 AOV Historic & Projected Financial Performance, 2013-2043**



Source: SZV data until 2018; World Bank projections from 2019.

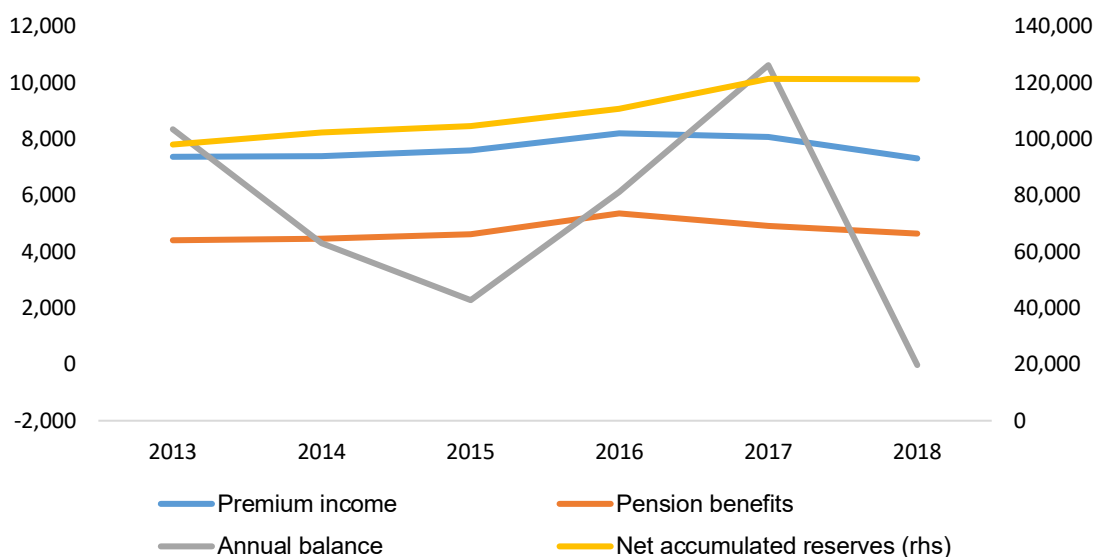
<sup>115</sup> Assuming the reform is legislated in 2020, becoming effective as of 1 January 2021.

## The Pension Benefit for Widows, Widowers, Orphans (AWW)

**4.27 The pension benefit for widows, widowers, orphans (AWW) is a general social insurance scheme for spouses whose partner has passed away, for children when their parent(s) have passed away, and for the disabled.** All residents of (and those declaring income tax in or earning wage or salary income from) Sint Maarten are eligible for the AWW pension from the age of 15. The maximum pension benefit depends on the age of the widow or widower and if they have children who receive orphans' pension. The full AWW pension benefit for widow(ers) (aged under 42) was ANG 500 per month (rising to ANG 1,115 for those aged 60 and 61, as well as for the disabled, in line with the maximum AOV pension benefit) for 2019. AWW pension payments are discontinued upon death, reaching pensionable age (after which the recipient becomes entitled to the AOV pension), or remarrying. AWW benefits may be received by non-residents upon regular presentation to the SZV of a life certificate and proof of marital status. The premium percentage for the AWW is 1%, of which 0.5% is borne by the employee and the other 0.5% by the employer. There were 539 recipients of AWW pensions in 2018, receiving average annual payments of ANG 8,620.

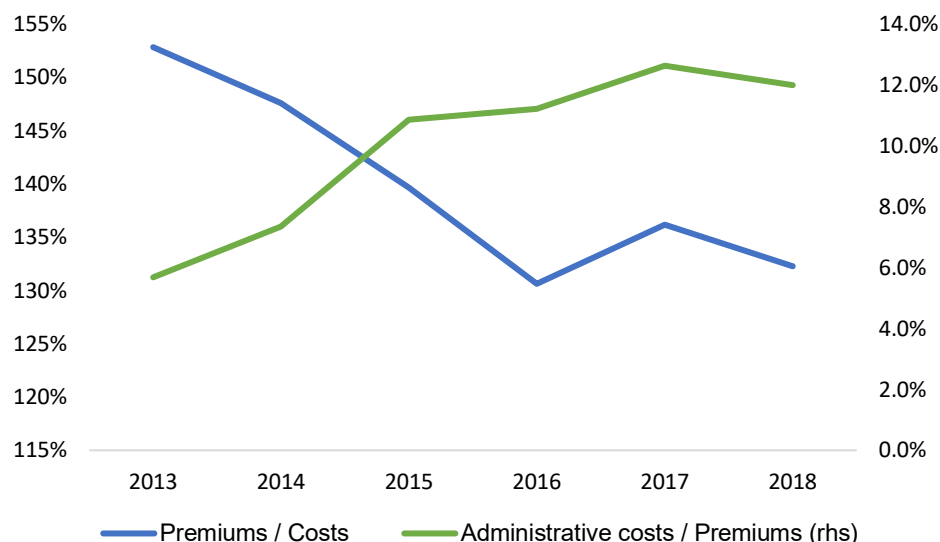
**4.28 Financial Situation:** The financial situation of the AWW is relatively healthy, with a positive reserve balance of ANG 121.3m built up by end-2018. As is the case with the positive reserves of the AOV, a significant amount of the AWW reserves are tied up due to cross-lending to deficit public health insurance funds. In both 2017 and 2018, AWW premium income exceeded pension payouts by more than 60%, while the net operational results for those years were a ANG 10.6m surplus and a ANG 24,000 deficit, respectively. The bulk of the swing from surplus to deficit came as the result of investment activities. Nonetheless, similar negative medium-term trends are in evidence as with the AOV fund. Premium coverage of operational costs fell from 153% in 2013 to 132% in 2018. At the same time, administrative costs doubled as a share of premiums over the same period, from 5.7% to 12.0%.

**Figure 4.7 Evolution of AWW premiums, benefits, balance and reserves, 2013-2018**



Source: SZV

**Figure 4.8 Evolution of AWW Cost Coverage, 2013-2018**



Source: SZV

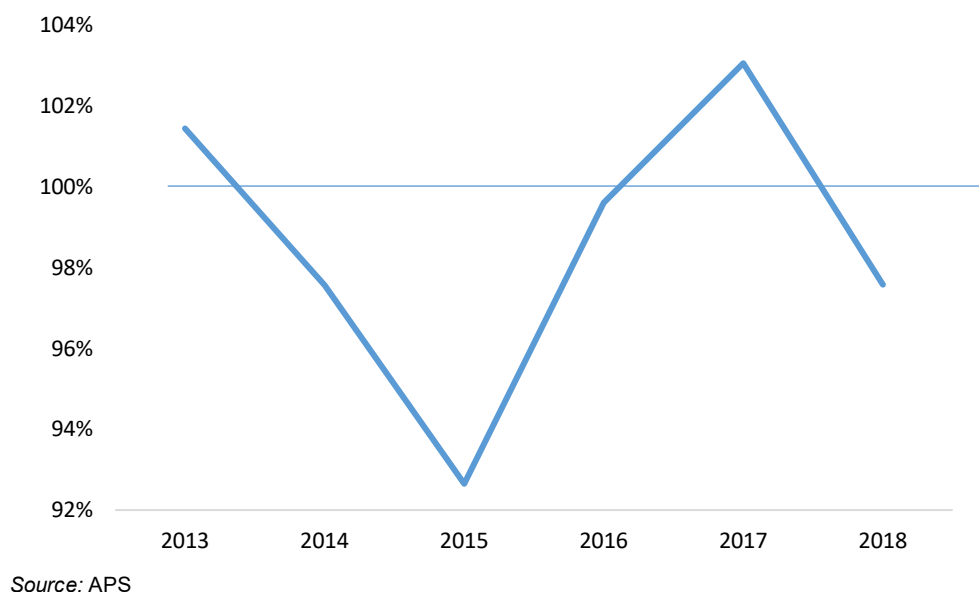
**4.29 Proposed reforms:** When the AOV pension age is increased, recipients of AWW pensions would then be in receipt of the latter for a longer time period (i.e. until age 64 instead of age 61) before they become eligible for the AOV pension, thereby increasing the annual cost of paying AWW benefits. Moreover, as part of the draft legislation to increase the AOV retirement age, salary ceiling and benefits, it is also proposed to make commensurate changes to the AWW pension benefit levels. In particular, the maximum AWW benefit for widow(er)s would rise to ANG 1,240, in line with the new maximum AOV payment, for those aged 60 to 65, with *pro rata* increases in benefits for younger recipients. The Maximum payments for orphans with one and no parents, respectively, would be increased to ANG 498 and ANG 571, respectively, for those aged 15-24, with *pro rata* increases to benefits for younger recipients. No further structural reforms are currently envisaged to the AWW pension. Together, these reforms are likely to accelerate the fall in cost coverage, bringing forward the point when expenditures exceed income. Nonetheless, the extent of the reserves already built up by that point suggest that remedial reforms to the AWW need not be a near-term priority.

### ***Algemeen Pensioenfonds Sint Maarten (APS)***

**4.30 Employees of the government, institutions affiliated with the government and employees in a number of education institutions are covered by the *Algemeen Pensioenfonds Sint Maarten (APS)*.** Established as a legal successor to APNA upon the granting of national autonomy in 2010, the APS is a fully-funded supplemental pension fund which grants beneficiaries a top-up monthly payment, bringing their total monthly pension benefits (i.e. AOV plus APS supplement) payment up to 70% of their final monthly salary before retiring from the public service. As of June 2019, the APS had nearly 2,700 active participants, nearly 600 former participants and more than 1,100 pensioners. Contributions are made both by the participant and the participants' employer during the former's working life. The spouse of the participant is entitled to a widow(er)'s pension, while an underage child would be entitled to an orphan's pension, in the event that the participant becomes deceased.

**4.31 Recent reforms:** Analogously to the extension of the AOV retirement age in 2015, the APS retirement age was increased from 60 to 62 effective as of 2016. This had an immediate accounting impact, explaining in large part the improvement in the APS funding level from 92.6% in 2015 to 99.6% in 2016<sup>116</sup>. Nonetheless, this was insufficient to exceed the 105% threshold targeted by the APS. In fact, the fund has not achieved this threshold since its establishment in 2010 (see Figure 4.10) Another reform introduced in early 2016 was the invoicing of premiums at the legally required level of 25%, having been previously invoicing at only 22%.

**Figure 4.9 Evolution of APS Coverage Ratio, 2013-2018**



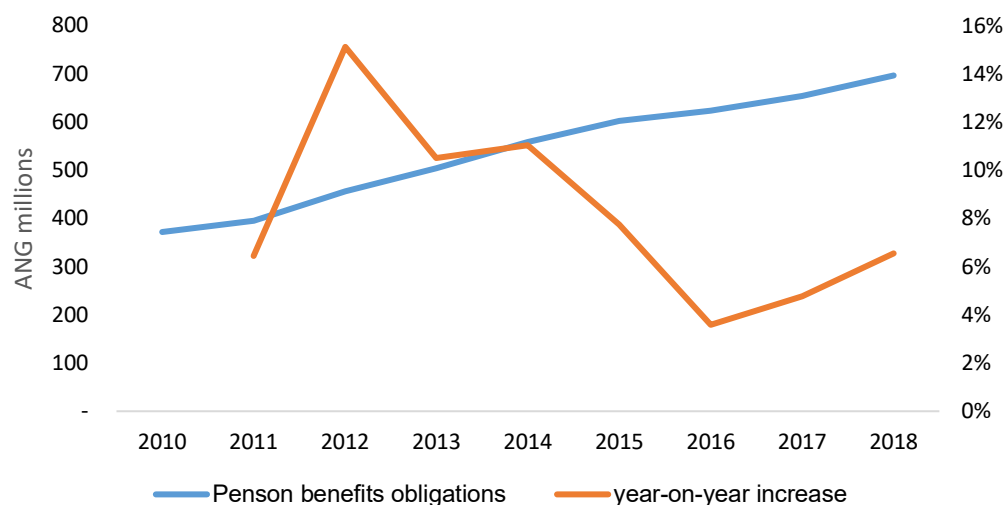
**4.32 Premiums:** Total pension contributions amounting to 25% of an employee's salary are paid monthly to the APS by the employer on the employee's behalf. In turn, the employer deducts from the employee the latter's contribution, equivalent to 8% of the pension base. The pension base is the gross salary less an offset which is that part of the salary on which the employee does not accrue APS pension benefits since they will receive an AOV pension from the government in lieu of pension benefits that would have been accrued on this part of the salary. Total premium income to the APS amounted to ANG 39.1m in 2018.

**4.33 Benefits:** Actuarial calculations of future pension obligations are made annually and reflected as a liability on the APS' balance sheet. The annual increase or decrease in pension obligations is moreover reflected in the profit and loss account. Aggregate pension obligations increased by 87% between 2010 and 2018 for a compound annual growth rate of 8.2%. While the year-on-year growth rate had trended lower from its 2012 peak of 15.1% to reach 3.6% in 2016, the rate ticked up to 6.55% in 2018 following the application of updated mortality tables. Pension obligations amounted to ANG 696m at end-2018. Pension benefit payouts amounted to ANG 20m in 2018, a 47.6% increase on 2013, during which time the compound annual growth rate was 8.1%. In principle, pension benefits are indexed using a periodic cost of living adjustment

<sup>116</sup> The APS is a fully funded pension scheme which targets a funding level of 105% of accumulated pension obligations. A coverage ratio below 100% means that the APS' assets are insufficient to cover current and future financial obligations to its participants with all variables unchanged.

(COLA), for which the consumer price index of the previous year is the benchmark. The timing and amount of the COLA are currently at the discretion of government.

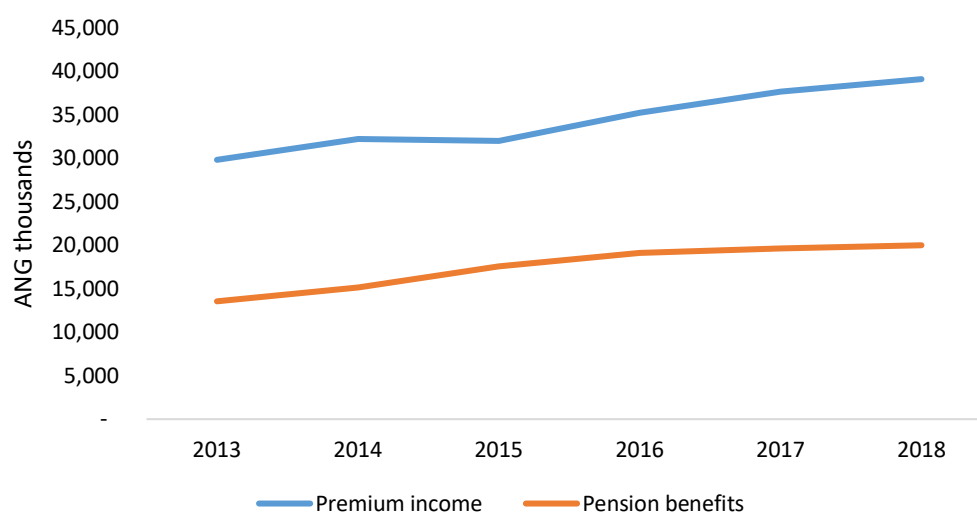
**Figure 4.10 Evolution of APS Pension Benefit Obligations, 2013-2018**



Source: APS

**4.34 Financial Situation:** The APS operates as a fund managed by an eponymous semi-autonomous organization. Total assets of the APS fund stood at ANG 686m at end-2018. The APS was only 97.58% funded at end-2018 (down from 103.06% at end-2017), further below the 105% target. The fall in the coverage ratio owed much to the application of updated mortality tables as of 2018, while poor performance of the investment portfolio also played a part. Moreover, pension premiums have been insufficient to cover the combination of increases in pension obligations and operational expenses every year since the APS' inception in 2011.

**Figure 4.11 Evolution of APS Premiums and Benefits, 2010-2018**



Source: APS



**4.35 Proposed reforms:** Recognizing the precarious financial situation of the fund with respect to future pension obligations, the APS has repeatedly called for reform in its annual reports. Legislation to increase the APS retirement age from 62 to 65 was submitted to parliament in late-2018 but had not yet been approved as of December 2019. Given that the APS functions as a top-up on the AOV pension, it makes sense – at the least for reasons of administrative simplicity – that the retirement ages of both the AOV and APS are aligned. Another key element of the proposed reform is to move from using the final salary to average career salary as the basis for calculating APS benefit payouts, while the premium contribution rate would fall from 25% to 18% and the age at which accrual begins would fall from 25 to 18. Meanwhile, there would be a one-time 10% increase in pension entitlements equivalent to 10% of the accrued rights. The reform would also entail a move to conditional indexation whereby pension benefits would only be indexed to the cost of living when the fund's coverage ratio exceeded 105%. A recovery mechanism would also be introduced whereby a recovery plan would need to be drawn up at the end of any year where the coverage ratio falls below 100% with the aim of restoring the ratio to at least that threshold within five years. If after five years this has not been achieved, then other measures would need to be adopted, notably including a one-off extra single premium paid by the employer and / or a reduction in pension benefits. APS estimates that the reform will have once-off positive impact on the coverage ratio upon implementation amounting to approximately 5%. The reform is expected to generate annual savings to central government in the region of ANG 8.7m in 2018 terms.

### **Cessantia**

**4.36 Cessantia is a scheme that covers the severance payment owed to private sector workers where the employer is unable to do so.** Employees who lose their jobs through no fault of their own are entitled to a one-time monetary payment from their employer upon termination of the employment contract. The employee is entitled to 1 week's wages for each of the first ten years of service, 1.25 week's wages for each year of service between 11 and 20 years, and 2 week's wages for every subsequent year's service. In the event that the employer is unable to pay the severance payment due to bankruptcy, enforcement of a court moratorium or the employer ceasing to exist, then the payment is covered from the SZV-managed Cessantia fund. In the absence of formalized unemployment insurance and given relatively low basic pension entitlements, employees may treat their Cessantia entitlements as a *de facto* lump sum pension or unemployment insurance. However, this can seriously disadvantage employees who voluntarily change employer after a long period of continuous employment with them. In effect, this can lead to reduced labor mobility as employees do not want to lose their Cessantia entitlements by changing employer. The fund is financed by employers who pay in ANG 40 per employee per year. As a backstop facility, the fund is designed not to be called upon regularly, and no payouts have been made since 2015. The fund had amassed ANG 13.9m by the end of 2018. Even though there have been no payouts since 2015, administrative costs as a share of premiums have remained relatively elevated, falling only marginally from 13% in 2015 to 11% in 2018 (having been 6% in 2014).

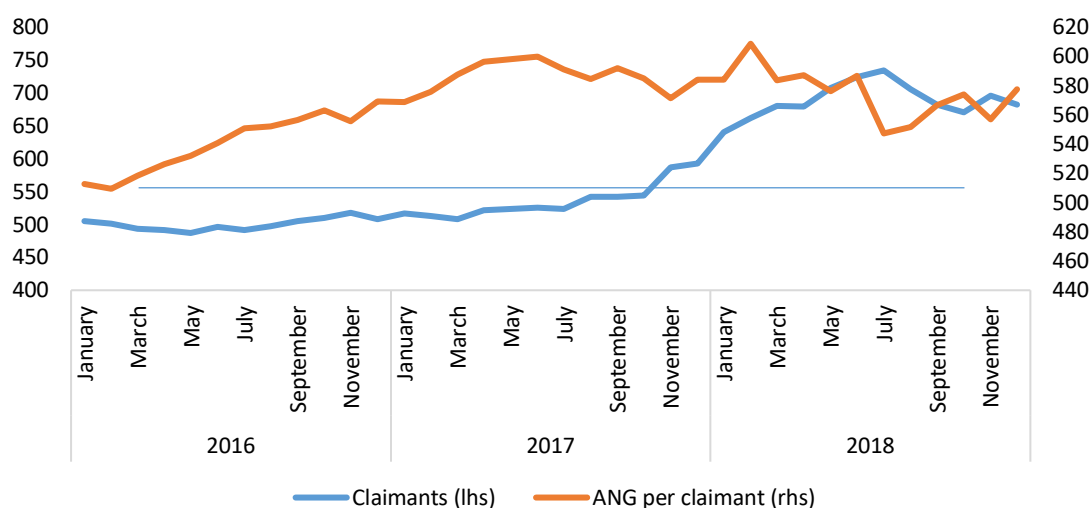
### **Social Assistance**

**4.37** Although Sint Maarten does not have formalized unemployment insurance nor other out-of-work financial supports, it does have a welfare system that provides three types of social assistance, including to working age recipients. Low-income households can apply on an *ad hoc* basis for financial assistance on a once-off (e.g. to pay for school uniforms, funeral expenses or other non-recurrent expenses) or ongoing basis. While the amount of ongoing financial assistance varies with respect to the situation of the applicant and their dependents, the basic amount for an

independent single-person household is ANG 983 per month. This may be a household's only source of income, constituting *de facto* unemployment assistance, or can supplement income from employment or a pension, for example. There is no requirement for an applicant to have made previous financial contributions and, as such, is not classed as social insurance. In addition, low-income households can also apply for legal assistance relating to civil, employment or marital issues, as well as medical assistance for those who do not have health insurance and require medical attention.

**4.38 There was a spike in recurrent social assistance claimants in the months following Hurricanes Irma and Maria in September 2017.** The number of recipients of recurrent financial assistance was trending higher already during the first three quarters of 2017, but the annualized rate of increase spiked as high as 40% by July of 2018, with the absolute number of recipients peaking at 734 in the same month, nine months after the hurricanes. At the same time, however, the average financial assistance payment per person had been rising at double digit rates in early 2017, far ahead of consumer price inflation, but decelerated sharply over the course of the year before turning negative by March 2018. Nonetheless, the average financial payment per recipient stood at ANG 577.37 by December 2018, some 13% higher than in January 2016. Total monthly spending on financial assistance followed a similar pattern, increasing from some ANG 260,000 in early 2016 to a peak of some ANG 425,000 in July 2018, late in the tourism low season immediately following the hurricanes. On an annual basis, total financial assistance payments progressed from ANG 3.3m in 2016 to ANG 3.8m in 2017 and ANG 4.8m in 2018. The cost of these supports can be expected to have stabilized in 2019 as the economy and labor market gradually recovers from the post-hurricane recession. While the cost may fall as the economic recovery gains momentum in the years ahead, particularly if the average payment per person can be contained, the relatively discretionary nature of the payments and the small size of the community may complicate efforts to return the cost to its pre-hurricane trend. While there is insufficient data available to allow for a more complete assessment of the labor market effects of these financial assistance payments, it should be noted that, despite increases in average monthly payments ahead of inflation in recent years, these amount to only around 40% of the minimum wage on a monthly basis. Even the maximum monthly amount per household of ANG 983 amounts to only 68% of the equivalent monthly minimum wage.

**Figure 4.12 Evolution of Financial Assistance beneficiaries, 2016-2018**



Source: VSA

**4.39** There was also a spike in approved first-time applications for medical aid (PP cards) and in legal aid claims following the hurricanes, the vast majority of which related to labor disputes. Recent years have seen an increasing number of applications for PP medical cards as those of retirement age are discouraged from maintaining or obtaining coverage through the main public ZV health insurance fund (see Chapter 3). While the number of PP card renewals remained relatively stable before and after the 2017 hurricanes – increasing from an average of 19 per month in 2016 to 22 per month in 2018 – the number of first applications increased from an average of 21 per month to 36 per month over the same period. The number of new applications for PP cards continued accelerating through late 2018, reaching an average of 40 per month in Q4 (the last time period for which data was made available). This likely reflects not only elevated need due to economic hardship, but also the underlying trends of an ageing population and the authorities' efforts to steer applicants away from the ZV fund coverage (to which, in any case, they do not have a clear legal entitlement). The number of approvals of legal aid applications more than doubled following the 2017 hurricanes, increasing from an average of 6 per month between January 2016 and September 2017 to 16 per month between October 2017 – the month after the hurricanes – and December 2018. On the contrary, there was no noticeable up-tick in the number of approvals of one-time financial assistance for items such as funeral and school expenses or for furniture or fire damage. Approvals of one-time assistance remained stable at 14 per year in 2017 and 2018, down from 33 in 2016.

**4.40 Historically, only a small proportion of low-income households avail of social assistance.** In 2013, there were around 628 households in receipt of financial assistance<sup>117</sup>. In 2012, moreover, there were a total of 196 applications for the three types of social assistance payment, of which 80% were accepted. Acceptance ranged from 68% for financial assistance up to 95% for medical assistance (77% of legal assistance applications were accepted). More than two thirds of applications for social assistance were made by women, while only 12 of the 196 applications were from non-Dutch citizens<sup>118</sup>. This may suggest that women are vulnerable than men, and that non-Dutch nationals are not aware of or choose not to apply for social assistance.

**4.41** More recent data suggests an increased number of non-Dutch nationals are applying for and receiving financial and medical assistance while women predominate among applicants overall. In 2016, only 6.3% of approved applications for renewals of recurrent financial assistance were from non-Dutch nationals while the proportion among approved first-time applicants was 27.4%. By 2018, the respective non-Dutch national proportions had risen to 20.3% and 35.7%. The pattern is similar with respect to medical assistance. 10.2% of approved applications for PP card renewals related to non-Dutch nationals in 2016 while the proportion among approved first-time applications was 33.6%. By 2018, these had risen to 21.6% and 44.9% respectively. Given that the proportion of successful legal aid applications by non-Dutch nationals had been higher, at 35.5% in 2016, progress was more incremental, the share increasing to 40.4% in 2018. This better reflects the demographic make-up of Sint Maarten, where about half of the population are non-Dutch nationals. Females still predominated in 2018 among approved social assistance applications across all categories: 53% for PP card renewals, 69% among PP card first-time applicants, 61.7% among financial assistance renewals, 65.9% among first time applicants for financial assistance, 67.8% among legal aid applicants and 78.8% among one-time financial assistance applicants. Resources permitting, some consideration should be given to an investigation of whether deprivation is more prevalent among women – and what categories of

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<sup>117</sup> Social Economic Council, *Boost Sint Maarten!* (Philipsburg, 2015).

[https://www.bearingpointcaribbean.com/files/Uploads/2015/08/ser\\_20150317\\_Boost-Sint-Maarten-A-Conditional-Cash-Transfers-Program-to-reduce-poverty-in-Sint-Maarten.pdf](https://www.bearingpointcaribbean.com/files/Uploads/2015/08/ser_20150317_Boost-Sint-Maarten-A-Conditional-Cash-Transfers-Program-to-reduce-poverty-in-Sint-Maarten.pdf)

<sup>118</sup> United Nations Children's Fund (UNICEF), *The Situation of Children and Adolescents in Sint Maarten*, 2013. [https://www.unicef.nl/media/1359112/sint\\_maarten\\_sitan\\_public\\_version\\_28english\\_29.pdf](https://www.unicef.nl/media/1359112/sint_maarten_sitan_public_version_28english_29.pdf)

women, in particular, e.g. mothers – and what, if any, gender-specific policy initiatives might be appropriate to alleviate it.

### **Active Labor Market Policies**

**4.42 Sint Maarten has limited experience with active labor market policies (ALMPs).** In advance of Sint Maarten's transition to country status in 2010, the Dutch government agreed with local experts a Social Economic Initiative (SEI), incorporating a range of policy priorities aimed at reinforcing the economic foundations under its changed constitutional status. One of the constituent elements of the SEI was an 'Employability through training' project (ETTP), launched in late 2011. Catering to 250 unskilled Dutch nationals aged 18-55, the ETTP comprised two sub-projects: "From Welfare to Employment" and "Adult on the Job Training". The program combined theoretical and practical training with job placement with the intention to activate the underemployed and unemployed. Training and placements were focused on the following sectors: marine, jewelry, security, construction, hospitality, IT, technical. The core objectives of the ETTP were to increase youth participation in the labor market, increase labor productivity and improve 'matching' between labor demand and supply.<sup>119</sup> With a budget of ANG 388,500, the ETTP terminated in 2012, having succeeded in securing employment for 17 of 250 participants, representing a limited success.

**4.43 A youth unemployment fund was proposed in 2016.** The authorities prepared legislation to establish a youth unemployment fund to be co-financed through a levy on electricity consumption and managed by a non-government foundation. The fund would have aimed to activate the adult population aged 18-25, which experiences above average unemployment rates. The financing and administration model was chosen in light of constraints on government finances. The Social Economic Council (SER) published its advice<sup>120</sup> on, and recommended significant changes to, the draft legislation in mid-2016, shortly before the general election of that year, but the government did not subsequently proceed with implementation.

**4.44** The Hospitality First Training and Education initiative was launched in December 2017 by the Sint Maarten Training Foundation (SMTF). In response to the economic shock to the key tourism sector following the twin hurricanes of September 2017, a public-private initiative was launched to avoid layoffs in the hospitality sector. The initiative was subsidized by the government, with stipends paid to 900 employees of the Sonesta Group, the Sunwing Great Bay Beach Resort and a number of other unemployed hospitality sector workers. Participants have the opportunity to engage in training and achieve certification. The core team of SMTF has extensive experience in the hospitality sector and also cooperates with the University of St. Martin (USM) and the National Institute for Professional Advancement (NIPA). In August 2018, a \$22.5m grant agreement was announced between the government and the World Bank-managed Sint Maarten Recovery and Resilience Trust Fund that would finance the continuation and expansion of the initiative, rebranded as the Emergency Income Support and Training Program (EISTP). The program was opened to further unemployed and underemployed (currently working up to 3 days per week) workers in the hospitality sector and expanded also to include construction and maritime workers. Participants engage in a six-month training and certification program, entailing at least 13.5 days training per month. In addition to stipends, participants were covered by public health insurance from mid-2018 onwards. Approximately 1,800 beneficiaries are expected to

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<sup>119</sup> Government of Sint Maarten, *Synopsis of the Project "Employability Through Training"*

<http://www.sintmaartengov.org/special-campaigns/Employability-Through-Training/Pages/Synopsis-of-the-project-%E2%80%9CEmployability-through-Training%E2%80%9D.aspx>

<sup>120</sup> Social Economic Council, *Letter of Advice "Draft National Ordinance Youth Unemployment Fund."* (Philipsburg, 2016). <http://ser.sx/wp-content/uploads/2019/08/Letter-of-Advice-Youth-Unemployment-fund.pdf>

benefit from the EISTP over a 24-month period running to 2020. The authorities are hoping to be able to sustain the program thereafter.

### ***Past Reform Proposals***

**4.45** The SER provided advice<sup>121</sup> in 2012 on reforming the pension system, including the recommendation of a mandatory second tier pension and broader tax deductibility for contributions to third tier pensions. Following the elaboration of an inter-Ministerial report, “*Towards a Sustainable and Affordable AOV pension system*”, itself based on a 2010 exploratory report prepared by an external consultant (Keesen), “*A sustainable Pension System for country Sint Maarten*”, the Prime Minister requested the advice of the SER on proposed reforms. In addition to informing the first phase of AOV reforms, legislated in 2015, and serving as a basis for the second phase, for which the passage of legislation was foreseen at the time of writing during 2020, the SER advised that the retirement age be gradually raised to 65 over a ten-year period<sup>122</sup>. At the time, the SER advised reductions by 1.5 percentage points in the AOV contribution rates, respectively from 7% to 5.5% for employers and from 6% to 4.5% for employees. As complimentary measures, the SER also advised the establishment – subject to further study – of a mandatory second tier pension entailing 0.75% contributions rates from both employer and employee on a notional income up to a limit of ANG 42,500. Such a pension would, it was proposed, be introduced on a defined-contribution basis, but would not be tied to a specific employer, along the lines of that in operation in Aruba. In justifying such a mandatory pension, the SER pointed to the low level of even the proposed post-reform maximum AOV benefit with respect to the poverty line as well as the fact that only 36% of Sint Maarten’s working population at that time benefited from an employer-based second tier pension at that time: essentially public sector employees and staff at large utilities. Finally, recognizing the very limited nature of tax deductibility (ANG 1,000 per year) on contributions to private, third-tier pension plans, the SER recommended – subject to further study – increasing the tax deduction to ANG 12,000 per annum. In 2013, the SER published unsolicited advice<sup>123</sup> to the government in relation to the introduction of a mandatory second tier pension in which it fleshed out its earlier proposals. In particular, it advocated the phasing in of minimum premiums of 6%, of which 3% borne by each of the employee and employer, as well as the phasing out of Cessantia.

**4.46** The SER proposed a conditional cash transfer scheme, *Boost Sint Maarten*, in 2015 as a poverty eradication measure<sup>124</sup>. Recognizing that the current financial assistance framework results in significant coverage gaps, with many households left in poverty, and drawing on the successful experience with such schemes in other Latin America & Caribbean countries, the SER offered unsolicited advice to the government on the establishment of a conditional cash transfer scheme in Sint Maarten. The proposal was for all households below the poverty line (which the SER estimated at ANG 1,154 per month, in the absence of an official poverty line), living in Sint Maarten consecutively for at least two years, with children aged 15-18 or pregnant women aged over 18, and fulfilling health or education conditions would be entitled to a monthly payment of ANG 288, equivalent to 25% of the assumed poverty line. For households with children aged 15-18, the monthly payment would be conditional on both the children’s school

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<sup>121</sup> Social Economic Council, *The AOV System Made Affordable, Sustainable and Equitable*. (Philipsburg, 2012). <http://ser.sx/wp-content/uploads/2019/08/AOV-Advice.pdf>

<sup>122</sup> This was in line with the original Keesen report, but differed from the government proposal, later implemented, of legislating for an increase in the retirement age to 62.

<sup>123</sup> Social Economic Council, *A Mandatory Pension for Sint Maarten*. (Philipsburg, 2013). <http://ser.sx/wp-content/uploads/2019/08/Advice-A-mandatory-pension-for-Sint-Maarten-with-Keesen-report.pdf>

<sup>124</sup> Social Economic Council, *Boost Sint Maarten! A conditional Cash Transfers Program to Reduce Poverty in Sint Maarten*. (Philipsburg, 2015). <http://ser.sx/wp-content/uploads/2019/08/Advice-Boost-Sint-Maarten.pdf>

attendance and the participation of parents and children in training courses. For households with pregnant women aged over 18, the payment would be conditional on reporting to the Sint Maarten Medical Centre within three months of conception, following nutrition instructions of a healthcare professional and making use of post-birth maternity care services. Recipients of financial aid were to be explicitly excluded, such that the CCT would be additional and complimentary to existing social assistance schemes. The scheme was to be executed by the SZV. The SER estimated that this would benefit 400-540 households. The estimated cost of the Boost Sint Maarten scheme was ANG 2.2-2.8m per year, for which the SER advised the government to seek funding from international institutions.

### ***Assessment and Recommendations***

**4.47 A lack of reliable data or analytical work is a barrier to optimum policy design.** While the Census and Labor Force Survey provide a useful information base, there remains nonetheless significant uncertainty around some basic metrics such as, for example, population levels. There is a wide discrepancy between, for instance, the population estimated as per the most recent census, the civil registry and the database maintained by the SZV. This complicates efforts to construct reliable projections of the financial performance of the AOV. Further analytical work is also needed to establish a national poverty line, as well as appropriate measures for absolute poverty and deprivation, so as to inform the design and calibration of social protection policies. Deeper qualitative and quantitative investigation may also be warranted into the experience of certain population cohorts, such as young unemployed males, low-income pensioners and women, given that it is the latter that display a greater propensity to apply for financial assistance.

**4.48 Pension benefits are likely insufficient on their own to ensure the retired population are not in poverty.** Although data is limited as to the age cohorts of low-income households and given that there is not in any case a defined national poverty line, it is difficult to assess the full extent of old-age poverty. Nonetheless, anecdotal evidence suggests that it is relatively widespread, while even the maximum monthly AOV pension benefit is less than the poverty line that the SER uses as a rule of thumb (equivalent to 80% of the minimum wage). In many cases, actual AOV benefits will be less than the maximum due to periods of off-island residence resulting in recipients not having accrued an entitlement to the maximum benefits. As such, the proposed increase to the maximum AOV and AWW benefits, over and above cost-of-living indexation, is to be welcomed as a step in the right direction.

**4.49** Timely implementation of proposed AOV and APS pension reforms should be followed by timely preparation for the next phase of pension reforms that will undoubtedly be needed during the coming decade. Although Sint Maarten currently benefits from one of the youngest populations in the Caribbean, it is set to experience, as a result, the most rapid population ageing over the coming decades. Notwithstanding the planned reforms to the AOV and APS, the financial sustainability of these schemes will be called into question in light of demographic dynamics. The number of AOV recipients, for example, is expected to double by 2035. It takes time to design, implement and build political support for pension reforms, as evidenced by the lengthy period required already to increase the pension age to 65. Even after the imminent AOV reforms, it is expected that the costs will exceed income by 2030-2032, while its reserves will be extinguished by 2041-2043. The APS reform, meanwhile, will increase its coverage ratio by an estimated 5% but, based on the prevailing coverage ratio at end-2018, this would be an insufficient improvement to ensure annual indexation under the new regime (since it would remain below the 105% threshold). Moreover, the coverage ratio would be only marginally above the 100% level, raising the possibility that a recovery plan would be necessary in the event of, for example, adverse investment performance, to bring the ratio back above this latter threshold. On the other hand,



the reduction in APS premium payments from 25% to 18% is expected to generate annual savings to the central government budget upwards of ANG 8.7m from 2021 onwards. For both schemes, consideration will need to be given in the coming years to further increases in the retirement age, for example to 67, in line with phased reforms already initiated – or, in the case of Barbados, completed – by other Caribbean countries.

**4.50 Supplementary pension coverage remains limited outside the public sector.** The insufficiency of the AOV pension to ensure an adequate income in old age, even after the proposed increase is implemented, is compounded by the fact that nearly two thirds of the population rely on it as their only source of retirement income. Further consideration should be given to the introduction over the medium term of a mandatory or soft-mandatory (i.e. opt-out) second tier pension scheme for private sector workers. Given that the high prevailing tax wedge already weighs on labor market incentives and disposable incomes, the introduction of such a scheme may be challenging in the short-term, but the scope for its introduction may improve if the authorities proceed with their tax reform proposals aimed at broadening the tax base, and shifting the burden from direct to indirect taxation. Piloting the scheme on an opt-out basis may also reduce resistance to the proposal.

**4.51 The current social assistance schemes lack transparency and benefit a relatively small proportion of low-income households.** The financial assistance scheme run by VSA provides subsistence to a proportion of low-income households. The increase in beneficiaries in late-2017 and the first half of 2018, that is the nine months following the 2017 hurricanes, shows furthermore that the system can be responsive at the margin to social and economic shocks. Given that approximately one-in-seven households have a monthly income less than ANG 1,000, however, it is clear that only a fraction of the lowest income households receives financial assistance. This suggests significant horizontal inequalities, and scope for reforms to tackle poverty. In the past, non-Dutch nationals were under-represented among those receiving financial assistance, although progress is being made in this regard more recently. While fiscal pressures render challenging a significant short-term extension to social assistance programs, and the high tax wedge complicates efforts to introduce a formalized unemployment insurance fund (in line with the stated objective of the NRRP), these constraints may dissipate over the medium term as the economy continues to recover from the 2017 hurricanes, as tax administration improvements yield greater tax revenues, and tax policy reform shifts the burden from direct to indirect taxation. Efforts should be made in the short term at least to raise awareness among the population of the financial assistance scheme.

**4.52 There is an opportunity for Sint Maarten to build on its recent experience with active labor market policies (ALMPs).** The Emergency Income Support and Training Program is currently set to run until 2020, providing training and certification for unemployed and underemployed workers in the hospitality, construction and maritime sectors. Maintaining such an ALMP over the longer-term, as the authorities have previously signaled their intention, has the potential to sustain employability and tackle unemployment. A rigorous appraisal should be carried out to assess the program's success in activating workers, to allow for timely adjustments. In time, consideration could be given to expanding the scope of the program to focus on those aged under 25, among whom employment rates are relatively low and unemployment rates (among males, in particular) relatively high. This approach would be in line with the NRRP objective to improve "employability in the labor force in key sectors (training and labor services)".

**4.53 It is important to be cognizant of employment incentives in designing social welfare reforms.** The introduction of income-support measures, or increases in benefit levels, for able-bodied working age people has the potential to reduce work incentives, whether to take a job, to

stay in a job or to increase hours worked. The design of such measures and the setting of benefit levels should therefore take into account appropriate benchmarks, such as the minimum wage. Where new or existing social protection schemes are funded through increased social insurance or personal income tax contributions, it is possible that the increased tax wedge – already relatively high in Sint Maarten – may have further negative labor market incentives. For example, a higher tax wedge in the formal sector may induce increased informal employment or a reduced willingness of employees to take on extra hours.

#### **4.54 Administrative costs of social insurance funds have risen to high levels.**

Administrative costs as a share of premiums collected have remained elevated, albeit relatively stable, at the APS, averaging 13-14%. Recent years have seen this ratio double at the SZV-managed pension funds (AOV and AWW) to around 12% and remaining stable around that level for the Cessantia fund, even though the latter has not been called on since 2015. While these ratios are not excessive by Caribbean standards (average of 14.7%, and a range from 5% to 26.9% in 2014<sup>125</sup>), their rapid rise should give cause for concern. Although they have scope to benefit from economies of scale in a manner unavailable to most Caribbean countries, the respective ratios in the U.S. and Canada were 0.8% and 3.0% in 2014. It may prove fruitful to carry out an audit of administrative costs at the SZV and APS with a view to reversing recent increases where they cannot be appropriately justified, achieving efficiencies and reducing the ultimate cost to social insurance beneficiaries.

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<sup>125</sup> Koffie Nassar, Joel Okwuokei, Mike Li, Timothy Robinson and Saji Thomas: *IMF Working Paper – National Insurance Scheme Reforms in the Caribbean*, 2016. <https://www.imf.org/external/pubs/ft/wp/2016/wp16206.pdf>



## Chapter 5: Education

### *Executive Summary*

This public expenditure review (PER) of the education sector was prepared by a team from the World Bank at the request of the Minister of the Ministry of Education, Culture, Youth, and Sport (MECYS) in Sint Maarten.

The analysis relies on the analytic framework and technical guidelines in the World Bank's 2017 *Education Public Expenditure Review Guidelines*. The primary comparators are: a) member countries of the Organization of the Eastern Caribbean States (OECS), similar to St. Maarten in regional location, island status, population numbers, land area, and income level; b) OECD countries, most of which are high income countries like St. Maarten; and c) when neither of these comparators measured a variable of interest, the UNESCO Institute of Statistics (UIS) database.

Data sources are Government documents and MECYS's *State of Education 2017-18*, which has good data on many non-financing variables. The expenditure data posed challenges, including an inability to disaggregate expenditures to the level of the school. Problems such as these complicated the analyses or precluded them. MECYS staff worked hard to provide what could be made available, and the report includes recommendations to strengthen MECYS education expenditure database in the future.

#### **How much is spent on education in total and who finances it?**

Government (82 percent in 2015) and households (18 percent) are the primary sources of education financing, with international aid and the private sector being rare sources. St. Maarten households pay a higher share of education expenditures than the OECD countries (12 percent), but education accounts for only an average of 2 percent of households' total expenditures. The share of household expenditures going to tertiary education is small, and St. Maarten's Government covers a much larger share of the cost for tertiary education relative to the OECD average.

Government finances compulsory education from ages 4 to 18 for all children: two years of preschool, six years of primary education, and enrolment in secondary education until the student either reaches the age of 18 or graduates from the secondary level. It finances a share of post-secondary education for some students.

St. Maarten spends a considerably higher share of its GDP and total Government expenditure on education than comparator countries. In 2015, St. Maarten spent 5.1 percent of GDP (24.5 percent of total public expenditures) on education, compared to an average of 4.1 percent (13.1 percent) for the OECS countries and an average of 4.5 percent (10.2 percent) in the OECD. For total education expenditures (TEE) as a percent of total public expenditure (TPE), St. Maarten's 24.5 percent for 2015 is close to double the average OECS expenditure of 13.1 percent, more than double the average OECD expenditure of 10.2 percent, and outside the ranges for both OECS and OECD countries.

Social security for private sector workers is kept outside the Government budget and thus outside TPE. Relative to countries that consolidate social security accounts with general government accounts, St. Maarten's TPE will be underestimated, and its TEE as a share of its TPE will be over-estimated. Sint Maarten's TPE as a share of GDP is also significantly lower than the OECD average TPE. If St. Maarten's TPE had been the same percentage of GDP as the average for the

OECD, its TEE as a percent of TPE would decline to 15%. However, its TEE is still high relative to peers.

Methodological problems complicate estimating per student costs by level of education. The Department of Education provided expenditure data for the subsidized schools by primary (cycle 1 versus cycle 2) and by type of secondary program, but not for DPE schools. The costs of DPE's special needs primary school could not be isolated from those for its regular primary schools. Estimating the costs of DPE's one secondary school required somewhat heroic assumptions. In the context of these caveats, the per student costs for DPE schools at the primary level look higher than for the subsidized schools. At the same time, relative to the average per capita costs for OECS and OECD countries, St. Maarten's per capita costs are lower for both its subsidized and DPE schools at all levels of education prior to tertiary.

### **How does Government spend its education money?**

*Expenditures by level of education (functional allocation).* Relative to comparators, St. Maarten puts a higher proportion of its public financing for schools into preschool, primary, and secondary education. Although St. Maarten's Government pays a larger share of the tertiary bill than the average OECD government, it allocates less of its public education financing to post-secondary non-tertiary and tertiary education than the average OECD country—9.2 percent, compared to the OECD average of 15.7 percent. The difference is not made up through household expenditures on post-secondary education, suggesting that overall expenditures on post-secondary may be suboptimal. However, the analysis does not account for resources made available through the government of the Netherlands for St. Maarten's citizens, which may help to close this gap

*Expenditures by economic classification (capital and recurrent).* In the 2016 record of public expenditures, the Ministry that controls the education capital budget records no capital investments. Since St. Maarten has a relatively stable school-age population (Figure 4.9, main text), this is not surprising. Analyzing the economic classification of the budget thus focuses on recurrent expenditures. St. Maarten's recurrent expenditure shares for personnel versus all other expenditures are close to those for the average OECD country. At 83 percent going to personnel, there is financial room for other inputs critical for learning.

### **Does the country's public financial management system support financial accountability by the education sector?**

The World Bank's review (2019) of St. Maarten's public financial management (PFM) documented a range of issues with the country's PFM system. A few of these are directly relevant to the education system; others indirectly affect the context in which the sector has to manage its financing—e.g., problems with Government's revenue collection. Budget formulation and execution is not based on a functional classification of expenditure, making it difficult to estimate education sector's expenditures by level and type of education. The Ministry of Finance is not managing public finances within a Medium-Term Expenditure Framework (MTEF). Thus, sectoral strategies and future plans in education and other sectors are disconnected from the financing engine required to make them happen. Payroll controls now seem relatively effective and to have weeded out most ghost workers. However, public procurement regulations and controls are insufficiently developed, especially in light of the substantial public procurement entailed by the reconstruction needs stemming from Hurricane Irma.

## **Is financing for the education sector sustainable in the short and medium term?**

*Short-term.* On the capital side, damage from Hurricane Irma poses the immediate budgetary problem for the education sector. These financing needs are being handled as part of the country's larger rebuilding strategy. As a result of the pandemic, St. Maarten's GDP is projected to drop by more than 20 percent, not returning to its pre-COVID level before 2024-25. Protecting citizens from the virus and repairing its economic and other types of damage pose new costs for Government at the very time that its revenue sources will have steeply declined. We do not know the budgetary implications for the education sector of the country's GDP decline. These will depend on Government's choices of revenue sources and its expenditure priorities.

*Medium-term.* To establish a cushion to absorb the costs of future natural disasters—both on the revenue and expenditure sides—Government and the World Bank are working to develop a disaster risk management strategy that includes a review of insurance practices. In terms of demography, assuming that the gradual growth in the school age population that was interrupted by Hurricane Irma resumes, the number of school-aged individuals is projected to increase in the eight years between 2019 and 2026 by a little more than 900 individuals, or 11.9 percent (Figure 4.10, main text). This increase might be able to be accommodated within the parameters of the current system, but even if not, the increase is gradual without shocks for the budget.

## **Are public resources being used efficiently?**

*Criteria for financing schools.* MECYS clearly specifies these criteria in a policy document. Analyzing several efficiency indicators for the schools finds that, in general, the subsidized schools seem efficient relative to comparators, suggesting that the financing criteria are efficient and properly applied to the subsidized schools.

*Student/classroom ratios.* At the primary level, the subsidized schools average 24 students per class; DPE schools, even when the special needs school is excluded from the calculations, 18 students per class. Since DPE schools tend to be older, the physical capacity of their classrooms may be lower. The average across School Boards for St. Maarten is slightly higher than the average of 21 students per class for OECD schools. St. Maarten's overall average class size is higher than that for the OECS countries, although the average for DPE schools is about the same and that for the subsidized schools seven students higher.

*Student/teacher ratios* are critical to efficient financing, as low student/teacher ratios can add significantly to the annual personnel bill without necessarily buying better learning outcomes. The Department of Education financing data specified the number of full-time equivalent (FTE) teachers for subsidized schools, but not for DPE schools, and the *State of Education* data on teacher numbers seem to be absolute, not FTE, numbers. DPE FTEs were estimated based on inferences from data on the subsidized schools. DPE schools have lower student/teacher ratios than the subsidized schools at the primary level and about the same for the one DPE secondary school. The lower ratios for DPE primary schools could indicate inefficiencies, bad data, or differences between DPE and subsidized schools in the physical capacities of their classrooms. Student/teacher ratios for the subsidized schools are comparable to OECD and OECS averages at 15:1 for primary and 13:1 for secondary.

*Teachers' time on task.* Teacher absenteeism is low at the primary level, though higher in DPE schools. Absenteeism at the secondary level is much higher at an average 17.4 percent of the teachers on a given day across all schools, the one DPE secondary school having higher

absenteeism than the average for the subsidized schools but not higher than every subsidized school. Based on the number of teaching hours specified in the funding criteria for the schools, St. Maarten teachers have relatively high teaching loads compared to OECD countries.

*Internal efficiency of the system.* Data on student absenteeism are not available for comparator countries. St. Maarten's rates appear low, with DPE schools having the highest student absenteeism rates at the primary and secondary levels. DPE schools have very high repetition rates at both the primary and secondary levels; subsidized schools, at the secondary level. Ignoring the learning costs to students of this ineffective policy, repetitions at the primary and secondary levels cost the sector roughly Naf 8.9 million or US\$5.1 million in 2017-18.

*Summary.* The subsidized schools look more efficient than the DPE schools across all efficiency variables examined. (See Table 5.24.) The subsidized schools look as efficient if not more efficient than OECS and/or OECD comparators with the major exception of student repetition rates.

### **Are public resources being used effectively?**

The most important criterion for effectiveness is student learning. Since St. Maarten has not participated in any international assessments of learning, it is not possible to benchmark the learning performance of the system against comparators. At the conclusion of grade 6, all St. Maarten students take the Foundation Based Education (FBE) examination, which provides a common basis for evaluating the performance of all students. However, the FBE examination is designed as a selection examination for purposes of allocating students into different post-primary secondary programs. Thus, it is a norm-based, not a criterion-based, examination—in other words, the results only tell us how St. Maarten's sixth graders in different schools perform relative to each other, not relative to the system's learning goals.

The FBE examination results for 2018 reported in *State of Education* indicate that students in the DPE schools did worse on every subject, other than Dutch, than students in schools under the other Boards. The performance of the public schools cannot be differentiated from that of the composition of their student bodies. Being an undocumented student may indicate more learning problems, and, if so, in 2016-17, DPE enrolled a higher percent of undocumented students (24 percent) than the subsidized schools (18 percent). However, the subsidized schools are educationally responsible for 70 percent of all undocumented students were enrolled in subsidized schools.

MECYS pursues some policies that the international research shows reduce a system's learning effectiveness on average or in terms of increasing variance in learning outcomes: repetition, social promotion, the language of instruction, and early tracking at the secondary level.

### **Does public spending promote equity?**

Data were not available to conduct a benefit incidence analysis, the best way to assess if St. Maarten is spending its public resources equitably. However, it is unlikely that St. Maarten's education financing is noticeably skewed. Education is publicly financed and compulsory from ages 4-18, and truant officers monitor attendance. The law specifies that a child falls under the Compulsory Education Law until the end of the academic year in which the youngster has reached 18 years of age or has received a diploma in secondary education. In all countries public spending on tertiary is the level most likely to be biased toward wealthier households because their children are most likely to proceed to this level (Demry, 2000; Davoodi, et al, 2003, 2010). However, St.

Maarten's public expenditures on tertiary education appear to be a small share of the overall public spending on education, minimizing the room for bias.

MECYS's repetition, social promotion, and tracking policies increase inequities. If St. Maarten follows the international pattern, students from less-advantaged families are most likely to be asked to repeat grades, to be socially promoted, and to be tracked into less demanding vocational programs that limit their labor market options.

### **COVID-19 postscript**

The pandemic raises at least three issues for St. Maarten's education sector: potential budget cuts, students' learning losses, and re-opening schools safely. As noted, St. Maarten's GDP is projected to decline this year by at least 20 percent, with its pre-COVID level being attained only in 2024-2025. The implications for the education sector's budget depend on Government's choices of revenue sources and its expenditure priorities.

Simulations based on data from 157 countries (Azevedo, et al 2020) indicate that the pandemic will reduce student learning, even with remote learning in place. The effects will vary, depending on the length of school closures, the effectiveness of the mitigation measures, and other factors. If St. Maarten can limit its school closure, students' learning losses should be minor. In general, children from poorer families tend to have less or more compromised access to mitigating measures. If St. Maarten households follow this usual pattern, students from poorer families are projected to lose more learning than students from wealthier families.

### **Recommendations**

This analysis revealed genuine strengths and some problems with St. Maarten's education system. The original recommendations have been amended to reflect the COVID-19 pandemic.

#### **Pursue recommendations 1 and 2 immediately**

1. **Wring inefficiencies out of the sector's expenditures.** Reducing the sector's inefficiencies can help MECYS compensate for any budget shortfalls imposed by the post-COVID economic slowdown and potential decline in government revenue. It can help it finance the costs of re-opening schools and dealing with the learning losses of students.

2. **Compensate for students' learning losses during the pandemic.** School closures have damaged students' development of their human capital at that very time they need better human capital to survive in an upended labor market. Assess the learning status of every student for each subject in the curriculum to identify at-risk students by subject. Students probably had variable access to remote learning during school closures, and remote learning itself is suboptimal. Do not use repetition or social promotion policies to deal with learning losses. Use an adjusted curriculum for the whole class and, for lagging students, after-school assistance, Saturday morning tutoring, and mandatory summer instruction to help them catch up.

### **Pursue recommendations 3, 4, and 5 over the medium-term**

Each ministry is responsible for its own financial control functions. However, MECYS cannot meet its accountability responsibilities because of its data and analytic deficits. It needs additional data, especially expenditure data, and analytical capacities to assess how efficiently, effectively, and equitably it is spending its resources.

**3. Measure learning relative to learning objectives and consider an international learning assessment.** The basic accountability for all education systems is student learning relative to a country's learning objectives. At present St. Maarten does not know how its system is performing even relative to its own standards. Its sixth grade FBE exam measures how students perform relative to each other, but not relative to the system's learning goals. Secondary exit exams differ in their standards, and those taking them constitute biased samples. Thus, their results do not reflect the *system's* performance.

MECYS can choose from different international assessments, depending on its objectives. Since the Netherlands participates in both TIMSS and PISA, the technical members of the MECYS staff might wish to consult with their Dutch counterparts in making a decision about their choice of an international assessment for St. Maarten. Sample-based assessments measure the system's performance. Population-based assessments measure both the system's performance and reveal which students are lagging. To obtain the full value of a population-based assessment, St. Maarten needs the means to intervene to support students that are found to be struggling.

**4. Build on the *State of Education* and expand it to include expenditures.** Although it can be strengthened, the *State of Education 2017-18* is impressive. Its biggest gap is the lack of financing data that the *State of Education* was not designed to include. It recognizes that this statistical document needs to be expanded to include them. The Inspectorate will need additional budget and human capital to incorporate financing data, and it can draw on an international technical network of education statisticians to help. Short M.A. statistics programs, seconding staff members to expert teams in other countries, and other strategies can also be used.

**5. Establish strong education policy analysis and policy trialing functions in MECYS.** MECYS's Department of Education has legal responsibility for education policy analyses; its Division of Education Innovation, for implementing projects and thus for trialing policy options before they go to scale.

Like the statistics function, the policy analysis and trialing functions are technically sophisticated functions, requiring proficient staff and sufficient budget to perform adequately. We recommend technical and budget audits of these two functions in MECYS. Such audits reveal skill gaps, adequacy of staffing numbers, and the bare-bone budgets required for these units to function properly. To establish the standards for such an audit, we suggest that the Department of Education and Division of Education Innovation consult with the Policy and Implementation team of OECD's Education unit. This team assists countries to develop and implement policies on a wide range of topics pertinent to the effective functioning of the sector.

## Introduction

### Purpose

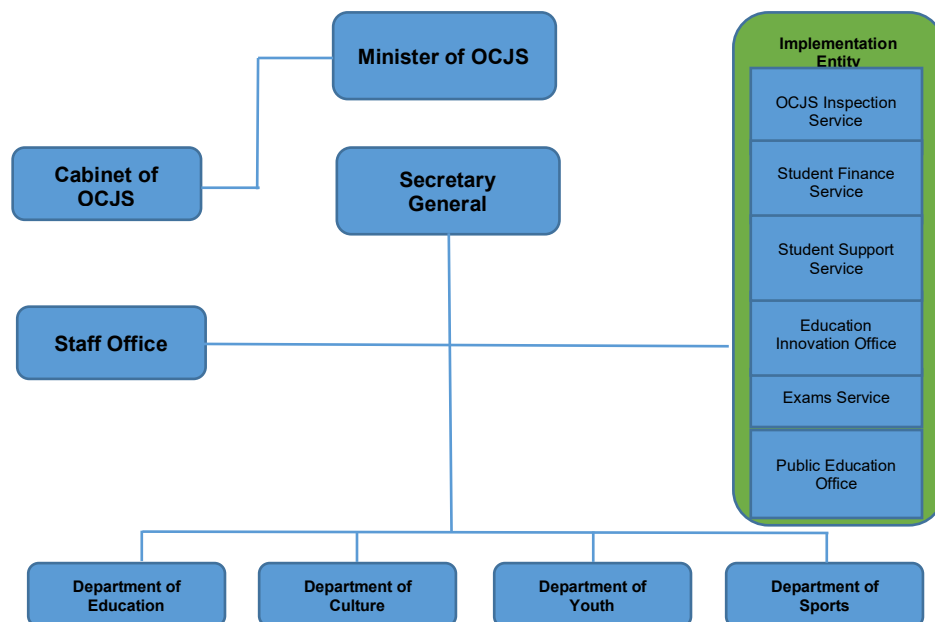
**5.1** The Minister of the Ministry of Education, Culture, Youth, and Sport (MECYS) requested this public expenditure review (PER) of the education sector. He highlighted several issues of policy concern. These included the lack of data on the system that constrains good policy making; potential inefficiencies, such as the school buses; the subsidy criteria for subsidized schools; the low repayment rate of Government loans for higher education; help in rationalizing the financing of higher education; and a strategy for minimizing infrastructure losses from climate events.

### Background

**5.2 Sint Maarten has an older culture and a young government.** In 1983 Sint Maarten became an "island territory" of the Netherlands Antilles, a status that entailed considerable autonomy under the Island Regulation of the Netherlands Antilles. As an island territory, it was ruled by an island council, an executive council, and a Lieutenant Governor appointed by the Dutch Crown. With an area of 34 km<sup>2</sup> and a population of nearly 40,000 people, it is the Caribbean's most densely populated country.

On 10 October 2010, Sint Maarten became a constituent country within the Kingdom of the Netherlands, making it constitutionally an equal partner with Aruba, Curaçao, and the Netherlands proper and changing St. Maarten's Government's role from that of policy executor to that of policy maker. Figure 5.1 shows the structure of MECYS. Six units central to the management of the sector report directly to the Secretary General, not the Department of Education (*national ordinance structure and organization of national government*. AB 2010, GT no. 6).<sup>126</sup>

**Figure 5.1 Structure of Ministry of Education, Culture, Youth and Sports (OCJS)**

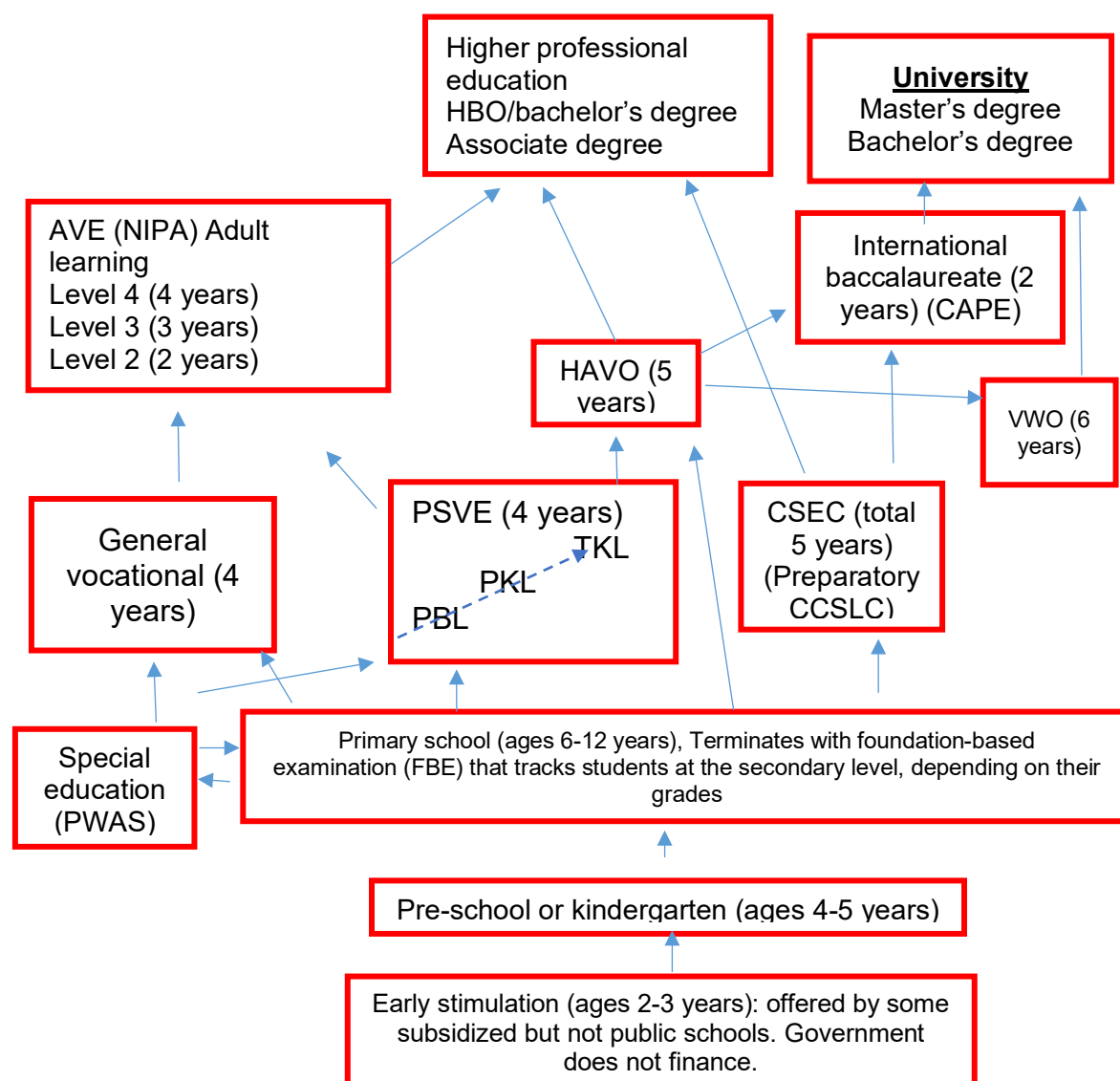


Source: JAARRAPPORT, 2016, p.48

<sup>126</sup> These six units are defined as operating organizations. An organizational unit within the administrative organization is responsible, within a given field, for implementing policy formulated by the minister and presenting points for attention for policy to the minister through the agency of the Secretary General.

**5.3** Sint Maarten's education system is modeled on the Dutch system, with some influence from Anglo-Saxon countries. Figure 5.2 (below) shows the structure of the education system that receives public financing. Annex 5.1 lists all schools in St. Maarten, the level of education that the

**Figure 5.2 Structure of St. Maarten Public Education System**



Source: authors in collaboration with staff of MECYS Department of Education

school provides, the type of secondary education curriculum provided, the language of instruction (Dutch or English), and the examination that certifies completion of a segment of education.

**5.4** Education is compulsory from the ages of 4 to 18 years. The law specifies that a child is subject to the Compulsory Education Law from the age of 4 until the end of the academic year in which s/he has reached 18 years of age or has received a diploma from a secondary program. Truancy officers enforce the law.



**5.5** The Government's education financing model for primary and secondary education is the Dutch one. It funds public schools and subsidizes the Boards for non-profit schools, many of them with a religious foundation. It funds some share of tertiary education costs for some students studying in St. Maarten, the region, or abroad. The four private schools on the island receive no Government funding and are not obligated to provide data to Government on their operations. Although Government does not fund pre-kindergarten (early stimulation) services in either public or subsidized schools, some subsidized primary schools provide these services.

**5.6** The first two years of compulsory education are preschool from ages 4 to 5 years. These services are physically integrated into the primary schools and do not have separate, stand-alone facilities. Available data do not distinguish between the preschool and primary grades, so preschool, enrolment rates cannot be calculated. Primary education is from ages 6 to 12. It terminates with a selection examination called the foundation-based education exit examination, or FBE. The student's score on this exam determines his/her placement in various tracks of the secondary system. If the student scores 70 or above, s/he can enter the academic tracks of secondary education; between 69 and 49, s/he can enter the preparatory secondary vocational education track; if less than a score 49, s/he can enter the general vocational track.

**5.7** Secondary education is from ages 12 to 18. Depending on the curricular program, it can be 4, 5, or 6 years in duration. For those passing the HAVO or VWO in Dutch, the Caribbean Education Secondary Certificate (CESC) examination, the international baccalaureate examination, or the Caribbean Advanced Proficiency Examination (CAPE), the student can proceed to tertiary education in St. Maarten at the University of St. Maarten, the region (especially Curacao), or abroad, usually the Netherlands, Canada, the United States, or England (Aventurin, 2016).

**5.8 Subsidized schools dominate the provision of non-tertiary education funded by Government.** Enrolments in subsidized schools constitute 80 percent of all enrolments across all levels of education (Table 5.1). Division of Public Education (DPE) schools have more presence

**Table 5.1 Distribution of Total Non-Tertiary Enrolments by Level of Education and School Governance (2017-2018)<sup>127</sup>**

Level of education	DPE		Subsidized		Total number
	number	%	number	%	
Primary	1238	27.7	3236	72.3	4474
Secondary	234	8.5	2516	91.5	2750
Post-secondary Non-tertiary	0	0.0	148	100.0	148
Overall Total	1472	20.0	5900	80.0	7372

Source: State of Education 2017-18, tables 2, 9, and 13, pp.13, 45, and 66.

at the primary level, accounting for more than a quarter of total enrolments, but much less at the secondary level (less than 10 percent) and none at the post-secondary non-tertiary level. Annex 2.2 and 2.3 show the enrolments by School Board and school for primary and secondary education, respectively.

**5.9 Hurricane Irma imposed significant capital expenditure needs on the education system.** The main financing effects of the 2017 hurricanes were the destruction of capital investments—damaged or virtually destroyed facilities, school furniture, equipment, and learning

<sup>127</sup> Because of Hurricane Irma, enrolment data for this school year were collected in March 2018.

materials. The *Sint Maarten National Recovery and Resilience Plan* estimated that total costs of recovering from the hurricanes were \$2.3 billion, of which MECYS's needs constituted 5.1 percent or \$119,978,000. Of this amount, almost half (47 percent) represented costs associated with school buildings.

### ***Scope of the analysis, methodology and data limitations***

**5.10 Scope.** The budget for MECYS includes expenditures for four different functions: education, youth, culture, and sport. Our analysis is restricted to education expenditures and excludes expenditures on youth, culture, and sport.

**5.11** All analyses also exclude the four<sup>128</sup> private, unsubsidized schools (Caribbean International Academy or CIA, Learning Unlimited Preparatory School or LU, the Sint Maarten Montessori School, and the All Children Education or ACE primary school) except for estimates of household payments for education and enrolment numbers for the first three of these schools.<sup>129</sup> Annex 2.4 shows the types of educational services offered by each of the private schools.

**5.12 Methodology.** The analysis relies on the analytic framework and technical guidelines in the World Bank's 2017 *Education Public Expenditure Review Guidelines*. The primary comparators used are member countries of the Organization of the Eastern Caribbean States (OECS)<sup>130</sup> and the countries of the Organization for Economic Cooperation and Development (OECD). The statistical sources relied on for these comparators are the OECS *Education Statistical Digest 2017 for school year 2015-2016* and the OECD's *Education at a Glance 2018*. Although both the OECS and OECD statistical databases include financing data, those of the OECD are much more extensive and of very high quality.

**5.13** The OECS countries are similar to St. Maarten in regional location, island status, population numbers,<sup>131</sup> land area, and income level. The World Bank classifies St. Maarten as high income and members of the OECS as high or upper middle income.<sup>132</sup> OECD countries are also mostly high income, although their population numbers and land masses are usually much larger than those of St. Maarten.

**5.14** When neither of these comparators measured a variable of interest, we checked the UNESCO Institute of Statistics (UIS) database. This database has to rely on the statistics submitted to it by country governments. Accordingly, its data quality is uneven. Education data on the Caribbean Netherlands islands of Bonaire, St. Eustatius, and Saba do not exist or are not

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<sup>128</sup> Chapter 4 of the *State of Education 2017-18* has a table that shows the private schools in St. Maarten (table 16, p.74). This table does not include the Victory Christian Academy, which is listed as a private school in the appendix to this document (p.104).

<sup>129</sup> MECYS's *Compulsory Education Report, 2016-17*, notes: "It has been difficult communicating and receiving requested documentation on the educational process of the private nonsubsidized schools.... The academic year 2016-2017 has seen little change concerning the communication between these schools and the Inspectorate." (P.25) Chapter 4 of *The State of Education Report 2017-2018* notes that "The Division of Inspection has no authority to request any data from private schools. However, full cooperation is established between the Inspectorate of ECYS and CIA, LU and Montessori schools. ACE does not submit nor report to the Inspectorate. Presently, all private schools operate under a business license and are not subsidized by government." (p.74)

<sup>130</sup> The OECS is now a nine-member grouping consisting of Anguilla, Antigua and Barbuda, the British Virgin Islands, Dominica, Grenada, Martinique, Montserrat, St. Kitts & Nevis, St. Lucia, and St. Vincent & Grenadines.

<sup>131</sup> St. Lucia is the largest of the OECS countries with a population of 172,000; St. Kitts and Nevis, the smallest at 46,000.

<sup>132</sup> World Bank Development Indicators. *Country income classifications*. The classification is based on GNI per capita in US\$ (Atlas methodology).

publicly accessible. Aruba and Curacao are comparable to St. Maarten as constituent countries within the Kingdom of the Netherlands, all three are high income countries, and their populations are also small. However, available data on Aruba's and Curacao's education systems are old and spotty.

**5.15 Data limitations.** The analysis was hampered by several data issues. MECYS's *State of Education 2017-18* has good data on many non-financing variables, some of which many countries do not but should measure. It was indispensable in analyses of the efficiency and effectiveness of St. Maarten's education system. Although this document had not yet been published when we conducted this review, the Minister of MEYCS kindly shared the draft with us. *All data from this source are provisional, subject to final revisions before publication.*

**5.16** The *State of Education* lacks data on some important variables, the most significant being completion rates and average time to completion for an education cycle for each cohort of students that starts preschool together. Completion rates for a cohort tell us the share of students that dropped out prior to completion. Although the *Compulsory Education Report, 2017-18* includes dropout rates, these are not cumulative across the cycle for a cohort of students and may not be reliable.<sup>133</sup> The average years to completion for those that complete tell us the cumulative effects of grade repetition. For example, if the average years required to complete primary education is seven, not the scheduled six, years, the cumulative effects of grade repetition costs Government an additional year of education for each enrolled primary student.

**5.17** For non-financing variables, such as enrolment numbers, the latest data, including 2016, are used. In some cases, 2016-17 is the latest year. In some cases, 2016-17 data are used because the 2017-18 school year was badly disrupted by Hurricane Irma, producing anomalies in the data series.

**5.18 Financing data.** The expenditure data were very problematic. MECYS's policymaking for the sector and a PER both depend heavily on these data. Staff in the MECYS worked hard to assemble the data needed. However, they confronted problems of poorly defined categories, lack of comparability in the accounts for public schools versus subsidized private schools, and expenditure data undifferentiated by level of education and school. Capital expenditures for the education sector do not sit in the MECYS budget, but we had access to the budget for the responsible ministry.

**5.19 Budget classifications.** St. Maarten's budget data are organized according to economic and administrative classifications, but not functional ones, which in the case of the education sector, corresponds to the level of education. Budget data for the subsidized schools let us estimate their expenditures by primary versus secondary. Expenditure data for DPE schools do not differentiate costs by level. However, since most DPE schools are at the primary level, the budget split between primary and secondary for DPE schools can be approximated.

**5.20** The administrative classification used had to be the School Board (DPE and the boards for the subsidized schools). MECYS's expenditure data do not drill down to the lower

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<sup>133</sup> The *State of Education* reports no dropouts in the primary schools for 2017-18. The secondary dropout rates reported in the *Compulsory Education 2017-2018* (table 4, p.31) show zero for a number of programs, including ones that might be expected to have dropouts. Dropout rates are notoriously difficult to calculate accurately. A student can leave a school but enroll in another one, perhaps under a different Board. This student should not be counted as a drop out but determining the student's classification requires tracking her/him. The student's family may move away from St. Maarten, and the student may or may not enroll in school in the country to which the family has moved. This student should not be counted as a drop out, but as emigrated.

administrative unit of the school. If data on expenditures by school had been available, all interested parties could have checked the efficiency and effectiveness with which each school spends its resources. The fact that MECYS subsidizes non-profit School Boards and funds public schools is a natural experiment that lets the Ministry explore important policy questions. Do some School Boards deliver the same level or type of education at lower per student costs than others? With better learning outcomes than others, holding costs constant? If so, why? Holding constant on level and type of education, do School Boards for the subsidized schools deliver education at lower per capita costs than public schools? If so, why?<sup>134</sup> The potential information in this arrangement cannot be exploited for several reasons.

**5.21** The MECYS budget shows expenditures by School Board for the subsidized schools, and the Department of Education provided budget data for the subsidized Boards by level and program. However, since some Boards operate both primary and secondary schools (DPE, SKOS, and MAC) and both secondary academic and TVET programs (SVOBE's Milton Peters College and FAVE's St. Maarten Academy), we could not associate expenditures by level and type of secondary program with a specific School Board. We could not use knowledge about the School Board to identify the specific school or type of secondary program within the school.

**5.22** The per capita costs calculated for the subsidized schools are based on their public expenditures only. However, subsidized schools are allowed to charge students' families modest fees,<sup>135</sup> although these are waived for families that cannot afford them and children of parents that cannot afford to pay fees cannot be excluded. DPE schools are not allowed to charge fees. Their per capita costs reflect Government funding only, whereas total expenditures by subsidized schools include Government subsidies and household fees. Although the size of these unknown revenues is small—the SVOBE School Board estimated that 95 percent of their funding came from Government and 5 percent from fees, the subsidized Boards are spending more than just their Government subsidies. Their per capita costs based only on their public subsidies underestimates by small amounts those based on public and household financing.

**5.23** Personnel costs are treated differently in the budgets for subsidized versus DPE schools. The personnel costs for the School Boards of the subsidized schools can be differentiated from the costs of teachers and non-teaching staff in the schools under their jurisdiction. However, for DPE schools, the budget combines the costs of teachers, school administrators, and the Ministry's Division of Public Education staff.<sup>136</sup> In other words, we cannot differentiate Ministry administrative personnel costs from school personnel costs, let alone non-teaching staff from teachers at each school. Although the functions of the Division of Public Education include those of Schools Boards, presumably they are broader.

**5.24** *Holding year for data constant for financing variables.* Initially we tried to conduct all financing analyses for the same budget year, choosing 2016 as the last budget year for which we had consolidated expenditures. However, household expenditures for education were available only for 2015, the date of the most recent *Household Budget Survey*. We received data on the economic classification of data for school year 2018-2019. These data were executed

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<sup>134</sup> Variations so identified raise questions to be answered, even if there are perfectly good explanations—e.g., variations in the composition of student bodies and thus in the intensity of services required to serve them.

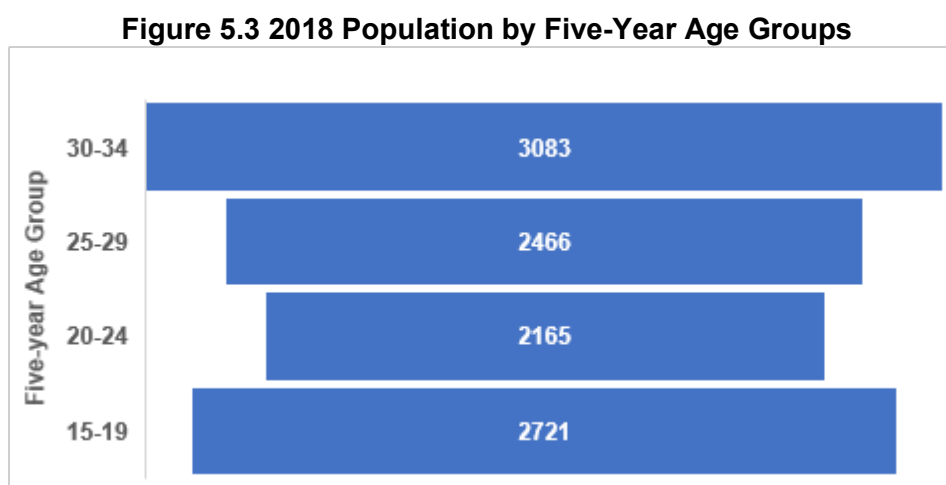
<sup>135</sup> For example, the SKOS board charges an annual fee of about \$150 for primary and \$500 for high school. The per child fee declines when there are multiple children enrolled from the same household.

<sup>136</sup> Personal email confirmation October 4, 2019, by head of Department of Education.

expenditures for the DPE schools but planned expenditures for the subsidized schools.<sup>137</sup> Ultimately, we had to use the budget data available to us and could only indicate the year and whether they were planned or executed expenditures.

**5.25** *Estimates of public and private expenditures for tertiary education.* Our estimates of public and private tertiary expenditures are suspect. St. Maarten's public education budget shows a substantially smaller share of funds going to tertiary education than the average shares paid by OECS and OECD governments (see Table 5.8).<sup>138</sup> Households can fund the costs of their children's tertiary education in three ways: a) themselves; b) if they become Dutch citizens, their children can apply to Dutch universities for academic or higher professional education and get study financing from the government of the Netherlands; and c) grants or loans from St. Maarten's Government to cover the costs, with agreements to repay loans.

**5.26** Figure 5.3 shows a marked dip in the population in the five-year age groups most likely to be abroad for post-secondary education. If this "missing" population is in fact in school abroad, how are their costs being funded? The average St. Maarten household spends two percent of its income on education, and, of this two percent, only a very small percent (4 percent) on tertiary education (Figures 5.5 and 5.6, below).



Source: Department of Statistics, St. Maarten. "Factsheet Population: Population of Sint Maarten 2018", Appendix I, p.7.

**5.27** Household expenditures on education are averaged across all households, not by the family's income quintile. Households' expenditures for tertiary education may be under-estimated. Families who fund their children's education abroad will be in the higher quintile groups where expenditures on tertiary education are usually higher than the average. Household income and expenditure surveys are notoriously weak for the high end of the income distribution where families who are funding their children's study abroad tend to be concentrated. Finally, transfers

<sup>137</sup> We do not know if planned and executed budgets for the subsidized schools are close. For St. Maarten's overall budget, the World Bank's public financial management analysis found that in 2018 actual expenditures deviated from budgeted expenditure by more than 5 percent but less than 10 percent of budgeted expenditures.

<sup>138</sup> Government's tertiary expenditures seem to consist of their subsidies for the National Institute for Professional Advancement (NIPA) program under the Board of Adult Vocational Education's (AVE), subsidies for the University of St. Maarten (USM), and loans and scholarship grants under its study financing program (Aventurin, 2016) We could not locate repayments of previous loans to the government of previous loans by year in order to estimate the net costs of the study financing program.

from the Netherlands Government to St. Maarten households for study in the Netherlands are unknown.

**5.28 *Benefit incidence analysis.*** Parliamentary legislation to prevent the sharing of the Department of Statistics data with third parties meant that we could not conduct a benefit incidence analysis to determine if Government's education funding is pro-poor, pro-wealthy, or neutral.

**5.29 *Demographic projections.*** St. Maarten's Department of Statistics does not have population projections, so we were unable to use such projections to see if the downstream costs for the education system that stem from the number of school-aged children were projected to increase, decrease, or remain unchanged. We made assumptions to estimate changes in the school-age population downstream.

### ***How much is spent on education in total and who finances it?***

#### **Total Financing and Sources**

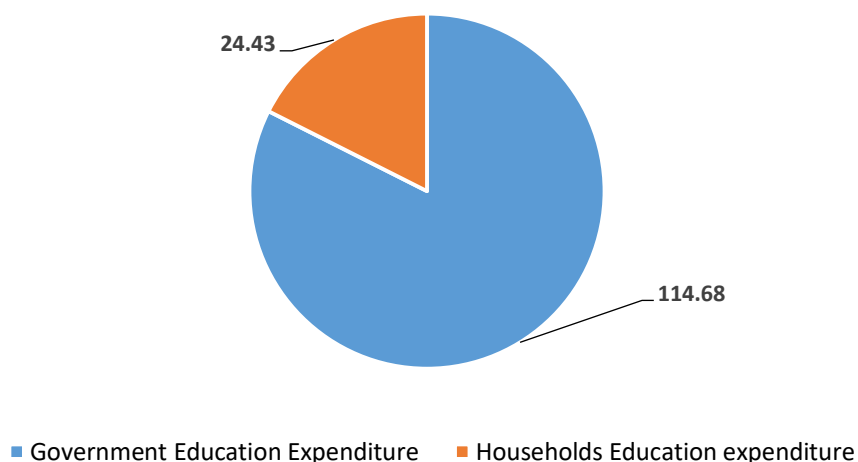
**5.30** The sources of education expenditures in St. Maarten are Government and households. Except for the Irma-related Dutch aid, international aid is not a routine source of education expenditures, nor is the private sector. The latter finances irregular specific purchases, such as under-writing an extra-curricular activity or buying new computers for a school. In 2015, the year of the most recent *Household Budget Survey*, Government and households together spent 6.2 percent of GDP on education (Figure 5.4 and Table 5.2, below).

**5.31** The policy question here is whether the country balances public and private financing in ways consistent with the means of each. Figure 5.4 shows that in 2015<sup>139</sup> households paid 18 percent of total sectoral costs; Government, 82 percent. The Government share is almost identical to the average for the OECD countries: 82 percent for St. Maarten and 83 percent for the average OECD country. The shares paid by households differ between St. Maarten and the average OECD country. Against St. Maarten's household contribution of 18 percent, the average OECD household contribution is 12 percent, with other, non-governmental, financing sources (including the private sector) being 4 percent and international sources, 1 percent (OECD 2018, table C3.1).

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<sup>139</sup> The expenditure data for 2015 had to be used because that was the latest year of the Household Budget Survey, conducted by the Department of Statistics.

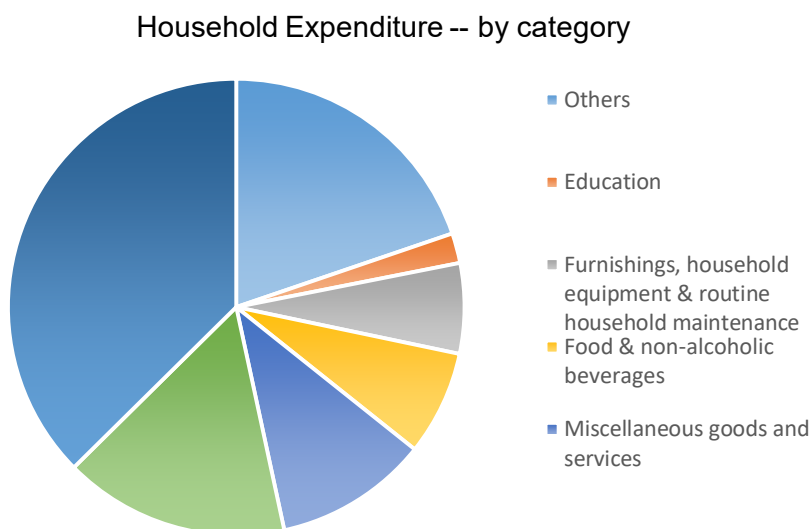
**Figure 5.4 Public and Private Financing Shares of Education Expenditures (2015)**



*Source:* Government education expenditure based on these budget lines: DoE (Department of Education, or, Afdeling Onderwijs) + Administrative offices, defined as Exams Service (Dienst Examens); Student Finance Service (Dienst Studiefinanciering); Student Support Service (Dienst Studentenondersteuning); Education, Culture Inspection Service (Inspectiedienst Onderwijs, Cultuur, Jeugd- en Sport); Education Innovation Office (Dienst Onderwijs Innovatie); and Public Education Service (Dienst Openbaar Onderwijs). Household data are from the 2015 Household Budget Survey, p.10.

**5.32** Figure 5.5 shows that the average St. Maarten household spent 2 percent of its total expenditures on education. As an average, this expenditure does not raise concerns. However, the share of poor households' total expenditures for education can be much higher than that of

**Figure 5.5 Average Share of Household Expenditures for Education (2015)**



*Source:* 2015 Household Budget Survey, table 1, p.10

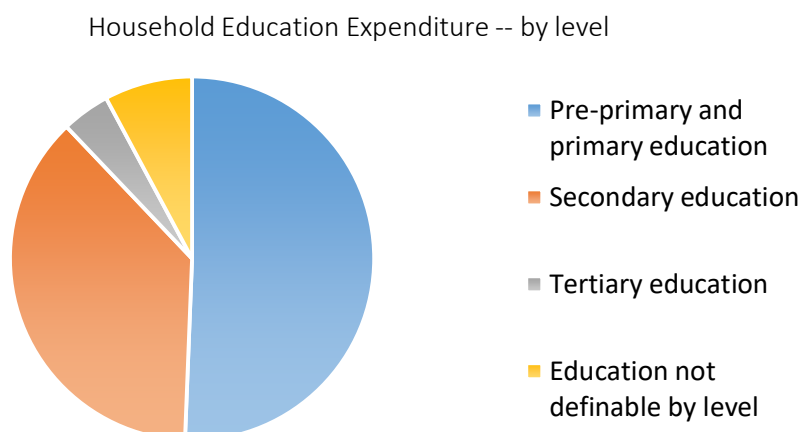
wealthier households. Diversifying funding resources by shifting a share of costs to households is reasonable practice as long as it does not contribute to the children of poor families leaving school prematurely or attending irregularly because they need to work to support the family. Checking this possibility requires an analysis of household expenditures by household income

quintile, but as noted, restrictions on access to the data of the Department of Statistics precluded this analysis.

**5.33** Figure 5.6 shows that the lion's share of average household expenditures goes to pre-primary and primary education (51 percent), followed by secondary education (37 percent). Tertiary expenditures are a surprisingly small 4 percent. The 8 percent going to "education not definable by level" is for education primarily for adults that requires no prior instruction. It includes certificate training, vocational training (such as technical trade schools), and cultural activities.

**5.34** The OECS does not have household expenditure data on education, but the OECD does. The expenditure share for "education not definable by level" in St. Maarten's *Household Budget Survey 2015* is treated as post-secondary, non-tertiary training. Table 5.2 shows a marked difference between St. Maarten and OECD households in their expenditure shares by level, especially for tertiary education. For all levels and types of education prior to tertiary education, St. Maarten's governmental share is below the average governmental share for OECD countries and at the low end of the range for governmental shares for OECD countries.

**Figure 5.6 Allocation of Average Household Expenditures Among Levels of Education**



Source: 2015 Household Budget Survey, table 12, p.21.

**5.35** St. Maarten's household share for the pre-tertiary level is more than double the average OECD household share, although it is at the upper end of the range of OECD countries. At the tertiary level the situation reverses. The Government of St. Maarten pays almost the entire bill for tertiary education; St. Maarten's households, only about 1 percent. By contrast, on average OECD governments pay 66 percent of the tertiary bill; households, 22 percent.



**Table 5.2 Shares paid by government and households by level of education for St. Maarten and OECD Countries**

Level of education	St. Maarten <sup>1</sup>		OECD countries <sup>2</sup>			
	Government	Households	Government		Households	
			Average	Range	Average	Range
Primary + secondary + post-secondary non-tertiary <sup>3</sup>	82.8	17.2	90	81-97	8	1-17
Tertiary	99.2	0.77	66	25-93	22	0-57

Source: St. Maarten's Department of Statistics' Household Budget Survey; OECD Education at a Glance, 2018, table C3.1, p.277

Notes: <sup>1</sup> Government and households provide virtually 100 percent of St. Maarten's education financing.

<sup>2</sup> The sources of education financing for OECD countries are government, households, other private sources (e.g., non-profit and for-profit sectors), and international sources.

<sup>3</sup> OECD's *Education at a Glance* defines "post-secondary non-tertiary" as "Serves to broaden rather than deepen the knowledge, skills and competencies gained in upper secondary level. Programs may be designed to increase options for participants in the labor market, for further studies at tertiary level, or both. Usually, programs at this level are vocationally oriented." St. Maarten's NIPA may fit this definition.

### ***Trends in public education spending for 2015-2018***

**5.36** Table 5.3 shows total public education expenditures (TEE) as a percent of St. Maarten's GDP and total public expenditure (TPE).

**Table 5.3 Public education expenditures as a percent of GDP and of total public expenditures (Naf Millions)**

Budget year	GDP <sup>1</sup>	Total public expenditures (TPE)	TPE as % of GDP	Total education expenditures <sup>2</sup> (TEE)	TEE as % of GDP	TEE as % of TPE
2015	2243	468.5	20.9	114.7	5.1	24.5
2016	2262	481.4	21.3	113.8	5.0	23.6
2017	2133	480.6	22.5	114.6	5.4	23.9
2018 <sup>3</sup>	2122	479.2	22.6	118.3	5.6	24.7
<b>Average 2015-2018</b>	<b>2190</b>	<b>477.4</b>	<b>21.8</b>	<b>115.3</b>	<b>5.3</b>	<b>24.2</b>

Sources: <sup>1</sup> GDP is from STAT (2020)

<sup>2</sup> Government education expenditure = DoE (Department of Education,) + Administrative offices, defined as Exams Service, Student Finance Service, Student Support Service, Education, Culture Inspection Service, Education Innovation Office, and Public Education Service.

Note: <sup>3</sup> Planned budgets, not expenditures.

**5.37** Table 5.4 shows that St. Maarten spends a higher percent of its GDP and total public expenditures on education than the average OECS or OECD country. Relative to GDP, St. Maarten's education share of GDP for 2015 of 5.1 percent exceeds the average OECS expenditure of 4.1 percent and the average OECD expenditure of 4.5 percent by one percent and 0.6 percent for that year, respectively. Although within the range for the OECS and OECD countries, it is at the upper end of the OECD range. For education as a percent of TPE, St. Maarten's 24.5 percent for 2015 is close to double the average OECS expenditure of 13.1 percent, more than double the average OECD expenditure of 10.2 percent, and outside the ranges for both OECS and OECD countries.

**Table 5.4 St. Maarten, OECS, and OECD comparisons of public education expenditures as percent of GDP and percent of total public expenditures (2015-16)**

Public education expenditures as % of:	St. Maarten		OECS (2015-16)		OECD (2015)	
	2015 <sup>1</sup>	2016 <sup>1</sup>	Average	Range	Average	Range
GDP (average)	5.1	5.0	4.1 <sup>2</sup>	2.4-5.5	4.5 <sup>3</sup>	3.3-6.0
Total public expenditures (average)	24.5	23.6	13.1 <sup>2</sup>	4.2-16.5	10.2 <sup>4</sup>	6.0-18.4

Source: <sup>2</sup> OECS Education Statistical Digest 2017 for school year 2015-2016, table 99.

<sup>3</sup> OECD Education at a Glance 2018, table C2.1, p.266.

<sup>4</sup> OECD Education at a Glance 2018, table C4.1, p.288.

Note: <sup>1</sup> OECS data are for the school year; St. Maarten's for calendar fiscal years. To approximate the OECS time period, St. Maarten's data for 2015 and 2016 are given.

**5.38** For MECYS policymakers, the big question is why St. Maarten's education bill is so high, especially as a percent of TPE (Table 5.3). Possibilities include the following:

1. Given our understanding of its budgets, St. Maarten's Government seems to pay almost the entire tertiary education bill, but OECD governments and households and other private sources share the costs in a 2/3 versus 1/3 split (Table 5.2). This factor contributes to but hardly accounts for its high education bill. Tertiary expenditures look like a small percent of St. Maarten's total education expenditures (Table 5.8, below). Also, set against the tertiary story is the fact that, relative to the average OECD country, St. Maarten's Government pays a smaller share of expenditures for all levels and types of education other than tertiary education.
2. Small island countries cannot realize the economies of scale that countries with larger and more concentrated populations can. However, St. Maarten and the OECS countries have similar population sizes, and its OECS comparators seem to have much higher per capita costs than St. Maarten's schools (Table 5.6). That said, St. Maarten and OECS countries could all suffer economy of scale problems, but St. Maarten less so than the average OECS country.
3. St. Maarten's education system is quite fragmented in terms of different types of programs, different languages of instruction, and different examination/certification regimes (Annex 2.3). Fragmentation almost always reduces economies of scale—e.g., deployment of classrooms for distinct curricula, variations in textbooks, deployment of teachers with different language skills. St. Maarten's per capita expenditures are lower than those for the average OECS country (Table 5.6), but the structure of its education system may nonetheless impose efficiency costs.
4. The social security paid for teachers and other workers in the education sector (DPE or subsidized schools) is included in public expenditures and thus in both TPE and TEE, and social security for other government workers is included in TPE. However, social security for private sector workers is kept outside the Government budget and thus outside TPE. Relative to countries that consolidate social security accounts with general government accounts, St. Maarten's TPE will be underestimated, and its TEE as a share of its TPE will be over-estimated.
5. Holding constant on TEE, if St. Maarten's TPE is a relatively low percent of GDP, its TEE will be a higher percent of TPE. The following hypothetical example in Table 5.5 shows the effects of the size of the "bite" that TPE takes out of GDP, holding constant on the TEE as 5.0 percent of GDP in 2016.

**Table 5.5 Hypothetical example to illustrate how variations in TPE as percent of GDP affect the ratio of TEE to TPE**

<b>GDP</b>	<b>TPE as % of GDP</b>	<b>TEE as % of GDP</b>	<b>Ratio of TEE to TPE as %</b>
100	25	5.0	20.1
100	30	5.0	16.8
100	35	5.0	14.4
100	40	5.0	12.6
100	45	5.0	11.2
100	50	5.0	10.1

Source: author.

**5.40** On average, St. Maarten's TPE was 21.8 percent of GDP from 2015-2018 (Table 5.3), excluding the mandatory social insurance for (formal) private sector workers. The average TPE for the OECD countries in 2015 was 41.4 percent.<sup>140</sup> If St. Maarten's average TPE as a percent of GDP had been 41.4 percent, its TEE averaged across 2015-18 as a percent of TPE would have been 12.7 percent.

***Per capita expenditures by level of education for St. Maarten and OECS and OECD countries***

**5.41** Table 5.6 displays the estimated per capita expenditures for subsidized and DPE schools, with comparisons to the average per capita expenditures for the same levels of education for the OECS and OECD. Per capita expenditures for St. Maarten exclude capital costs and household investments in education; the OECD per capita estimates include both; it is not known if the OECS average per capita expenditure includes capital costs and household expenditures for education.

**5.42** St. Maarten had no education capital expenditures for 2016. Thus, their exclusion from the per capita calculation is immaterial—they were zero. Capital investments averaged 7 percent for the OECD, although some OECD countries, like St. Maarten, had virtually no capital expenditures.

**5.43** Data on St. Maarten's household expenditures for education included fees for private education, and these expenditures could not be disaggregated between those paid for public versus private education. Estimating per capita costs for publicly financed schools thus required restricting the analysis to Government expenditures, not the sum of public and household expenditures. To retain comparability between the St. Maarten and OECD numbers, Table 5.6 reports the OECD's average per capita paid by Government at the primary, secondary, and post-secondary non-tertiary levels (90 percent).

<sup>140</sup> OECD Data, *General Government Spending*, 2015. <https://data.oecd.org/gga/general-government-spending.htm>.

**Table 5.6 Per capita expenditures by level of education for St. Maarten and OECS and OECD countries**

Education level	St Maarten per capita expenditures				OECS		OECD	
	Naf <sup>1</sup>		US\$		E. Caribb- ean \$ <sup>1</sup>	US\$	US\$	
	DPE	Subsid- ized	DPE	Subsid- ized			Average	Range <sup>4</sup>
Primary	13,398	9,162	7,637	5,222	25,889	9,589	7,768 <sup>2</sup>	2,385- 19,847
Secondary		14,340		8,174	37,970	14,063	9,009 <sup>2</sup>	2,597- 19,392
Post-secondary, non-tertiary		13,570		7,735			8,034 <sup>2</sup>	1,509- 16,792
Tertiary					38,512	14,264	10,333 <sup>3</sup>	2,989- 44,994

Source: St. Maarten data provided by Department of Education staff. OECS data: OECS Education Statistical Digest 2017 for school year 2015-2016, table 99. OECD data: *Education at a Glance 2018*, table C1.1, p.254.

Notes: <sup>1</sup> Exchange rate for Naf to 1 US\$: 0.57. Exchange rate for East Caribbean \$ to 1 US\$: 0.37. <sup>2</sup> The average OECD public share at these levels is 90 percent. This figure represents 90 percent of the total average cost, consisting of public + household + private sector financing. <sup>3</sup> The average public share at the tertiary level is 66 percent. This figure is 66 percent of the total average OECD per capita investment at the tertiary level. <sup>4</sup> The numbers in this column reflect the country-specific public costs at the two ends of the range.

**5.44** DPE provided us with data on expenditures for DPE schools without differentiating its primary from its secondary expenditures and gave us the per capita cost of its primary and secondary students combined. DPE oversees only one secondary school with a general stream and AGO/LMOE. Its secondary enrolments are 16 percent of the total enrolments under DPE's jurisdiction, 84 percent being at the primary level. Since per capita expenditures at the secondary level are internationally higher than at the primary level,<sup>141</sup> presumably the combined primary and secondary per capita cost for DPE schools overestimates the per capita costs for a primary enrolment and underestimates it for a secondary vocational enrolment. The combined figure should be closer to the true per capita cost for a primary student than to that for a vocational student.

**5.45** A small hypothetical example in Table 5.7 gives some sense of the possible scale of over-versus under-estimation. It uses the share of students in DPE primary schools and in its vocational secondary school and the OECD's estimate of the average cost for a vocational secondary versus that for a primary program. It shows that the per capita for the two levels combined is much closer to the "true" per capita cost for a primary student and significantly underestimates the true cost for a vocational secondary student.

<sup>141</sup> The OECD used equivalent \$US to create a common yardstick for measuring costs across OECD countries with multiple currencies. It found that, on average, per capita costs for all secondary programs run about 16 percent higher than those for primary programs. Those for secondary vocational programs run 28 percent higher than the average per capita costs at the primary level (OECD *Education at a Glance*, table C1.1, p.254).

**Table 5.7 Hypothetical example to show relative size of errors in estimating DPE per capita expenditure for a primary versus secondary enrolment**

Assume:
1. 100 students, 84 of them enrolled in primary and 16 in vocational secondary
2. Per capita costs for a primary student are Naf 50.
3. Per capita costs for a secondary vocational student are Naf $50 \times 1.28 = \text{Naf } 64$ .
4. Total cost for primary education = $84 \times 50 = \text{Naf } 4200$
5. Total cost for vocational secondary = $16 \times 64 = \text{Naf } 1024$
6. Total cost for primary + secondary vocational = Naf 5224
7. Per capita for primary and secondary vocational combined (Naf $5224/100$ students) = Naf 52.24

Source: Author.

**5.46** On the basis of this hypothetical exercise, DPE schools almost certainly have higher per capita costs at the primary and secondary levels than the subsidized schools, a finding that, if accurate, MECYS should pursue. Administrative costs for Division of Public Education staff may be higher than those for the School Boards. The DPE schools at the primary level also include one special needs school, but the enrolment in this school constitutes only 3.9 percent of the number of students enrolled in DPE primary schools.

**5.47** St. Maarten's per capita costs relative to those for the OECS countries are very approximate. The St. Maarten figures include the overhead costs for DPE schools (staff of the Ministry's Division of Public Education) and for subsidized schools (School Boards). It is not known if the OECS figures include administrative costs external to individual schools, capital costs, or household education expenditures.

**5.48** The St. Maarten per capita calculations for primary education include both kindergarten and primary education since its pre-primary services are integrated into its primary schools. However, the OECS discriminates between per capita costs for preschool versus primary, with the former being about two-thirds the per capita costs of primary. The OECS pre-school centers include both daycare/crèches and kindergarten. Daycare services tend to be cheaper than kindergarten services. Since kindergarten costs for St. Maarten could not be isolated from the costs for primary education and daycare services could not be isolated from kindergarten for the OECS countries, we compared the per capita costs for kindergarten + primary for St. Maarten with primary costs for the OECS countries.

**5.49** *Summary.* These per capita estimates and comparisons are subject to multiple caveats. However, St. Maarten's per capita public expenditures at the primary, secondary, and post-secondary, non-tertiary levels look lower for both its subsidized and DPE schools relative to the OECS averages. They are lower than the average per capita costs for OECD countries. In the 2016 budget year on which the St. Maarten calculations are based, St. Maarten had no capital expenditures for education. Its public per capita costs thus represent per capita recurrent costs only. Although some OECD countries have, like St. Maarten, virtually zero capital costs, OECD countries averaged expenditures of 93 percent recurrent / 7 percent capital.

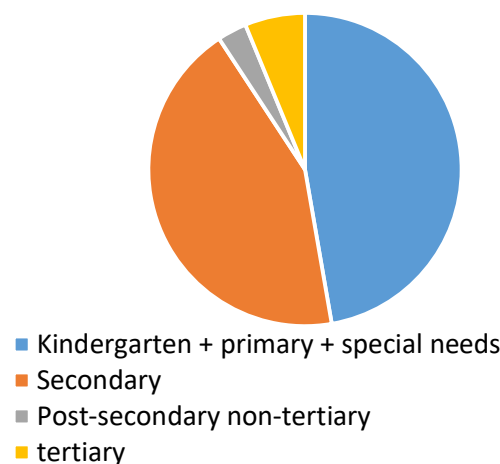
## ***How does Government spend its education money?***

### **Functional allocations of 2018 budget**

**5.50** How does Government divide up the funds that it spends directly on schools between levels and types of education: pre-primary, primary, different types of secondary, post-secondary professional, and tertiary educational services? Is the funding unbalanced in any way?<sup>142</sup> Figure 5.7 shows how the “school pie” is divided among levels of education.

**Figure 5.7 Shares of public financing for DPE and subsidized schools by level and type of education (2018 for DPE schools and 2018-19 school year for subsidized schools)**

Expenditure Shares by Level and Type of Education



*Source:* St. Maarten data provided by Division of Public Education staff.

*Note:* Expenditures for DPE schools are executed; for subsidized schools, planned.

**5.51** Table 5.8 compares the shares by level of education as a percent of the total allocated to schools between St. Maarten and the OECS countries. It compares shares as a percent of GDP for St. Maarten and the OECD.

**5.52** Relative to its comparators, St. Maarten puts a higher proportion of its public financing for schools into the levels prior to post-secondary and a much lower percent into post-secondary education (non-tertiary and tertiary). St. Maarten spends 9.2 percent of public financing for schools on post-secondary non-tertiary and tertiary education through its financing of NIPA, USM, and study financing. The average OECS country spends 15.7 percent. The average OECD country spends about three times the percent of GDP on post-secondary non-tertiary and tertiary education as St. Maarten.

<sup>142</sup> For example, some countries put disproportionate shares of government financing into tertiary education that subsidizes wealthier families—at the cost of educational services used heavily by poorer families, such as primary education.

**Table 5.8 Shares of public expenditures allocated to schools by level of education for St. Maarten (2018) and comparators**

Level of education	As % allocated to schools		As % of GDP	
	St. Maarten	OECS (average 2017)	St. Maarten	OECD (average 2018)
Kindergarten + primary + special needs	47.3	41.5	2.23	1.5
Secondary	43.5	42.7	2.05	2.0
Post-secondary non-tertiary	3.0	6	0.14	0.1
Tertiary	6.2	9.7	0.29	1.5

Source: St. Maarten DPE staff numbers; OECS 2017, table 99; OECD *Education at a Glance 2018*, table C2.1, p.266.

Note: Expenditures for DPE schools are executed; for subsidized schools, planned.

**5.53** Relative to its comparators, St. Maarten puts a higher proportion of its public financing for schools into the levels prior to post-secondary and a lower percent into post-secondary education (non-tertiary and tertiary). St. Maarten spends 9.2 percent of public financing for schools on post-secondary non-tertiary and tertiary education through its financing of NIPA, USM, and study financing. The average OECS country spends 15.7 percent. The average OECD country spends about three times the percent of GDP on post-secondary non-tertiary and tertiary education as St. Maarten.

**5.54** An obvious question is whether St. Maarten's households make up the difference at the post-secondary level. However, Table 5.2 showed that the average St. Maarten household spends much less at this level than the average household in the average OECD country—about 1 percent versus 22 percent. As discussed earlier, we are concerned that our data on public and private financing at the post-secondary level are wrong. If not, St. Maarten may be buying too little post-secondary education for its children, whether privately or publicly financed.

### **Economic classification of the budget**

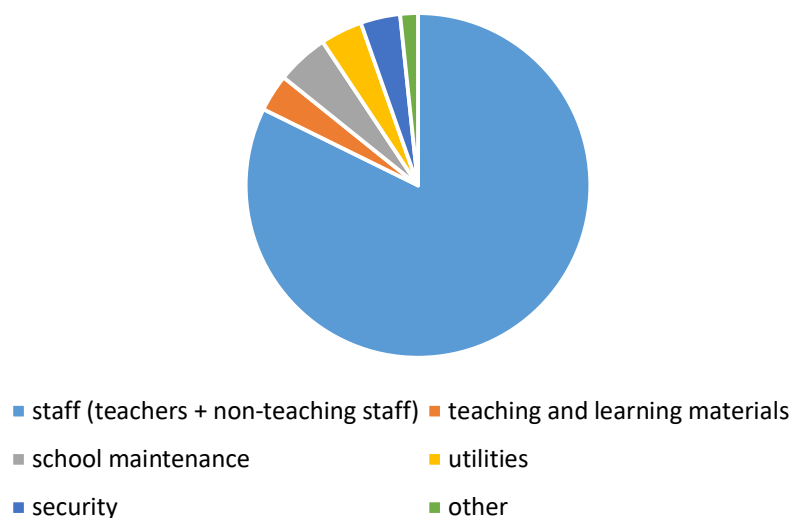
**5.55** The economic classification of the budget shows the goods and services purchased with public money. Again, is the funding unbalanced in any way? For example, are personnel costs crowding out the purchase of important complements to the learning process, such as textbooks or school rooms maintained to some minimum standard?

**5.56** The basic division in the economic classification is the share going to capital (infrastructure) versus recurrent expenditures. As noted, the ministry where education capital expenditures sit showed no capital investments for the sector in 2016. In normal times and with a relatively stable school-age population, building new schools or adding new classrooms to existing ones may be a rare event. Given Hurricane Irma, these are not normal times. MECYS's estimated capital expenditures to restore schools badly damaged by Hurricane Irma and to move schools vulnerable to hurricanes to safer locations are reflected in the national recovery plan.

**5.57** The analysis of the economic classification of the budget thus focuses on recurrent expenditures. Figure 5.8 shows how the "school pie" is divided among services and goods. Table 5.9 compares St. Maarten's recurrent expenditures with those for the OECD.<sup>143</sup> St. Maarten's and the average OECD personnel costs may not be entirely comparable. The St. Maarten figure

<sup>143</sup> The OECS database shows the capital versus recurrent shares, but not the specifics of recurrent expenditures.

**Figure 5.8 St. Maarten Allocation of Recurrent Financing Among Services and Goods**



Source: DPE staff for St. Maarten.

Note: The data for this figure combines data for DPE schools (2018 and executed expenditures) with those for subsidized schools (2018-19 and planned expenditures).

includes teachers, school-level non-teaching staff, and the administrative costs of the DPE and School Boards. The OECD figure includes teachers and non-teaching staff, defined as other pedagogical, administrative and professional personnel as well as support personnel (e.g. school psychologists and health personnel, librarians, building operations and maintenance staff). However, St. Maarten's recurrent expenditure shares for personnel versus all other expenditures are close to those for the average OECD country. At 83 percent going to personnel, there is financial room for other inputs critical for learning. The share going to security looks high, but services included in this expenditure category are unknown.

**Table 5.9 Shares of St. Maarten and average OECD recurrent expenditures by level of education (2018 and 2018-19 for St. Maarten and 2015 for OECD)**

Category of recurrent expense	St. Maarten (2018 & 2018-19)	Average OECD (2015)
Personnel	82.3	78
All other recurrent expenses	17.7	22
Teaching & learning materials	3.5	No data
School maintenance	4.9	No data
utilities	3.9	No data
security	3.7	No data
Other	1.7	No data

Source: DPE staff for St. Maarten. OECD *Education at a Glance 2018*, table C6.2, p.315.

Note: The data for St. Maarten figure combines data for DPE schools (2018 and executed expenditures) with those for subsidized schools (2018-19 and planned expenditures). "Other" is defined to include insurance, training of personnel, feeding program (DPE schools only), recruitment, and "other".



## ***Does the country's public financial management system support financial accountability in the education sector?***

**5.58** The analysis of St. Maarten's public financing of its education system encountered multiple challenges. Some stem from how the country manages its public financing Government-wide. The World Bank's review (2019) of St. Maarten's public financial management (PFM) documented a range of problems with the country's PFM system. A few of these are directly relevant to the education system; others indirectly affect the context in which the sector has to manage its financing—e.g., problems with Government's revenue collection.

### **Budget classification**

**5.59** Budget formulation and execution use administrative and economic classifications that are broadly consistent with the standards set out in the IMF's 1986 Government Finance Statistical Manual (GFSM). However, the budget is not based on a functional classification of expenditure, which forced an unsatisfactorily approximate estimate of the education sector's expenditures by level and type of education.

### **Medium-term perspective in expenditure budgeting**

**5.60** The Ministry of Finance is not managing public finances within a Medium-Term Expenditure Framework (MTEF). St. Maarten's overall budget has multi-year figures classified by economic category. However, these figures are just extrapolations, adjusted for incidental items. This short-term perspective partly reflects the country's reliance on tourism. Differences across years are insufficiently explained; the projections are not well connected with annual budget ceilings; the budget lacks a multi-year estimate for all investment (capital) expenditures.

**5.61** However, most important, sectoral strategies such as those for education, health, or rural development are not consistent with medium term parameters. Ministries prepare their own budgets, but these are simple wish lists that do not respect the thresholds established by the Minister of Finance. Thus, the education sector's future plans are disconnected from the financing engine required to make them happen.

### **Payroll controls**

**5.62** In 2018, publicly financed wages constituted 43 percent of St. Maarten's total public expenditures. As Table 5.9 indicated for the school level alone, wage costs are always much higher for the education sector because of the teaching force. This component of financing is a potential source of significant inefficiency—ghost teachers and administrative staff,<sup>144</sup> poorly controlled payments for overtime, etc. St. Maarten has worked hard to clean up the payroll system across the sectors. Since 2015, quarterly cross-checks between the payroll and civil servants' administration files have reduced, if not eliminated, all ghost workers. Payroll lists are now centralized; all payments are made from the bank account of the Treasury; and ministry-level controllers carry out monthly checks.

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<sup>144</sup> A ghost worker is a name listed on the payroll who: a) exists, but does not show up for work; b) has died and for whom a salary continues to be paid; or c) is fictitious, is paid, and whose salary is siphoned off fraudulently.

## Procurement

**5.63** Natural disasters, such as Hurricane Irma, entail substantial public procurement especially for capital investments. Procurement laws exist in Sint Maarten, but regulations and controls are insufficiently developed.

**5.64** Under St. Maarten's Article 47 of the National Accountability Ordinance, the "performance of work and the procurement of goods or services shall be contracted by public tender if above Naf 150,000 and Naf 50,000, respectively". These thresholds are not systematically respected. It is not unusual for contract amounts to be changed after the contract has been awarded to amounts that, had they been used in the initial tender, would have required a public tender. The Ordinance also states that the Minister of Finance can grant exemptions "if the public procurement is in the public interest." This vague statement lends itself to loopholes that ministries can use to bypass normal procedures for non-urgent operations.

**5.65** Public procurements lack sufficient transparency. Information about tendering is accessible to the public in that newspaper advertisements announce upcoming tenders, but this information is not published on the web site of the Government. Tender outcomes and the reasons for the choices of the contractors are not made public, even in the newspapers. Complaints regarding public procurements can be submitted to the Ombudsman, an independent administrative body. Information about how complaints are resolved are partially published. However, the Ombudsman cannot use its authority to suspend the purchasing process, and it generally does not make its decisions within the appropriate period. is financing for the education sector sustainable in the short and medium term?

## Adequacy now

**5.66** On the capital side, damage from Hurricane Irma poses the immediate budgetary problem for the education sector. These financing needs are reflected in an overall financing plan for the country's reconstruction.

**5.67** As noted earlier, the *National Recovery and Resilience Plan* estimated that \$2.3 billion was required for recovery and resilience interventions over the next seven years. "The sectors with the largest needs include: Housing (22.8 percent), Tourism and Commerce (19.0 percent), Governance and Public Financial Management (9.4 percent), Sanitation and Solid Waste Management (8.3 percent), Airport (7.6 percent), and Education, Culture, Youth, and Sport (5.1 percent)" (p.17).

**5.68** These figures include private and public damage and losses. Private insurance will cover a share of the private damages and losses, and 550 million euros pledged by the Government of the Netherlands will cover a share of the public damage and losses. At least prior to the pandemic, the Netherlands was also providing liquidity support to the Government of Sint Maarten in the form of low-interest loans. The latter are determined on a quarterly assessment of needs. They are expected to be used primarily to cover the shortfalls in tax revenues following the downturn in economic activity.

**5.69** The Government is allowed to borrow from the Netherlands for modest capital investments. The amount and the investment projects to be funded are usually determined through consultation with the Financial Supervisory Board (Cft). The Kingdom Council of Ministers makes the final decision using advice from the Cft. The Council typically does not want the debt/GDP ratio to increase much. Thus, it typically advises that borrowing for capital investments

be in line with the growth of GDP (1-2 percent). However, under post-Irma conditions, most of the reconstruction needs will have to be covered outside of the Government budget.

**5.70** As a result of the pandemic, St. Maarten's GDP is projected to drop by 20 percent, not returning to its pre-COVID level before 2024-25. Protecting citizens from the virus and repairing the economic and other types of damage stemming from it pose new costs for Government at the very time that its revenue sources will have steeply declined. The budgetary implications for the education sector of the country's GDP decline will depend on Government's choices of revenue sources and its expenditure priorities.

### **Adequacy in the longer run**

**5.71 Cushions to absorb effects of natural disasters.** Is there a cushion to absorb the costs of future natural disasters—both on the revenue and expenditure sides? Given SXM's vulnerability to hurricanes and tropical storms, proper insurance of the schools is critical to the sector's sustainability. Prior to Hurricane Irma, Government had insured the infrastructure for both the DPE and the subsidized schools to obtain economies of scale.

**5.72** The hurricane revealed serious under-insurance of the schools. The World Bank and Government were working to develop a disaster risk management strategy that includes a review of insurance policies, but thus far with limited progress, and the pandemic is apt to push longer-term issues aside. In the interests of accountability, each School Board might specify the insurance they need, based on consultations with insurance specialists. Government can then bundle the Boards' specifications to get a competitive price.

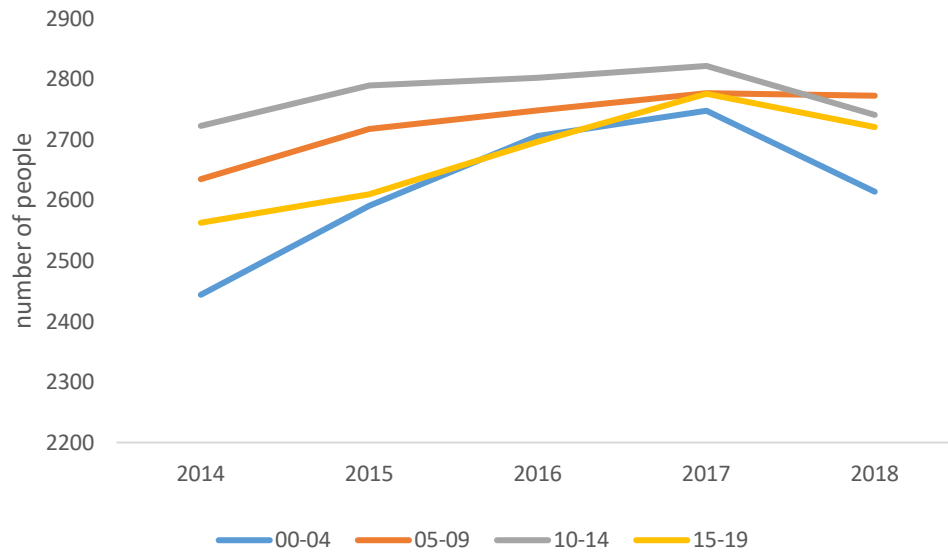
**5.73 Demographic projections of school-age population.** What do the country's demographic projections imply about the number of children whose education must be financed? If a country's school-age population is expected to grow or to decline significantly, these trends obviously affect Government's required outlays. Increased enrolments can be accommodated up to a point within the current parameters of the system. However, larger increases usually require hiring more teachers and adding classrooms or schools. The savings from declining school age populations can only be realized if the reduced numbers allow the teaching force to be downsized and schools closed. Politically both of these actions are difficult to implement.

**5.74** As noted earlier, the Department of Statistics does not publish demographic projections. Thus, we had to make some assumptions to estimate if the school-age population was expected to grow and, if so, by how much.

**5.75** Figure 5.9 shows the trend lines in the five-year age groups that include the ages for compulsory education (4-18 years of age). Prior to Hurricane Irma, the population in the school age five-year groups increased by about 1000 individuals between 2014 and 2017 (from 10,365 to 11,223 individuals). However, after Hurricane Irma, declines in immigration and increases in emigration reduced this age group to 10,849 individuals.

**5.76** We assumed that the percent change in each relevant five-year age group between 2014 and 2017 reflected the "usual" rate of change and that this rate would resume after 2018. Applying these percent changes to the 2018 population yields the possible change in the school age groups

**Figure 5.9 Trends in School Age Population by Five-Year Age Groups (2014-2018)**

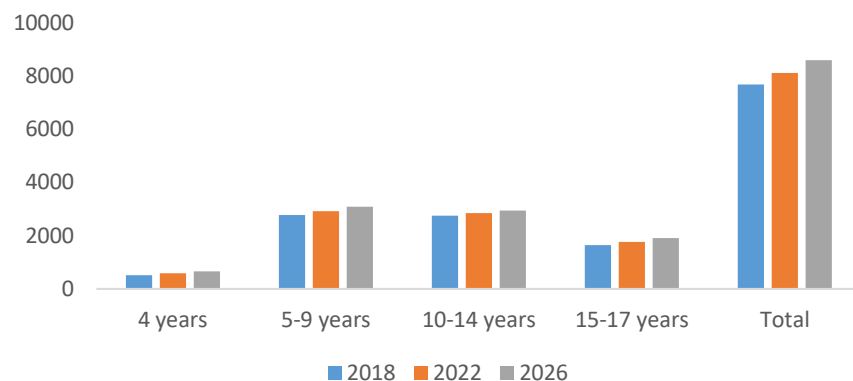


Source: Statistical Handbook 2017, Department of Statistics, table 3.2, p.18 and Department of Statistics, St. Maarten. "Factsheet Population: Population of Sint Maarten 2018", Appendix I, p.7.

four-year period between 2019 and 2022. Applying these same percent changes to the projected 2022 population numbers yields estimates of the number of school age children by 2026.

**5.77** Figure 5.10 shows the results of these assumptions. Summing increases across the different age groups estimates an additional 900 children, or 11.9 percent, in school between 2019 and 2026. This increase might be accommodated within the parameters of the current system, depending on the physical space in facilities and slack in the number of students per teacher. Determining if and how much slack exists requires detailed classroom and school-level data. If little slack exists, the increase is gradual without shocks for the budget.

**Figure 5.10 Projections of School Age Population to 2026, Based on 2018 Population**



Source: authors' calculation based on population numbers for 2014-2017 Statistical Handbook 2017, Department of Statistics, table 3.2, p.18 and population numbers for 2018, Department of Statistics, St. Maarten. "Factsheet Population: Population of Sint Maarten 2018", Appendix I, p.7.

**5.78 Education sector plans that entail costs or savings.** MECYS has focused on recovering from Hurricane Irma and now presumably on managing the educational effects of the pandemic. The production of the research paper on the “Development of Tertiary Education on Sint Maarten” suggests that the Ministry may be contemplating a reform of this level of education, but its cost implications are not clear.

### ***Are public resources being used efficiently?***

**5.79** Resources are scarce, and an important purpose of any PER is determining value for money from education expenditures. The concept of “value for money” is that of obtaining the maximum benefit over time with the resources available. Value for money is high when there is a good balance among three elements: costs of inputs are relatively low, the deployment of inputs is efficient—the focus of this section, and outcomes have been achieved (effectiveness). As stated below, the effectiveness (learning outcomes) of the St. Maarten educational system cannot be assessed. Thus, per capita expenditures cannot be related to any scale for learning achievements—in other words, we are unable to assess “value for money”.

**5.80** The concepts of efficiency and effectiveness (see next section) are not the same, but they are often confused with each other. A service or good may be efficiently produced, but not effective. Similarly, it may be effective, but not efficiently produced. For example, a teacher-training program may produce a large number of graduates at a small cost, yielding an efficient cost-output ratio. However, if the classroom performances of those teachers trained fails to improve, the training is efficient but not effective. Using qualified teachers may increase students’ learning outcomes and thus be effective. However, if a student-to-qualified teacher ratio of 25:1 produces the same learning gains as a 15:1 ratio, using qualified teachers at the 15:1 ratio is effective but not efficient.

**5.81** Table 5.24 at the end of this section summarizes the findings across the multiple efficiency variables for DPE and subsidized schools.

### **Analysis of MECYS criteria for subsidizing schools**

**5.82** The criteria used to determine Government’s subsidies for a school are clearly specified, but those for funding a School Board less so. At minimum Government funds three School Board functions: the manager, a staff member, and a financial officer. Whether savings could be found across Boards—for example, by sharing a financial officer—is unknown.

**5.83** MECYS uses these criteria to determine the size of the subsidy for a school allocated to the School Board for all schools under its jurisdiction.

- Education level
- Education type (e.g., regular primary versus special needs)
- Standards for a teacher’s instructional hours and contact hours
- Number of students
- Standards for class size
- Norms for the school size
- Number of schools of a legal person that maintains a school (School Board)
- Rules governing allowed positions for a school (e.g., management, teachers, ICT coordinator)
- Operational costs funded

**5.84** *Bekostigingssysteem Voor Scholen, Afdeling Onderwijs: Bijlage* specifies the application of these criteria for each type of school: the primary (foundation) school, cycles 1 and 2; the special needs primary school; and 13 different types of secondary programs. It also defines the rules and formulae for funding inputs, such as legal services or utilities. The criteria for kindergartens integrated into primary schools are not clear. They may or may not be the same as for grades 1-6.

**5.85** *How systematically are the criteria applied?* Relative to school enrolments in March 2018, the norm of 200 students for the size of a primary school is exceeded in almost all cases, although sometimes by minor amounts. About half of the schools, including the special needs school, have 250 or fewer students, but the other half have more than 250 students with two schools having double the norm. The class size norm for primary education seems applied to the subsidized schools, but not to the DPE schools that average class sizes of six fewer students per class.

**5.86** *How efficient are these norms?* The fact that the per capita costs of the subsidized schools seem efficient relative to comparators suggests that the criteria are reasonable.

### **Efficiency performance of schools and Boards**

**5.87** Checks on the efficiency of education expenditures usually involve looking at variables such as these.

1. **The ratios of students to inputs.** The student/input ratios evaluated include student/textbooks, student/classrooms, student/schools, student/teachers, and student/non-teaching staff. For example, low student/teacher ratios can indicate that classes or schools should be merged to make more productive use of the inputs to learning, especially teachers.
2. **Teachers' time on task.** Two factors are evaluated: teachers' statutory time on instructional tasks and their rates of absenteeism.
3. **Students' time on task.** Not surprisingly, total time on task affects students' learning. Low annual instructional hours and a highly fragmented curriculum that reduces the time available for core subjects makes less effective use of the inputs.
4. **The internal efficiency of schools.** "Internal efficiency" measures wastage, as indicated by high rates of: a) student absenteeism, b) dropping out, resulting in lower rates of cycle completion, and c) grade repetition that means paying twice for a given year of school for the repeater.
5. **Efficiency of expenditures specific to St. Maarten:** school buses.

**5.88** The DPE manages the only school for special needs children--the Prins Willem Alexander School (PWAS). This school properly requires intensive inputs, and its internal efficiency will be lower because students are more likely to be absent or to drop out. Whenever we have school-specific data, we calculate the performance of the DPE with and without the PWAS data.

### **Ratio of students to inputs**

**5.89** **Student/textbook ratios.** We lack data on student/textbook ratios. However, St. Maarten is a high-income country. Student/textbook ratios are usually an issue only in lower and lower

middle-income countries.<sup>145</sup> Per student funding for textbooks is included in the subsidies for school boards, and DPE purchases books via various suppliers annually. The procurement regime that DPE uses to purchase textbooks is unknown and should be assessed. International evidence shows that textbook procurement can be markedly inefficient. As previously noted, the public financial management assessment for St. Maarten found procurement regulations and controls to be insufficiently developed.

**5.90 Student/classroom ratios.** Data exist on the number of classrooms by school and thus by Board for the primary schools (Table 5.10), but not for secondary schools. The norms for class size are 24 students/class for cycle 1 of primary education, 26, for cycle 2; and 16- 20 at the secondary level, depending on the program. As data in Table 5.10 below show, subsidized schools at the primary level meet the student/classroom norms, averaging 24 students per class. DPE schools, even when the special needs school is excluded from the calculations, average 18 students per class, falling below the norm. DPE schools tend to be older, and their classrooms may have less physical capacity.

**5.91** St. Maarten's overall average student/classroom ratio is slightly higher than the average for OECD schools, with DPE schools averaging four students fewer per class and the subsidized schools three students more. Although the OECD countries range from 16 to 28 per class, most are clustered around the average of 21. St. Maarten's overall average class size is higher than that for the OECS countries. The average for DPE schools is about the same as the average for OECS countries; for subsidized schools, seven students higher than the OECS average.

**Table 5.10 Student/classroom ratios for St. Maarten primary schools by School Board and for OECS and OECD primary schools**

Comparators	Number of primary classrooms	Student/classroom ratio
<b>St. Maarten primary schools by School Board<sup>1</sup></b>	206 <sup>2</sup>	22.1
SDA	15	22.9
MAC	32	24.9
SCOPE	24	26.5
SKOS	62	23.7
Total/average subsidized schools	133	24.4
Total/average DPE with special needs	73	17
Total/average DPE w/o special needs	65	18.3
<b>OECS</b>		17
<b>OECD</b>		21 (range: 16-28)

Source: St. Maarten: *State of Education* 2017-18, table 2, p.13, and table 27, p.102. Provisional. OECS: Educational Statistical Digest, 2017, table 84; OECD Education at a Glance 2018, table D2.1, p.357.

<sup>1</sup> Uses March 2018 enrolment numbers

<sup>2</sup>There are no data for the number of classrooms for St. Maarten primary schools

<sup>145</sup> In these countries, student/textbook ratios can be as high as 5:1 even for core subjects.

**5.92** Although we lack data on the number of classrooms at the secondary level, MECYS's *norms* for the secondary level of 16-20 students, depending on the type of secondary program, are below the average for the OECS and OECD countries (25 and 23 students, respectively).

**5.93** The average student/classroom ratio, especially for St. Maarten's subsidized schools, is a case where efficiency and learning effectiveness might diverge. Rigorous international research indicates that smaller class sizes tend to support more student learning.<sup>146</sup> However, St. Maarten funds teaching assistants to support the delivery of primary education, thus mitigating concerns about class size for subsidized schools. Although DPE schools have smaller class sizes, analyses of learning outcomes, below, show that DPE students perform less well than students in the subsidized schools on the exit examinations from primary education.

**5.94 Student/school ratios.** We lack OECD or OECS comparators for this variable. However, given St. Maarten's small population, the sizes of its schools or campuses (total enrolment per school) are reasonable. (See Annex 2.6.) Its primary schools are smaller, ranging from 141 to 417 students, with an average of 277 students per school. However, smaller primary schools are standard across the world in order to minimize the distance between the school and young students' homes. The secondary program has multiple paths that potentially could result in fragmented and inefficient infrastructure. However, subsidized School Boards have managed to offer multiple programs on the same campus, and the average student/school (or campus) ratio at the secondary level is 393.

**5.95 Student/teacher ratios.** In terms of efficient financing, student/teacher ratios are critical. The lion's share of education financing goes to schools, and the lion's share of school expenditures is on personnel (Table 5.9, above). Low student/teacher ratios can add significant amounts to the annual personnel bill without necessarily buying better learning outcomes.

**5.96** The financing data for the subsidized schools included the number of fulltime equivalent (FTE) teachers and the number of students by program (e.g., primary, cycle 1). The financing data for the DPE schools included the number of students, but not the number of FTE teachers. The *State of Education* gives the number of teachers and number of students for DPE and for each School Board, but these seem to be numbers of teachers, not FTE teachers. Comparing the data from the two sources for subsidized schools shows that using the number of FTE teachers results in more efficient student/teacher ratios (Table 5.11).

**5.97** If the same FTE relationships pertain to DPE schools as for subsidized schools, DPE schools probably still have lower student/teacher ratios than the subsidized schools at the primary level. See Table 5.12. Adding the effect of using FTE to calculate the ratios for the primary subsidized schools (+3.1) to the DPE primary ratio boosts it to 12 students per teacher. This is

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<sup>146</sup> The most influential and credible study of the effects of the student teacher achievement ratio, or STAR, was conducted in Tennessee during the late 1980s. In this study, students and teachers were randomly assigned to a small class, with an average of 15 students, or a regular class, with an average of 22 students. This large reduction in class size from 22 to 15 (7 students, or 32 percent) was found to increase student achievement by an amount equivalent to about 3 additional months of schooling four years later. Studies of class size in Texas and Israel also found benefits of smaller classes, although the gains associated with smaller classes were smaller in magnitude than those in the Tennessee STAR study. Other rigorous studies have found mixed effects in California and in other countries, and no effects in two other U.S. states studied. Because the pool of credible studies is small and the individual studies differ in the setting, method, grades, and magnitude of class size variation that is studied, conclusions have to be tentative. But it appears that reducing student/teacher ratios to about 15/1 can have significant long-term effects on student achievement and other meaningful outcomes. These effects seem to be largest when introduced in the earliest grades, and for students from less advantaged family backgrounds (Whitehurst and Chingos, 2011).



2.9 students per teacher lower than the average for the subsidized schools, indicating that DPE primary schools use their teachers less efficiently or that smaller capacity classrooms preclude more efficient student/teacher ratios. If all of these assumptions are roughly correct, the DPE primary schools would need 20 fewer teachers if they had the same student/FTE teacher ratio as the subsidized schools. We lack the data to calculate the cost to Government of these additional DPE.

**Table 5.11 Comparison of student/teacher ratios for subsidized schools using FTE teachers versus absolute number of teachers**

Education level	Average student/FTE teacher ratio <sup>1</sup>	Average student/teacher ratio (not FTE) <sup>2,3</sup>	Effect of FTE on student/teacher ratios
Primary	14.9	11.8	+3.1
Secondary	12.9	9.2	+3.7
NIPA	12.6	11.7	+0.9

Source: <sup>1</sup> Financing data provided by Division of Public Education staff for 2018-19.

<sup>2</sup> *State of Education Report 2017-2018*, table 2, p.13; chart 26, p.28; table 9, p.45; chart 53, p.54; table 13, p.66; mention of number of NIPA teachers in 2016, p.69. Provisional.

<sup>3</sup> The data for primary and secondary are from 2017-18. NIPA data are from school year 2016-17.

teachers, but obviously it would be approximately the per teacher average annual salary times the 20 “excess” teachers. However, prior to taking any action, the assumptions behind this analysis need to be checked by obtaining the true number of FTE teachers in DPE schools. If DPE schools still have lower student/FTE teacher ratios than the subsidized schools, MECYS should determine the reasons for the difference—for example, whether the physical capacities of DPE classrooms affect these ratios.<sup>147</sup>

**Table 5.12 Comparisons of student/teacher ratios for subsidized versus DPE schools under different assumptions**

Education level	Subsidized schools		DPE schools	
	Average ratio (not FTE) <sup>1,2</sup>	Average ratio (FTE) <sup>3</sup>	Average ratio (not FTE) <sup>1,2</sup>	Average ratio (FTE) <sup>4</sup>
Primary	11.8	14.9	8.9	12
Secondary	9.2	12.9	9.8	13.5

Source: <sup>1</sup> *State of Education Report 2017-2018*, table 2, p.13; chart 26, p.28; table 9, p.45; chart 53, p.54. Provisional.

<sup>2</sup> The data for primary and secondary are from 2017-18.

<sup>3</sup> Financing data provided by DPE staff for 2018-19.

<sup>4</sup> These figures use the conversion factors worked out for subsidized schools in table 11.

**5.98** DPE’s one secondary school provides AGO/LMOE services that require small class sizes. It has a student/teacher ratio of 9.8. However, applying the effect of using FTE on the student/teacher ratios for subsidized secondary schools (+3.7) to calculating the ratio for the

<sup>147</sup> It might be argued that DPE’s special needs school drags down their student/teacher ratios. However, although the norm for class size is smaller for this school than for standard primary education schools (14 students per class), this school accounts for only 3.9 percent of all DPE primary enrolments (48 students in March 2018).

secondary DPE secondary ratio of 9.8 boosts the DPE ratio for its single secondary school to 13.5 students per teacher. This ratio exceeds the subsidized ratio by 0.6.

**5.99** Table 5.13 only compares St. Maarten's student/teacher ratios *for the subsidized schools* with those for the OECD and the OECS. The OECD and St. Maarten numbers use FTE teachers, but it is not known if the OECS data do. Relative to comparators, St. Maarten has generally efficient student/teacher ratios in its subsidized schools. St. Maarten's ratios at both the primary and secondary levels for the subsidized schools are almost the same as for the average OECD country and a little better than the average OECS country, with small differences at the secondary level. Relative to the average OECD country, St. Maarten's ratios for vocational programs in the subsidized schools is lower by 3.2; for academic programs, higher by 1.4. Note that although St. Maarten's subsidized primary schools have lower student/teacher ratios than class sizes, these two variables measure different things.<sup>148</sup>

**Table 5.13 Comparison of student/teacher ratios for St. Maarten's subsidized schools with the average and range for OECD and OECS**

Level of education	St. Maarten (2018-19)	OECS (2015-16)		OECD (2016)	
		Average	Range	Average	Range
Primary	14.9	14	12-16	15	10-27 <sup>1</sup>
Secondary (all)	12.9	11	8-14	13	9-27 <sup>1</sup>
Academic	14.4	No data	No data	13	8-22
Vocational	10.8	No data	No data	14	9-22

Source: (St. Maarten) *State of Education Report 2017-2018*, table 2, p.13; chart 26, p.28; table 9, p.45; chart 53, p.54. Provisional. (OECD) *Education at a Glance 2018*: table D2.2, p.358; (OECS) Organization of the Eastern Caribbean States. *Education Statistical Digest 2017*. Education statistics for the academic year 2015-16, table 86.

<sup>1</sup> Note: The upper bound for both primary and all secondary are outliers among the OECD countries. Most countries at the upper part of the range for primary cluster around 17-20. The two next highest ratios for secondary are 17 and 22.

**5.100 Ratios of students to non-teaching staff for schools, DPE, and School Boards.** DPE and the School Boards for the subsidized schools both employ non-teaching staff, as do each of their schools. Ordinarily non-teaching staff are not a source of major inefficiencies. However, the overall administration of the St. Maarten education system is fractionated between DPE and subsidized School Boards, among multiple subsidized Boards, and among multiple secondary programs that may result in lower economies of scale. We tried and failed to obtain expenditure data for teaching versus non-teaching staff employed by the subsidized and DPE schools, for the non-teaching staff employed by the Boards themselves, and for the Division of Public Education. The intent was to calculate the per student cost of the non-teaching staff overall and by public

<sup>148</sup> Box D2.1 of the OECD's *Education at a Glance 2018*, p.355, defines the relationship between class size and the student-teacher ratio. Class size is defined as the number of students who are following a common course of study, based on the highest number of common courses (usually compulsory studies), and excluding teaching in subgroups. The calculation is done by dividing the number of students by the number of classes. The student/teacher ratio is calculated by dividing the number of full-time equivalent students by the number of full-time equivalent teachers at a given level of education and type of institution. The two indicators, therefore, measure very different characteristics of the educational system. Student/teacher ratios provide information on the level of teaching resources available in a country, whereas class size measures the average number of students that are grouped together in classrooms. Given the difference between student-teacher ratio and average class size, it is possible for countries with similar student-teacher ratios to have different class sizes. For example, at the primary level, Israel and the United States have similar ratios of students to teaching staff (15 students per teacher), but the average class size differs substantially (21 students per class in the United States and 27 in Israel). This can be explained by the fact that teaching time in the United States is considerably higher than in Israel, meaning that American teachers can teach more classes during the day and thus group students into smaller classes.

and subsidized schools. For subsidized schools, the financing data indicated that the Boards cost about seven percent of the total bill. Although the data on public schools included the costs of staff in the Division of Public Education of MECYS, the costs of DPE staff cannot be disaggregated from school-level administrative personnel costs.

### Teachers' Time on Task

**5.101** Analyses of teachers' time on task and their absenteeism rates look at how efficiently teachers are deployed in the schools. At the primary level, even at the special needs DPE school, teachers are expected to teach 32 hours a week and work a total of 40 hours per week. For all secondary programs the total work hours are the same, but the number of teaching contact hours per week declines to 27.

**5.102** If St. Maarten teachers teach the number of hours specified in *Bekostigingssysteem Voor Scholen, Afdeling Onderwijs: Bijlage*, they have relatively high teaching loads. Although the OECS has no data on teachers' time on task, the OECD does.

**5.103** The OECD defines weekly teaching time as the number of 60-minute hours of instruction that teachers deliver in a week. An "instructional hour" is net contact time, with breaks between lessons and days that the school is closed being deducted (p.389).<sup>149</sup> If it is assumed that each "hour" is in fact 50, not 60, minutes—i.e., there is a ten-minute break between each class, then using the OECD calculus a St. Maarten primary teacher teaches 26.7 hours per week; a secondary teacher, 22.5 hours. Neither of these figures takes account of the days that the St. Maarten schools are closed.

**5.104** Table 5.14 compares St. Maarten teaching hours with the average and range for the OECD. Even allowing for the fact that the St. Maarten figures include days that the schools are closed, and the OECD figures exclude them, the St. Maarten teaching loads at primary and secondary probably still exceed the average for the OECD countries. For the primary level they approach the top of the range for the OECD countries.

**Table 5.14 Statutory net instructional time per week for St. Maarten and OECD by level of education**

Level of education	St. Maarten (current)	OECD (2017)	
		average	range
Primary	26.7 <sup>1</sup>	20.6	15.8-28
Secondary (all)	22.5 <sup>1</sup>		
Lower secondary		18.5	14.4-28
Upper secondary (academic)		17.8	13.5-28
Upper secondary(vocational)		17.3	12.8-28

Source: St. Maarten: *Bekostigingssysteem Voor Scholen Afdeling Onderwijs: Bijlage Bij Landsbesluit Bekostiging Onderwijs*; OECD: *Education at a Glance 2018*, table D4.1, p.391.

Notes: <sup>1</sup> The St. Maarten figures do not exclude days that the schools are closed. The OECD figures do.

**5.105** Tables 5.15 and 5.16 show the absenteeism rates by Board for primary and secondary teachers, respectively, for 2017-18. Annex 2.7 shows the school-specific data for teachers in primary schools, but there are only Board-level, not school-specific, data for the secondary level.

<sup>149</sup> At pre-primary and primary levels, short breaks between lessons are included if the classroom teacher is responsible for the class during these breaks.

**5.106** On an average day, about one out of about every 16 teachers was absent at the primary level. The absentee rate for DPE primary teachers is more than double the rate for the subsidized Boards, with about one out of every nine teachers being absent on a given day without including

**Table 5.15 Teacher absenteeism in primary schools by Board for 2017-18**

DPE	Subsidized schools				
	MAC	SPCOBE	SDA	SKOS	Average
11.3 w/o PWAS	4.8	6.0	4.6	4.5	5.0
12.4 w/ PWAS					

Source: *State of Education 2017-18*, Chart 39, p.35. Provisional

the special needs school and one out of every eight teachers when the special needs school is included. This is a troubling difference that MECYS should investigate.<sup>150</sup>

**5.107** These numbers balloon at the secondary level for all schools to more than three times the rate at the primary level. On any given day in 2017-18, on average, one out of about every six teachers was absent.<sup>151</sup> For the DPE school and CBA it was about one out of every four teachers. Absenteeism at these rates costs in terms of student learning and in money for substitute teachers. It calls for an explanation. The first place to start is to check on the accuracy of the data.

**Table 5.16 Teacher absenteeism in secondary schools by Board for 2017-18**

DPE	Subsidized schools					Average
	FAVE	SVOBE	MAC	SKOS	CBA	
23.8	13.8	11.3	9.9	19.1	26.3	16.1

Source: *State of Education 2017-18*, Chart 63, p.60. Provisional

**5.108** Unfortunately, as with student absenteeism, we cannot contextualize the absenteeism rates of St. Maarten's teachers by using comparators since neither the OECD, OECS, nor UIS have data on these rates.

### Students' Time on Task

**5.109** Three measures of students' time on task determine how efficiently inputs to the learning process are used. First, how much instructional time is allocated at each level of education and under each program? Although we lacked these data, St. Maarten's Department of Education can compare the time that it requires by level with the OECD data (tables D1.1 and 1.2 of *Education at a Glance 2018*).

**5.110** Second, is St. Maarten's curriculum for each type of primary and secondary program concentrated on core subjects or is it splattered across multiple subjects? Almost a quarter of a century ago TIMSS (Trends in International Mathematics and Science Study) conducted a ground-breaking study of countries' mathematics curricula. This study included videotapes of how mathematics was taught in 8<sup>th</sup> grade classrooms in three countries: Germany, Japan, and the

<sup>150</sup> For example, DPE teachers may be required to attend more training than teachers in subsidized schools.

<sup>151</sup> The year 2017-18 was anomalous because of the hurricane, but it had little effect on teacher absenteeism rates. Secondary teacher absenteeism rates for 2015-16 were 15.9; for 2016-17, 15; and for 2017-18, 17.4. In 2017-18 the rates at the primary level were also slightly elevated for DPE but not subsidized schools. The hurricane does not explain the significant difference in teacher absenteeism rates between the primary and secondary levels.

United States (Stigler and Hiebert, 1997). The analysis of these videotapes showed that students have better learning outcomes under three conditions: a) instructional time is concentrated on fewer subjects; b) when a topic is addressed, it is learned in depth; and c) once the treatment of the topic is completed, it is not inefficiently revisited in subsequent grades. We did not ask the DPE staff for how instructional time is distributed by subject. This topic is ripe for a special study that MECYS could commission.

**5.111** Third, how much time are students actively engaged in learning by subject? Measuring actual time requires observational studies of sampled classes. Again, this is a special study that MECYS could commission. Actual learning time and that specified by policy may turn out to be similar or at significant variance. Teachers can waste instructional time in various ways.

### Internal efficiency of the St. Maarten system

**5.112** Students' rates of absenteeism, repetition, social promotion, and dropping out are used to assess the system's internal efficiency. We lack data critical to an internal efficiency analysis: a) the rates of completion for the primary and secondary educational cycles; and b) the average years required to complete the primary cycle and each program within the secondary cycle.

**5.113 Rates of student absenteeism in primary and secondary education.** The *State of Education 2017-18* has good data on absenteeism by school for primary and secondary education (Tables 5.17 and 5.18). We used the data for 2016-17 because the 2017-18 school year was interrupted by Hurricane Irma.

**5.114** Schools under the jurisdiction of the DPE have about double the absenteeism rates at the primary and secondary levels, even when the rates for the special needs school (PWAS) are excluded at the primary level. Annex 2.8 shows the school-level rates.

**Table 5.17 Student absenteeism by Board for primary education for 2016-17 (percent)**

DPE	SKOS	FMAC	SPCOBE	SDA
11.7 w/ PWAS	3.5	4.4	5	4.9
8.5 w/o PWAS				

Source: *State of Education 2017-18*, Chart 3, p.16 Provisional

**Table 5.18 Student absenteeism by Board for secondary education for 2016-17 (percent)**

DPE	FAVE	SVOBE	MAC	SKOS	CBA	NIPA
10.1	4.95	4.3	5.2	4.1	6.2	4.6

Source: *State of Education 2017-18*, Chart 44, p.47; chart 64, p.66. Provisional

**5.115** Unfortunately, we cannot contextualize St. Maarten's rates by using comparators. Neither the OECD, OECS, nor the UIS have data on student absenteeism. That said, St. Maarten's rates look low, certainly relative to those of less wealthy countries.

**5.116 Student repetition and social promotion rates.** Repetition means that the student repeats a grade. In St. Maarten social promotion occurs when a student has not attained the required basic grade level for a second (consecutive) year and is promoted due to age. The Law of Foundation Based Education stipulates that students may not be older than 14 years of age by

the end of group 8 (last year of primary education). This can happen when students have repeated twice or entered primary education late.

**5.117** The costs of repetition and social promotion are different. Repetition means that Government pays twice for one year of schooling. Social promotion means that the student will lack the foundation skills required to learn the material of the next grade adequately—a wastage in learning terms.

**5.118** Table 5.19 shows the disposition of students at the end of the 2016-17 and 2017-18 school years. Most students are promoted to the next grade because they have adequately met the standards for the grade just concluded. However, in 2016-17 and 2017-18, 5 percent and 6 percent, respectively, were asked to repeat the grade and 7 percent in each of the two years were socially promoted. Disturbingly, in both years, repeaters and those socially promoted are disproportionately boys.

**Table 5.19 Disposition of primary students at end of school year  
(2016-17 and 2017-18) by gender**

**2016-17**

238 (5%) repeated their grade (55% boys, 45% girls)

4086 (88%) were promoted outright (49% boys, 51% girls)

299 (7%) were promoted because of age (social promotion) (68% boys, 32% girls)

**2017-18**

229 (6%) repeated their grade (61% boys, 39% girls)

3337 (87%) were promoted outright (41% boys, 59% girls)

263 (7%) were promoted because of age (social promotion) (75% boys, 25% girls)

Source: *State of Education 2017-18*, table 2, p. 17. Provisional

**5.119 Repetition rates.** In 2017-18 the primary schools had 229 repeaters, which constitutes 6 percent of the total students enrolled in primary education (Table 5.19).<sup>152</sup> Using the per capita costs for DPE schools and for subsidized schools, repetitions at the primary level in 2017-18 cost the system Naf 2,416,297 or US\$1,438,591. As noted for Table 5.6, the per capita cost for a DPE enrolment is over-estimated at the primary level and under-estimated at the secondary level.

<sup>152</sup> The repetition rate should be calculated as the number of repeaters in a given grade in a given school year, expressed as a percentage of enrolment in that grade the previous school year. In the absence of data on grade-specific enrolment numbers across time, the share of total enrolments in a cycle (e.g., primary cycle) in a given year is used.

**Table 5.20 Number and cost of student repeaters by Board for primary education (2017-18)**

Board	# repeaters	Repetition rate	Cost	
			NaF	US\$
<b>Public (DPE)</b>	107	8.6%	1,433,565	817,132
<b>Subsidized</b>	119	3.7%	1,090,278	621,459
MAC	22			
SPCOBE	31			
SDA	20			
SKOS	46			
<b>Total</b>	<b>226</b>		<b>2,523,843</b>	<b>1,438,591</b>

Source: State of Education 2017-18, Chart 8, p. 18. Provisional. Table 4 for per capita costs for DPE and subsidized schools

**5.120** The *State of Education 2017-18* data prior to 2017 reports repetition data for the primary level and secondary level in absolute numbers. In 2017 percentages began to be used as opposed to absolute numbers.<sup>153</sup> Therefore it was decided to use the data for 2016-17, not 2017-18, and to treat the numbers as absolute, not as percents (Table 5.21). The repetition rates for the secondary level are very costly at an estimated total of Naf 6,342,277 or US\$3,615,098 per year for DPE and subsidized schools combined.

**Table 5.21 Number and cost of student repeaters by Board for secondary education for 2016-17**

Board	# repeaters	Repetition rate	Cost	
			NaF	US\$
<b>Public (DPE)</b>	87	32.3	1,165,609	664,397
<b>Subsidized</b>	361	13.4	5,176,668	2,950,701
MAC	10			
SVOBE	251			
FAVE	62			
CBA	23			
SKOS	15			
<b>Total</b>	<b>448</b>		<b>6,342,277</b>	<b>3,615,098</b>

Source: State of Education 2017-18, Charts 45, 46, and 47, pp.48, 49, and 50. Provisional, table 4 for per capita costs for DPE and subsidized schools.

Repetitions as % of enrollees in 2016-17

**5.121** The DPE schools have at least double the repetition rates as the subsidized schools at the primary and secondary levels. Relative to the OECD and OECS comparators, St. Maarten's repeater numbers for both the subsidized and the DPE schools are very high.

**5.121** The OECS has grade-specific repetition rates for kindergarten through grade 6 for primary education (Table 5.13). The rates are much higher at the kindergarten level for all countries. Even when the kindergarten figures are included, the rates for the seven OECS countries that provided

<sup>153</sup> Are the first four rows of charts 45, 46, and 47 reporting percents or absolute numbers? The numbers for the four school years 2013-14 to 2016-17 look like absolute numbers, but numbers for 2017-18 look like percents. The vertical axis for the charts for all five years is labeled "percentage".

data average 2.5 percent. The rates for secondary education average 6.3 percent--about half the rate for the subsidized schools and about a fifth of the rate for DPE's secondary vocational school.

**5.123** The overall average for OECD countries for lower secondary is 2 percent; for upper secondary, 4 percent. Like St. Maarten, boys dominate the population of repeaters in OECD countries, being 60 percent at lower secondary and 58 percent at upper secondary (B1.3, p.161).

**5.124** Adding the costs of repetitions at the primary and secondary levels for St. Maarten adds up to Naf 8,866,120 or US\$5,053,689. These numbers are very approximate because of the contaminated per capita estimates at the primary and secondary levels for DPE schools. However, they give an order of magnitude of the costs to the public budget of running high repetition rates.

**5.125** The effectiveness and alternatives to repetition policies are discussed below. These alternatives are not costless but are more effective and cheaper than paying for a full extra year for the student.

**5.126 Social promotion rates.** De facto, social promotion amounts to dragging a poorly prepared student to the next level where s/he lacks the knowledge and skills to properly absorb new material. The *State of Education* has data on the social promotion rates for primary, but not secondary, education. See Annex 2.9 for the detailed data by school. Table 5.22 shows the rates by Board, revealing tremendous variance between Boards. DPE and SDA socially promote around a fifth of their students, but the other Boards use this policy much less. The rate for SKOS is less than 2 percent. There are no comparators for this variable.

**5.127** St. Maarten's social promotion policy wastes Government's resources and the child's opportunities. The same policy alternatives to repetition apply to social promotion.

**Table 5.22 Rates of social promotion for primary education by Board for 2016-17 (percent)**

<b>DPE</b>	<b>SKOS</b>	<b>FMAC</b>	<b>SPCOBE</b>	<b>SDA</b>	<b>Average</b>
22.5	1.8	7	7.3	20	7

Source: *State of Education* 2016-17, Chart 10, p.19. Provisional

**5.128 Dropout rates.** The *State of Education 2017-18* reports that there were no dropouts in primary education. It has data on secondary dropout rates. However, the rates for both the primary and secondary level look suspiciously low, very possibly indicating problems with the data submitted by the School Boards to the Inspectorate. As pointed out in footnote 8, above, dropout rates are difficult to measure accurately.

### **School bus costs may be inefficient**

**5.129** The *State of Education 2017-18* reports the costs relative to the annual budget for this service (Table 5.23). In 2016 the expenditures for school buses entailed 4.7 percent of the total public education bill, which is not a trivial share.



**Table 5.23 Annual Government budget and costs for buses 2015-2017 (in Naf)**

Annual Budget and Costs for Buses		
Year	Budgeted funding	Actual costs
2015	5,427,154	5,078,498
2016	4,250,000	5,337,036
2017	2,801,372	4,382,358

Source: State of Education 2017-18, table 26, p.97. Provisional

**5.130** A cost-benefit analysis of alternative options for transporting children between their homes and schools has apparently not been done, although this type of analysis fits the question. If school buses remain the best option for MECYS, an optimization study of the current deployment of buses should be conducted, looking at loads and routes to see if the buses can be used more efficiently. These two types of studies are technical, although not difficult. They require a transport expert and detailed data.

## Conclusions

**5.131** Table 5.24 summarizes the efficiency findings for St. Maarten's DPE and subsidized schools, and, where available, relative to comparators.

**Table 5.24 Summary of efficiency findings for primary and secondary schools**

Variable	SXM		Comparators	
	DPE schools	Subsidized schools	OECS	OECD
Student/classroom ratios (primary)	18 <sup>1</sup>	24	17	21
Student/school ratios (primary)	238 <sup>1</sup>	294	NA <sup>3</sup>	NA
Student/school ratios (secondary)	234	419	NA	NA
Student/FTE teacher ratios (primary)	<sup>2</sup>	14.9 <sup>2</sup>	14 <sup>2</sup>	15 <sup>2</sup>
Student/FTE teacher ratios (secondary)	<sup>2</sup>	12.9 <sup>2</sup>	11 <sup>2</sup>	13 <sup>2</sup>
Teacher absenteeism rates (primary)	11.3	5.0	NA	NA
Teacher absenteeism rates (secondary)	23.8	16.1	NA	NA
Teachers' time on task (net 60 minute hours/week)				
Primary		26.7 <sup>4</sup>	NA	20.6
Secondary (all)		22.5 <sup>4</sup>	NA	17.9 <sup>5</sup>
Lower secondary			NA	18.5
Upper secondary (academic)			NA	17.8
Upper secondary(vocational)			NA	17.3
Student absenteeism rates (primary)	8.5	4.5		
Student absenteeism rates (all secondary)	10.1	5.0		
Student repetition rates (primary) (2017-18)	8.6 <sup>6</sup>	3.7	2.5	NA
Student repetition rates (all secondary) (2016-17)	32.3 <sup>7</sup>	13.4 <sup>7</sup>	6.3	NA
Lower secondary	X	X	NA	2
Upper secondary	X	X	NA	4
Student social promotion rates (primary)	22.5	9	NA	NA

Source: authors' compilation based on earlier tables.

Notes:

<sup>1</sup>Excludes special needs school that, properly, has small class sizes and a small school size.

<sup>2</sup>No FTE teacher counts for DPE schools. The ratios for St. Maarten's subsidized schools and OECD averages are based on FTE teacher counts, but the status of the OECS average is unknown.

<sup>3</sup>NA = not available

<sup>4</sup>The St. Maarten figures do not exclude days that the schools are closed. The OECD figures do.

<sup>5</sup>"All secondary" for the OECD countries is an unweighted average of the average rates for lower and upper secondary.

<sup>6</sup>Excludes special needs school.

<sup>7</sup>See text discussion for questions about the data for secondary repetition rates.

**5.132** Four important points emerge from Table 5.24.

1. The subsidized schools look more efficient than the DPE schools across all variables.
2. The subsidized schools look as efficient if not more efficient than OECS and/or OECD comparators with the major exceptions of student repetition rates.
3. DPE schools have inefficient teacher absenteeism and repetition rates at both the primary and secondary levels; subsidized schools, at the secondary level.
4. Both DPE and subsidized schools have inefficient social promotion rates at the primary level.

***Are public resources being used effectively?***

**Participation rates: gross enrolment ratios by level of education**

**5.133** The *State of Education 2017-18*, the source of enrolment data, reports enrolment data by school. It does not distinguish kindergarten from primary enrolment rates. Since kindergartens are physically integrated into the primary schools, it is assumed that the enrolment data for each primary school includes enrolments for the two years of kindergarten and for grades 1-6.

**5.134** Table 5.25 shows the gross enrolment numbers by level of education for the Government-financed schools and the population numbers for the statutory ages at each level. We used five-year population groups and assumed a rectangular distribution for each category.<sup>154</sup> The primary schools include two years of kindergarten that are expected to start at age 4. To estimate the size of the population at each level of education, we assumed that the ages for primary school were 4-11 years for a total of 8 years; for secondary education, 12-17 years for a total of six years. Children's birthdays do not strictly coincide with these age ranges.

**Table 5.25 Gross enrolment numbers and rates for 2017-18 by level and school governance**

School governance	Enrolment numbers		Population numbers		Enrolment rate (%)	
	Primary <sup>1</sup>	Secondary	4-11 years	12-17 years	Primary	Secondary
Government-financed schools	4474	2750				
Private, unsubsidized schools <sup>2</sup>	199 <sup>3</sup>	339	4392	3821	106	81
Total enrolments	4673	3089				

Source: enrolment numbers for Government-financed schools: *State of Education 2017-18*, table 2, p.13; table 9, p.45. Provisional. Enrolment numbers for private schools: *State of Education 2017-18*, Tables 18, 19, and 20, pp.75-76. Provisional. Population numbers: Department of Statistics, St. Maarten. "Factsheet Population: Population of Sint Maarten 2018", Appendix I, p.7.

Notes: <sup>1</sup> Primary is defined as kindergarten + grades 1-6.

<sup>2</sup> *State of Education 2017-18* had enrolment data for three private schools: Caribbean International Academy (CIA), Montessori, and Learning Unlimited.

<sup>3</sup> CIA had enrolments at "pre-K" for children 2.5-5 years of age. This number includes some children who are younger than the ages normally enrolled in Government's required kindergarten program. Learning Unlimited had enrollments in four pre-primary programs: toddler academy, preschool, pre-kindergarten, and kindergarten. Only the enrolments in the kindergarten program are included in the enrolment numbers for private, unsubsidized schools at the primary level.

<sup>154</sup> For example, to obtain the population of primary school age, we took 1/5<sup>th</sup> of the 0-4-year-old age group and 2/5<sup>ths</sup> of the 10-14-year-old age group and added these numbers to the 5-9-year-old age group.

**5.135** Enrolment rates are 106 percent of the school age population for primary education and 81 percent for secondary education. At the primary level, children younger than 4 and/or older than 11 years of age may be enrolled. Given the repetition rates in primary education, this is entirely possible. Net enrolment rates<sup>155</sup> cannot be estimated because the distribution of enrollees by age is not publicly available. At the secondary level some students will have completed one of the shorter secondary programs (4 or 5 years) prior to turning 18 years of age. Without knowing this share of students or completion rates, we do not know the share of youth who have not completed a secondary program and are not enrolled.

### **Completion rates for each educational program**

**5.136** The *State of Education* does not provide these data. Completion rates have to be based on a longitudinal tracking of each cohort of students who start a particular cycle/program together.

### **Learning outcomes**

**5.137** St. Maarten has not participated in any international assessments of learning—e.g., the Program for International Student Assessment (PISA), the Trends in International Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS), the Early Grade Reading Assessment (EGRA), or the Early Grade Mathematics Assessment (EGMA). These different assessments are administered at different grades and ages. EGRA and EGMA are usually administered at the 2<sup>nd</sup> or 3<sup>rd</sup> grades; TIMSS, at grades 4 and 8; PIRLS, at grade 4; and PISA at age 15.

**5.138** At the conclusion of grade 6 all St. Maarten students take the foundation-based education (FBE) examination, which provides a common basis for evaluating the performance of all students. All post-primary programs are associated with examinations, but the secondary level is fragmented into multiple curricula and therefore lacks a single check on learning outcomes that can be applied across all schools.

**5.139** The FBE examination is designed as a selection examination for purposes of allocating students into different post-primary secondary programs. Thus, it is a norm-based, not a criterion-based, examination,<sup>156</sup> and the distribution of student FBE exam scores follows the typical bell curve associated with norm-based tests (*State of Education Report 2017-2018*, chart 19, pl.23). A norm-referenced examination is designed to differentiate and select. Their results only tell us how St. Maarten's sixth graders in different schools perform relative to each other, not relative to

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<sup>155</sup> The net enrolment rate is defined as the total number of students in the theoretical age group for a given level of education enrolled in that level, expressed as a percentage of the total population in that age group. Calculating it requires data on enrolment by single years of age for a given level of education and the population of the age group corresponding to the given level of education. Net enrolment rates are almost always lower than gross enrolment rates because children younger and older than the theoretical age group are enrolled.

<sup>156</sup> Criterion-referenced tests compare a person's knowledge or skills against a predetermined standard, learning goal, performance level, or other criterion. With criterion-referenced tests, each person's performance is compared directly to the standard, without considering how other students perform on the test. Norm-referenced measures compare a person's knowledge or skills to the knowledge or skills of the norm group. For student assessments, the norm group is often a nationally representative sample of several thousand students in the same grade (and sometimes, at the same point in the school year). An individual student's percentile rank describes their performance in comparison to the performance of students in the norm group, but does not indicate whether or not they met or exceed a specific standard or criterion. For example, a baby who weighs 5 pounds 12 ounces at birth would be in the 7th percentile, weighing the same as or less than 93 percent of the babies in the norm group. However, despite the very low percentile, this weight is classified as a normal or healthy weight for babies born in the United States. Thus, knowing a baby's percentile rank for weight can tell you how they compare with their peers, but not if the baby's weight is "healthy" or "unhealthy."

absolute learning standards. In other words, MECYS does not know how its students are performing relative to the system's learning goals.

**5.140** The *State of Education* FBE examination results are for 2018. Given Hurricane Irma's disruption of schooling in the fall of 2017, the 2018 FBE exam results could have been expected to be biased downward.<sup>157</sup> However, the average score overall, for English, Dutch, and general knowledge were slightly higher than in the preceding year (2016-17), with only the overall math score dropping by a trivial amount relative to 2015-2016 and 2016-17. These results are a credit to the dedication of the schools, their Boards, the students themselves, and the students' families. Annex 2.10 shows the results for the FBE examination by school. Table 5.26 shows them by Board.

**5.141** Except for Dutch, where they tied for the lowest score with SDA students, students in the DPE schools did worse on every subject than students in schools under the subsidized Boards.

**Table 5.26 Student results on primary school examination by subject and Board for 2017-18 (average percent out of 100)**

Subject	DPE	MAC	SPCOBE	SDA	SKOS	Average
Math	50	72	61	59	62	59
General knowledge	52	67	58	62	57	58
English	68	85	76	82	80	76
Dutch	40	48	48	40	65	50
Average	53	68	61	61	67	61

Source: Report FBE Exit Examination 2017-18, pp.16-25.

**5.142** The performance of the public schools cannot be differentiated from that of the composition of their student bodies. Public schools are open to all students and must admit any student who applies. Other School Boards are not obligated to take any student who wishes to enter. For some of these Boards, demand exceeds supply, and Boards can exercise choice<sup>158</sup>.

**5.143** Thus, on average, students in the DPE schools may pose more learning challenges than those in the subsidized schools. The *Compulsory Education Report 2016-17*<sup>159</sup> shows that 19.3 percent of students in all primary schools reporting data were undocumented. If being an undocumented student signals a higher probability of learning problems—and it may not, the percent of undocumented students at the primary level in DPE schools is higher (24.2 percent) than that in subsidized schools (17.7 percent) However, the subsidized schools were educationally responsible for the majority of undocumented students (70%).<sup>160</sup>

<sup>157</sup> The children of families with more resources generally perform better. Such families might have been able to leave the island more easily, thus biasing the pool of test takers toward those from lower income families. Also, the test takers and their families had been through a harrowing several months after Irma—schooling was physically disrupted, homes were damaged or destroyed, and some parents had lost their sources of livelihood.

<sup>158</sup> SKOS allocates their limited slots basically on religious grounds: Catholic children have first call, then Methodist and Anglican children whose religions are closest to Catholicism, and then siblings.

<sup>159</sup> The *Compulsory Education Report 2017-18* has more recent data. However, in this hurricane year the *Compulsory Education Report 2017-18* had more primary schools (8 in 2017-18 versus 2 in 2016-2017) and more secondary schools (4 in 2017-18 versus 1 in 2016-17) who did not report data on undocumented students.

<sup>160</sup> At the secondary level in 2016-17, 7.7 percent of total enrollments were undocumented. The percent undocumented for DPE's only secondary school was 10.8 percent. FAVE's St. Maarten Academy PVSE school did not submit data,

**5.144** The only reliable way to differentiate a school's performance from the characteristics that students bring to school that affect their learning is to use value-added assessments. Value-added assessments isolate how much educators add to student knowledge, over and above what students' families and neighborhoods contribute. They measure gains in academic achievement over a given school year—in other words, the “value” that the teachers and the school have added. In the United States value-added assessments have found that students with low starting scores can show strong gains; those with high starting scores, relatively small gains. Even if students have low FBE exam scores, a value-added assessment can show that the school has in fact added substantially to their skills and knowledge.

**5.145** At the secondary level students in the vocational programs sit sector-administered examinations. Table 5.27 shows that the pass rates differ. However, how to interpret these results is completely unclear. The composition of specific vocational programs being pursued by students in these three schools and thus the sector exams that they sit differ.

**Table 5.27 Student exam pass rates by secondary vocational program and Board for 2017-18 (percent)**

Board	Secondary program	% passed
DPE	SMVTS	94
SVOBE	Sundial PBL	78
	Sundial PKL	100
	Milton Peters PBL	68
	Milton Peters PKL	70
	Milton Peters TKL	73
FAVE	St. Martin Academy PBL	61
	St. Martin Academy PKL	70

*Source: State of Education 2017-18, Chart 50, p.51; Chart 51, p.52. Provisional*

**5.146** Students in academic programs sit these examinations: the Dutch HAVO or VMO examinations, regional examinations administered by the Caribbean Examinations Council (CXC)—the Caribbean Secondary Education Certificate (CSEC) or the Caribbean Advanced Proficiency Examination (CAPE); or the international baccalaureate examination. Table 5.28 shows the pass rates for the academic programs. Although no rate is low, the performance of St. Maarten students on these exams cannot be judged in the absence of meaningful comparators.

**5.147** Students in the HAVO and VMO programs have had to deal with stricter exam regulations for their programs that were instituted in the 2015-17 period. St. Maarten's inspectorate interprets the lower HAVO pass rate as a combination of problems that HAVO students have with the Dutch language and the challenges of meeting tougher criteria for passing the examination.

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but excluding this school and its enrollments, 7.4 percent of all enrollments in subsidized schools were undocumented, and 85 percent of all undocumented students were enrolled in subsidized schools.

**Table 5.28 Student exam pass rates by secondary academic program and Board for 2017-18**

Board	Secondary program	% passed
SVOBE	HAVO	68
	VWO	90
FAVE	St. Martin Academy CESC	100
	CAPE	100
SKOS	CESC	92
	International Baccalaureate	80
MAC	Comprehensive	100 <sup>1</sup>
CBA	CSEC and performing arts	100 <sup>1</sup>

Source: *State of Education* 2017-18, Chart 52, p.52. Provisional.

Note: <sup>1</sup> The inspectorate of the Ministry verified data for MAC as 30/30 passed and for CBA as 14/14 passed.

**5.148** MECYS pursues four policies that the international research indicates reduce a system's average learning effectiveness: the use of repetition, social promotion, the language of instruction, and early tracking at the secondary level, repetition, social promotion, and early tracking also increase the variance in learning outcomes.

**5.149 Repetition and social promotion policies.** All countries face the problem of students who struggle academically, and many use the repetition and social promotion instruments that St. Maarten uses. The research literature on the effects of these policies is of variable quality. However, a meta-analysis of the most rigorous studies of repetition and social promotion found that "If the goal is to bring low-performing students up to the higher standards, neither retention nor social promotion is effective. In different studies, one or the other has been found to offer an advantage, but neither has been found to offer a large, lasting advantage, and neither leads to high performance. Retaining students, regardless of the grade at which they are retained [also] increases the likelihood that they will drop out of school" (Thompson and Cunningham, 2000).

**5.150** The OECD (2012) identifies effective alternatives to grade repetition and social promotion. This strategy identifies students at risk for retention through continuous assessment during the school year. It then immediately and aggressively intervenes to catch them up to their peers. After-school assistance, Saturday tutoring, and mandatory summer instruction are some of the interventions used. If students have not achieved the minimum competencies to move forward to the next school year, *the student is promoted but only with a structured plan of continued support*. At the least, repetition is limited to the subject or module failed rather than the repetition of the whole year. Although this alternative policy entails costs, they are certainly lower than paying for the repeat of an entire grade.

**5.151** Some of St. Maarten's School Boards have lower repetition rates and lower social promotion rates, indicating that they may be implementing interventions such as these. The *State of Education Report 2017-2018* notes that some schools are providing "students with extra classes or remedial classes for the 'problematic' subjects such as Dutch and mathematics. Some schools offer Saturday classes or tutoring." (p.50).

**5.152 Language of instruction.** The status of Dutch as a language of instruction is a delicate issue, culturally and politically. St. Maarten has historic and legal ties to the Netherlands, and its laws are written in Dutch. A sizeable number of students pursue tertiary studies in the Netherlands. However, the *State of Education Report 2017-2018* notes problems that students have in coping with secondary programs such as HAVO, TKL, and VWO whose language of instruction is Dutch and whose examinations are in Dutch. The *State of Education Report 2017-*

2018 observes that “there [used to be] more schools with Dutch as the language of instruction at the primary level, but now there are only 4 ‘Dutch’ schools. The gap between the targeted level of Dutch as a foreign language on primary schools and the Dutch level of the HAVO-exams is simply too wide for many students.” (p.52).

**5.153** This observation by the *State of Education* suggests that right now students are getting caught between inconsistencies in the sector’s policies on language of instruction and language of examinations, implying that the sector needs to take action. It can strengthen opportunities for immersion in the Dutch language at the primary and secondary levels, commission an analysis to review and rethink the sector’s policies on its languages of instruction and examinations, or both.

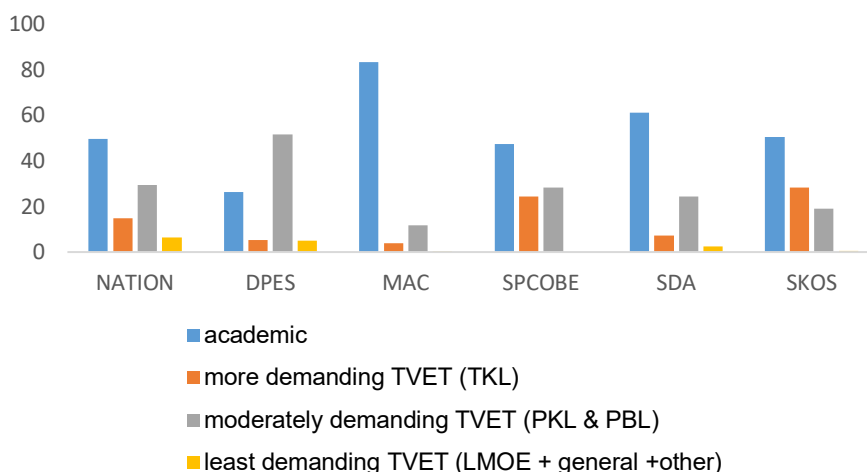
**5.154 Early tracking at the secondary level.** All countries have some form of tracking at the secondary level. However, they vary in the age at which selection starts from age 10 to 16. The median for the OECD countries is 15 years (OECD, 2010b). St. Maarten—following the Dutch model—tracks early in the student’s life (age 12). Seventy-three percent of OECD countries initially select at ages older than 12 with 40 percent starting tracking at age 16.

**5.155** The research evidence consistently shows that early tracking increases the variance in learning outcomes between students. For example, analyses of data from PISA confirm that countries with more differentiated instruction have greater inequality of performance between students, although there are no significant effects on the average performance (Hanushek and Woessmann, 2006).

**5.156** *The State of Education Report* gives us data on the advised student destinations for students as they move from the primary to the secondary level. For the nation about 50 percent were advised to proceed to academic programs and about 50 percent to vocational ones. Of the 50 percent directed toward vocational programs, 15 percent were advised to enter the most demanding program (TKL); 29 percent, the moderately demanding programs (PKL, PBL); and 6 percent, the least demanding programs (AGO/LMOE).

**5.157** As Figure 5.11 shows, there were substantial differences in advised destinations between School Boards. DPE advised only about a quarter of its students to proceed to an academic program at the secondary level. SKOS and SPCOBE were close to the national average. SDA advised about 60 percent of its students to enter academic programs; MAC, 83 percent. For the least demanding TVET programs, DPE advised that 23 percent enter such programs. The other Boards advised 2 percent or a smaller percent of students to proceed to such programs.

**Figure 5.11 Advised secondary destinations for students in 2017-18 by Board (percent)**



Source: *State of Education 2017-18*, Chart 25, p.27. Provisional.

**5.158** It is not known how easy it is to change programs once started in one. “Cascading” down to one that is less difficult may be easier than moving into one that is more demanding than the initial program.

### Labor force returns to education

**5.159** One purpose of education is to equip graduates to thrive in the labor market if they wish to work in paid employment. Figure 5.11 shows that St. Maarten’s secondary system includes well-developed technical and vocational programs. How these programs track labor market demand is unknown. Does a council of employers advise the technical/vocation programs? Are there tracer studies of these programs’ graduates to assess occupational and skill demand?

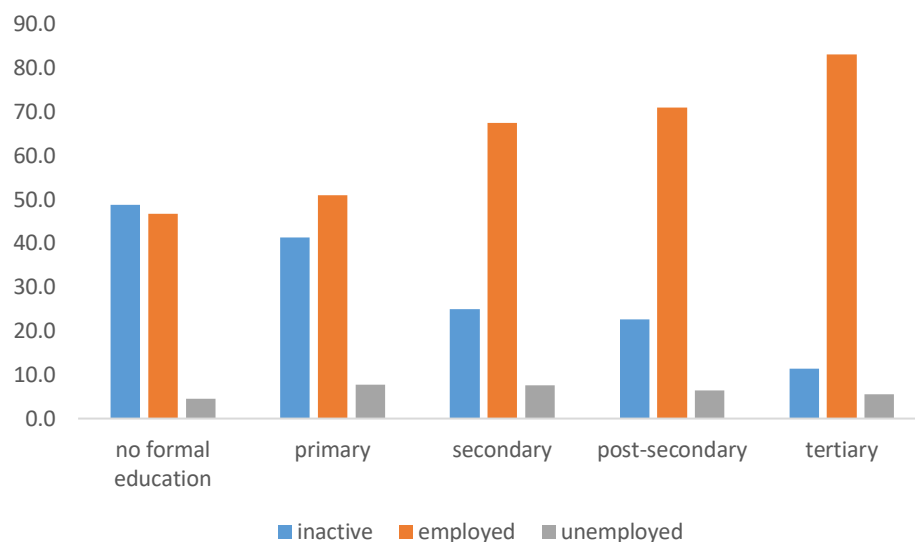
**5.160** Labor force participation rates, employment rates, unemployment rates and wage rates by level and type of education, age group, and gender tell us something about how well the education system is aligned with demand. Are the types and quality of the skills and knowledge being produced rewarded with employment and reasonable wage rates?

**5.161** Unfortunately, the 2019 report on the 2018 labor force survey does not show labor force status or income by both educational attainment and age. Thus, we cannot assess even approximately how well the education system is meeting labor market demand.

**5.162** Figure 5.12 shows the population’s labor market status by education level. Since it does not present these findings by age, we need to interpret the data carefully. For example, older members of the population are both more likely to have less education and to be out of the labor market because they have retired. With this caution in mind, the table shows the expected pattern: as education increases, an increasing percent are employed, and a declining percent are out of the labor market. Those with tertiary education have employment rates 36 percent higher than those with no education, 32 percent higher than those with only primary education, and 16 percent higher than those with secondary education. The unemployment rates are relatively flat across the education groups.



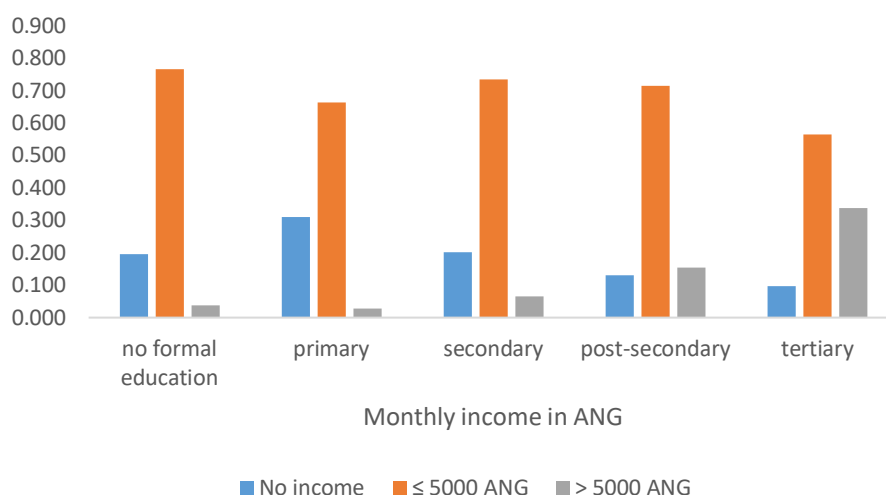
**Figure 5.12 Labor force status by educational attainment (2018)**



Source: Department of Statistics. April 2019. 2019 Labour Force Survey, table 4, p.9.

**5.163** Figure 5.13 shows the monthly income, but not wages, by education level. However, 91 percent of the respondents have only one source of income; 9 percent, two sources (Table 5.29). For 85 percent, work is one or the only source of income, with an old age pension being the only other significant source at 12 percent (Table 5.30).<sup>161</sup> This table shows a predictable pattern. Those with more education have higher incomes. Figure 5.13 clarifies the pattern by calculating the percent in each education group with no income per month,  $\leq 5000$  ANG per month, and  $> 5000$  ANG per month.

**Figure 5.13 Monthly income in ANG by educational attainment (2018)**



Source: Department of Statistics. April 2019. 2019 Labour Force Survey, table 31, p.32

<sup>161</sup> The other income sources were welfare, private old age pension, property rental, widow's pension, scholarship, study financing, retaining/severance pay, alimony, child support, and other.

### ***Does public spending promote equity?***

**5.164** The best way to assess if St. Maarten is spending its public resources equitably is to do a benefit incidence analysis. It does not look as though the Household Budget Survey measures all of the variables needed for this analysis, and even if it does, we cannot get access to the data.

**5.165** It is unlikely that St. Maarten's education financing is noticeably skewed. Education is compulsory from ages 4-18 and publicly financed, and truant officers monitor attendance. The law specifies that a child falls under the Compulsory Education Law until the end of the academic year in which the youngster has reached 18 years of age or has received a diploma in secondary education. In all countries public spending on tertiary is the level most likely to be biased toward wealthier households because their children are most likely to proceed to this level. However, if our data on the share of public spending that goes to tertiary education is correct, it is a small share of the overall public spending on education.

**5.166** Government repetition, social promotion, and tracking policies increase inequities. If St. Maarten follows the international pattern, students from less-advantaged families are most likely to be asked to repeat grades or to be socially promoted and to be tracked into vocational and less demanding vocational secondary programs.

### ***COVID-19 postscript***

**5.167** This PER was completed before the first cases of the coronavirus emerged in Wuhan, China. The pandemic raises at least three new issues for the sector.

- The budget available for the education sector.
- Compensating for the learning losses imposed by school closures.
- Re-opening schools safely and efficiently.

**5.168 Budget available to the education sector.** The World Bank and IMF project a decline in St. Maarten's GDP this year of at least 20 percent, with its pre-COVID—but not its pre-hurricane-level being attained only in 2024-25. The budgetary implications for the education sector of the country's GDP decline are unknown. These depend on Government's choices of revenue sources and its expenditure priorities.

**5.169** On the revenue side, Government is already receiving additional liquidity support from the Netherlands. It could borrow, assuming that macro restrictions are relaxed. Since its revenues have been a smaller percent of GDP than those of many developed countries, it could increase Government's share of St. Maarten's GDP by increasing taxes on businesses and households. However, businesses and households themselves face serious revenue shortfalls.

**5.170** On the expenditure side, Government could cut the budgets of all ministries, including MECYS. It could protect the social sectors at the expense of other sectors. It could pursue a mix of the two strategies.

**5.171 Compensating for the learning losses imposed by school closures.** A simulation based on data from 157 countries shows the orders of magnitude of the damage to learning-adjusted years of schooling (LAYS) by country income level (Azevedo et al., 2020). LAYS are simply the number of years of schooling completed, adjusted for the learning productivity of a year of school. Thus, a child can complete eight years of school, but if each year produces little learning, that child's LAYS will be much lower than eight. Table 5.29 shows the estimated effects

on LAYS by the country income level for three scenarios: optimistic (3-month school closure), intermediate (5- month school closure), and pessimistic (9-month school closure) and under different assumptions about the effectiveness of mitigating measures.

**Table 5.29 Effects of school closures on Learning Adjusted Years of Schooling (LAYS) under different assumptions**

Parameters by income level	LIC	LMC	UMC	HIC
<b>A. Baselines</b>				
LAYS: Years of schooling children typically achieve, modified by the quality of that schooling based on their performance on international student assessments	4.5	6.3	8.0	10.7
Learning gains per year in harmonized learning outcome (HLO) points	20	30	40	50
<b>Optimistic Scenario</b>				
B1. School closure (share of a school year)	30%	30%	30%	30%
C1. Mitigation effectiveness (0 to 100%)	20%	28%	40%	60%
D1. HLO decrease (points) = $A*B1*(1-C1)$	4.8	6.5	7.2	6.0
Reduction in LAYS	0.2	0.2	0.3	0.2
<b>Intermediate Scenario</b>				
B2. School closure (share of a school year)	50%	50%	50%	50%
C2. Mitigation effectiveness (0 to 100%)	10%	14%	20%	30%
D2. HLO decrease (points) = $A*B2*(1-C2)$	9.0	12.9	16.0	17.5
Reduction in LAYS	0.4	0.5	0.6	0.6
<b>Pessimistic Scenario</b>				
B3. School closure (share of a school year)	70%	70%	70%	70%
C3. Mitigation effectiveness (0 to 100%)	5%	7%	10%	15%
D3. HLO decrease (points) = $A*B3*(1-C3)$	13.3	19.5	25.2	29.8
Reduction in LAYS	0.5	0.7	0.9	1.1

Source: Table 1, Azevedo et al., 2020, p.7.

Notes: LIC = lower-income country; LMC = lower-middle income country; UMC = upper-middle income country; HIC = upper income country. HLO = harmonized learning outcomes, further defined below.

**5.172** Results of this simulation must not be taken literally for St. Maarten—they are illustrative only. Even within the same income category, country conditions that affect the outcomes of interest vary. Learning damage will vary within the same country, typically being greater for children from poorer families because their access to mitigating measures tends to be more limited or compromised. About a fifth of households even in high income countries lack internet access and computers (Azevedo et al, 2020, table 2, p.9). In many countries, some students, especially those enrolled in secondary education, may never return to school if their families need their labor to survive economically or need to save on out-of-pocket costs for education. However, St. Maarten's compulsory education law and its enforcement by truancy officers may limit this effect of COVID.

**5.173** St. Maarten might be considered either a high or upper middle-income country. We do not know if St. Maarten's schools closed this spring or for how long or its strategy for managing the new school year. However, if St. Maarten closed its schools for three months this spring and re-opened them at the end of August/early September, students will have experienced at least a three-month school closure (30% of the school year). Students lose learning while schools are closed, and in the absence of daily engagement with the school system, they forget already acquired learning. Students whose parents are reluctant to send their children back to school will lose more school time. If St. Maarten re-opens schools with a mix of in-school and remote

learning, the learning effects are unknown. Remote learning may be more effective when alternated with days in school.

**5.174** Estimates of the effectiveness of mitigation measures are based on three factors: the government's supply of different education modalities, the ability of households to access (or take-up) these different modalities, and the effectiveness of these alternative modalities. It is assumed that remote learning is never as effective as classroom instruction. It is hard to keep children engaged cognitively with all the distractions in the household, and devices have to be shared between siblings and between parents and their children. Access to a television or internet (the main channels of delivering remote learning) is highly unequal.

**5.175** The scenarios use data from international learning assessments to estimate the average productivity of an uninterrupted school year (harmonized learning outcomes, or HLO). For example, in a normal school year (baseline), students in high income countries are expected to gain 50 points, or half a standard deviation relative to the previous school year.<sup>162</sup> Depending on the country's income category, a three-month school closure (optimistic scenario) is estimated to reduce the average child's HLOs between 4.8 and 7.2 points (0.048 and 0.072 of a standard deviation in learning) and between 0.2 and 0.3 in LAYS.

**5.176 Re-opening schools safely and efficiently.** Leaders all over the world are working on efficient and effective ways to re-open schools. Several countries, such as China, the Netherlands, Belgium, Norway, Denmark, Japan, Germany, and New Zealand, have cautiously reopened, and, if needed, leaders of MECYS and the School Boards can consult with the education officials of these countries. The World Bank's just-published, *COVID-19 Pandemic: Shocks to Education and Policy Responses*, might also be helpful.

**5.177** Safety measures include the now familiar regular temperature checks, frequent hand-washing, wearing masks, physical distancing, staggered recesses, hybrid schedules, and restrictions on eating lunch, sports, and recess. If schools adopt hybrid schedules that mix in-school and remote learning, Government has to address child-care issues as parents are called back to work.

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<sup>162</sup> There is a vast literature documenting the heterogeneity of schooling productivity. In OECD countries, learning gains on most national and international tests during one school year are between 0.25-0.33sd (Woessmann, 2016).

## Recommendations

**5.178** This analysis revealed genuine strengths and some problems with St. Maarten's education system. The original recommendations have been amended to reflect the COVID-19 pandemic.

**5.179** Recommendations 1 and 2 should be pursued immediately: 1) Wring inefficiencies out of the sector's expenditures; and 2) compensate for students' learning losses during the pandemic.

**5.180** Recommendations 3, 4, and 5 should be pursued over the medium-term: 3) participate in international learning assessments to evaluate how St. Maarten students perform relative to the system's standards and to students in comparator countries; 4) build on the *State of Education* and expand it to report on education expenditures; and 5) establish strong policy analysis and policy trialing functions for the sector.

### Implement these recommendations immediately

**5.181 Wring inefficiencies out of the sector's expenditures.** Reallocate resources to compensate for any budget shortfalls imposed by the MoF, to finance intensive services to deal with the learning losses of students, and to pay for special measures required to safely reopen schools.<sup>163</sup>

**5.182** The DPE schools look less efficient than the subsidized schools across all of the efficiency variables assessed. **Why?** If DPE schools matched the performance of subsidized schools on all efficiency variables measured, what could MECYS save?

**5.183** DPE schools have inefficient teacher absenteeism at both the primary and secondary levels; subsidized schools, at the secondary level. Teacher absenteeism imposes student learning costs and out-of-pocket costs to pay substitutes.

**5.184** DPE schools have very high repetition rates at both the primary and secondary levels; subsidized schools, at the secondary level. Ignoring the learning costs to students of the repetition policy, it cost the sector at the primary level (2017-18) and secondary level (2016-17) Naf 8.9 million or US\$5.1 million.

**5.185** Both DPE and subsidized schools have inefficient social promotion rates at the primary level. This policy does not exact budget costs, but it does exact learning costs for students.

**5.186 Compensate for students' learning losses during the pandemic.** School closures have damaged students' development of their human capital at that very time they need better human capital to survive in an upended labor market.

**5.187** Assess the learning status of every student for each subject in the curriculum to identify at-risk students by subject. Students varied in their access to remote learning during school closures, and remote learning is suboptimal.

**5.188** Mitigate learning losses by adjusting the curriculum to create a rapid catch-up period once schools reopen. Do not force students through a curriculum for which they are not ready.

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<sup>163</sup> In the context of the *Policy brief; Potential impact of Covid-19 on the Education Sector*, where an amount is being re-allocated from within the Ministry's budget to mitigate the effects of Covid-19 on Education (Controller MECYS' communication).

**5.189** Do not use repetition or social promotion policies to deal with learning losses. Repetition is ineffective and very costly. Social promotion condemns the child to cumulative learning deficits. Lacking the foundational skills to learn new material, the child falls further and further behind.

**5.190** Use an adjusted curriculum for the whole class and, for lagging students, after-school assistance, Saturday morning tutoring, and mandatory summer instruction to help them catch up. If a student is still lagging at the end of the school year, *promote the student but only with a structured plan of continued support*. At the least, limit repetition to the subject or module failed rather than the repetition of the whole year.

### **Implement these recommendations in the medium term**

**5.191** Each ministry is responsible for its own financial control functions. Thus, MECYS can control the policies and methodologies to track its finances. However, MECYS cannot now meet its accountability responsibilities because of its data and analytic deficits. It needs additional data, especially expenditure data, and analytical capacities to assess how efficiently, effectively, and equitably it is spending its resources.

**5.192 Participate in international learning assessments.** The basic accountability for all education systems is student learning relative to a country's learning objectives. At present St. Maarten does not know how its system is performing relative to its own standards or to students in countries comparable to St. Maarten. Its sixth grade FBE exam measures how students perform relative to each other, but not relative to the system's learning goals. Depending on their secondary programs, students can sit one of the Caribbean Examinations Council exams—e.g., the CCSLC, CSEC, or CAPE, the international baccalaureate, or examinations for the VSBO, HAVO, and VWO programs. However, the standards of these exams at the secondary level differ markedly, and those taking them constitute biased samples. Thus, their results do not reflect the *system's* performance.

**5.193** MECYS can choose from different international assessments, depending on its objectives. EGRA (Early Grade Reading Assessment) measures students' reading capacities early at grades 2 or 3. It reflects the recognition that compromised reading skills in the early grades seriously constrain the child's future learning. TIMSS measures the student's mastery of mathematics and science content at grades 4 and 8. PIRLS measures reading performance at grade 4. PISA is especially relevant for assessing the performance of St. Maarten's secondary students who pursue significantly different instructional programs. PISA does not focus on specific content but on students' abilities to apply what they have learned in school to real-life problems—interpret texts, solve mathematical problems, or explain a phenomenon scientifically, using their knowledge and reasoning skills. It is given in the student's language of instruction.

**5.194** Education staff in the Netherlands Ministry of Education, Culture and Science understand the structure of St. Maarten's education system, and the Netherlands participates in both TIMSS and PISA. The technical members of the MECYS staff might wish to consult with their Dutch counterparts in making a decision about their choice of an international assessment for St. Maarten. Once a choice is made, the organizations managing the different international learning assessments can offer technical support to MECYS, especially the OECD.

**5.195** Sample-based assessments measure the system's performance. Population-based assessments measure both the system's performance and reveal which students are lagging. To

obtain the full value of a population-based assessment, St. Maarten needs the means to intervene to support students that are found to be struggling.<sup>164</sup>

**5.196** Since EGRA has an important diagnostic function, all children in the grade selected to administer the assessment should be tested. Assuming a rectangular distribution of students across the two years of preschool and grades 1-6, in 2018 an eighth of the 4426 (net of special needs) students enrolled in primary school in March 2018 would be about 550.

**5.197** TIMSS and PISA normally sample schools and students within schools to arrive at statistically valid measures of the system's performance—it is too expensive to measure all students in large education systems. However, the St. Maarten system is so small that it could consider measuring the universe of students for the grade or age selected. For example, PISA measures the performance of 15-year-old students. In 2018 St. Maarten had 584 fifteen-year-old individuals in the population.

**5.198 Build on the *State of Education* and expand it to report on education expenditures.** In requesting this public expenditure review, the Minister of MECYS flagged data about the performance of the system as problematic. We were granted access to a mature draft of the *State of Education 2017-18*. Although the *State of Education* can be strengthened, it is an impressive achievement—quite comprehensive and thoughtful. Minor issues—e.g., reporting data for primary and secondary at similar levels of detail, clarifying the presentation of a few variables, or reporting teachers as fulltime equivalents—can be easily fixed.

**5.199** Less easy but certainly possible to fix are two big gaps in the non-financing data: the completion rates for each cohort of students at the primary level and for each secondary track and average years to completion. These variables require longitudinal studies of a cohort—i.e., tracking each cohort of students through to the completion of a cycle.

**5.200** The biggest gap, of course, is the lack of financing data. Although the *State of Education* was not designed to report expenditure data on the system, it recognized that this statistical document needs to be expanded to include financing data: “A greater understanding of the impact of educational spending is needed. Are the Boards financially healthy? Are the Boards making effective use of the resources they receive from government?” (p.99)

**5.201** The current financing data on the system are incomplete, potentially inaccurate, and difficult to obtain. Assembling them required substantial work by the MECYS staff. Some problems stem from how the Ministry of Finance structures the budget with only administrative and economic, but not functional (level of education), classifications. Without waiting for the Ministry of Finance to change its budgeting categories, MECYS can structure its budget and expenditure reporting internally according to functional classifications.

**5.202** It is not known if the Inspectorate, which compiled the *State of Education*, has the mandate, organizational framework, or qualified staff required to improve and expand it properly. The *State of Education* suggests that the MECYS education statistics group needs strengthening. “The Inspectorate is also tasked with the financial monitoring of the School Boards. This particular function was never executed prior to October 10, 2010. Strengthening of the staff of the

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<sup>164</sup> The World Bank's *World Development Report 2018*, focused on student learning, identifies the skills and motivation of teachers as the most important driver of student learning and suggests ways to improve their effectiveness.

Inspectorate with the adequate human resources would enable the Inspectorate to live up to its full responsibility in the area of financial supervision of the School Boards.” (p.99).

**5.203** Whether the statistics function should be situated in the Inspectorate is another question. It might be positioned in a policy analysis unit. However, the inspectorate is intimately familiar with the schools and their Boards. Its staff has valuable knowledge that can enrich the selection of variables to be measured and the intelligent interpretation of the data.

**5.204** Although policy-relevant financial variables are not inherently complex, measuring them accurately is quite technical. It can require politically sensitive restructuring of the education budget (at least internally) and of how expenditures are reported. Fortunately, the OECD has an international technical network of education statisticians available to help St. Maarten’s educational statistical staff bring their work into line with best practice for non-financing and financing variables.<sup>165</sup> Short M.A. statistics programs, seconding staff members to expert teams in other countries, and other strategies can also be used.

**5.205** The Inspectorate reports significant difficulties in obtaining timely, complete, and accurate data from the School Boards on the variables reported in the *State of Education*.<sup>166</sup> MECYS might consider making the allocation of subsidies in some way contingent on the submission of timely and accurate data by schools and Boards. However, the *State of Education 2017-18* reports that the DPE schools also fail to submit accurate and timely data, and they are funded differently than the subsidized schools.<sup>167</sup>

**5.206** Once a good data collection system is set up at the school level, providing timely and accurate data should become routine. Although MECYS could contract with consultants to help DPE and subsidized schools and their Boards set up such systems, earlier efforts by the Inspectorate to help the schools with data reporting do not bode well for this option. Despite updating the standard documents to make data reporting more efficient and two years of instructions, “...errors continue to be made with completing the document.” (p.38). These failed support efforts suggest that sticks, not carrots, may be needed to encourage accurate and timely compliance with data requests.

**5.207 Establish strong education policy analysis<sup>168</sup> and policy trialing functions in MECYS.** The *State of Education 2017-18* points out that “With funding under pressure, many School Boards face some important choices with regard to how they should prioritize spending. For many areas of expenditure, little is known about their effect on the quality of education. As a result, Boards sometimes make choices that do not benefit quality and do not result in a healthy financial policy” (p.99).

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<sup>165</sup> The team behind the OECD’s *Education at a Glance* would be a good place to start for advice.

<sup>166</sup> “Too many documents are being submitted with errors. Errors include misspelling of the school’s name, some schools cannot confirm the number of students (boys vs. girls), wrong number of school days, missing data, and incomplete information. Errors made by the administrative support are not corrected by the school manager before being signed off and submitted. School Board directors are also negligent and do not check the submitted work. Errors submitted to the School Board are consequently submitted to the Inspectorate.” *State of Education 2017-18*, p.38.

<sup>167</sup> “The submission of required documents needs to be followed by all School Boards. Public schools habitually require exemptions and are excessively indifferent when it comes to compliance. All School Boards have missed deadlines, but when notified, the submissions are completed in a matter of days. With public schools, however, it is always a long wait.... At present it is still impossible to give an accurate overview of the *State of Education* in public schools.” *State of Education 2017-18*, p.38.

<sup>168</sup> The “Research Paper: the development of Tertiary Education on Sint Maarten” is a good example of the types of analyses required to develop strategies and policies in the education sector.



**5.208** MECYS's Department of Education has legal responsibility for education policy analyses; its Division of Education Innovation, for implementing projects and thus for trialing policy options before they go to scale. Like the statistics function, the policy analysis and trialing functions are technically sophisticated functions, requiring proficient staff and sufficient budget to perform adequately.

**5.209** We recommend technical and budget audits of these two functions in MECYS. Such audits reveal skill gaps, adequacy of staffing numbers, and the bare-bone budgets required for these units to function properly. To establish the standards for such an audit, we suggest that the Department of Education and Division of Education Innovation contact the Policy and Implementation team of OECD's Education unit. This team assists countries to develop and implement policies to improve those systems on a wide range of topics.<sup>169</sup>

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<sup>169</sup> The link to the OECD education website is <http://www.oecd.org/education/>. Go to "topics" and then open the "policy development and implementation" tab.

## References

- Aventurin, Antonio. *2016 Annual Report Division of Study Financing*. Division of Study Financing, MECYS, Government of St. Maarten, 2016.
- Azevedo, João Pedro, Amer Hasan, Diana Goldemberg, Syedah Aroob Iqbal, and Koen Geven. *Simulating the Potential Impacts of Covid-19 School Closures on Schooling and Learning Outcomes: A Set of Global Estimates*. Washington, D.C.: World Bank. June 2020. <http://pubdocs.worldbank.org/en/798061592482682799/covid-and-education-June17-r6.pdf>
- Davoodi, H.R., E.R. Tiongson, and S.S. Asawanuchit. *How Useful Are Benefit Incidence Analyses of Public Education and Health Spending?* IMF Working Paper Fiscal Affairs Department and Middle Eastern Department. WP/03/227. Washington, D.C.: IMF, November 2003.
- \_\_\_\_\_. “Benefit Incidence of Public Education and Health Spending Worldwide: Evidence from a New Database.” *Poverty and Public Policy*. 2 (2010): 5-52.
- Demery, Lionel. *Benefit Incidence: A practitioner’s guide*. World Bank Poverty and Social Development Group. Washington, D.C.: World Bank, 2000.
- Hanushek, E. and L. Woessmann, “Does Educational Tracking Affect Performance and Inequality? Differences-in-Differences Evidence across Countries.” National Bureau of Economic Research Working Paper No. 11124. Cambridge: National Bureau of Economic Research, 2006.
- Ikeda, Miyako and Emma García. “Grade repetition: A comparative study of academic and non-academic consequences.” *OECD Journal: Economic Studies* 2013 (2014): 269-315.
- International Monetary Fund. *Kingdom of the Netherlands—Curaçao and Sint Maarten. 2018 Article IV Consultation Discussions*. Washington, D.C.: IMF, January 2019.
- Maaz, Kai, Ulrich Trautwein, Oliver L’udtke, and J’urgen Baumert. “Educational Transitions and Differential Learning Environments: How Explicit Between-School Tracking Contributes to Social Inequality in Educational Outcomes.” *Society for Research in Child Development* 2 (2008): 99-106
- Nuffic. *Education system of Curaçao, St. Maarten and the BES islands: described and compared with the Dutch system*. version 2, January 2015. The Hague.
- OECD. *Education at a Glance 2018: OECD Indicators*. Paris: OECD Publishing, 2018.
- \_\_\_\_\_. *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*. Paris: OECD Publishing, 2012. <https://www.oecd.org/education/school/50293148.pdf>.
- \_\_\_\_\_. *PISA 2009 Results: What Makes Schools Successful? Resources, Policies, and Practices*. Vol. IV. Paris: OECD, 2010.
- \_\_\_\_\_. *PISA 2012 Results: What Makes Schools Successful? Resources, Policies, and Practices*. Vol. IV. Paris: OECD, 2013.
- \_\_\_\_\_. “When Students Repeat Grades or Are Transferred Out of School: What Does it Mean for Education Systems?” *PISA in Focus*, No. 6, PISA. Paris: OECD Publishing, 2011.
- OECS. *Educational Statistical Digest for 2017*. Statistics on Education for School Year 2015-2016. St. Lucia: Commission for the Organization of Eastern Caribbean States, 2017.
- Rogers, F. Halsey and Emilianita Vegas. *No More Cutting Class? Reducing Teacher Absence and Providing Incentives for Performance*. Development Research Group Policy Research Working Paper 4847. Washington, D.C.: World Bank, 2009.
- St. Maarten Department of Statistics. *Statistical Yearbook 2017*. Philipsburg: Department of

Statistics, 2017.

\_\_\_\_\_. *Labour Force Survey 2019: Results Report*. Philipsburg: Department of Statistics, 2019.

\_\_\_\_\_. *Household Budget Survey, 2015: Full Results Report*. Philipsburg: Department of Statistics, January 2017.

\_\_\_\_\_. *Population of St. Maarten 2018: Factsheet Population*. Philipsburg: Department of Statistics.

\_\_\_\_\_. *Real growth down by 6.6% in 2018*. Philipsburg: Department of Statistics, 2020

St. Maarten Government. *National Ordinance Structure and Organization of National Government*. AB 2010, GT no. 6

\_\_\_\_\_. *St. Maarten Policy Budget 2019*. Section 3.4 for MECYS. No date.

\_\_\_\_\_. *Concept Budget 2019*.

\_\_\_\_\_. *Workgroup National Recovery Plan*. Philipsburg: Workgroup for National Recovery Plan, October 2017.

St. Maarten Ministry of Education, Culture, Youth, and Sport.. Appendix LBham Financing Education (Bijlage LBham Bekostiging Onderwijs) Regulations on Study Financing 2017-18, 2018.

\_\_\_\_\_. *Compulsory Education report 2015/16*.

\_\_\_\_\_. *Compulsory Education report 2016/17*.

\_\_\_\_\_. *Compulsory Education report 2017/18*.

\_\_\_\_\_. *Strategic Plan 2016-2026*. Philipsburg: MECYS. No date.

\_\_\_\_\_. Inspection Service forms used by schools to report data on their performance. No date.

\_\_\_\_\_. *Elucidation End of Month Reporting May 2018*. Philipsburg: MECYS Staff Bureau, June 14 2018.

\_\_\_\_\_. *MECYS Resilience Plan*. Philipsburg: MECYS Task Force, November 2017.

\_\_\_\_\_. Memorandum of explanation for LBHAM Funding Education (Nota van Toelichting LBHAM Bekostigings onderwijs) National Decree, containing General Measures, establishing an education funding system and rules on the submission procedure and processing applications for funding (National Decree on funding education). No date.

\_\_\_\_\_. Report FBE Exit Examinations 2017-18. Division of Examinations, 2018.

\_\_\_\_\_. Research Paper: the development of Tertiary Education on Sint Maarten, 2017. Department of Education

\_\_\_\_\_. Safety and Emergency Management Committee Safety Guideline.

\_\_\_\_\_. *State of Education 2017-18*

\_\_\_\_\_. Student Support Services Division Report and Data

St. Maarten Ministry of Finance. *Explanatory Statement on the Draft Budget for 2019 (Toelichting Op De Ontwerpbegroting Dienstjaar 2019)*, January 2018.

\_\_\_\_\_. *2016 Jaarrapport*. October 24, 2018.

Stigler, James and James Hiebert. "Understanding and Improving Classroom Mathematics Instruction: An Overview of the TIMSS Video Study." *Acer National Conference: Raising*

*Australian Standards in Mathematics and Science: Insights from TIMSS*, 1997, 52-65.

Thompson, Charles L. and Elizabeth K. Cunningham, Elizabeth K. *Retention and Social Promotion: Research and Implications for Policy*. Educational Resources Information Center Digest Number 161. 2000. New York: ERIC Clearinghouse on Urban Education, 2000.

Whitehurst, Glover J. and Matthew M. Chingos. *Class size: what research says and what it means for state policy*. Brown Center on Education Policy at Brookings, May 11, 2011.

Woessmann, Ludger. *Fundamental determinants of school efficiency and equity: German states as a microcosm for OECD countries*, CESifo Working Paper, No. 1981, Center for Economic Studies and Ifo Institute (CESifo), Munich, 2007.

\_\_\_\_\_. "The Importance of School Systems: Evidence from International Differences in Student Achievement." *Journal of Economic Perspectives*. 30/3 (2016), 3–32.  
<https://www.aeaweb.org/articles?id=10.1257/jep.30.3.3>

\_\_\_\_\_. "International Evidence on School Tracking: A Review." *CESifo DICE Report*, ISSN 1613-6373, Ifo Institut für Wirtschaftsforschung an der Universität München 7 (2009): 26-34

World Bank. *COVID-19 Pandemic: Shocks to Education and Policy Responses*. Washington, D.C. May 2020.  
<https://openknowledge.worldbank.org/bitstream/handle/10986/33696/148198.pdf?sequence=4&isAllowed=y>

\_\_\_\_\_. *Education Expenditure Review Guidelines*. Washington, D.C., 2017.

\_\_\_\_\_. *Sint Maarten Public Financial Management System Analysis*. In draft. Washington, D.C., 2019.

\_\_\_\_\_. *World Development Indicators: Country income classifications*. Washington, D.C., 2019.  
<https://datatopics.worldbank.org/world-development-indicators/stories/the-classification-of-countries-by-income.html>

\_\_\_\_\_. *World Development Report 2018. Learning to Realize Education's Promise*. Washington, D.C. 2018.

## Annex 5.1 Characteristics of Sint Maarten education system for public and subsidized schools

School Board	School name	Level and program type	Type of vocational curriculum	Language of instruction	Examination
Division of Public Education Services ( DPE)	Charles Leopold Bell Primary School. Now closed.	Primary		English	FBE
	Dr. Martin Luther King Jr	Primary		English	FBE
	Genevieve de Weever (closed after Irma)	Primary		English	FBE
	Leonald Connor School	Primary		English	FBE
	Oranje School	Primary		English	FBE
	Prins Willem Alexander School (PWAS) (special needs; students temporarily rehoused in Dr. Alma Fleming Center)	Primary		English	Students at this school unlikely to take the FBE
	Ruby Labega School	Primary		English	FBE
	St Maarten Vocational School (lowest level TVET)	Secondary vocational	PSVE: Labor Market Oriented Education (LMOE/AGO) + general vocational program	English	no central exam. School-based only
Foundation for Academic and Vocational Education (FAVE)	St. Maarten Academy (PSVE section)	Secondary vocational	Vocational. PSVE: PBL, PKL	English	Sector administered exams
	St. Maarten Academy	Secondary academic		English	CSEC (CXC)
	CAPE	secondary (post-secondary?) academic		English	CAPE (CXC)
Methodist Agogic Center (MAC)	Rev. John A. Gumbs Campus	Primary		English	FBE
	Browlia F. Maillard Campus	Primary		English	FBE
	comprehensive	Secondary Academic		English	CSEC, preceded by CCSLC

School Board	School name	Level and program type	Type of vocational curriculum	Language of instruction	Examination
Foundation for Protestant Christian Education (SPCOBE)	Helmich Snijders Hillside Christian School	Primary		Dutch	FBE
	Asha Stevens Campus	Primary		English	FBE
Foundation for 7th Day Adventist (SDA)	Seventh Day Adventist School	Primary		English	FBE
Stichting Katholiek Onderwijs St. Maarten (SKOS)	Sr Borgia School	Primary		Dutch	FBE
	Sr. Magda School	Primary		Dutch	FBE
	Sr. Marie Laurence School (After Irma students moved to St. Magda and St. Dominic Primary Schools)	Primary		Dutch, but moving to English	FBE
	Sr. Regina School	Primary		Dutch	FBE
	St. Dominic Primary School	Primary		English	FBE
	St. Joseph School	Primary		English	FBE
	St. Dominic High School (1 school; 2 academic curricula: 5-year CSEC program and 2-year IB program)	Secondary academic		English	CSEC (CXC)
		Secondary academic		English	IB
Stichting Voortgezet Onderwijs (Secondary Education Foundation) St. Maarten (SVOBE)	Milton Peters College	Secondary			
	HAVO	Academic		Dutch	
	VSBO PKL/PBL	Vocational		mixed Dutch and English	
	VSBO TKL	Vocational	TKL	Dutch with an English stream recently added	Sector-administered exams (technical science & care). CSEC, preceded by CCSLC
	VWO	academic		Dutch	
	CCLSC*	academic		English?	CCLSC
	Sundial School (PSVE: PKL/PBL)	Secondary vocational	PSVE: PKL/PBL	English	
Charlotte Brookson Academy (CBA)	Charlotte Brookson Academy (Performance Arts)	Secondary academic & performance arts		English	CCLSC and CSEC (CXC)
AVE	NIPA	post-secondary vocational		English?	

Source: author with DPE advice

## Annex 5.2 Primary enrolment shares by financing model, School Board, and school (2017-18)

Financing model	School Board	School	Total enrolled	% of total <sup>1</sup>
Subsidized schools		Total	3236	72.3
	SDA	SDA	344	10.6
	MAC	Total	796	24.6
		Browlia Maillard	417	52.4
		Rev. John Gumbs	379	47.6
	SPCOBE	Total	636	19.7
		Helmich Snijders	232	36.5
		Asha Stevens	404	63.5
	SKOS	Total	1460	45.1
		St. Joseph	223	15.3
		St. Regina	213	14.6
		St. Magda	336	23.0
		St. Borgia	205	14.0
		St. Marie Laurence	182	12.5
		St. Dominic	301	20.6
DPE Schools		Total	1238	27.7
	DPE	Oranje	299	24.2
	DPE	Martin L. King	207	16.7
	DPE	Leonald Conner	248	20.0
	DPE	M. Genevieve de Weever	295	23.8
	DPE	Ruby Labega	141	11.4
	DPE	Prins Willem Alexander (special needs)	48	3.9

Source: *State of Education* 2017-18, Table 2, p.13. Because of Hurricane Irma, enrolment data for this school year were collected in March 2018.

<sup>1</sup> The percent of total reflects the percent of which the row is a part. Thus, the percent of total for subsidized schools is as percent of total enrolments; the percent of total by School Board, as percent of total enrolments in that financing model; the percent of total by school, as a percent of total enrolments under that School Board.

### Annex 5.3 Enrolment shares by financing model, level of education, School Board, and school (2017-18)

Financing model and level	School Board	School	Total enrolled	% of total <sup>1</sup>
Subsidized schools: secondary			2516	91.5
	CBAF	Charlotte Brookson	121	4.8
	MAC	CSE	168	6.7
	SVOBE	Total	1050	41.7
		Sundial	299	28.5
		Milton Peters College PBL & PKL	101	9.6
		Milton Peters College-TKL	242	23.0
		Milton Peters College CCSLC	55	5.2
		Milton Peters College HAVO	220	4.1
		Milton Peters College VWO	43	4.1
	FAVE	Total	837	33.3
		St. Maartens Academy PSVE	342	40.9
		St. Maartens Academy CXC	456	54.5
		St. Maartens Academy CAPE	39	4.7
	SKOS	Total	340	13.5
		St. Dominic CXC	308	90.6
		St. Dominic IB	32	9.4
Subsidized schools: post-secondary, non-tertiary	AVE	NIPA	148	100
DPE Schools: secondary			234	8.5
	DPE	SMVTS-General	120	51.3
	DPE	SMVTS-LMOE	114	48.7

Source: *State of Education* 2017-18, Tables 9 and 13, pp. 45 and 66, respectively. Because of Hurricane Irma, enrolment data for this school year were collected in March 2018.

<sup>1</sup> The percent of total reflects the percent of which the row is a part. Thus, the percent of total for subsidized schools is as percent of total enrolments; the percent of total by School Board, as percent of total enrolments in that financing model; the percent of total by school, as a percent of total enrolments under that School Board.



#### Annex 5.4 Levels of education offered by private schools

Private school/ Board	Level of education services offered
All Children Education (ACE)	Primary school
Caribbean International Academy (CIA)	Pre-kindergarten Primary school Middle school High school
Learning Unlimited (LU)	Toddler program Pre-kindergarten Primary school Middle school High school
St. Maarten Montessori School	Primary school

Source: p.74, *State of Education Report 2017-2018*

#### Annex 5.5 Class sizes for primary schools by school

School Board and School	Number of classrooms (no date)	Student/classroom ratio using March 2018 enrolment numbers
DPE Oranje	17	17.6
DPE Martin Luther King	12	17.3
DPE Leonald Connor	12	20.7
DPE Genevieve de Weever	14	21.1
DPE Ruby Labega	10	14.1
DPE Prins Willem Alexander (PWAS)	8	6.0
Seventh Day Adventist	15	22.9
MAC Gumbs	16	23.7
MAC Maillard	16	26.1
SPCOBE Snijders	8	29.0
SPCOBE Asha Stevens	16	25.3
SKOS St. Joseph	8	29.1

SKOS St. Regina	14	15.2
SKOS St. Magda	16	21.0
SKOS St. Borgia	8	25.6
SKOS St. Marie Laurence	8	22.8
SKOS St. Dominic	8	37.6
<b>Total/Average</b>	206	22.1
<b>DPE schools with PWAS</b>	73	17.0
<b>DPE schools without PWAS</b>	65	18.3
<b>Subsidized</b>	133	24.4

Source: State of Education 2017-18, table 27, p.102. Provisional.

### Annex 5.6 Size of primary and secondary schools

Primary schools	Number of enrolled students (March 2018)
DPE Oranje	299
DPE Martin Luther King	207
DPE Leonald Connor	248
DPE Genevieve de Weever	295
DPE Ruby Labega	141
DPE Prins Willem Alexander (PWAS)	48
Seventh Day Adventist School	344
MAC Gumbs Campus	417
MAC Browlia F. Maillard Campus	379
SPCOBE Helmich Snijders Hillside Christian School	232
SPCOBE Asha Stevens Campus	404
SKOS Sr Borgia School	205
SKOS Sr. Magda School	336
SKOS Sr. Marie Laurence School	182
SKOS Sr. Regina School	213
SKOS St. Dominic Primary School	301
SKOS St. Joseph School	223

<b>Secondary schools</b>	
FAVE St. Maarten Academy	837
MAC comprehensive	168
DPE St Maarten Vocational School	234
SKOS St. Dominic High School	340
SVOBE Milton Peters College	751
SVOBE Sundial	299
Charlotte Brookside Academy	121

Source: *State of Education 2017-18*, table 2, p.13 and table 9, p. 45. Provisional.

### Annex 5.7 Teacher absenteeism in primary schools for 2017-18

Primary school	Teacher absenteeism (%)
DPE Oranje	11.8
DPE Martin Luther King	13.6
DPE Leonald Connor	8.8
DPE Genevieve de Weever	13.9
DPE Ruby Labega	11.2
DPE Prins Willem Alexander (PWAS)	17.7
Seventh Day Adventist School	6.8
MAC Gumbs Campus	6.9
MAC Browlia F. Maillard Campus	2.7
SPCOBE Helmich Snijders Hillside Christian School	4.6
SPCOBE Asha Stevens Campus	7.3
SKOS Sr Borgia School	5.6
SKOS Sr. Magda School	3.9
SKOS Sr. Marie Laurence School	5.3
SKOS Sr. Regina School	1.5
SKOS St. Dominic Primary School	9.4
SKOS St. Joseph School	1.4

Source: *State of Education* 2017-18, Chart 39, p.35. Provisional.

### Annex 5.8 Student absenteeism in primary and secondary schools for 2016-17

Primary schools	% absent
DPE Oranje	8.3
DPE Martin Luther King	7.9
DPE Leonald Connor	7.5
DPE Genevieve de Weever	8.3
DPE Ruby Labega	10.4
DPE Prins Willem Alexander (PWAS)	16.1
Seventh Day Adventist School	4.9
MAC Gumbs Campus	5.8
MAC Browlia F. Maillard Campus	2.9
SPCOBE Helmich Snijders Hillside Christian School	5.4
SPCOBE Asha Stevens Campus	4.6
SKOS Sr Borgia School	3.3
SKOS Sr. Magda School	3.3
SKOS Sr. Marie Laurence School	4.1
SKOS Sr. Regina School	4.4
SKOS St. Dominic Primary School	3.1
SKOS St. Joseph School	2.6
Average	6%
Secondary programs	% absent
DPE St Maarten Vocational School	10.1
SVOBE Sundial PBL-PKL	1.5
SVOBE Peters PBL-PKL	3.8
SVOBE Milton Peters TKL	5.8
SVOBE Milton Peters HAVO	4.4
SVOBE Milton Peters VWO	4.4
FAVE St. Maarten Academy PBL-PKL	7.4
FAVE St. Maarten Academy Academic CXC	4.1
SKOS St. Domenic CXC/ IB	4.1
Charlotte Brookson Academy	6.2
MAC comprehensive	5.2
NIPA	4.6
Average	5.1

Source: State of Education 2017-18, Chart 44 p.47. Provisional.

### Annex 5.9 Social promotion rates for primary education by school and gender (2016-17)

School	Gender	
	Boys	Girls
DPE Oranje School	19	7
DPE Dr. Martin Luther King Jr	0	0
DPE Leonald Connor School	36	14
DPE Genevieve de Weever	40	22
DPE Ruby Labega School	25	17
Seventh Day Adventist School	26	14
MAC Rev. John A. Gumbs Campus	19	9
MAC Browlia F. Maillard Campus	0	0
SPCOBE Helmich Snijders Hillside Christian School	12	5
SPCOBE Asha Stevens Campus	12	0
SKOS Sr Borgia School	6	4
SKOS Sr. Magda School	0	0
SKOS Sr. Marie Laurence School	5	5
SKOS Sr. Regina School	0	0
SKOS St. Dominic Primary School	2	0
SKOS St. Joseph School	0	0

Source: State of Education 2017-18, Chart 8, p.18. Provisional

### Annex 5.10 Student results on primary school examination by school for 2017-18 (average percent out of 100)

Primary school	Subject				Average
	Math	General knowledge	English	Dutch	
DPE Oranje School	51	57	73	40	55
DPE Dr. Martin Luther King Jr	40	46	61	38	46
DPE Leonald Connor School	55	54	71	42	56
DPE Genevieve de Weever	48	49	65	38	50
DPE Ruby Labega School	60	58	76	41	59
Seventh Day Adventist School	59	62	82	40	61
MAC Rev. John A. Gumbs Campus	67	65	83	46	65
MAC Browlia F. Maillard Campus	76	69	86	49	70
SPCOBE Helmich Snijders Hillside Christian School	57	58	79	75	68
SPCOBE Asha Stevens Campus	63	58	75	40	59
SKOS Sr Borgia School	58	52	80	75	67
SKOS Sr. Magda School	63	55	78	72	68
SKOS Sr. Marie Laurence School	48	47	74	58	57
SKOS Sr. Regina School	59	53	79	71	66
SKOS St. Dominic Primary School	78	72	88	68	77
SKOS St. Joseph School	62	63	81	47	63
Average	59	58	76	50	61

Source: Report FBE Exit Examination 2017-18, pp.16-25.

