



KINGDOM OF THE NETHERLANDS—ARUBA

2017 ARTICLE IV CONSULTATION—PRESS RELEASE AND STAFF REPORT

June 2017

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2017 Article IV consultation with the Kingdom of the Netherlands—Aruba, the following documents have been released and are included in this package:

- A **Press Release**.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on a lapse of time basis, following discussions that ended on March 23, 2017, with the officials of the Kingdom of the Netherlands—Aruba on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on May 2, 2017.
- An **Informational Annex** prepared by the IMF staff.

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: <http://www.imf.org>
Price: \$18.00 per printed copy

International Monetary Fund
Washington, D.C.



Press Release No. 17/223
FOR IMMEDIATE RELEASE
June 15, 2017

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes Article IV Consultation Discussions with the Kingdom of the Netherlands—Aruba

On May 17, 2017, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation discussions¹ with the Kingdom of the Netherlands—Aruba, and considered and endorsed the staff appraisal without a meeting.²

Aruba is a small open economy with high living standards. Aruba's per capita income, at about USD 24.1 thousand, is one of the highest in the Caribbean. Over 85 percent of the economy depends on tourism, making Aruba very vulnerable to external shocks. The fixed exchange rate regime against the U.S. dollar (unchanged at 1.79 florins to the dollar since 1986), supported by conservative fiscal, credit, and prudential policies, kept balances in check until late 2000s. Three recessions since the Global Financial Crisis and the government's policy response to them have led to a rapid increase in public debt.

The economy entered a recession around mid-2015. Real GDP contracted by 0.5 and 0.2 percent in 2015 and 2016, respectively. Weakness in activity has been broad-based in 2016. Domestic demand contracted by 3.0 percent. Exports grew only 0.3 percent due to weak tourism and shrinking non-tourism exports. Imports contracted by 3.5 percent, reflecting weak demand, on the back of fiscal consolidation and weak tourism growth.

Inflation remains very low. The economy was in deflation in 2016—consistent with weak domestic demand, but also due to low energy prices. Inflation was also low over 2012-2015.

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board

² The Executive Board takes decisions under its lapse-of-time procedure when the Board agrees that a proposal can be considered without convening formal discussions.

Fiscal consolidation has continued. The overall deficit, at 1.6 percent of GDP in 2015 and 2016, was a fraction of its level in 2014. The primary balance was at its second consecutive year of surplus in 2016. The improvement is the result of structural and one-off policies.

Public debt remains high. Elevated government deficits over 2010-2014—caused mainly by a double-dip recession and the government’s policy response to it—resulted in public debt reaching around 85 percent of GDP in 2016, broadly evenly split between foreign and domestic. Large interest payment obligations on debt—about 4½ percent of GDP in 2016—crowd out essential public spending, and the high level of debt limits the fiscal space for countercyclical policy.

International reserves have increased. Gross reserves have surpassed 4½ percent of GDP, which is about 5¾ months of imports and 40 percent of broad money.

Monetary policy was unchanged during 2015–16. The central bank (CBA) has kept the reserve requirement ratio—its main policy instrument—at 11 percent since 2010 given adequate international reserves, deflation, and weak GDP growth.

The banking system remains resilient. Banks maintain elevated capital buffers, have relatively low non-performing loans, and are profitable. Credit growth was 1.8 percent in 2016, up from -0.2 percent in 2015.

Aruba has a broad range of social safety nets. These include a universal healthcare, pensions, unemployment benefits, transport subsidies, and cash transfers to low-income families and single mothers. The 2017 budget included 1.2 percent of GDP of transfers to universal healthcare and 1.3 percent of GDP in cash transfers and various social programs.

Executive Board Assessment

Aruba’s growth is weak but expected to recover gradually. A temporary slowdown in tourism activity and fiscal consolidation have led to weak economic activity in Aruba since mid-2015. Going forward, the economy is expected to recover gradually, partly thanks to refinery-related investments and ongoing PPP investment projects.

Risks to the outlook are tilted to the downside. Delays in refinery-related investments remain a notable risk in the near term. A deepening crisis in Venezuela, also poses another downside risk to Aruba’s tourism. Over the medium term, a larger shift of U.S. tourists to Cuba could have negative implications for Aruba. On the upside, a possible U.S. fiscal expansion could spill over to Aruba’s tourism, mostly through increased demand for shared-economy services.

The authorities’ fiscal goals are appropriate. Based on current laws, the overall fiscal balance should improve and remain positive over the medium term. If these targets are met, public debt would be put on a downward path.

However, achieving the authorities' fiscal targets would likely require additional fiscal measures. The size of the fiscal effort would depend on the strength of GDP growth, which remains uncertain. Staff recommends additional fiscal measures to help achieve the authorities' goals. Past Fund advice has identified a few such measures. These include additional revenue efforts in the form of greater indirect tax collection. With regards to expenditure, a priority is to reduce wage-related expenses given the large size of the wage bill. Further measures to ensure that the health care system becomes self-financed should also be considered.

The monetary policy stance is appropriate. Given the projected low growth and inflation rate, as well as evidence of some slack in the economy, staff currently sees no need for monetary tightening. If, however, signs of overheating appear, the authorities should stand ready to tighten the monetary policy stance appropriately.

The external sector position has improved. The current account has improved and is stronger than the level that could be expected from Aruba's fundamentals. International reserves are adequate to safeguard the currency peg. EBA-lite estimates suggest that the real effective exchange rate is weaker than implied by fundamentals. However, staff believes this assessment is mostly driven by large exchange rate and inflation swings in Venezuela. Excluding Venezuela, the real effective exchange rate is broadly in line with fundamentals (Appendix V). External debt has been declining in recent years.

Aruba's potential growth should be boosted by structural reforms. A comprehensive labor market reform and development of sustainable skill-based immigration policies are needed to increase labor force participation and productivity. Ease of doing business should also be improved. The tourism sector could be further diversified through policies that would attract tourists from broader group of countries, including from Latin America. The expected reopening of the refinery is an important step towards economic diversification, and the authorities' policies on developing the renewable energy sector and alternative sources of growth, such as a knowledge-based economy, are promising.

Table 1. Aruba: Selected Economic Indicators, 2013–2018

Basic Data, Social and Demographic Indicators						
Area (sq. km)	180	Infant mortality (per thousand, 2016)				11.0
Population (thousands, 2016 est.)	110.6	Literacy rate (percent, 2015)				97.5
Population growth rate (percent, 2010-2015 annual average)	0.5	Percent of population below age 15 (2015)				19.4
Nominal GDP (millions of U.S. dollars, 2016)	2,668	Percent of population age 65+ (2015)				11.4
GDP per capita (thousands of U.S. dollars, 2016)	24.1	Life expectancy at birth (years, 2015)				75.4
Unemployment rate (percent, 2015)	7.3					
Economic Indicators						
	2013	2014	2015	2016	2017	2018
				Est.	Proj.	
Real economy						
			(Percent change)			
Real GDP	4.2	0.8	-0.5	-0.2	1.9	2.3
Real domestic demand	0.4	-2.3	-2.4	-3.0	6.1	5.1
Consumption	3.4	-2.1	-1.6	-3.7	1.6	2.4
Private	4.0	0.5	-4.4	-3.9	1.5	2.5
Public	1.9	-8.1	5.6	-3.2	1.7	2.2
Gross investment	-8.2	-2.9	-5.1	-0.7	20.5	12.5
Exports of goods and services	6.0	3.1	-0.1	0.3	2.5	1.5
Imports of goods and services	0.4	-1.5	-2.8	-3.5	8.1	5.3
Consumer prices						
Period average	-2.4	0.4	0.5	-0.9	0.6	1.7
End-period	0.1	2.2	-0.9	-0.3	0.6	1.8
Central government operations						
			(Percent of GDP)			
Revenues	24.7	23.6	26.3	26.5	27.6	26.2
Expenditures	29.1	30.3	27.7	27.5	28.1	27.7
<i>Of which: capital</i>	2.0	1.1	0.3	0.6	0.2	0.5
Overall balance	-6.4	-7.9	-1.6	-1.6	-0.8	-2.0
Primary Balance	-2.8	-3.9	2.5	2.9	3.7	2.3
Gross central government debt	74.0	81.9	82.5	86.3	86.2	85.6
Savings and investment						
Gross investment	24.0	22.9	21.5	21.7	26.2	29.1
<i>Of which: public</i>	1.0	1.1	0.8	0.6	0.3	0.3
Foreign saving	12.8	5.1	-4.1	-7.0	4.6	10.6
<i>Of which: public</i>	-4.4	-6.7	-1.4	-1.0	-0.5	-1.5
Balance of payments						
Current account balance	-12.8	-5.1	4.1	7.0	-4.6	-10.6
Oil	-8.0	-8.0	-2.1	-1.4	-3.6	-7.7
Non-oil	-4.8	2.8	6.2	8.3	-1.0	-2.9
FDI	8.6	9.1	-1.4	2.9	11.5	13.5
Gross foreign assets of central bank (millions of U.S. dollars)	666	693	828	949	1192	1437
Gross foreign assets of central bank (months of imports)	3.5	3.7	4.7	5.8	6.1	5.9
External debt	113.2	106.5	103.6	93.3	94.7	100.0
Monetary						
			(Millions of Aruban florins, unless otherwise indicated)			
NFA of Banking System	1,131	1,173	1,516	1,778	2,212	2,663
NDA of Banking System	2,161	2,288	2,289	2,389	2,162	1,848
Credit to private sector (percent change)	5.3	4.2	-0.2	2.0	3.0	3.1
Broad money	3,292	3,461	3,805	4,166	4,375	4,511
Deposits (percent change)	3.0	2.6	2.0	9.7	5.0	3.1
Memorandum items						
Nominal GDP (millions of Aruban florins)	4,621	4,743	4,818	4,775	4,820	4,970
Nominal GDP (millions of U.S. dollars)	2,581	2,649	2,692	2,668	2,693	2,777
Unemployment rate (percent)	7.6	7.4	7.3	...	...	...
Sources: Aruban authorities; and IMF staff estimates and projections.						



KINGDOM OF THE NETHERLANDS—ARUBA

May 2, 2017

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION DISCUSSIONS

KEY ISSUES

Context: Aruba's economy has been in recession since mid-2015, mainly due to a temporary slowdown in tourism activity and fiscal consolidation. Short-term recovery in economic activity depends on timely implementation of refinery-related investments. Despite fiscal efforts by the authorities, public debt remains at around 85 percent of GDP, limiting fiscal space.

Policy recommendations:

- Staff commends the authorities for achieving their 2015 and 2016 fiscal targets under a weak economy and difficult external conditions and supports their ambitious targets going forward.
- However, there is a notable risk that the authorities' fiscal targets would not be met in 2017 and beyond, especially if growth continues to falter. The authorities are encouraged to develop sufficient specific new fiscal measures to ensure meeting their targets and putting public debt on a sustainable path.
- The monetary policy stance and international reserves are broadly adequate to safeguard the currency peg.
- Potential growth could be enhanced by prioritizing capital spending, labor market reforms, improving the business climate, and further economic diversification.

Approved By

Jorge Roldos and
Bob Traa

Discussions took place in Oranjestad during March 14-23, 2017. The staff team comprised of Mr. Ali Alichí (head), and Messrs. Jorge Canales-Kriljenko, Franz Loyola, Marcio Ronci (all WHD), and Kadir Tanyeri (ITD). Mr. Richard Doornbosch (OED) attended key policy meetings.

CONTENTS

INTRODUCTION	4
RECENT DEVELOPMENTS, OUTLOOK, AND RISKS	5
A. Recent Developments	5
B. Outlook and Risks	8
BUILDING POLICY SPACE AND BOOSTING GROWTH	9
A. Fiscal Policy: Making the Targets Credible	9
B. Monetary Policy is Appropriate and Banking System is Resilient	13
BOOSTING POTENTIAL GROWTH	14
STAFF APPRAISAL	17
BOXES	
1. Estimating Potential Output Using a Multivariate Filter Model	20
2. Insights on Fiscal Consolidation and Spillovers from the IMF's Global Integrated Monetary and Fiscal Model (GIMF)	21
FIGURES	
1. Comparative Regional Developments	23
2. Fiscal Sector Developments	24
3. Tourism Sector Developments	25
TABLES	
1. Selected Economic Indicators, 2013–2018	26
2. Baseline Scenario: Medium-Term Outlook, 2015–2022	27
3a. Operations of the Central Government, 2012–2022 (Percent of GDP)	28
3b. Operations of the Central Government, 2012–2022 (Millions of Aruban Florins)	29
4a. Fiscal Scenarios, 2015–2022 (includes oil refinery)	30
4b. Alternative Fiscal Scenarios, 2015–2022 (excludes oil refinery)	31
5. Central Bank Survey, 2015–2022	32
6. Monetary Survey, 2015–2022	33
7. Balance of Payments, 2015–2022	33
8. Financial Soundness Indicators, 2007–2016	35

9. External Debt, 2010–2015	36
10. International Investment Position, 2010–2015	37
11. Public Debt, 2011–2016	38

APPENDICES

I. Basic Facts	39
II. Public Debt Sustainability Analysis (DSA)	40
III. External Debt Sustainability Framework, 2012–2022	44
III. External Debt Sustainability Framework, 2012–2022	44
IV. Risk Assessment Matrix	46
V. External Balance Assessment	47
VI. Economic Diversification and Policies	49
VII. Overview of the Financial System	53
VIII. Key Fiscal and Structural Policy Advice in the Past	55

INTRODUCTION

1. **Aruba is a small open economy with high living standards.** Aruba's per capita income, at about USD 24.1 thousand, is one of the highest in the Caribbean. Over 85 percent of the economy depends on tourism, making Aruba very vulnerable to external shocks. The fixed exchange rate regime against the U.S. dollar (unchanged at 1.79 florins to the dollar since 1986), supported by conservative fiscal, credit, and prudential policies, kept balances in check until the late 2000s. Three recessions since the Global Financial Crisis and the government's policy response to them have led to a rapid increase in public debt.
2. **The Aruban People's Party (AVP) currently holds the majority in the parliament.** The AVP won the 2013 elections and holds 12 of the parliament's 21 seats, while the opposition party of Electoral Movement of People (MEP) holds 7. Prime Minister Mike Eman is currently serving the final year of his second consecutive term. Elections are scheduled for September 2017.
3. **The main policy challenges are to build policy space and boost growth.** Public debt is around 85 percent of GDP. This is beyond a level that is considered prudent for a small open economy, which is highly vulnerable to external shocks, and has a narrow economic base, a fixed exchange rate regime, and sizable interest payments. Policies should strike a balance between lowering debt and building policy space with boosting potential and actual growth.
4. **Past Fund advice focused on ensuring fiscal sustainability and improving competitiveness (Appendix VIII).** Recommendations underscored the need for fiscal consolidation and called for advancing the structural reform agenda—including labor market reform, improving the business climate and further developing the renewable energy sector—while maintaining financial stability. The authorities undertook key entitlement reforms in 2014 followed by other broad-based as well as one-off fiscal measures, which resulted in a marked improvement in the fiscal balance.

RECENT DEVELOPMENTS, OUTLOOK, AND RISKS

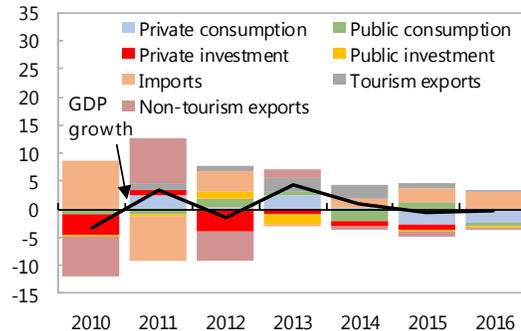
A. Recent Developments

5. **Aruba entered a recession around mid-2015.** Real GDP contracted by 0.5 and 0.2 percent in 2015 and 2016, respectively.¹ Weakness in activity was broad-based in 2016. Domestic demand contracted by 3.0 percent. Exports grew only 0.3 percent due to weak tourism and shrinking non-tourism exports. Imports contracted by 3.5 percent, reflecting weak demand, on the back of fiscal consolidation and weak tourism growth.

6. **Stay-over tourist arrivals have been weak since mid-2015.** This is mostly related to a collapse in the flow of Venezuelan tourists—Aruba’s second largest tourist market—who have faced more restrictive travel policies. Tourist arrivals from the U.S.—Aruba’s largest tourist market—also moderated, mostly because Aruba’s hotel capacity has remained flat, but also due to the opening of Cuba to U.S. tourists. Domestic factors, including a perception of higher petty crime, a new tourist levy and the Zika virus outbreak could have also marginally affected the U.S. arrivals.

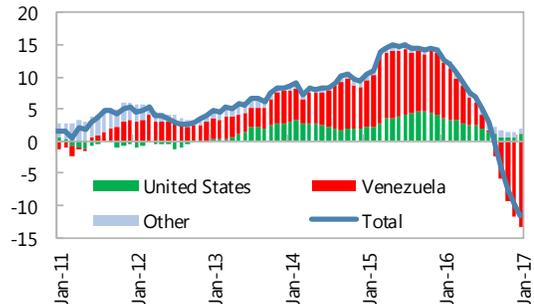
7. **The Aruban refinery is expected to reopen in 2019.** It had closed in 2012, but a contract has been signed with Citgo, a US subsidiary of Venezuelan oil company (PDVSA), to rehabilitate and reopen it. Citgo is currently studying the existing installations and staff expect that the rehabilitation process will start in late 2017 and will last about two years. The value added from the refinery to the Aruban economy—at about 6 percent of GDP after it is in full operation—includes job creation and higher consumption, in addition to the refinery’s investment and production activities.

Contributions to Real GDP Growth
(percentage points)



Sources: Aruban authorities and IMF staff calculations.

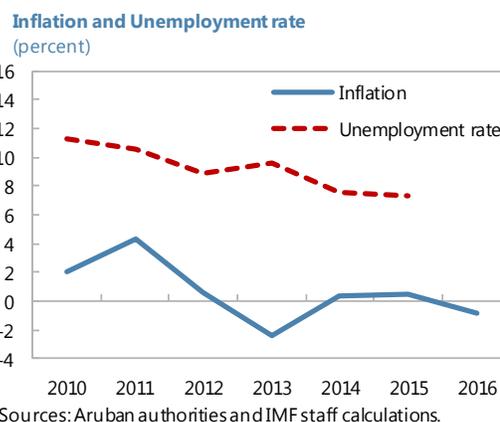
Stay-Over Tourist Arrivals by Origin
(percent y/y)



Sources: Central Bank of Aruba, Caribbean Tourism Organization and IMF staff calculations.

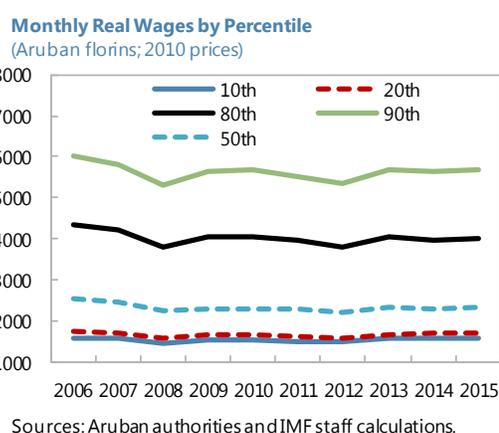
¹ The latest available official data on national accounts are for 2011. National accounts data for 2012-2016 are based on Central Bank’s estimates.

8. **Inflation remains very low.** The economy was in deflation in 2016—consistent with weak domestic demand, but also due to low energy prices. Inflation was also low over 2012–2015.

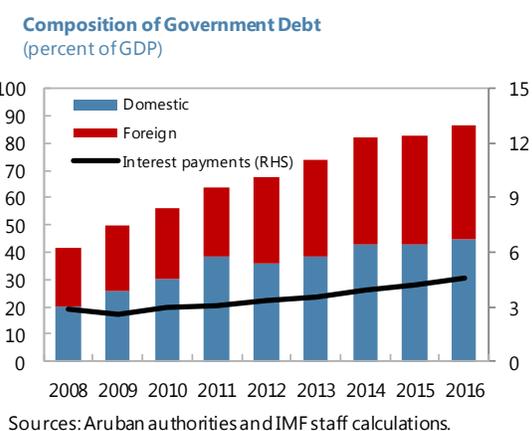
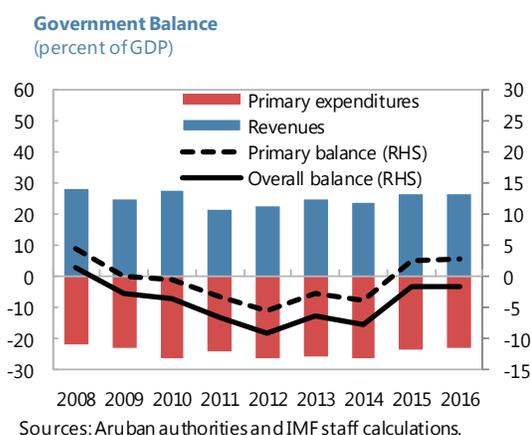


9. **The unemployment rate has been on a declining trend, but is not a reliable measure of slack.** It could be biased down and continue to decline over time, in part due to population aging. Outmigration and brain drain could have also played a part in lowering the unemployment rate.

10. **Real wages have been stagnant across the entire income distribution since 2006.** This is consistent with the weak macroeconomic performance. On the other hand, stagnant real wages also imply that income inequality has not materially changed over the past decade.



11. **Fiscal consolidation has continued.** The overall deficit, at 1.6 percent of GDP in 2015 and 2016, was a fraction of its level in 2014. The primary balance was at its second consecutive year of surplus in 2016. The improvement is the result of structural and one-off policies.



12. **Public debt remains high.** Elevated government deficits over 2010–2014—caused mainly by a double-dip recession and the government’s policy response to it—resulted in public debt reaching around 85 percent of GDP in 2016, broadly evenly split between foreign and domestic. Large interest

payment obligations on debt—about 4½ percent of GDP in 2016—crowd out essential public spending, and the high level of debt limits the fiscal space for countercyclical policy.

13. **External debt continues to decline.** In 2015, external debt declined mostly due to falling private sector debt. The authorities plan to finance their fiscal deficit entirely domestically in 2017 and rollover part of their external debt with domestic debt. This would imply a further decrease in external debt in 2017. Roll-over risks are low, as about 90 percent of the external debt is long term.

External Debt
(percent of GDP)

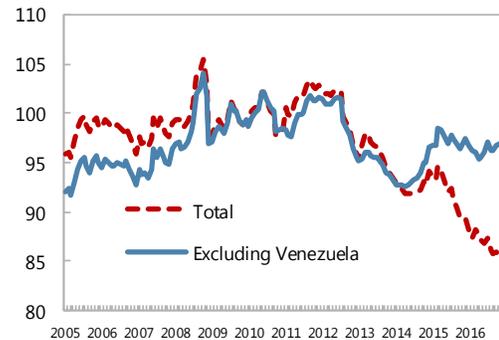


Sources: Aruban authorities and IMF staff calculations.

14. **EBA-lite estimates suggest that the external position is stronger than implied by fundamentals.**

Imports have contracted more than exports largely because of weak growth (after about two years of recession). This has turned the current account balance into a surplus of 7.0 percent of GDP in 2016. Due to a narrow production base and a large need for imports that is typical of island economies, the CA norm shows a deficit of 3¾ percent of GDP. EBA-Lite estimates, suggest an exchange rate undervaluation of about 17 percent. However, much of this is due to large swings in Venezuela’s currency and inflation. Excluding Venezuela, the Aruban florin appears broadly in line with fundamentals (Appendix V).

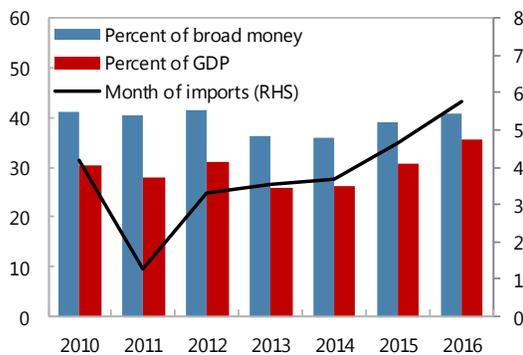
Real Effective Exchange Rate
(index; 2010=100)



Sources: IMF staff calculations.

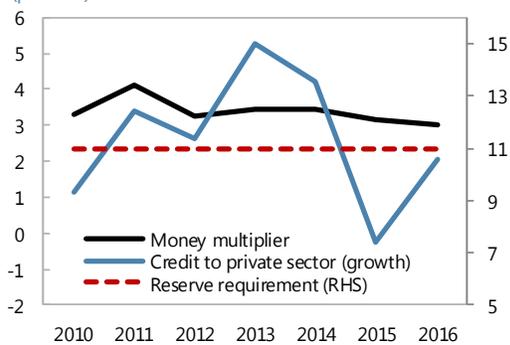
15. **International reserves have increased.** Gross reserves have surpassed 35 percent of GDP, which is about 5¾ months of imports and 40 percent of broad money.

Gross International Reserves



Sources: Aruban authorities and IMF staff calculations.

Money and Credit
(percent)



Sources: Aruban authorities and IMF staff calculations.

16. **Monetary policy² was unchanged during 2015–16.** The central bank (CBA) has kept the reserve requirement ratio—its main policy instrument—at 11 percent since 2010 given adequate international reserves, deflation, and weak GDP growth.

17. **The banking system remains resilient.** Banks maintain elevated capital buffers, have relatively low non-performing loans, and are profitable. Credit growth was 1.8 percent in 2016, up from -0.2 percent in 2015.

18. **Aruba has a broad range of social safety nets.** These include universal healthcare, pensions, unemployment benefits, transport subsidies, and cash transfers to low-income families and single mothers. The 2017 budget included 1.2 percent of GDP in transfers to universal healthcare and 1.3 percent of GDP in cash transfers and various social programs.

B. Outlook and Risks

Staff's views

19. **Real GDP growth is projected to rise to 1.9 percent in 2017, and stabilize at 1¾ percent over the medium term.**

Domestic demand is expected to firm up in 2017 due to the refinery-related investments and associated job creation, and as key PPP investment projects move forward. In addition, the tourism sector is expected to start recovering, partly boosted by better growth performance in the United States. Higher domestic demand and expected increases in imported inflation associated with global energy prices would stop current price deflation. Nonetheless, inflation would only reach 0.6 percent in 2017. Over the medium term, improvements in exports, PPP and private investments, and consumption are expected to stabilize real GDP growth to about 1¾ percent.

Aruba: Short-term Growth Projections (Percent of GDP, unless indicated otherwise)			
	2016	2017	Nominal change (percent)
Consumption	82.4	82.7	1.3
Private	55.7	56.3	2.1
Government	26.0	26.4	2.4
Investment	21.7	26.2	22.1
Private	12.8	12.8	0.5
Private Oil Refinery	0.2	2.2	930.0
PPPs, SOEs and Gov. Agencies	8.7	11.0	28.2
Public	0.6	0.3	-44.3
Exports	70.2	71.2	2.4
Tourism	51.7	52.0	1.4
Non-tourism	18.4	19.2	5.3
Imports	74.3	80.1	8.9
Private	67.2	69.9	5.0
Private Oil Refinery	0.2	1.7	930.0
PPPs, SOEs and Gov. Agencies	6.5	8.2	28.2
Public	0.4	0.2	-44.3
Memorandum item:			
Nominal GDP (millions of Aruban florins)	4,775	4,820	...
Nominal GDP growth (percent)	-0.9	0.9	...
Real GDP growth (percent)	-0.2	1.9	...
Sources: Central Bank of Aruba; and IMF staff estimates.			

² Despite the pegged exchange rate regime, restrictions on capital mobility (dating back to 1986) allow for some monetary control in Aruba. The CBA has three main capital account restrictions: (i) commercial banks are not allowed to hold a net negative NFA position, and any foreign exchange in excess of a time-varying threshold needs to be sold to the central bank; (ii) institutional investors are obliged to invest at least 40 percent of the first Afl. 10 million of their liabilities locally, as well as 50 percent of the second Afl. 10 million, and 60 percent of the remainder, and (iii) individuals as well as companies, need foreign exchange licenses for transactions above specific thresholds. In addition, Aruba levies a foreign exchange tax (1.3 percent of the transactions value) on payments by residents to non-residents.

20. **Risks to the outlook are tilted to the downside.** Delays or cancellations of refinery-related investments by Citgo remain a notable risk. A continued deepening of Venezuela’s economic crisis, poses a downside risk to tourism, as does a significant increase in global oil prices to domestic demand. Further strengthening of the US dollar would significantly impact Aruba’s external competitiveness, while weaker-than-expected global growth would reduce tourist arrivals. Over the medium term, a larger shift of U.S. tourists to Cuba could have negative implications for Aruba. On the upside, demand for shared-economy services could pick up (Appendix IV).

Authorities’ views

21. **The authorities expected a stronger economic outlook than staff.** They were confident that tourism growth is picking up and believed the already-initiated refinery-related investments will reach full swing before the end of 2017. These plus the PPP investments and other significant infrastructural private investments, result in a real GDP growth projection of 3.4 percent for 2017 by the authorities—1½ percentage points stronger than staff’s projection. The authorities’ medium-term growth projections are also higher than staff’s. They acknowledged the risks associated with Venezuelan tourist arrivals, but pointed to strategies to overcome potentially adverse developments such as initiatives to expand access to other Latin American markets, including Chile and Peru. They believed that Cuba’s effect on Aruba’s tourism market is a longer-term consideration, in part because of Cuba’s lack of requisite infrastructure to compete with Aruba in the upscale market.

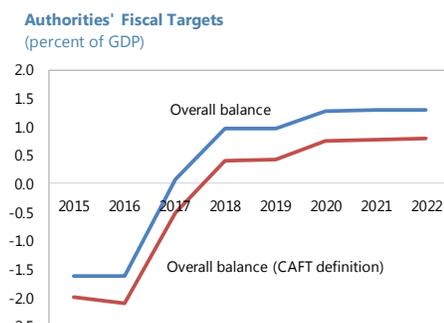
BUILDING POLICY SPACE AND BOOSTING GROWTH

A. Fiscal Policy: Making the Targets Credible

The authorities’ fiscal targets are appropriate, but additional measures are needed to achieve them.

Background

22. **Fiscal targets are based on the overall balance.** As per an agreement between the Aruban government and the Board of Financial Supervision of Aruba (CAFT), appointed by the Netherlands and Aruba, fiscal targets have been set in terms of the overall fiscal balance plus acquisition of financial assets. This CAFT definition of the overall balance is also commonly known in Aruba as the “financial balance”. It was set at -0.5 percent of GDP in 2017 and 0.4 percent of GDP for 2018, corresponding to an overall balance of 0.1 and 1.0 percent of GDP, respectively (figure).



Sources: Aruban authorities and IMF staff calculations.

23. **The authorities met their fiscal targets in 2015 and 2016.** The overall government deficit of 1.6 percent of GDP in both 2015 and 2016 were in line with targets. The improvement is due to

reform policies in recent years and one-off measures. There has been an improvement in tax administration, and a spending cap that was introduced on goods and services. On the structural side, as a follow up of the general (AOV) pension reform (2011), premiums were raised and a gradual increase in the minimum retirement age (to 65 years) was initiated in 2014. The capital shortfall of the public administration's pension system (APFA) was made whole (2014), the accrual period and franchise contributions were modified (2011) and, as with the AOV, the retirement age will continue to gradually increase. Finally, a levy (BAZV) was introduced and further increased (2011, 2014, 2015) to partially offset the fiscal costs of the health care system (AZV). Despite all these reform policies, the authorities had to meet their fiscal targets by the help of some one-off measures—a foreign grant in 2015 and intensification of collection of outstanding taxes in 2016.

Staff's views

24. **Going forward, the authorities' fiscal targets are appropriate, but achieving them critically depends on the strength of economic activity.** Based on current laws, the overall fiscal balance should be improved to +0.1 percent of GDP in 2017, followed by continued improvements, which would result in an overall balance of +1.3 percent of GDP in the medium term. If these targets are met, public debt—currently at about 85 percent of GDP—would be put on a downward path. The 2017 budget assumes real GDP growth of 3.4 percent. If such a strong growth performance materializes, the authorities would meet their fiscal target in 2017. This growth projection, however, faces significant downside risks, especially due to possible delays in the refinery-related investments. Staff has a more moderate real GDP growth projection of 1.9 percent in 2017. Consequently, staff projects a lower overall balance than the authorities' target (table, chart, and Table 4a). In a downside risk scenario (Table 4b), in which the refinery investments would not occur, growth would be weaker and fiscal targets would be missed by large margins both under staff's and authorities' assumptions (adjusted by staff to exclude the refinery). Going forward, it would be easier to monitor the fiscal targets, if they are set in nominal (florin) terms, rather than as percent of GDP because projections of GDP could differ.

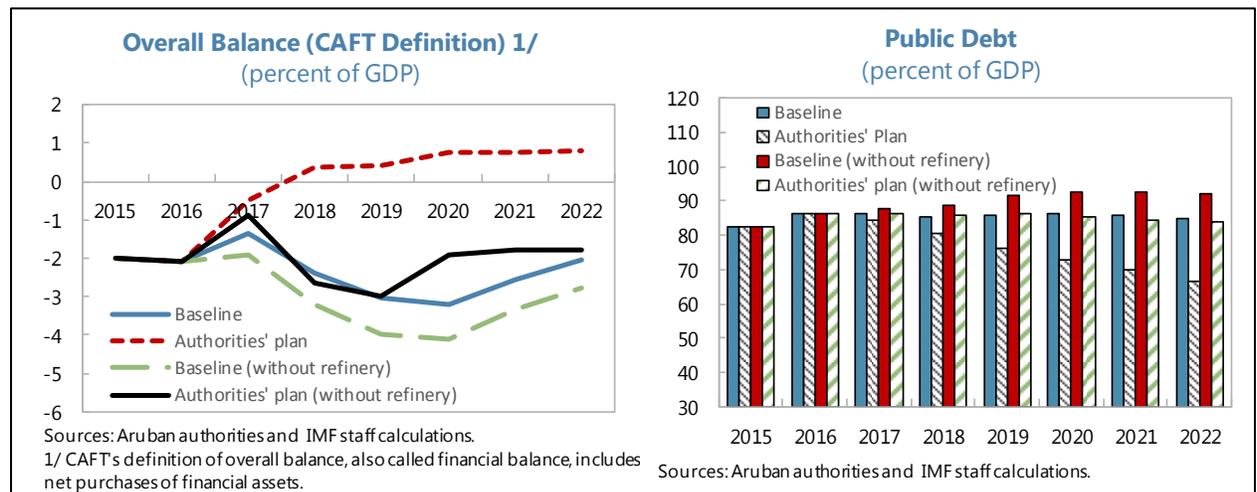
Aruba: Fiscal Scenarios, 2015-2022 ^{1/}										
(Percent of GDP, unless indicated otherwise)										
	2015	2016	2017	2018	2019	2020	2021	2022	2017-2022	
		Est.	Projections							Adjustment
Staff's Baseline										
Overall balance (CAFT definition) 2/	-2.0	-2.1	-1.3	-2.4	-3.0	-3.2	-2.6	-2.1	0.0	
Overall balance	-1.6	-1.6	-0.8	-2.0	-2.6	-2.7	-2.1	-1.6	0.0	
Primary Balance	2.5	2.9	3.7	2.3	1.8	1.8	2.5	3.3	0.3	
Gross public debt	82.5	86.3	86.2	85.6	85.9	86.2	85.8	84.8	-1.4	
Real GDP growth (percent)	-0.5	-0.2	1.9	2.3	1.6	1.6	1.7	1.7	...	
Authorities' Fiscal Consolidation Plan 3/										
Overall balance (CAFT definition) 2/	-2.0	-2.1	-0.5	0.4	0.4	0.8	0.8	0.8	2.9	
Overall balance	-1.6	-1.6	0.1	1.0	1.0	1.3	1.3	1.3	2.9	
Primary Balance	2.5	2.9	4.5	5.3	5.1	5.0	4.9	4.8	1.9	
Gross public debt	82.5	86.3	84.4	80.4	76.0	72.8	69.7	66.7	-19.6	
Real GDP growth (percent)	-0.5	-0.2	3.4	1.8	2.6	0.8	0.6	0.6	...	
Difference (Baseline minus Authorities' Plan)										
Overall balance (CAFT definition) 2/	0.0	0.0	-0.8	-2.8	-3.5	-4.0	-3.3	-2.8	-2.8	
Overall balance	0.0	0.0	-0.8	-3.0	-3.5	-4.0	-3.4	-2.9	-2.9	
Primary Balance	0.0	0.0	-0.8	-3.0	-3.2	-3.2	-2.4	-1.5	-1.5	
Gross public debt	0.0	0.0	1.8	5.2	9.9	13.5	16.1	18.1	18.1	
Real GDP growth (percent)	0.0	0.0	-1.6	0.6	-1.0	0.8	1.1	1.1	...	

Sources: Aruban authorities; and IMF staff estimates and projections.

1/ Includes the oil refinery investment and production.

2/ CAFT's definition of overall balance, also called financial balance, includes net purchases of financial assets.

3/ Reflects the authorities' medium-term plan for expenditure and revenues, and nominal GDP projections.



25. **Additional structural measures are needed to achieve the authorities' fiscal targets.** The authorities are encouraged to develop a comprehensive menu of measures to choose from. Staff's model-based estimations show that fiscal multipliers in Aruba are very large for capital spending, but small for other fiscal measures (Box II). Therefore, staff recommends that additional fiscal measures be growth friendly and not include cuts in capital expenditures. Past Fund advice has identified a few such measures:

- **Revenues.** Broaden the tax base; and make the tax system less complex (fewer rates) with more reliance on indirect taxation, including higher sales taxes.
- **Expenditures.** Introduce measures to permanently reduce wage-related expenses, which are currently nearly 50 percent of tax revenues; slow down the wage drift due to automatic raises and promotions for time in grade; and modify public sector workers' benefits and allowances. Public financial management should also be improved.
- **Entitlement programs.** Implement measures to make the universal health care system (AZV) self-financed. Without such measures, due to aging, government subsidies to the healthcare system would continue rising. Means-tested user fees (e.g., for emergency room visits for non-urgent care) could help rationalize demand for certain health care services and prevent abuse. Other measures could include increasing the BAZV tax rate or reducing coverage for certain non-essential treatments.

26. **Staff recommends a general compositional shift of public expenditures from current to capital.** At less than 1 percent of GDP, capital spending in Aruba is low. Staff sees room for further cutting current spending to finance an increase in capital spending over the medium term. This would be a step in the right direction for increasing Aruba's potential growth.

27. **Aruba's social safety nets are commendable, but their design and implementation should be reviewed.** These support the most vulnerable members of the society and cushion them against economic downturns, as well as the adverse effects of consolidation policies. However, social programs should be cost effective and not create disincentives to work. They should be mean-tested and targeted to the most vulnerable. Regular auditing of cash transfer and social programs should be conducted to measure their effectiveness and control costs.

Authorities' views

28. **The authorities were confident that their 2017 fiscal targets are achievable with current measures.** They noted that they have established a track record by achieving their targets in the past two years. They also mentioned that they are working out a large stock of tax arrears—worth about 20 percent of GDP—through improvements in tax administration. The authorities, however, did not see much room for additional structural policies such as increasing different tax rates or cutting current public spending in 2017.

29. **On the other hand, CAFT raised concerns whether the authorities' targets would be met in an unequivocal manner, given the presence of many downside risks.** CAFT was of the view that the fiscal target for 2017 could be met, if growth projections of the authorities materialize, the investments in the reopening of the refinery are made without any delays, and tax compliance measures are fully implemented. However, CAFT believed fiscal targets in the following years, and the long-term goal of sustainable public finances, are not attainable without structural expenditure reduction, including the wage bill and health care cost. Also, adjustments on fiscal policy and reduction of expenses on public-private-partnership investment projects are necessary in the medium term.

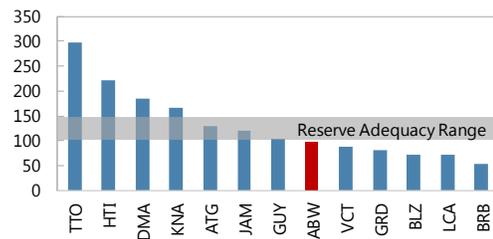
30. **The authorities acknowledged the increasing pressures of the healthcare system on public finances.** They agree that with aging, public subsidies to the system would only increase over time. They mentioned that they are broadening their medical treatment services, by expanding their current medical facilities, e.g. the construction of state-of-the-art hospital is underway. As a result, reduced patient travel costs will lead to lower public health expenditures.

B. Monetary Policy is Appropriate and Banking System is Resilient

Staff's views

31. **International reserves remain broadly adequate to safeguard the currency peg.** Gross reserves are broadly in line with the Fund's suggested risk-weighted level.³ The authorities plan to roll over a significant amount of external debt with domestic debt in 2017, which would result in lower international reserves, but barring any other developments, would still maintain the reserves broadly adequate.

Reserve Adequacy Ratio, 2016
(percent of IMF's reserve adequacy metric ^{1/})

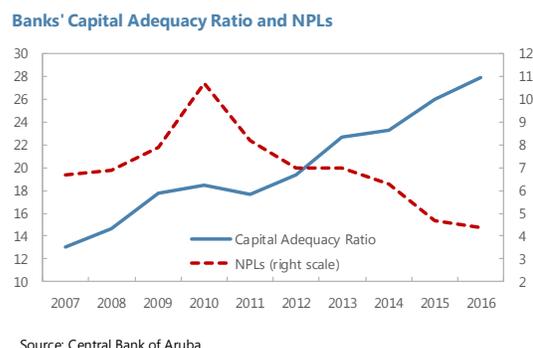


Source: Country authorities and IMF staff calculations.
1/ Following Assessing Reserve Adequacy - Further Considerations (IMF Policy Paper, November 2013).
Note: ABW: Aruba; ATG: Antigua and Barbuda; BRB: Barbados; BLZ: Belize; DMA: Dominica; GRD: Grenada; GUY: Guyana; HTI: Haiti; JAM: Jamaica; KNA: St. Kitts and Nevis; LCA: St. Lucia; TTO: Trinidad and Tobago; VCT: St. Vincent and the Grenadines.

32. **The monetary policy stance remains appropriate.** In case demand picks up and signs of overheating (such as rapid credit growth) appear, the authorities should stand ready to mop up the excess liquidity by increasing the reserve requirement ratio. Monetary tightening may also be warranted if gross international reserves dip below the Fund's suggested range or any of the reserve adequacy thresholds monitored by the CBA.

³ However, using the SIDS measure (Mwase, 2012), which takes further into account issues related to small island states, the reserves are only 73% of the suggested level.

33. **The banking sector remains resilient.** The capital adequacy ratio (CAR) was 28 percent in 2016—well above the regulatory minimum of 14 percent. The non-performing loans (NPL) ratio declined to 4.4 percent in 2016 from 10.7 percent in 2010. The banking sector’s return on equity was 15 percent in 2016. The authorities’ latest stress test results (2015) showed that even under the most severe credit shock, the CAR of the aggregate banking sector remained above the regulatory minimum. The banking system’s liquid assets were 30.6 percent of total assets in 2016, significantly higher than the minimum requirement of 15 percent, partly because of committed funds for approved loans, but also as a reflection of anemic demand. In addition, although bank competition has increased, it remains weak, partly due to the market size. Aruba has 5 onshore commercial banks with assets of about 114 percent of GDP, and only 1 offshore bank, whose assets account for 1 percent of GDP. Over the years, the central bank has shifted its approach from a compliance-oriented to risk-based supervisory approach. The central bank has placed increased emphasis on financial institutions’ policies and procedures in the areas of governance, risk management, and compliance. See Appendix VII for a more detailed description of Aruba’s financial system.



Authorities' views

34. **The central bank did not foresee a near-term change in its monetary policy stance, but remains vigilant given changes in the government’s borrowing policy.** Central bank officials expressed concern regarding the government’s decision to finance the budget deficit in 2017 mainly by borrowing in the domestic market, which could crowd out credit to private sector and put pressure on international reserves. They believed the situation warrants close monitoring. They also noted that to date banks in Aruba have not been affected by the global trend in withdrawal of correspondent banking relationships (CBRs). In this respect, they stressed that it remains of utmost importance for Aruba to maintain a high level of compliance with the international standards and international best practices in supervision and AML/CFT.

BOOSTING POTENTIAL GROWTH

Aruba needs to increase potential growth through labor market reforms, improving the business climate and further economic diversification.

Background

35. **Aruba’s potential growth has suffered from cyclical and structural factors.** Staff estimates that potential real growth is currently at around 1.0 percent and would be around 1³/₄ percent in the steady state (Box I), ¹/₂ percentage point below the average real growth over 1990–2008. The closure of the oil refinery in 2012 resulted in the loss of a major source of growth, which is

expected to be partially restored when it reopens. The share of Aruba's working-age population in total continues to decline. Aruba's labor market is highly regulated with cumbersome lay-off procedures. Temporary workers can only be hired through an agency for up to 12 months. A temporary worker can only be rehired for the same position after a three-month pause. Establishing a new enterprise in Aruba could take several months and involves complicated procedures across multiple government entities. Financial costs, including banking fees, are high, making access to finance and business operations costly and burdensome.

36. **Tourism sector policies are geared towards higher-end services.** Policies heavily restrict building new hotel capacity, but encourage upgrading the current facilities. In addition, there will be continued investment in enhancing other services that tourists use, such as information technology. This business model of continued improvement in the "Aruba brand" is a sustainable policy choice, which is commendable. However, it also involves little expansion in hotel room capacity, and hence tourism would not contribute nearly as much as its average historical levels to potential growth in the future.

37. **The authorities have been pursuing enhanced diversification through new engines of growth.** Progress is being made in shifting to renewable energy sources, with the goal of having minimal dependence on non-renewable energy in the medium term. Also, the authorities are working towards transforming Aruba into a business platform between the U.S., Latin America, and Europe; and promoting a knowledge-based economy (Appendix VI).

Staff's views

38. **Aruba needs comprehensive labor market reform to increase both participation and productivity.** More effective targeting of social benefits could also increase labor force participation and support fiscal consolidation. However, even with reforms, bleak demographic prospects imply a need to rely on migrant workers, arguing for the development of sustainable skill-based immigration policies.

39. **Policies should target enhancing ease of doing business.** Successful reforms in enhancing ease of doing business in Aruba's free-trade zones could be extended to the entire economy. Staff encourages the authorities to participate in the World Bank's Ease of Doing Business index, so that progress could be quantified over time.

40. **The expected reopening of the refinery is an important step towards economic diversification.** The authorities estimate that the reopening of the refinery would add more than 6 percent to the level of GDP when it reaches full capacity. This value added to the Aruban economy, includes job creation and higher consumption, in addition to the refinery's investment and production activities.

41. **The tourism sector could be further diversified.** Currently, more than 75 percent of Aruba's stay-over arrivals are from the U.S. and Venezuela. The sector could benefit from attracting

more tourists, including from other Latin American countries, especially to non-hotel accommodations, which are currently operating significantly below capacity. Recent developments on increasing services such as Airbnb, are a step in the right direction.

42. **Developing the renewable energy sector offers promising potential.** Given Aruba's natural resources, developing a capital- and technology-intensive renewable energy sector offers a right long-term path for economic diversification. However, skilled-labor shortages may pose a challenge to the success of this initiative. Given their likely upfront investment needs, these projects should be financed through FDI, as much as possible.

Authorities' views

43. **While the authorities generally agreed with staff's analysis, they believed labor market regulations are appropriate.** They argued that these regulations help minimize misuse by some businesses who have the tendency to hire and fire employees frequently to reduce employers' financial obligations

44. **The authorities pointed out that the time for establishing a business has been shortened.** Applicants who have all the necessary information upon submitting the application, have a much shorter wait compared to a few years ago. The authorities, however, concurred that there is still room for improvement in this area.

45. **The authorities were confident about Aruba's growth prospects.** They emphasized that rather than a quantitative expansion of tourism, they are deliberately pursuing a growth strategy focused on improving the tourism product, by revamping infrastructure, revitalizing urban spaces, and increasing dependence on renewable energy for production to further strengthen the Aruba's competitive position in the market and the resilience of their economy. In addition, they viewed renewable energy to play a catalytic role helping Aruba to grow into a business gateway to South America in knowledge- and technology-intensive industries. The authorities pointed out that local and international partners have joined efforts to help achieve Aruba's goal to become completely independent of fossil fuels by 2020 for electricity generation. They anticipated that the share of renewable energy will increase to 50 percent in 2018, in part supported by their recent partnership with the Philips corporation, which through innovation, will promote energy efficiency. However, they acknowledged that scaling up wind and solar energy substantially further presents challenges, and are therefore researching storage technologies (flywheel and underwater compressed air) to help ensure their renewable energy targets will be met. The authorities are also cognizant of the skilled labor constraints, but see scope to bring back Aruban engineers working abroad. They agreed with staff on the importance of financing through FDI.

STAFF APPRAISAL

46. **Aruba's growth is weak but expected to recover gradually.** A temporary slowdown in tourism activity and fiscal consolidation have led to weak economic activity in Aruba since mid-2015. Going forward, the economy is expected to recover gradually, partly thanks to refinery-related investments and ongoing PPP investment projects.

47. **Risks to the outlook are tilted to the downside.** Delays in refinery-related investments remain a notable risk in the near term. A deepening crisis in Venezuela, also poses another downside risk to Aruba's tourism. Over the medium term, a larger shift of U.S. tourists to Cuba could have negative implications for Aruba. On the upside, a possible U.S. fiscal expansion could spill over to Aruba's tourism, mostly through increased demand for shared-economy services.

48. **The authorities' fiscal goals are appropriate.** Based on current laws, the overall fiscal balance should improve and remain positive over the medium term. If these targets are met, public debt would be put on a downward path.

49. **However, achieving the authorities' fiscal targets would likely require additional fiscal measures.** The size of the fiscal effort would depend on the strength of GDP growth, which remains uncertain. Staff recommends additional fiscal measures to help achieve the authorities' goals. Past Fund advice has identified a few such measures. These include additional revenue efforts in the form of greater indirect tax collection. With regards to expenditure, a priority is to reduce wage-related expenses given the large size of the wage bill. Further measures to ensure that the health care system becomes self-financed should also be considered.

50. **The monetary policy stance is appropriate.** Given the projected low growth and inflation rate, as well as evidence of some slack in the economy, staff currently sees no need for monetary tightening. If, however, signs of overheating appear, the authorities should stand ready to tighten the monetary policy stance appropriately.

51. **The external sector position has improved.** The current account has improved and is stronger than the level that could be expected from Aruba's fundamentals. International reserves are adequate to safeguard the currency peg. EBA-lite estimates suggest that the real effective exchange rate is weaker than implied by fundamentals. However, staff believes this assessment is mostly driven by large exchange rate and inflation swings in Venezuela. Excluding Venezuela, the real effective exchange rate is broadly in line with fundamentals (Appendix V). External debt has been declining in recent years.

52. **Aruba's potential growth should be boosted by structural reforms.** A comprehensive labor market reform and development of sustainable skill-based immigration policies are needed to increase labor force participation and productivity. Ease of doing business should also be improved. The tourism sector could be further diversified through policies that would attract tourists from broader group of countries, including from Latin America. The expected reopening of the refinery is

an important step towards economic diversification, and the authorities' policies on developing the renewable energy sector and alternative sources of growth, such as a knowledge-based economy, are promising.

Proposed Decision

The Executive Board endorses the thrust of the staff appraisal in the report for the 2017 Article IV consultation discussions with the Kingdom of the Netherlands—Aruba (SM/17/109, 5/3/17).

It is envisaged that the next Article IV consultation discussions with the Kingdom of the Netherlands—Aruba will be held on a 24-month cycle.

Box 1. Estimating Potential Output Using a Multivariate Filter Model

Background. Aruba is a great tourist destination. In addition to its great beaches, natural beauty, and high-scale infrastructure, it is located on the southern fringes of the hurricane belt with constantly refreshing trade winds and highest number of sunny days in the Caribbean. There were 1.1 million tourists arrivals in Aruba in 2016. Tourism currently accounts for more than 85 percent of Aruba’s GDP.

Tourism data. Aruba has rich tourism data, including on tourism exports, receipts, stay-over arrivals, and revenue per available room (REVPAR). This box uses the receipts data to represent tourism, but the results are very similar, using either one of the tourism data series, because they are highly correlated with each other. Going forward, however, REVPAR, might be the most appropriate series, given that authorities have set increasing the share of affluent travelers as their strategic priority.

The multivariate filter. This approach incorporates a structural model with key macroeconomic equations. It consists of equation for, inflation (Phillips curve), unemployment (Okun’s law), and a tourism block, among other equations (not reported).

(Phillips curve)
$$\pi_t = \lambda \cdot \pi_{t+1} + (1 - \lambda) \cdot \pi_{t-1} + \beta \cdot Y_t + \varepsilon_\pi$$

(Okun’s law)
$$u_{gap_t} = \tau_1 \cdot u_{gap_{t-1}} + \tau_2 \cdot Y_t + \varepsilon_{u_{gap}}$$

$$T_t = T_{trend_t} + T_{gap_t}$$

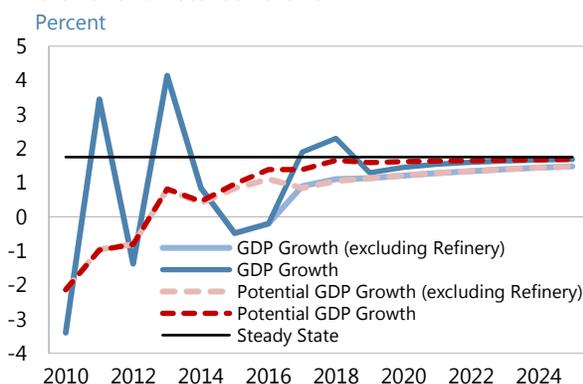
(Tourism block)
$$T_{trend_t} = (1 - \mu) \cdot T_{trend_{t-1}} + \mu \cdot T_{trend}^{SS} + \varepsilon_{T_{trend}}$$

$$T_{gap_t} = r_1 \cdot T_{gap_{t-1}} + r_2 \cdot Y_t + \varepsilon_{T_{gap}}$$

Where Y is the output gap, π is inflation, u is the unemployment, and T is tourism receipts. The model parameters are estimated using Bayesian methods, which split weights between economists’ perception expressed as priors and actual economic performance captured in the data.

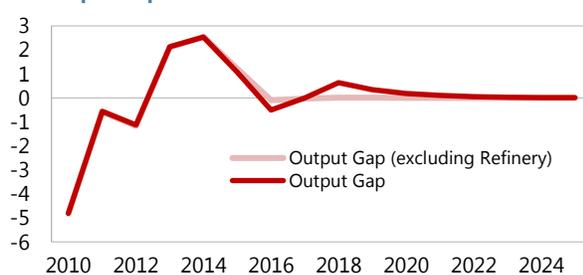
Results. The model is simulated with two different scenarios. The baseline assumes the refinery would be rehabilitated and reopened with real GDP growth assumptions of 1.9 and 2.3 percent for 2017 and 2018, respectively. The results of the baseline scenario show that potential output is currently at around 1.0 percent and would converge to its steady state of 1¾ in the medium term. The alternative scenario, which excludes the refinery, estimates a lower path of potential and real GDP growth. Both scenarios estimate that the output gap is broadly closed throughout the projection period.

Growth and Potential Growth



Source: IMF staff estimates

Output Gap



Source: IMF staff estimates

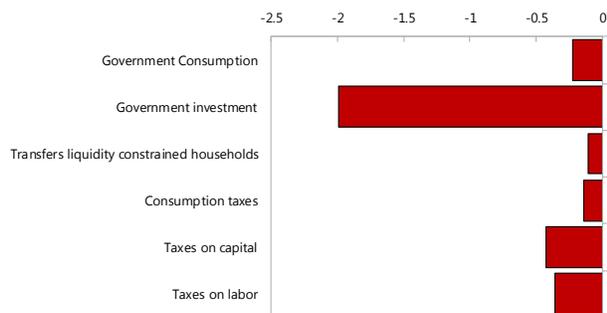
Box 2. Insights on Fiscal Consolidation and Spillovers from the IMF's Global Integrated Monetary and Fiscal Model (GIMF)

Main questions. IMF's GIMF model is used to answer two key questions: What are likely to be the most growth-friendly fiscal consolidation measures; and what are the likely spillovers of the U.S. policies on Aruba.

Background. Fiscal consolidation is usually associated with adverse effects on economic activity as it negatively impacts domestic demand. This cost in economic activity is the price to be paid for recovering the fiscal space, which is currently severely limited, with public debt at about 85 percent of GDP in Aruba. The reduction in the public debt burden would improve fiscal sustainability and reduce Aruba's vulnerability to adverse external shocks, reducing the likelihood of future economic crises.

The model. The GIMF is a dynamic general equilibrium model developed by the IMF that allows the analysis of monetary and fiscal policies, and their spillover across economies, and is widely used to conduct policy analysis in IMF flagship publications (Hunt and others, 2013 and references therein). The 3-economy version of the GIMF used in the simulations has been calibrated to replicate key macroeconomic ratios such as the external openness, the tax pressure and composition, fiscal spending patterns, and trade relationships among Aruba, the United States, and an aggregate of rest of Aruba's trading partners. Monetary policy in Aruba has been gauged to deliver a fixed exchange rate to the U.S. dollar.

GDP cost of Fiscal Consolidation of 1 percent of GDP
(percent of GDP; cumulative four-year effect)



Sources: IMF staff calculations using GIMF model.

Results. Simulation results provide two main insights. First, the costs of most fiscal consolidation measures in Aruba are not very high because it is a small highly open economy. Second, the impact of fiscal consolidation on economic activity depends on the type of fiscal measures used. After four years, the output cost is very large with a fiscal multiplier of about 2 if the adjustment is done mainly through reductions in public infrastructure investment. Such consolidation would be the least growth friendly because it would not only suppress domestic demand but more importantly lower the country's capital stock and future production possibilities. Other consolidation policies have multipliers of around $\frac{1}{4}$ to $\frac{1}{2}$. The lowest adverse growth impact comes from a fiscal consolidation achieved through reductions in transfers to liquidity constrained households. However, such consolidation would not be advisable at this juncture because these transfers should arguably be expanded during fiscal consolidation to protect the most vulnerable from the cost of adjustment. On the revenue side, increasing consumption taxes has a lower adverse impact on economic activity than taxes that directly affect factors of production employed in Aruba. The intuition is that consumption taxes affect also goods produced abroad and are contributed in part by tourists visiting the island. Thus, the GIMF suggests the most growth-friendly fiscal consolidation measures would be increases in private consumption taxes and reductions in government consumption.

Box 2. Insights on Fiscal Consolidation and Spillovers from the IMF's Global Integrated Monetary and Fiscal Model (GIMF) (Concluded)

U.S. policy assumptions. The 2015 IMF staff report used regression analysis and showed that, historically, developments in economic activity in the United States have heavily influenced those in Aruba. In this Box, we use GIMF to show how the reasons behind output fluctuations in the United States matter for the magnitude of the effect they have on Aruban GDP. The exact nature of the fiscal measures adopted in the U.S. would have a differential impact on Aruba. For purposes of illustration, this Box analyzes the effect of an exogenous demand shock increasing U.S. government transfers by one percent of GDP, another one increasing U.S.

infrastructure spending by one percent of GDP for two years, and two other scenarios with deficit-neutral cuts in tax rates, one offset by lump sum spending transfers and another by an increase in consumption taxes in the United States. The magnitudes involved in the table are arbitrary and only for studying policy spillovers.

Simulation results for U.S. policy spillovers.

The spillover effects from fiscal policy in the U.S. can be substantially different in the short term than in the long term. The main reason is that as long as an intertemporal budget constraint

holds, fiscal expansions that stimulate economic activity need to be followed in most cases by later fiscal consolidations. Thus, the fiscal measures adopted later to stabilize the fiscal situation in the U.S. revert some of the temporary gains on economic activity associated to the initial fiscal expansions.

Simulated Fiscal Policy Changes in the United States

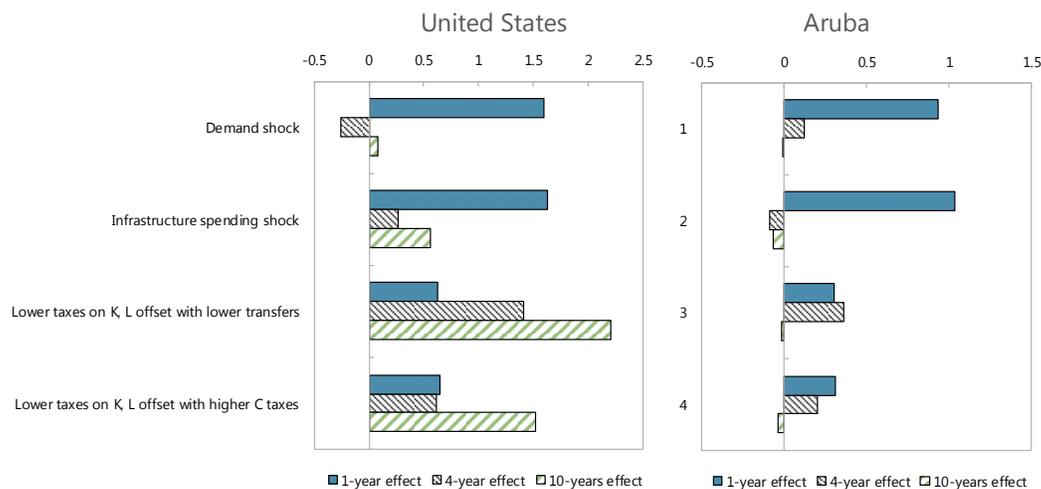
(Changes in Percent of GDP, resulting from changes in tax rates)

	2017	2018	2019	2020
Tax on capital	-0.2	-0.5	-0.9	-0.9
Tax on labor	0.0	-0.5	-1.1	-1.1
Total reduction in fiscal revenue from capital and labor taxes	-0.2	-1.1	-1.9	-1.9
Offsetting consumption taxes or transfers	0.2	1.1	1.9	1.9

Source: IMF staff assumptions for simulations.

Spillovers from U.S. fiscal policies onto Aruba

(percent deviation from baseline)

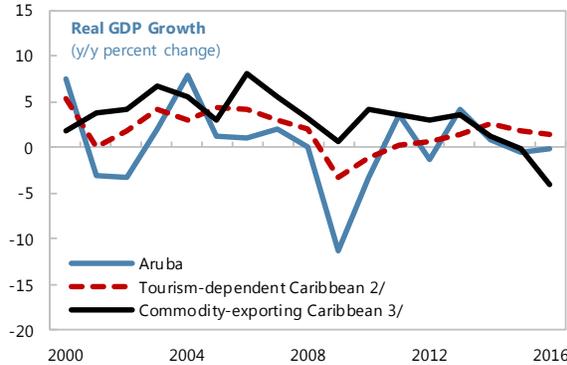


Source: IMF staff estimates.

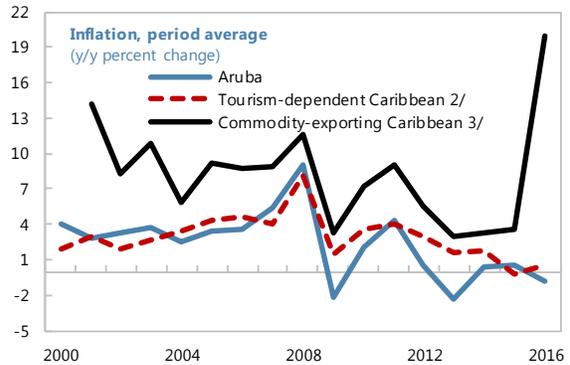
Figure 1. Aruba: Comparative Regional Developments 1/

Aruba has recently performed weaker than its regional tourism-dependent peers.

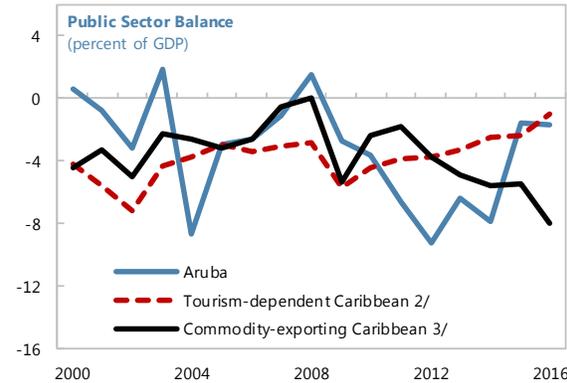
Growth momentum slowed since 2015, driven by fiscal consolidation and a slowdown in tourism ...



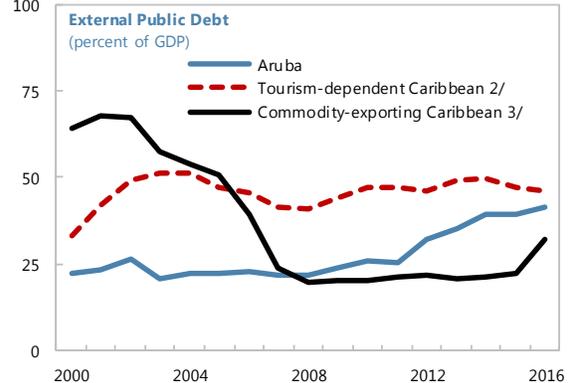
... while inflation is also low, partly due to weak growth, but also because of stronger currency and lower energy prices.



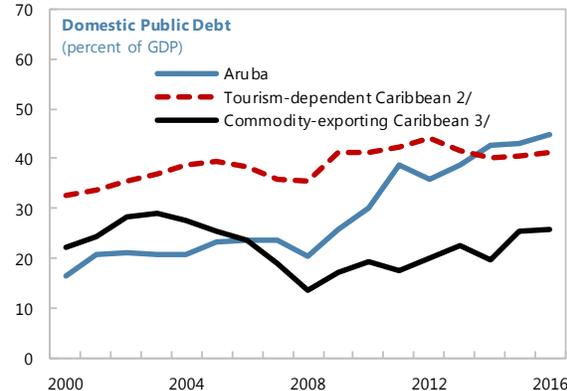
The fiscal deficit narrowed sharply in 2015-2016...



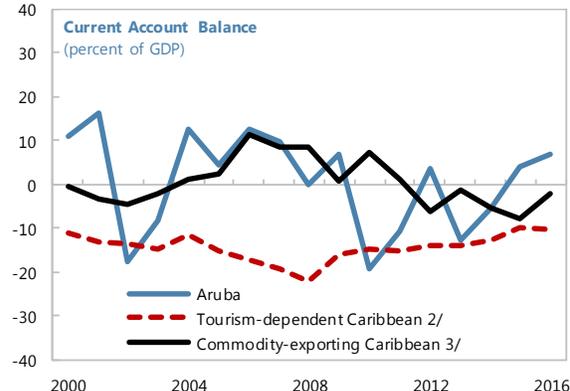
... and external public debt has risen, but is still not too high, compared to tourism-dependent competitors.



Domestic public debt is high...



...but current account balance turned positive in 2016, with the decline in international oil prices and other imports.



Sources: Country authorities and IMF staff calculations.

1/ Caribbean region measured as simple averages of corresponding variables.

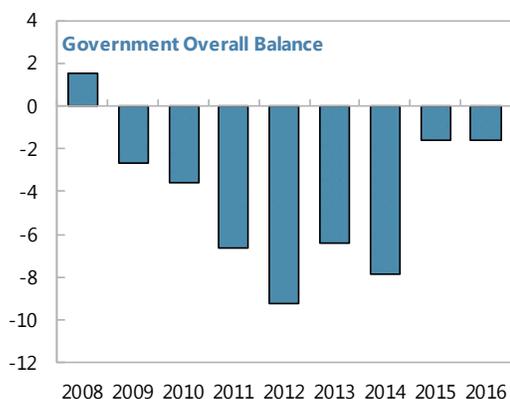
2/ Tourism-dependent Caribbean includes Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines.

3/ Commodity-exporting Caribbean includes Guyana, Suriname, and Trinidad and Tobago.

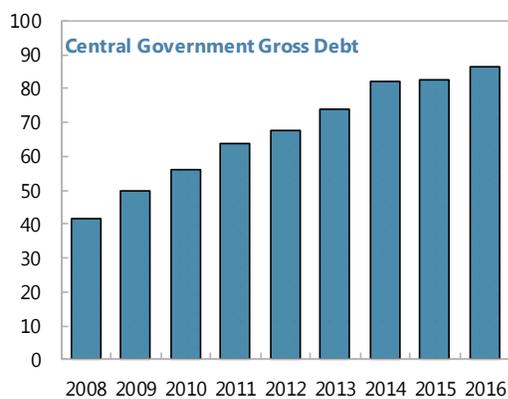
Figure 2. Aruba: Fiscal Sector Developments
(Percent of GDP)

Fiscal performance has improved, but debt remains elevated.

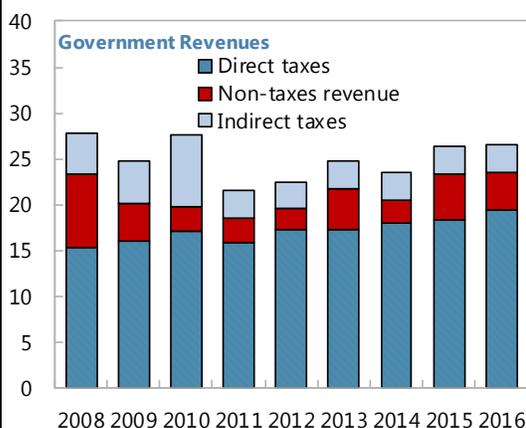
The fiscal deficit has declined...



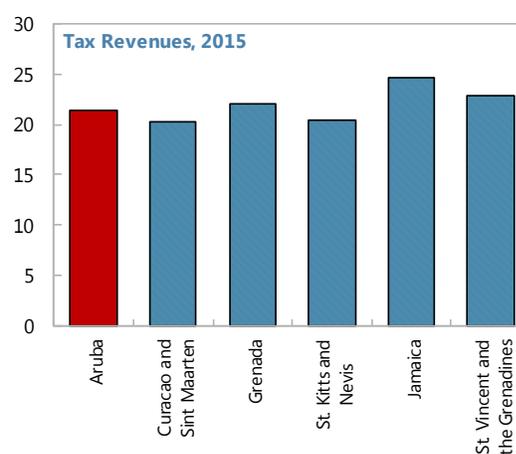
...but public debt remains elevated.



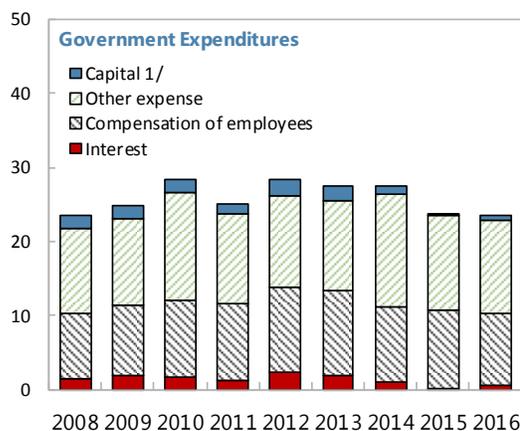
Revenue performance has improved...



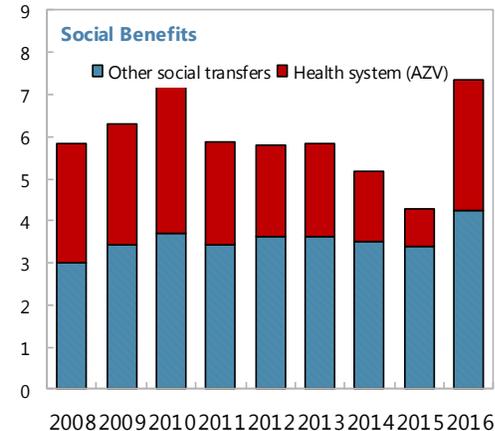
...and is comparable to similar Caribbean economies.



Wage-related and capital expenditures have moderated...



...but transfers to health and other social programs have increased.



Sources: Country authorities and IMF staff calculations.
1/ Net acquisitions of non-financial assets

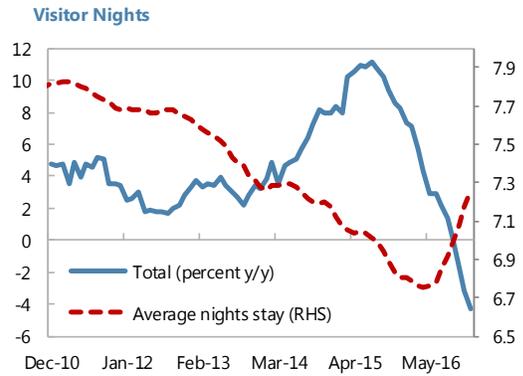
Figure 3. Aruba: Tourism Sector Developments

Tourism performance has been soft and competitiveness has deteriorated.

Stay-over arrivals have contracted sharply...

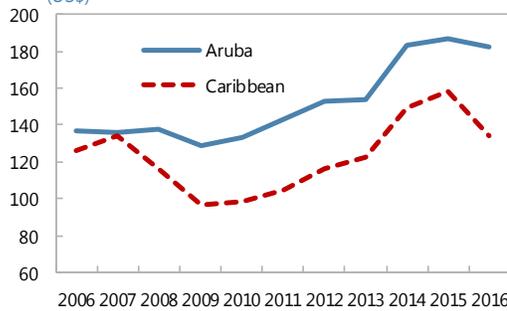


...so have total visitor nights.



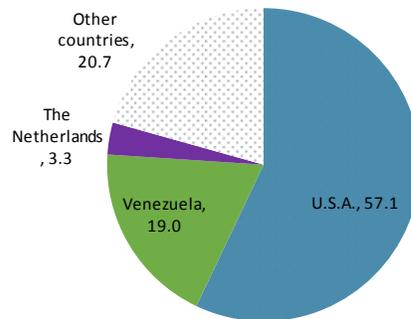
Aruba's hotels continue to generate more revenues than other destinations.

Revenue per Available Room
(US\$)



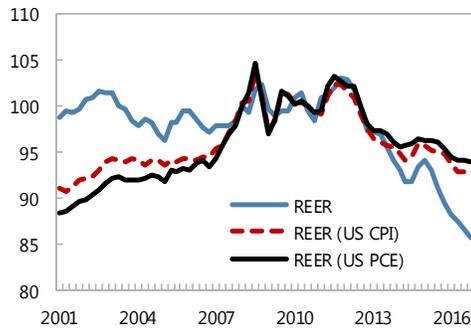
North America and Venezuela account for most of tourist arrivals.

Destination Market Share, 2016



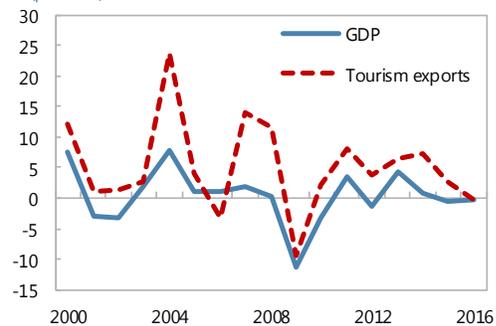
The REER has depreciated...

Real Effective Exchange Rates
(index; 2010=100)



... but the overall weakness of tourism exports has taken a toll on growth.

Tourism Exports and Growth
(percent)



Sources: Country authorities, Central Bank of Aruba, Caribbean Tourism Organization, Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, Haver Analytics, and IMF staff calculations.
1/ Includes territories.

Table 1. Aruba: Selected Economic Indicators, 2013–2018

Basic Data, Social and Demographic Indicators						
Area (sq. km)	180	Infant mortality (per thousand, 2016)	11.0			
Population (thousands, 2016 est.)	110.6	Literacy rate (percent, 2015)	97.5			
Population growth rate (percent, 2010-2015 annual average)	0.5	Percent of population below age 15 (2015)	19.4			
Nominal GDP (millions of U.S. dollars, 2016)	2,668	Percent of population age 65+ (2015)	11.4			
GDP per capita (thousands of U.S. dollars, 2016)	24.1	Life expectancy at birth (years, 2015)	75.4			
Unemployment rate (percent, 2015)	7.3					
Economic Indicators						
	2013	2014	2015	2016	2017	2018
				Est.	Proj.	
(Percent change)						
Real economy						
Real GDP	4.2	0.8	-0.5	-0.2	1.9	2.3
Real domestic demand	0.4	-2.3	-2.4	-3.0	6.1	5.1
Consumption	3.4	-2.1	-1.6	-3.7	1.6	2.4
Private	4.0	0.5	-4.4	-3.9	1.5	2.5
Public	1.9	-8.1	5.6	-3.2	1.7	2.2
Gross investment	-8.2	-2.9	-5.1	-0.7	20.5	12.5
Exports of goods and services	6.0	3.1	-0.1	0.3	2.5	1.5
Imports of goods and services	0.4	-1.5	-2.8	-3.5	8.1	5.3
Consumer prices						
Period average	-2.4	0.4	0.5	-0.9	0.6	1.7
End-period	0.1	2.2	-0.9	-0.3	0.6	1.8
(Percent of GDP)						
Central government operations						
Revenues	24.7	23.6	26.3	26.5	27.6	26.2
Expenditures	29.1	30.3	27.7	27.5	28.1	27.7
<i>Of which: capital</i>	2.0	1.1	0.3	0.6	0.2	0.5
Overall balance	-6.4	-7.9	-1.6	-1.6	-0.8	-2.0
Primary Balance	-2.8	-3.9	2.5	2.9	3.7	2.3
Gross central government debt	74.0	81.9	82.5	86.3	86.2	85.6
Savings and investment						
Gross investment	24.0	22.9	21.5	21.7	26.2	29.1
<i>Of which: public</i>	1.0	1.1	0.8	0.6	0.3	0.3
Foreign saving	12.8	5.1	-4.1	-7.0	4.6	10.6
<i>Of which: public</i>	-4.4	-6.7	-1.4	-1.0	-0.5	-1.5
Balance of payments						
Current account balance	-12.8	-5.1	4.1	7.0	-4.6	-10.6
Oil	-8.0	-8.0	-2.1	-1.4	-3.6	-7.7
Non-oil	-4.8	2.8	6.2	8.3	-1.0	-2.9
FDI	8.6	9.1	-1.4	2.9	11.5	13.5
Gross foreign assets of central bank (millions of U.S. dollars)	666	693	828	949	1192	1437
Gross foreign assets of central bank (months of imports)	3.5	3.7	4.7	5.8	6.1	5.9
External debt	113.2	106.5	103.6	93.3	94.7	100.0
(Millions of Aruban florins, unless otherwise indicated)						
Monetary						
NFA of Banking System	1,131	1,173	1,516	1,778	2,212	2,663
NDA of Banking System	2,161	2,288	2,289	2,389	2,162	1,848
Credit to private sector (percent change)	5.3	4.2	-0.2	2.0	3.0	3.1
Broad money	3,292	3,461	3,805	4,166	4,375	4,511
Deposits (percent change)	3.0	2.6	2.0	9.7	5.0	3.1
Memorandum items						
Nominal GDP (millions of Aruban florins)	4,621	4,743	4,818	4,775	4,820	4,970
Nominal GDP (millions of U.S. dollars)	2,581	2,649	2,692	2,668	2,693	2,777
Unemployment rate (percent)	7.6	7.4	7.3	...	...	...

Sources: Aruban authorities; and IMF staff estimates and projections.

Table 2. Aruba: Baseline Scenario: Medium-Term Outlook, 2015–2022

(Percent change, unless indicated otherwise)

	2015	2016	2017	2018	2019	2020	2021	2022
		Est.	Projections					
GDP	-0.5	-0.2	1.9	2.3	1.6	1.6	1.7	1.7
Consumption	-1.6	-3.7	1.6	2.4	1.0	1.3	1.5	1.6
Private	-4.4	-3.9	1.5	2.5	2.5	2.5	2.5	2.5
Public	5.6	-3.2	1.7	2.2	-2.6	-1.6	-1.0	-1.0
Investment	-5.1	-0.7	20.5	12.5	-8.3	0.2	-19.2	0.7
Private	-4.0	0.5	22.2	12.7	-8.4	0.2	-19.4	0.7
Public	-26.8	-33.1	-45.0	2.0	0.9	1.2	1.6	1.5
Imports	-2.8	-3.5	8.1	5.3	0.6	0.3	-4.4	0.7
Exports	-0.1	0.3	2.5	1.5	5.7	1.0	3.1	1.1
Tourism exports	1.7	0.5	1.5	1.6	1.4	1.3	1.2	1.2
Non-tourism exports	-4.2	-0.3	5.0	1.2	15.7	0.2	7.1	0.8
Fiscal				(Percent of GDP)				
Revenues	26.3	26.5	27.6	26.2	25.3	24.8	25.1	25.5
Expenditures	27.7	27.5	28.1	27.7	27.4	27.0	26.8	26.6
<i>Of which: capital</i>	0.3	0.6	0.2	0.5	0.5	0.5	0.5	0.5
Overall balance	-1.6	-1.6	-0.8	-2.0	-2.6	-2.7	-2.1	-1.6
Debt	82.5	86.3	86.2	85.6	85.9	86.2	85.8	84.8
External								
Current account	4.1	7.0	-4.6	-10.6	-6.9	-5.3	-3.6	-4.1
External debt	103.6	93.3	94.7	100.0	99.5	96.7	94.1	91.2
Memorandum items:				(Percent change)				
U.S. GDP growth	2.6	1.6	2.3	2.5	2.1	1.8	1.7	1.7
U.S. CPI (average)	0.1	1.3	2.7	2.4	2.6	2.3	2.2	2.3
CPI (average)	0.5	-0.9	0.6	1.7	2.0	2.0	2.0	2.0
GDP deflator	2.1	-0.7	-0.9	0.8	1.1	1.3	1.4	1.4
GDP per capita (Aruban florins)	44,107	43,135	43,111	44,012	44,751	45,137	45,634	46,119
GDP per capita (U.S. dollars)	24,641	24,098	24,084	24,588	25,001	25,216	25,494	25,765
Population (persons)	109,602	110,698	111,805	112,924	114,053	116,334	118,660	121,034
Unemployment rate (percent)	7.3	...	...	...	...	...	...	...

Sources: Aruban authorities, and IMF staff estimates and projections.

Table 3a. Aruba: Operations of the Central Government, 2012–2022 1/

(Percent of GDP, unless indicated otherwise)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
						Est.	Projections					
Revenues	22.5	24.7	23.6	26.3	26.5	27.6	26.2	25.3	24.8	25.1	25.5	
Taxes	20.3	20.4	21.1	21.7	22.4	22.1	21.4	21.0	21.1	21.4	21.7	
Direct taxes	17.4	17.4	18.1	18.6	19.4	19.1	18.4	18.0	18.2	18.4	18.8	
Income and profit	9.1	8.8	9.4	10.2	10.4	10.4	10.0	9.8	10.1	10.2	10.4	
Commodities	6.2	6.3	6.2	6.0	6.2	5.9	5.7	5.6	5.6	5.7	5.8	
Property	1.5	1.6	1.6	1.5	1.8	1.7	1.7	1.6	1.6	1.7	1.7	
Services	0.5	0.7	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	0.9	
Indirect taxes	3.0	3.0	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.9	2.9	
BBO	2.0	2.0	2.0	2.0	2.0	1.9	1.8	1.8	1.8	1.8	1.8	
BAZV	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Foreign exchange	1.0	1.0	1.1	1.1	1.0	1.1	1.2	1.2	1.1	1.1	1.1	
Grants	0.0	0.5	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other current revenues	2.2	3.8	2.4	3.3	4.1	5.5	4.8	4.3	3.7	3.8	3.8	
Expenditures	29.4	29.1	30.3	27.7	27.5	28.1	27.7	27.4	27.0	26.8	26.6	
Compensation of employees	11.5	11.4	10.1	9.7	9.7	9.6	9.2	8.8	8.5	8.2	8.0	
Wages and salaries	8.4	8.4	8.3	7.7	7.7	7.7	7.4	7.0	6.8	6.6	6.4	
Employer contribution and benefits	3.1	3.0	1.8	2.0	2.0	1.9	1.8	1.7	1.7	1.6	1.6	
Goods and services	5.3	5.6	4.6	3.9	3.3	3.6	3.5	3.5	3.4	3.4	3.4	
Interest	3.3	3.6	4.0	4.2	4.6	4.5	4.2	4.4	4.5	4.6	4.9	
Subsidies	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Social benefits	5.8	5.8	5.2	2.7	3.0	3.1	3.5	3.5	3.4	3.4	3.4	
Pensions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Health system (AZV)	2.2	2.2	1.7	0.9	1.2	1.2	1.6	1.6	1.6	1.6	1.6	
Other social transfers	3.6	3.6	3.5	1.8	1.8	1.9	1.9	1.9	1.8	1.8	1.8	
Other expenses	3.5	2.8	6.4	7.3	6.9	7.4	7.3	7.2	7.2	7.1	7.0	
Net acquisition of non-financial assets	2.3	2.0	1.1	0.3	0.6	0.2	0.5	0.5	0.5	0.5	0.5	
<i>Of which:</i> Development Fund	1.1	1.2	0.9	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Net lending/borrowing	-9.2	-6.4	-7.9	-1.6	-1.6	-0.8	-2.0	-2.6	-2.7	-2.1	-1.6	
Primary balance	-5.9	-2.8	-3.9	2.5	2.9	3.7	2.3	1.8	1.8	2.5	3.3	
Net acquisition of financial assets	-0.5	-0.8	-0.7	-0.4	-0.5	-0.6	-0.4	-0.5	-0.5	-0.4	-0.4	
Net incurrence of liabilities	9.8	7.2	8.6	2.0	2.1	1.3	2.4	3.0	3.2	2.6	2.1	
Memorandum items:												
Public gross debt	67.6	74.0	81.9	82.5	86.3	86.2	85.6	85.9	86.2	85.8	84.8	
Nominal GDP (millions of Aruban florins)	4,537	4,621	4,743	4,818	4,775	4,820	4,970	5,104	5,251	5,415	5,582	

Sources: Aruban authorities; and IMF staff estimates and projections.
1/ This table is presented on adjusted cash basis.

Table 3b. Aruba: Operations of the Central Government, 2012–2022 1/

(Millions of Aruban florins, unless otherwise indicated)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
						Est.		Projections			
Revenues	1,021	1,143	1,118	1,267	1,264	1,328	1,303	1,291	1,301	1,361	1,424
Taxes	921	943	1,002	1,044	1,068	1,065	1,064	1,070	1,106	1,157	1,209
Direct taxes	787	803	856	896	925	920	913	918	953	999	1,047
Income and profit	414	407	444	494	498	503	499	502	528	553	578
Commodities	280	289	293	287	294	286	284	286	292	307	322
Property	70	75	78	74	86	84	84	84	86	90	95
Services	24	32	41	42	47	46	46	46	47	49	52
Indirect taxes	134	140	145	148	143	145	151	152	153	158	163
BBO	89	92	93	94	93	91	90	91	93	98	102
BAZV	0	0	0	0	0	0	0	0	0	0	0
Foreign exchange	45	48	52	53	50	54	60	61	60	60	60
Grants	0	23	0	65	0	0	0	0	0	0	0
Other current revenues	100	176	116	158	196	263	239	221	194	204	214
Expenditures	1,334	1,345	1,437	1,333	1,311	1,354	1,377	1,396	1,418	1,449	1,487
Compensation of employees	521	527	481	467	464	463	459	449	445	445	445
Wages and salaries	381	388	393	371	369	369	369	360	356	356	356
Employer contribution and benefits	139	139	87	96	95	93	89	89	89	89	89
Goods and services	243	257	220	186	158	171	174	178	181	185	188
Interest	151	165	188	200	218	215	211	225	236	251	273
Subsidies	0	0	0	0	0	0	0	0	0	0	0
Social benefits	262	270	246	129	144	150	172	176	180	185	190
Pensions	0	0	0	0	0	0	0	0	0	0	0
Health system (AZV)	98	102	80	44	59	59	80	82	84	87	89
Other social transfers	164	168	167	85	85	91	93	95	96	98	100
Other expenses	158	128	302	350	328	355	361	368	376	383	391
Net acquisition of non-financial assets	106	93	54	13	30	10	25	26	26	27	28
<i>Of which:</i> Development Fund	49	54	42	32	0	0	0	0	0	0	0
Net lending/borrowing	-419	-295	-373	-78	-78	-36	-99	-131	-144	-115	-91
Primary balance	-269	-131	-185	122	140	179	112	94	92	136	182
Net acquisition of financial assets	-24	-38	-33	-18	-22	-29	-20	-24	-24	-24	-23
Net incurrence of liabilities	443	333	406	97	100	65	119	155	168	139	115
Memorandum items:											
Public gross debt	3,068	3,420	3,885	3,974	4,119	4,155	4,254	4,385	4,529	4,643	4,735
Nominal GDP (millions of Aruban florins)	4,537	4,621	4,743	4,818	4,775	4,820	4,970	5,104	5,251	5,415	5,582

Sources: Aruban authorities; and IMF staff estimates and projections.

1/ This table is presented on adjusted cash basis.

Table 4a. Aruba: Fiscal Scenarios, 2015-2022 (includes oil refinery)

(Percent of GDP, unless indicated otherwise)

	2015	2016	2017	2018	2019	2020	2021	2022	2017-2022
		Est.	Projections						Adjustment
Staff's Baseline									
Revenues	26.3	26.5	27.6	26.2	25.3	24.8	25.1	25.5	-1.0
Expenditures	27.9	28.1	28.3	28.2	27.9	27.5	27.3	27.1	-1.0
<i>Of which: capital</i>	0.3	0.6	0.2	0.5	0.5	0.5	0.5	0.5	-0.1
Overall balance (CAFT definition) 1/	-2.0	-2.1	-1.3	-2.4	-3.0	-3.2	-2.6	-2.1	0.0
Overall balance	-1.6	-1.6	-0.8	-2.0	-2.6	-2.7	-2.1	-1.6	0.0
Primary Balance	2.5	2.9	3.7	2.3	1.8	1.8	2.5	3.3	0.3
Gross public debt	82.5	86.3	86.2	85.6	85.9	86.2	85.8	84.8	-1.4
Real GDP growth (percent)	-0.5	-0.2	1.9	2.3	1.6	1.6	1.7	1.7	...
Nominal GDP (millions of Aruban florins)	4,818	4,775	4,820	4,970	5,104	5,251	5,415	5,582	...
Authorities' Fiscal Consolidation Plan 2/									
Revenues	26.3	26.5	28.1	28.7	27.9	27.2	27.3	27.5	1.0
Expenditures	27.9	28.1	28.0	27.8	26.9	25.9	26.0	26.2	-1.9
<i>Of which: capital</i>	0.3	0.6	0.2	0.2	0.2	0.2	0.1	0.1	-0.5
Overall balance (CAFT definition) 1/	-2.0	-2.1	-0.5	0.4	0.4	0.8	0.8	0.8	2.9
Overall balance	-1.6	-1.6	0.1	1.0	1.0	1.3	1.3	1.3	2.9
Primary Balance	2.5	2.9	4.5	5.3	5.1	5.0	4.9	4.8	1.9
Gross public debt	82.5	86.3	84.4	80.4	76.0	72.8	69.7	66.7	-19.6
Real GDP growth (percent)	-0.5	-0.2	3.4	1.8	2.6	0.8	0.6	0.6	...
Nominal GDP (millions of Aruban florins)	4,818	4,775	4,876	5,055	5,281	5,421	5,559	5,697	...
Difference (Baseline minus Authorities' Plan)									
Revenues	0.0	0.0	-0.5	-2.5	-2.6	-2.4	-2.2	-2.0	-2.0
Expenditures	0.0	0.0	0.3	0.4	1.0	1.6	1.2	0.9	0.9
<i>Of which: capital</i>	0.0	0.0	0.0	0.3	0.3	0.3	0.4	0.4	0.4
Overall balance (CAFT definition) 1/	0.0	0.0	-0.8	-2.8	-3.5	-4.0	-3.3	-2.8	-2.8
Overall balance	0.0	0.0	-0.8	-3.0	-3.5	-4.0	-3.4	-2.9	-2.9
Primary Balance	0.0	0.0	-0.8	-3.0	-3.2	-3.2	-2.4	-1.5	-1.5
Gross public debt	0.0	0.0	1.8	5.2	9.9	13.5	16.1	18.1	...
Real GDP growth (percent)	0.0	0.0	-1.6	0.6	-1.0	0.8	1.1	1.1	...

Sources: Aruban authorities; and IMF staff estimates and projections.

1/ CAFT's definition of overall balance, also called financial balance, includes net purchases of financial assets.

2/ Reflects the authorities' medium-term plan for expenditures and revenues.

Table 4b. Aruba: Alternative Fiscal Scenarios, 2015-2022 (excludes oil refinery)

(Percent of GDP, unless indicated otherwise)

	2015	2016	2017	2018	2019	2020	2021	2022	2017-2022
		Est.	Projections						Adjustment
Staff's high risk scenario									
Revenues	26.3	26.5	27.4	26.2	25.4	24.9	25.5	26.1	-0.4
Expenditures	27.9	28.1	28.7	28.8	28.8	28.5	28.3	28.3	0.2
<i>Of which: capital</i>	0.3	0.6	0.2	0.5	0.5	0.5	0.5	0.5	-0.1
Overall balance (CAFT definition) 1/	-2.0	-2.1	-1.9	-3.2	-4.0	-4.1	-3.3	-2.8	-0.7
Overall balance	-1.6	-1.6	-1.3	-2.6	-3.5	-3.6	-2.8	-2.3	-0.6
Primary Balance	2.5	2.9	3.2	1.7	1.1	1.1	2.0	2.9	12.0
Gross public debt	82.5	86.3	87.9	88.8	91.7	92.6	92.5	92.2	6.0
Real GDP growth (percent)	-0.5	0.7	1.1	1.2	1.3	1.4	1.5	1.5	...
Nominal GDP (millions of Aruban florins)	4,818	4,775	4,758	4,851	4,885	5,032	5,198	5,341	...
Authorities' Fiscal Plan adjusted by staff to exclude the refinery 2/									
Revenues	26.3	26.5	28.2	26.5	25.6	25.6	26.0	26.4	-0.1
Expenditures	27.9	28.1	28.5	28.5	28.1	27.0	27.2	27.6	-0.5
<i>Of which: capital</i>	0.3	0.6	0.2	0.2	0.2	0.2	0.2	0.2	-0.5
Overall balance (CAFT definition) 1/	-2.0	-2.1	-0.9	-2.7	-3.0	-1.9	-1.8	-1.8	0.3
Overall balance	-1.6	-1.6	-0.3	-2.1	-2.4	-1.4	-1.3	-1.2	0.4
Primary balance	2.5	2.9	4.2	2.3	1.8	2.5	2.5	2.4	15.7
Gross public debt	82.5	86.3	86.4	86.1	86.1	85.2	84.2	83.7	-2.5
Real GDP growth (percent)	-0.5	0.7	1.5	0.9	0.9	0.8	0.7	0.6	...
Nominal GDP (millions of Aruban florins)	4,818	4,775	4,783	4,921	5,061	5,202	5,342	5,451	...
Difference									
Revenues	0.0	0.0	-0.9	-0.3	-0.3	-0.7	-0.5	-0.3	-0.3
Expenditures	0.0	0.0	0.1	0.3	0.8	1.5	1.1	0.7	0.7
<i>Of which: capital</i>	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.3	0.3
Overall balance (CAFT definition) 1/	0.0	0.0	-1.0	-0.5	-1.0	-2.2	-1.5	-1.0	-1.0
Overall balance	0.0	0.0	-1.0	-0.6	-1.0	-2.2	-1.6	-1.0	-1.0
Primary Balance	0.0	0.0	-1.0	-0.6	-0.7	-1.4	-0.5	0.4	-3.7
Gross public debt	0.0	0.0	1.5	2.8	5.6	7.4	8.3	8.5	...
Real GDP growth (percent)	0.0	0.0	-0.4	0.3	0.4	0.6	0.8	0.9	...

Sources: Aruban authorities; and IMF staff estimates and projections.

1/ CAFT's definition of overall balance, also called financial balance, includes net purchases of financial assets.

2/ Reflects the authorities' medium-term plan for expenditure and adjusts down revenues for lower growth.

Table 5. Aruba: Central Bank Survey, 2015–2022

(Millions of Aruban florins)

	2015	2016	2017	2018	2019	2020	2021	2022
		Est.	Projections					
Net Foreign Assets	1,385	1,673	2,129	2,568	3,131	3,672	4,029	4,356
Gross Foreign Assets	1,482	1,677	2,133	2,572	3,135	3,676	4,033	4,360
Gross Foreign Liabilities	-2	-4	-4	-4	-4	-4	-4	-4
Valuation Changes	-95	0	0	0	0	0	0	0
Net Domestic Assets	-183	-171	-673	-1,066	-1,588	-2,085	-2,393	-2,667
Central Government Deposits	-74	-36	-36	-36	-36	-36	-36	-36
Development Funds Deposits	-34	-49	-49	-49	-49	-49	-49	-49
Other Domestic Entities (net)	-1	0	0	0	0	0	0	0
Other Items (net)	-74	-86	-86	-588	-981	-1,504	-2,000	-2,582
Reserve Money	1,202	1,387	1,456	1,502	1,542	1,587	1,636	1,689
Bank Notes Issued	271	257	257	257	257	257	257	257
Bank Reserves	931	1,064	1,064	1,064	1,064	1,064	1,064	1,064
Demand	306	407	407	407	407	407	407	407
Time	625	657	657	657	657	657	657	657
			(Percent change)					
Net Foreign Assets	23.2	20.9	27.3	20.6	21.9	17.3	9.7	8.1
Net Domestic Assets	44.7	-6.2	292.8	58.4	49.0	31.3	14.7	11.4
Reserve Money	20.5	15.4	5.0	3.1	2.7	2.9	3.1	3.2
			(Percent of GDP)					
Government Deposits at Central Bank	-0.8	0.3	0.3	0.3	0.2	0.2	0.2	0.2
Central Government	-1.5	-0.8	-0.7	-0.7	-0.7	-0.7	-0.7	-0.6
Development Fund	0.7	1.0	1.0	1.0	1.0	0.9	0.9	0.9

Sources: Central Bank of Aruba; and IMF staff estimates and projections.

Table 6. Aruba: Monetary Survey, 2015–2022

(Millions of Aruban florins)

	2015	2016	2017	2018	2019	2020	2021	2022	
		Est.	Projections						
Net foreign assets	1,516	1,778	2,212	2,663	3,238	3,791	4,160	4,499	
Central bank	1,385	1,558	1,981	2,419	2,983	3,524	3,881	4,207	
Gross Foreign Assets	1,482	1,760	2,133	2,572	3,135	3,676	4,033	4,360	
Gross Foreign Liabilities	-2	-2	-2	-2	-2	-2	-2	-2	
Valuations	-95	-157	-150	-150	-150	-150	-150	-150	
Commercial banks	131	219	231	243	255	267	279	291	
Net domestic assets	2,289	2,389	2,162	1,848	1,395	975	755	568	
Domestic credit	3,164	3,308	3,381	3,448	3,504	3,589	3,695	3,803	
Net claims on the government	140	287	270	240	210	200	200	200	
Deposits	-174	-107	-100	-120	-150	-160	-160	-160	
Claims	312	374	370	360	360	360	360	360	
Claims on the private sector	2,960	3,021	3,111	3,208	3,294	3,389	3,495	3,603	
Other items net	-875	-919	-1,219	-1,600	-2,110	-2,615	-2,941	-3,235	
Money supply (M2)	3,805	4,166	4,375	4,511	4,632	4,766	4,915	5,066	
Money (M1)	2,061	2,250	2,363	2,436	2,502	2,574	2,654	2,636	
Currency in circulation outside banks	240	241	253	260	267	275	284	292	
Demand deposits	1,757	1,973	2,071	2,136	2,193	2,256	2,327	2,399	
Local currency	1,516	1,670	1,753	1,808	1,856	1,910	1,969	2,030	
Foreign currency	305	303	318	328	337	347	358	369	
Quasi money	1,744	1,916	2,012	2,075	2,130	2,192	2,260	2,330	
Savings deposits	1,007	974	1,022	1,054	1,082	1,114	1,148	1,184	
Local currency	932	967	1,016	1,047	1,076	1,107	1,141	1,176	
Foreign currency	5	6	6	7	7	7	7	7	
Time deposits	705	858	901	929	954	982	1,012	1,043	
Local currency	802	854	897	925	950	977	1,008	1,039	
Foreign currency	4	4	4	4	4	4	4	5	
Tbills	0	0	0	0	0	0	0	0	
			(Percent change)						
Net foreign assets	29.2	17.3	24.5	20.4	21.6	17.1	9.7	8.1	
Net domestic assets	0.0	4.4	-9.5	-14.5	-24.5	-30.1	-22.6	-24.8	
Credit to the private sector	-0.2	2.0	3.0	3.1	2.7	2.9	3.1	3.1	
Broad money	9.9	9.5	5.0	3.1	2.7	2.9	3.1	3.1	
Deposits	2.0	9.7	5.0	3.1	2.7	2.9	3.1	3.1	
			(Percent of GDP)						
Credit to the private sector	61.4	63.3	64.5	64.5	64.5	64.5	64.5	64.5	
Government deposits	3.6	2.2	2.1	2.4	2.9	3.0	3.0	2.9	
Broad money	79.0	87.3	90.8	90.8	90.8	90.8	90.8	90.8	
Memorandum items:									
Money multiplier	3.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	

Sources: Central Bank of Aruba; and IMF staff estimates and projections.

Table 7. Aruba: Balance of Payments, 2015–2022
(Millions of U.S. dollars, unless indicated otherwise)

	2015	2016	2017	2018	2019	2020	2021	2022
		Est.	Projections					
Current account	109	186	-124	-294	-198	-156	-109	-127
Trade balance	-922	-836	-1,122	-1,317	-1,257	-1,238	-1,222	-1,256
Oil sector	-80	-52	-148	-265	-196	-197	-48	-50
Exports	235	199	262	268	385	389	455	464
Imports	315	251	410	533	582	586	503	514
Non-oil sector	-842	-783	-975	-1,052	-1,061	-1,041	-1,174	-1,206
Exports	95	82	84	86	88	89	91	92
Imports	937	865	1,058	1,138	1,149	1,130	1,265	1,298
Services	1,225	1,231	1,209	1,240	1,277	1,312	1,342	1,373
Exports	2,105	2,085	2,078	2,136	2,196	2,257	2,317	2,378
<i>Of which: tourism exports</i>	1,643	1,639	1,663	1,710	1,760	1,810	1,859	1,908
Imports	881	855	869	896	919	945	975	1,005
Income (net)	-125	-136	-137	-141	-142	-149	-149	-158
Current transfers	-69	-73	-74	-76	-76	-80	-80	-85
Financial and capital account	36	-53	367	539	512	458	308	310
Capital account	1	-1	1	1	1	1	1	1
Financial account	35	-52	367	538	512	457	307	309
Direct investment (net)	-38	76	309	376	361	306	308	309
Portfolio (net)	61	70	38	39	40	41	41	42
Financial derivatives (net)	-40	-51	...	...	...	...	...	...
Other	53	-147	20	123	111	110	-42	-43
Errors and omissions	0.5	-12	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	146	121	243	245	315	302	199	182
Financing								
Increase (-) in international reserves	-146	-121	-243	-245	-315	-302	-199	-182
Memorandum items:								
Current account (percent of GDP)	4.1	7.0	-4.6	-10.6	-6.9	-5.3	-3.6	-4.1
Central Bank Net Foreign Assets (millions of U.S. dollars) 1,	828	949	1202	1447	1761	2064	2263	2446
Gross Foreign Assets (millions of U.S. dollars)	839	959	1203	1447	1762	2064	2264	2446
(months of imports)	4.7	5.8	6.5	7.7	8.0	9.3	9.9	10.4
(percent of broad money)	39	41	...	...	...	...	...	...
Gross Foreign Liabilities (millions of U.S. dollars)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
External Debt (percent of GDP)	102.2	93.3	94.7	100.0	99.5	96.7	94.1	91.2
Nominal GDP (millions of U.S. dollars)	2692	2668	2693	2777	2851	2934	3025	3118
Sources: Aruban authorities; and IMF staff estimates and projections.								
1/ Includes revaluation changes.								

Table 8. Aruba: Financial Soundness Indicators, 2007-16

(Percent, unless indicated otherwise)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Capital										
Tier 1 capital to risk-weighted assets	7.2	8.3	10.6	11.3	11.3	11.8	14.7	15.3	17.6	19.4
Tier 1 and 2 capital to risk-weighted assets	13.0	14.7	17.8	18.5	17.7	19.4	22.7	23.3	26.0	27.9
Asset quality										
NPLs to gross loans	6.7	6.9	7.9	10.7	8.2	7.0	7.0	6.3	4.7	4.4
NPLs net of allocated provisions to gross loans	4.0	3.9	4.5	6.9	4.1	3.4	3.7	3.2	1.6	1.3
NPLs net of allocated provisions to regulatory capital	32.6	28.5	27.4	40.9	25.9	19.2	18.3	14.7	6.8	5.1
Large exposures to capital	102.8	98.8	77.1	68.6	68.3	86.4	67.6	69.2	56.4	50.5
Earnings and profitability										
ROA after taxes	3.1	2.3	1.8	1.8	2.1	2.3	2.2	2.2	2.1	2.1
ROE after taxes	38.4	24.7	17.4	16.8	19.8	22.7	20.3	17.9	16.1	15.1
Net interest income to gross income	60.5	62.4	62.8	64.5	62.6	62.1	61.8	60.4	57.3	58.0
Non-interest expenses to gross income	65.7	71.1	75.0	75.2	72.8	71.3	71.8	72.0	73.2	71.7
Liquidity										
Liquid assets to total assets	29.0	34.7	30.1	28.6	26.1	27.6	24.3	24.1	27.3	30.6
Liquid assets to short term liabilities	82.6	88.7	71.5	75.6	61.4	61.2	57.5	58.7	62.8	67.4
Loans to deposits	74.7	69.4	67.1	66.5	71.0	68.2	72.9	73.6	69.9	66.1
Sensitivity to market risk										
Interest rate margin (percentage points)	6.8	7.5	7.1	8.2	7.9	7.5	7.0	5.7	6.1	5.9
Source: Central Bank of Aruba.										

Table 9. Aruba: External Debt, 2010–2015

(Percent of GDP)

	2010	2011	2012	2013	2014	2015
Government 1/	26.2	25.4	31.9	35.4	39.7	42.9
Short-term (trade credits)	0.1	0.4	0.1	0.1	0.1	0.1
Long-term	26.1	25.0	31.8	35.3	39.6	42.8
Bonds and notes	21.4	21.1	28.3	32.1	36.9	40.7
Loans	4.5	3.7	3.3	3.1	2.5	2.0
Trade credits and advances	0.2	0.2	0.2	0.2	0.2	0.2
Central bank	0.0	0.0	0.1	0.0	0.0	0.0
Commercial banks	12.5	11.0	11.6	13.9	12.8	11.2
Short-term	11.4	9.9	10.6	12.7	11.6	9.6
Money market instruments	0.0	0.0	0.0	0.0	0.0	0.0
Loans	0.9	1.2	0.9	0.9	0.7	0.6
<i>Of which: currency and deposits</i>	10.3	8.2	9.2	11.2	10.4	8.5
Other debt liabilities	0.2	0.5	0.5	0.6	0.5	0.4
Long-term	1.1	1.1	1.0	1.2	1.2	1.6
Bonds and notes	0.0	0.0	0.0	0.0	0.0	0.0
Loans	0.1	0.1	0.1	0.1	0.1	0.1
<i>Of which: currency and deposits</i>	0.9	0.9	0.9	1.0	1.1	1.5
Other debt liabilities	0.0	0.0	0.0	0.0	0.0	0.0
Other sectors 2/	14.8	14.5	13.8	10.6	9.8	10.8
Short-term	1.1	1.9	2.0	1.9	1.1	1.0
Money market instruments	0.0	0.0	0.0	0.0	0.0	0.0
<i>Of which: loans</i>	0.3	0.3	0.3	0.3	0.3	0.3
Trade credits and advances	0.8	1.6	1.7	1.6	0.8	0.8
Other debt liabilities	0.0	0.0	0.0	0.0	0.0	0.0
Long-term	13.7	12.7	11.8	8.7	8.8	9.7
Bonds and notes	2.6	2.1	1.7	0.5	0.0	0.0
Loans	11.0	10.5	9.9	8.1	8.7	9.6
Trade credits and advances	0.0	0.0	0.0	0.0	0.0	0.0
Other debt liabilities	0.1	0.1	0.1	0.1	0.1	0.1
Direct investment: intracompany lending	53.9	65.2	51.5	53.3	44.2	38.7
Gross external debt	107.4	116.1	108.9	113.2	106.5	103.6
Short-term	12.6	12.2	12.9	14.7	12.8	10.8
Long-term	94.7	103.9	96.1	98.5	93.8	92.8

Sources: Aruban authorities; and IMF staff calculations.

1/ Includes official entities.

2/ Includes nonmonetary financial institutions, public and private nonfinancial corporations, nonprofit institutions serving households and households.

Table 10. Aruba: International Investment Position, 2010–2015
(Percent of GDP)

	2010	2011	2012	2013	2014	2015
Net position	-144.0	-147.8	-97.8	-113.5	-119.4	-115.1
Assets	100.5	101.8	98.1	91.2	96.3	100.0
Direct investment	25.8	24.3	24.6	24.3	24.0	24.0
Portfolio	23.5	20.4	22.5	21.5	23.4	23.3
Equity securities	16.9	15.6	7.9	9.8	10.6	9.7
Debt securities	6.7	4.8	14.6	11.6	12.9	13.6
Bonds and notes	4.5	3.5	13.2	11.3	12.5	11.8
Monetary authorities	0.0	0.0	0.0	0.0	0.0	0.0
General government	0.0	0.0	0.0	0.0	0.0	0.0
Banks	0.0	0.0	0.0	0.0	0.0	0.0
Other sectors	4.5	3.5	13.2	11.3	12.5	11.8
Money market instruments	2.1	1.3	1.3	0.3	0.3	1.9
Financial Derivatives	0.0	0.0	0.1	0.1	0.0	0.0
Other	20.9	29.1	19.9	19.5	22.7	21.9
Trade credits	0.0	7.2	1.1	0.8	1.9	1.1
Loans	3.3	3.5	3.7	4.1	3.6	3.5
Currency and deposits	16.7	17.7	14.4	13.6	16.4	16.6
Monetary authorities	0.0	0.0	0.0	0.0	0.0	0.0
General government	0.0	0.0	0.0	0.0	0.0	0.0
Banks	13.9	13.1	10.4	10.3	10.4	10.4
Other sectors	2.8	4.6	4.0	3.2	6.0	6.1
Other assets	0.9	0.8	0.7	1.0	0.8	0.7
Reserve assets	30.3	27.9	31.1	25.8	26.2	30.8
Liabilities	244.5	249.6	196.0	204.7	215.7	215.1
Direct investment	191.0	198.7	138.5	144.8	150.0	146.8
Portfolio	24.1	23.4	30.0	32.6	36.9	40.7
Equity securities	0.0	0.0	0.0	0.0	0.0	0.0
Debt securities	24.1	23.4	30.0	32.6	36.9	40.7
Bonds and notes	24.1	23.2	30.0	32.6	36.9	40.7
Monetary authorities	0.0	0.0	0.0	0.0	0.0	0.0
General government	21.4	21.1	28.3	32.1	36.9	40.7
Banks	0.0	0.0	0.0	0.0	0.0	0.0
Other sectors	2.6	2.1	1.7	0.5	0.0	0.0
Money market instruments	0.0	0.3	0.0	0.0	0.0	0.0
Financial Derivatives	0.0	0.0	0.0	0.0	3.3	3.4
Other	29.4	27.5	27.4	27.3	25.4	24.2
Trade credits	1.0	1.9	2.0	1.9	1.0	1.0
Loans	16.8	15.8	14.6	12.5	12.3	12.6
Monetary authorities	0.0	0.0	0.0	0.0	0.0	0.0
General government	4.5	3.7	3.3	3.1	2.5	2.0
Banks	1.0	1.3	1.0	1.0	0.8	0.7
Other sectors	11.3	10.8	10.2	8.4	8.9	9.9
Currency and deposits	11.3	9.2	10.1	12.3	11.5	10.0
Monetary authorities	0.0	0.0	0.1	0.0	0.0	0.0
General government	0.0	0.0	0.0	0.0	0.0	0.0
Banks	11.3	9.2	10.0	12.3	11.5	10.0
Other sectors	0.0	0.0	0.0	0.0	0.0	0.0
Other liabilities	0.3	0.6	0.7	0.7	0.6	0.5
Monetary authorities	0.0	0.0	0.0	0.0	0.0	0.0
General government	0.0	0.0	0.0	0.0	0.0	0.0
Banks	0.2	0.5	0.5	0.6	0.5	0.4
Other sectors	0.1	0.1	0.1	0.1	0.1	0.1

Sources: Aruban authorities; and IMF staff calculations.

Table 11. Aruba: Public Debt, 2011-2016

(Millions of Aruban florins)

	2011	2012	2013	2014	2015	2016
Public gross debt 1/	2,915.6	3,067.8	3,419.6	3,884.6	3,974.1	4,119.0
Domestic debt	1,757.9	1,619.6	1,783.4	2,003.2	1,905.3	1,845.7
Negotiable	1,025.3	1,026.2	1,034.2	1,028.3	1,006.8	980.0
Treasury bills	65.0	65.0	65.0	65.0	65.0	65.0
Cash certificates	8.0	0.0	8.0	8.0	8.0	0.0
Government bonds	952.3	961.2	961.2	955.3	933.8	915.0
Non-negotiable	732.5	593.4	749.2	974.9	898.5	865.6
Short-term	83.1	55.5	85.0	107.4	82.1	87.1
Public Employee Pension Fund (APFA)	50.8	15.0	16.6	47.9	31.7	47.8
Suppliers' credit	24.9	24.7	15.9	14.3	17.2	20.8
Other	7.4	15.8	52.5	45.2	33.2	18.5
Long-term	649.4	537.8	664.2	867.5	816.5	778.5
Public Employee Pension Fund (APFA)	206.0	203.4	200.6	367.7	359.3	191.1
Social Security (SVB)	104.2	106.8	109.5	112.1	51.6	51.6
Private loans	339.3	227.6	354.0	387.7	405.6	535.8
Other	0.0	0.0	0.0	0.0	0.0	0.0
Foreign debt	1,157.7	1,448.2	1,636.1	1,881.4	2,068.7	2,273.3
The Netherlands	100.1	90.2	80.1	63.0	48.2	37.8
Development cooperation	98.1	88.2	78.1	61.3	46.7	36.4
Commercial loans	2.0	2.0	2.0	1.7	1.5	1.4
European Investment Bank (EIB)	10.0	9.8	9.8	8.1	6.8	6.1
United States	289.4	665.7	937.0	1,112.0	1,112.0	1,550.3
Other	758.1	682.4	609.3	698.3	901.8	679.1
Memorandum item						
Public debt (percent of GDP)	63.9	67.6	74.0	81.9	82.5	86.3

Sources: Department of Finance, Algemeen Pensioenfonds Aruba, Central Bank of Aruba.

1/ IMF projections for 2017-2022 could be found in Table 3b.

Appendix I. Basic Facts

Aruba is a small Caribbean island, 29 kilometers off the northern coast of Venezuela. The 180 square kilometers' island is densely populated, inhabited by 109.8 thousand persons 2015. Unlike many other Caribbean islands, Aruba is situated outside of the hurricane belt, benefitting from consistently sunny skies, prevailing cooling trade winds, and a constant temperature (27°C), which along with its world-renowned beaches, makes it a popular vacation destination all year around.

After being granted *status aparte* in 1986, Aruba became an autonomous country within the Kingdom of the Netherlands (together with Curaçao, Sint Maarten, and the Netherlands itself). The political system is based on the Dutch model with some English common law influence. Prime Minister Eman, is serving his second four-year term in office, and his AVP party has 13 out of 21 seat majority in the Parliament; next elections are scheduled for September 2017.

Aruba has one of the highest standards of living in the Caribbean with GDP per capita at USD 24.1 thousand in 2016 compared to average of USD 9.1 thousand in the rest of the Caribbean. Aruba's currency, the florin (AWG or AFL), has been pegged to the US dollar since 1971 (1.79 Afl. to the dollar). The economy is largely dependent on tourism, which directly and indirectly accounts for more than 85 percent of GDP, with most visitors coming from the United States, and Venezuela. The Valero oil refinery closed in 2012, leading to a significant loss of output (of more than 6 percent of GDP). Citgo has signed a contract to reopen the refinery. Rehabilitation investments are expected to be in full swing starting late 2017.

Appendix II. Public Debt Sustainability Analysis (DSA)

Significant vulnerability and risks: Given a sizable debt burden and gross financing needs, the Public DSA framework for Market-Access Countries indicates that debt dynamics continue to depend on additional structural effort over the medium term and remain highly vulnerable to adverse, and even relatively mild, fiscal and contingent-liability shocks.

A. Baseline Scenario

1. **Debt is expected to remain high, falling marginally by 2022** (Figure 1). Public debt is now projected to reach 86.2 percent of GDP in 2017 and fall to 84.8 percent by 2022, with the current level of consolidation efforts. The baseline debt projections reflect debt consolidation efforts in 2014-16, and assumes that going forward, the government will continue fiscal consolidation efforts through the medium term. Debt projections also highlight the high sensitivity of Aruba's debt dynamics to macro shocks.

B. Risk Assessment

2. **Aruba's sizable debt burden and gross financing needs continue to create significant risks to debt sustainability.** As presented in Figure 1, Aruba's debt ratio significantly exceeds the debt burden benchmark for emerging market economies of 60 percent of GDP throughout the baseline scenario. Also, Aruba's public gross financing needs, at 5 to 7 percent of GDP, are significant. However, the debt profile is subject to medium to low risks in terms of bond spreads, projected change in short-term debt, and the share of public debt held in foreign currency.

C. Realism of Baseline Assumptions

3. **The baseline assumptions are consistent with past economic performance and current government's fiscal consolidation commitment.**¹ Specifically, staff assumes that the structural measures already committed in 2014 are implemented and Aruba's real annual growth would pick up to about 1¾ percent over the medium term.

4. **Given Aruba's sizable debt burden and financing needs, the primary deficit is expected to exceed its debt-stabilizing threshold over the projection period.** Under staff's baseline scenario, the fiscal primary balance should, on average, exceed 2 percent of GDP over 2017-2022.

¹ The baseline includes the oil refinery's investment and production.

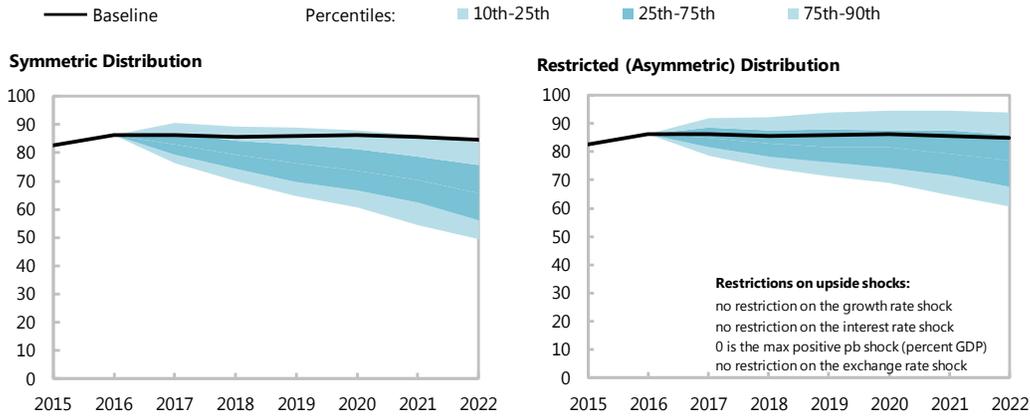
Aruba: Public DSA – Risk Assessment, 2016–2022

Heat Map

Debt level ^{1/}	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability shock
Gross financing needs ^{2/}	Real GDP Growth Shock	Primary Balance Shock	Real Interest Rate Shock	Exchange Rate Shock	Contingent Liability Shock
Debt profile ^{3/}	Market Perception	External Financing Requirements	Change in the Share of Short-Term Debt	Public Debt Held by Non-Residents	Foreign Currency Debt

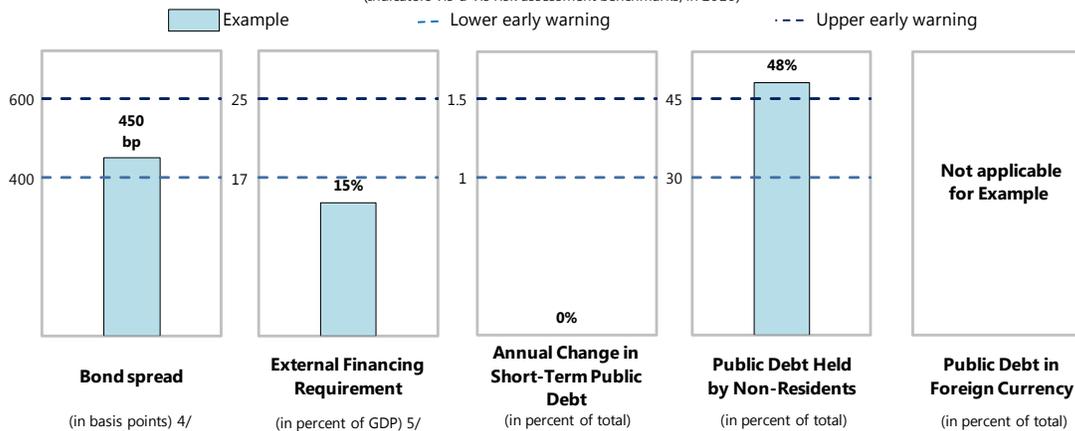
Evolution of Predictive Densities of Gross Nominal Public Debt

(in percent of GDP)



Debt Profile Vulnerabilities

(Indicators vis-à-vis risk assessment benchmarks, in 2016)



Source: IMF staff.

1/ The cell is highlighted in green if debt burden benchmark of 85% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

2/ The cell is highlighted in green if gross financing needs benchmark of 20% is not exceeded under the specific shock or baseline, yellow if exceeded under specific shock but not baseline, red if benchmark is exceeded under baseline, white if stress test is not relevant.

3/ The cell is highlighted in green if country value is less than the lower risk-assessment benchmark, red if country value exceeds the upper risk-assessment benchmark, yellow if country value is between the lower and upper risk-assessment benchmarks. If data are unavailable or indicator is not relevant, cell is white. Lower and upper risk-assessment benchmarks are:

400 and 600 basis points for bond spreads; 17 and 25 percent of GDP for external financing requirement; 1 and 1.5 percent for change in the share of short-term debt; 30 and 45 percent for the public debt held by non-residents.

4/ Long-term bond spread over German bonds, an average over the last 3 months, 01-Oct-16 through 30-Dec-16.

5/ External financing requirement is defined as the sum of current account deficit, amortization of medium and long-term total external debt, and short-term total external debt at the end of previous period.

Aruba: Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario

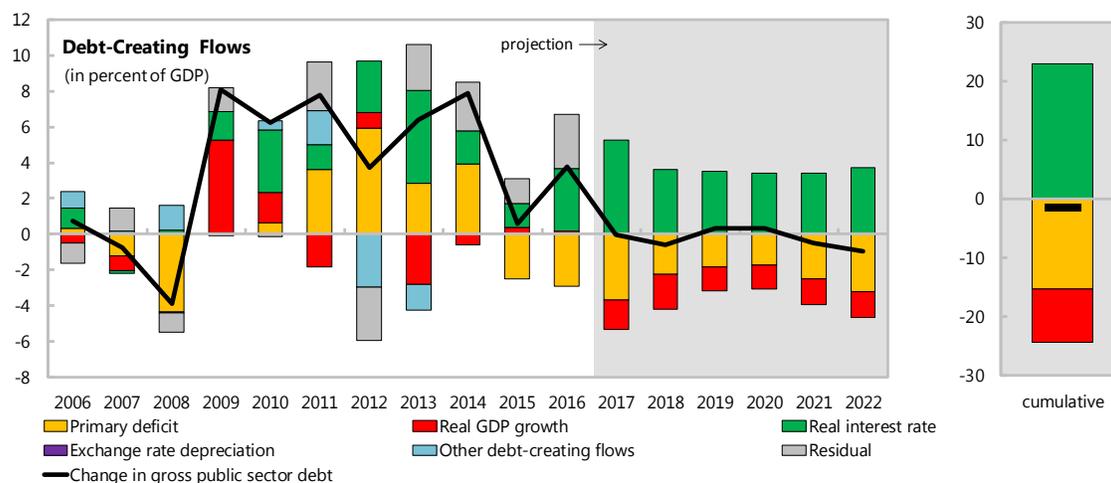
(Percent of GDP unless otherwise indicated)

Debt, Economic and Market Indicators ^{1/}

	Actual			Projections						As of December 30, 2016		
	2006-2014 ^{2/}	2015	2016	2017	2018	2019	2020	2021	2022			
Nominal gross public debt	58.6	82.5	86.3	86.2	85.6	85.9	86.2	85.7	84.8	Sovereign Spreads		
										EMBIG (bp) ^{3/} 450		
Public gross financing needs	7.3	3.9	5.6	9.3	12.8	11.9	12.4	12.7	15.0	5Y CDS (bp) n.a.		
Net public debt	57.4	81.2	85.0	84.9	84.3	84.7	85.0	84.5	83.6	Ratings Foreign Local		
Real GDP growth (percent)	-0.5	-0.5	-0.2	1.9	2.3	1.6	1.6	1.7	1.7	Moody's	Baa1	Baa1
Inflation (GDP deflator, percent)	2.0	2.1	-0.7	-0.9	0.8	1.1	1.3	1.4	1.4	S&Ps	BBB+	BBB+
Nominal GDP growth (percent)	1.6	1.6	-0.9	0.9	3.1	2.7	2.9	3.1	3.1	Fitch	BBB-	BBB-
Effective interest rate (percent) ^{4/}	5.6	5.2	5.5	5.2	5.3	5.3	5.4	5.5	5.9			

Contribution to Changes in Public Debt

	Actual			Projections						cumulative	debt-stabilizing primary balance ^{9/}
	2006-2014	2015	2016	2017	2018	2019	2020	2021	2022		
Change in gross public sector debt	4.0	0.6	3.8	-0.1	-0.6	0.3	0.3	-0.5	-1.0	-1.5	
Identified debt-creating flows	3.4	-0.8	0.8	-0.1	-0.6	0.3	0.3	-0.5	-1.0	-1.5	
Primary deficit	1.3	-2.5	-2.9	-3.7	-2.3	-1.8	-1.8	-2.5	-3.3	-15.3	2.3
Primary (noninterest) revenue and grant	24.1	26.3	26.5	27.6	26.2	25.3	24.8	25.1	25.5	154.5	
Primary (noninterest) expenditure	25.5	23.8	23.5	23.8	24.0	23.4	23.0	22.6	22.2	139.1	
Automatic debt dynamics ^{5/}	2.1	1.7	3.7	3.7	1.6	2.2	2.1	2.0	2.3	13.9	
Interest rate/growth differential ^{6/}	2.1	1.7	3.7	3.7	1.6	2.2	2.1	2.0	2.3	13.9	
Of which: real interest rate	2.0	1.3	3.5	5.3	3.6	3.5	3.4	3.4	3.7	22.9	
Of which: real GDP growth	0.1	0.4	0.2	-1.6	-2.0	-1.3	-1.3	-1.4	-1.4	-9.1	
Exchange rate depreciation ^{7/}	0.0	0.0	0.0	...	...	...	...	...	...	...
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Privatization/Drawdown of deposits (+fir 0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Please specify (2) (e.g., ESM and Euroare 0.0)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes ^{8/}	0.6	1.4	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	



Source: IMF staff.

1/ Public sector is defined as central government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r))/(1+g+\pi+g\pi)]$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

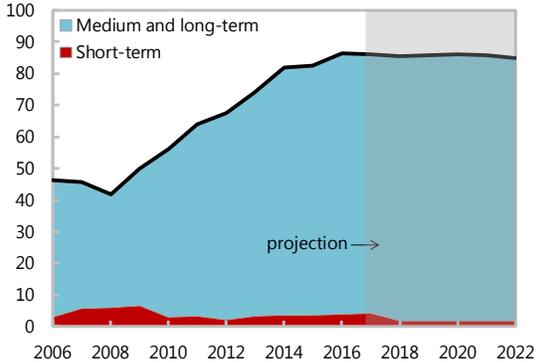
Aruba: Public DSA – Composition of Public Debt and Alternative Scenarios

Aruba: Public DSA - Composition of Public Debt and Alternative Scenarios

Composition of Public Debt

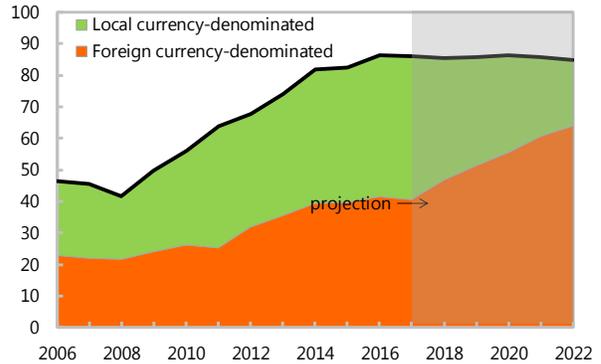
By Maturity

(percent of GDP)



By Currency

(percent of GDP)



Alternative Scenarios

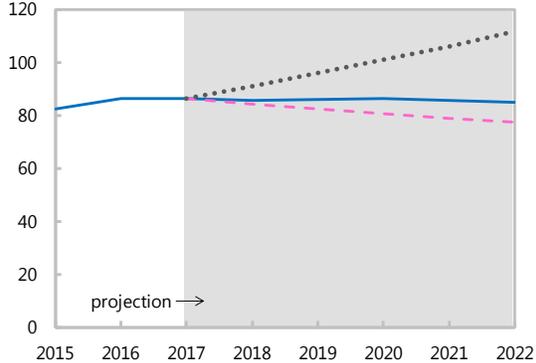
— Baseline

..... Historical

- - - Constant Primary Balance

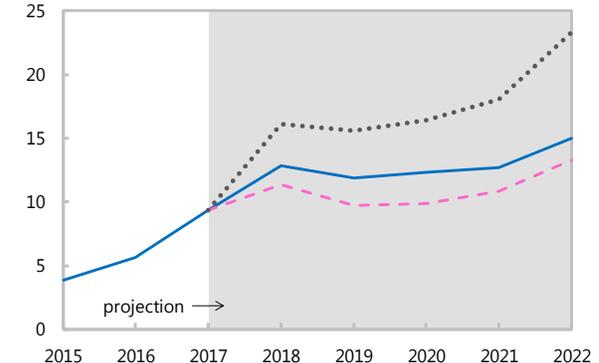
Gross Nominal Public Debt

(percent of GDP)



Public Gross Financing Needs

(percent of GDP)



Underlying Assumptions (in percent)

Baseline Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	1.9	2.3	1.6	1.6	1.7	1.7
Inflation	-0.9	0.8	1.1	1.3	1.4	1.4
Primary Balance	3.7	2.3	1.8	1.8	2.5	3.3
Effective interest rate	5.2	5.1	5.3	5.4	5.5	5.9
Constant Primary Balance Scenario						
Real GDP growth	1.9	2.3	1.6	1.6	1.7	1.7
Inflation	-0.9	0.8	1.1	1.3	1.4	1.4
Primary Balance	3.7	3.7	3.7	3.7	3.7	3.7
Effective interest rate	5.2	5.1	5.3	5.3	5.5	5.8

Historical Scenario	2017	2018	2019	2020	2021	2022
Real GDP growth	1.9	-0.6	-0.6	-0.6	-0.6	-0.6
Inflation	-0.9	0.8	1.1	1.3	1.4	1.4
Primary Balance	3.7	-0.6	-0.6	-0.6	-0.6	-0.6
Effective interest rate	5.2	5.1	5.2	5.2	5.3	5.5

Source: IMF staff.

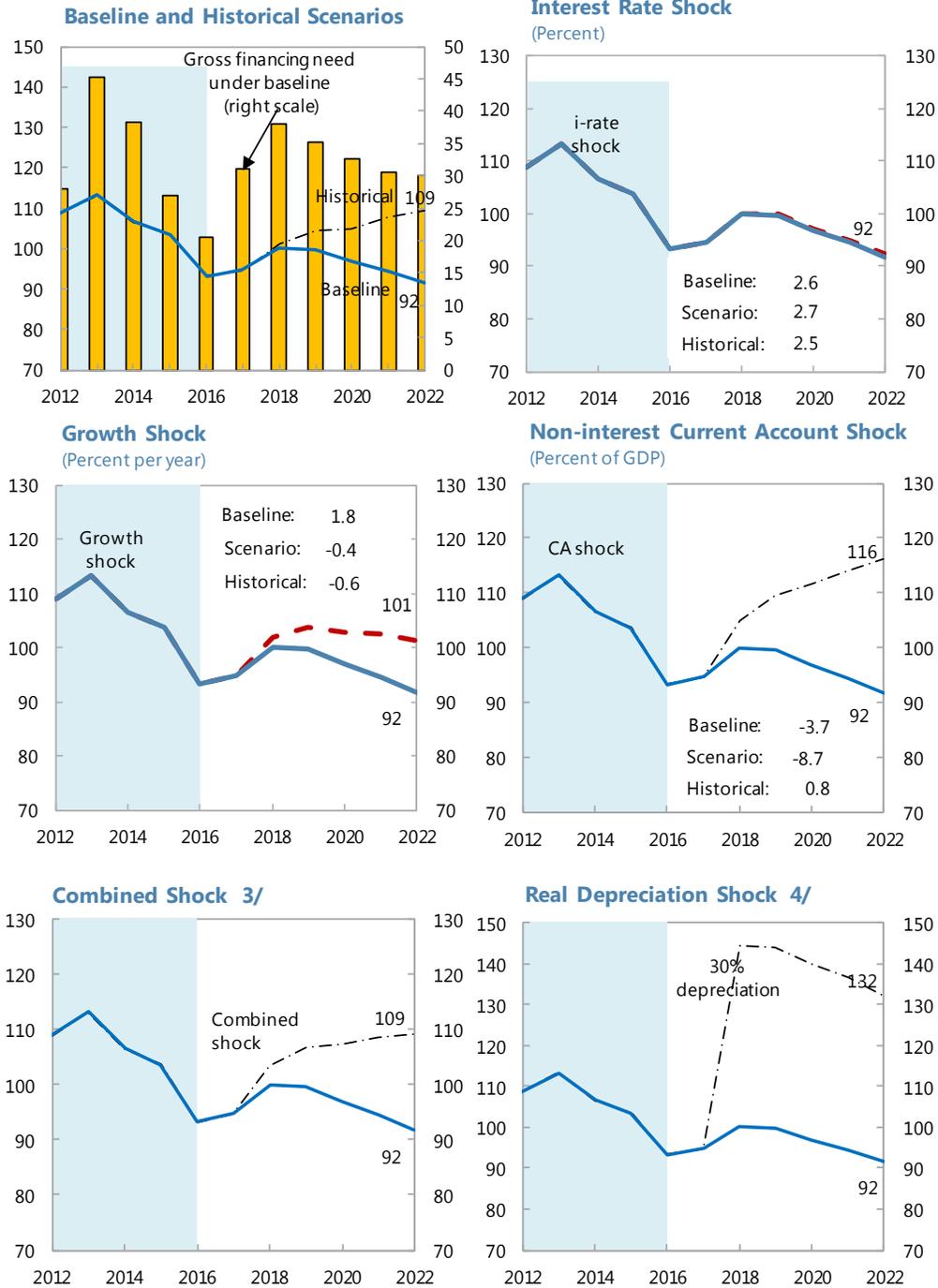
Appendix III. External Debt Sustainability Framework, 2012–2022

Aruba: External Debt Sustainability Framework, 2012–2022

(Percent of GDP, unless otherwise indicated)

	Actual					Projections						Debt-stabilizing non-interest current account 6/ -10.3		
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
	(p)													
Baseline: External debt	108.9	113.2	106.5	103.6	93.3	94.7	100.0	99.7	96.9	94.5	91.6			
Change in external debt	-7.1	4.3	-6.7	-2.9	-10.3	1.4	5.2	-0.3	-2.8	-2.4	-2.8	0.0		
Identified external debt-creating flows (4+8+9)	-4.3	5.0	-14.6	-9.2	-47.9	-8.6	-5.1	-7.1	-6.7	-7.9	-7.4	0.0		
Current account deficit, excluding interest payments	-6.0	10.4	2.7	-6.5	-9.4	2.2	8.1	4.7	2.9	1.4	1.6	10.3		
Deficit in balance of goods and services	-237.6	-171.7	-172.2	-169.7	-162.6	-176.8	-182.1	-186.5	-184.0	-185.3	-184.4			
Exports	124.3	83.8	86.8	90.5	88.7	90.0	89.7	93.6	93.3	94.6	94.1			
Imports	-113.3	-87.9	-85.4	-79.2	-73.9	-86.8	-92.4	-92.9	-90.7	-90.6	-90.3			
Net non-debt creating capital inflows (negative)	-1.5	-5.8	-16.8	-3.4	-41.9	-11.5	-13.5	-12.7	-10.4	-10.2	-9.9	-9.9		
Automatic debt dynamics 1/	3.1	0.5	-0.5	0.8	3.4	0.7	0.3	0.9	0.9	0.9	0.9	-0.4		
Contribution from nominal interest rate	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4		
Contribution from real GDP growth	1.6	-4.5	-0.9	0.5	0.2	-1.7	-2.1	-1.6	-1.6	-1.6	-1.6	-1.5		
Contribution from price and exchange rate changes 2/	-0.9	2.5	-2.0	-2.2	0.7	...	...	...	...	...	...	-1.2	
Residual, incl. change in gross foreign assets (2-3) 3/	-2.8	-0.7	8.0	6.2	37.6	10.0	10.3	6.8	3.9	5.6	4.5	0.0		
External debt-to-exports ratio (in percent)	87.6	135.2	122.8	114.5	105.2	105.2	111.5	106.5	103.9	99.9	97.4			
Gross external financing need (in billions of US dollars) 4/	0.7	1.2	1.0	0.7	0.5	0.8	1.1	1.0	1.0	0.9	0.9			
in percent of GDP	28.0	45.2	38.2	27.1	20.6	10-Year	10-Year	31.2	38.1	35.1	32.7	30.5	30.0	
Scenario with key variables at their historical averages 5/						94.7	101.0	104.4	104.9	107.6	109.2		-3.9	
Key Macroeconomic Assumptions Underlying Baseline						Historical Average	Standard Deviation						For debt stabilization	
Real GDP growth (in percent)	-1.4	4.2	0.8	-0.5	-0.2	-0.6	4.4	1.9	2.3	1.6	1.6	1.7	1.7	1.7
GDP deflator in US dollars (change in percent)	0.8	-2.3	1.8	2.1	-0.7	1.7	2.6	-0.9	0.8	1.1	1.3	1.4	1.4	1.4
Nominal external interest rate (in percent)	2.1	2.3	2.2	2.3	2.3	2.5	0.2	2.7	2.7	2.5	2.5	2.6	2.7	2.7
Growth of exports (US dollar terms, in percent)	-54.0	-31.4	6.4	5.9	-2.9	11.9	96.6	2.4	2.7	7.2	2.5	4.6	2.5	
Growth of imports (US dollar terms, in percent)	-57.5	-21.0	-0.3	-5.7	-7.6	6.9	80.8	18.6	9.8	3.2	0.5	3.0	2.7	
Current account balance, excluding interest payments	6.0	-10.4	-2.7	6.5	9.4	0.8	9.8	-2.2	-8.1	-4.7	-2.9	-1.4	-1.6	
Net non-debt creating capital inflows	1.5	5.8	16.8	3.4	41.9	5.4	15.0	11.5	13.5	12.7	10.4	10.2	9.9	
<p>1/ Derived as $[r - g - r(1+g) + ea(1+r)] / (1+g+r+gr)$ times previous period debt stock, with r = nominal effective interest rate on external debt; r = change in domestic GDP deflator in US dollar terms, g = real GDP growth rate, e = nominal appreciation (increase in dollar value of domestic currency), and a = share of domestic-currency denominated debt in total external debt.</p> <p>2/ The contribution from price and exchange rate changes is defined as $[-r(1+g) + ea(1+r)] / (1+g+r+gr)$ times previous period debt stock. r increases with an appreciating domestic currency ($e > 0$) and rising inflation (based on GDP deflator).</p> <p>3/ For projection, line includes the impact of price and exchange rate changes.</p> <p>4/ Defined as current account deficit, plus amortization on medium- and long-term debt, plus short-term debt at end of previous period.</p> <p>5/ The key variables include real GDP growth; nominal interest rate; dollar deflator growth; and both non-interest current account and non-debt inflows in percent of GDP.</p> <p>6/ Long-run, constant balance that stabilizes the debt ratio assuming that key variables (real GDP growth, nominal interest rate, dollar deflator growth, and non-debt inflows in percent of GDP) remain at their levels of the last projection year.</p>														

Aruba: External Debt Sustainability: Bound Tests 1/ 2/ (External debt in percent of GDP)



Sources: IMF country desk data; and staff estimates.

1/ Shaded areas represent actual data. Individual shocks are permanent one-half standard deviation shocks. Figures in the boxes represent average projections for the respective variables in the baseline and scenario being presented. Ten-year historical average for the variable is also shown.

2/ For historical scenarios, the historical averages are calculated over the ten-year period, and the information is used to project debt dynamics five years ahead.

3/ Permanent 1/4 standard deviation shocks applied to real interest rate, growth rate, and current account balance.

4/ One-time real depreciation of 30 percent occurs in 2016.

Appendix IV. Risk Assessment Matrix

	Source of Risks	Relative Likelihood	Impact if Realized	Policy Response
Short-term risks	<i>Downside:</i> Investment for rehabilitation of the oil refinery may not materialize and Venezuela crisis deepens.	High	High Impact on Aruba's growth would be significant.	<ul style="list-style-type: none"> • Strengthen fiscal consolidation to reduce the debt burden.
	<i>Downside:</i> Further strengthening of the US dollar and/or higher rates.	High	High Impact on Aruba's external competitiveness.	<ul style="list-style-type: none"> • Further diversify tourism export markets.
	<i>Downside:</i> Weaker-than-expected global growth as China and EMs slowdown. <i>Upside:</i> Stronger-than expected global growth if the U.S. and other advanced economies grow faster.	Medium	High Aruba's economy is highly dependent on developments in the global economy, particularly the US and Venezuela.	<ul style="list-style-type: none"> • Advance structural reforms to increase economic resilience. • Expedite investments in renewable energy.
	<i>Downside:</i> Reduced financial services by correspondent banks.	Low	High Aruba has very few banks. If one or two are affected, credit provision could be heavily affected.	<ul style="list-style-type: none"> • Enhance financial supervision and enforcement of AML/CFT framework.
	<i>Downside:</i> Higher energy prices if demand by the U.S. and other advanced economies picks up.	Low	High Aruba is highly dependent on imported fuel.	<ul style="list-style-type: none"> • Improve business environment for private investment and promote public-private partnerships.
Medium-term risks	<i>Upside:</i> New renewable energy projects and infrastructure investments could boost growth in the medium term.	Low	Medium Positive impact on production costs, exports of tourism (via improved competitiveness).	<ul style="list-style-type: none"> • Accelerate diversification of tourism markets • Expedite renewable energy investments
	<i>Downside:</i> Over the longer term, lower tourism-related growth in conjunction with the lifting of the U.S. travel ban to Cuba.	Low	Medium Tourism is the mainstay of the Aruban economy.	<ul style="list-style-type: none"> • Further diversify tourism export markets.
<p>Note: The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability between 30 and 50 percent). The RAM reflects staff's views on the source of the risks and overall level of concern as of the time of the discussion with the authorities. Non-mutually exclusive risks may interact and materialize jointly.</p>				

Appendix V. External Balance Assessment

Aruba's external position is stronger than implied by fundamentals and international reserves are broadly adequate.

1. The 2016 current account balance has a significant gap.

The EBA-lite CA approach, a methodology used for external balance assessment in small open economies, suggests Aruba's current account surplus of 7.0 percent in 2016 was stronger than the norm of a deficit 3.2 percent of GDP. This large gap, however, was not because exports rose, but rather due to a collapse in imports, which was larger than the decrease in exports. Private demand in Aruba was very weak in 2017. Concurrently, the winding down of some investment projects (PPPs) and delay in others (e.g. oil refinery investments) caused further slowdowns in imports. In addition, improvement in the efficiency of energy and water production over the last four years have resulted in reductions in fuel imports.

External Assessment Summary

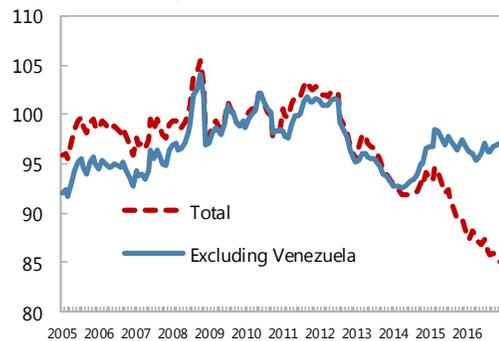
Current Account Gap (2016; percent of GDP)	10.1
Current Account (2016)	7.0
Current Account Norm	-3.2
Real exchange rate gap (2016; percent)	-17.0
Real exchange rate elasticity (percent)	-0.6

Sources: Aruban authorities and IMF staff calculations.

2. EBA-lite estimates suggest the real value of the florin is undervalued, but this is mostly due to large exchange rate and inflation swings in Venezuela.

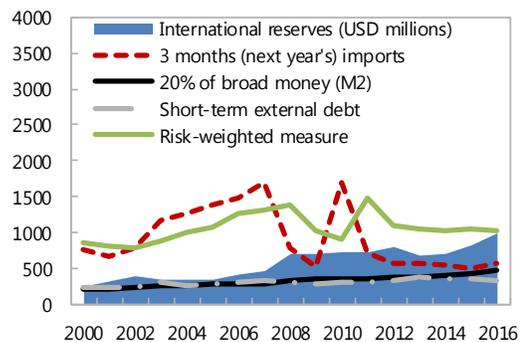
Consistent with the current account balance assessment through elasticities, the EBA-lite results suggest Aruba's real effective exchange rate has been depreciating since mid-2012 and was undervalued by about 17 percent in 2016. However, this is mostly driven by a collapse of tourism exports to Venezuela—Aruba's second largest tourism market—as well as very high inflation in Venezuela. Excluding Venezuela, Aruba's real effective exchange rate has somewhat appreciated in recent years and is currently assessed as broadly in line with fundamentals (figure). The increase in competitiveness relative to Venezuela will provide minor benefits to the tourism sector, however, as the number of tourist arrivals from Venezuela have dropped significantly reflecting the difficult economic conditions in Venezuela. Similarly, with the florin fixed to the US dollar, the slight appreciation of the REER relative to other trading partners in recent months poses little risk to competitiveness as the US constitutes the largest share of trade and tourist arrivals.

Real Effective Exchange Rate
(index; 2010=100)



Sources: IMF staff calculations.

International Reserves



Sources: Aruban authorities and IMF staff estimates.

3. **Reserves remain broadly adequate.** International reserves in 2016 were above traditional measures of reserve adequacy but slightly below the IMF's risk-weighted measures¹ (green line), which also takes into account the need for covering medium and long-term external liabilities. The current plans of the authorities to rebalance their debt obligations by rolling-over external debt with domestic debt could place risks on reserve adequacy, in addition to Aruba's strong dependence on imports. Staff advises to make a further effort to accumulate more reserves, if conditions permit, to bring the reserve adequacy level well within the adequacy range of the Fund's metrics for Aruba.

¹ Using an alternative measure such as the SIDS measure (Mwase, 2012), which takes further into account issues relating to small island states, the reserves are only 73% of the suggested level. However, the SIDS might not be generally applicable to Aruba since it doesn't suffer natural disasters regularly, is a high-middle income country, and still has access to some form of transfers from the Netherlands.

Appendix VI. Economic Diversification and Policies

Background

1. **Aruba's small and open economy, with its narrow base, faces a growing demographic challenge and a sizeable debt burden.** Some progress on finding alternative drivers of growth is being made. A special tax zone for San Nicolas, Aruba's second largest city, was established in 2013, but has attracted only modest investment to diversify economic activity away from Oranjestad, the capital city. Government is promoting heavily investment in wind and solar energy and expects 100 percent of electricity power generation to come from renewable sources by 2020, but finding private investors and financial funding is a major obstacle for the realization of this ambitious renewable energy program. The largest investment project is the rehabilitation and upgrading of the oil refinery, which would create jobs and add an important source of export revenues. The government is also planning to promote a knowledge-based economy, particularly to export knowledge on sustainable growth to other small island states. However, to develop a knowledge-based economy, the government should address the shortage of skilled workforce by investing in education and revising immigration policy, and improve the ease of doing business. Despite the government's efforts to diversify the country's economic base, the economy will remain heavily dependent on tourism in 2017-18.

Sustainable energy policy

2. **Investments in wind and solar energy are ongoing.** The government's plan for sustainable energy prioritizes environmental concerns by reducing the dependence on oil and international oil price fluctuations. Currently, 15.4 percent of Aruba's electricity is generated from renewable energy sources. The government has an ambitious target of 100 percent of electric power generation from renewable sources by 2020. Their intermediate target is to reach a 50 percent penetration by 2018, with a second wind farm (26.4MW), more solar systems (6MW), as well as converting waste to energy (gas), while a flywheel (5MW) will also become operational. Besides the supply side, the demand side is also being targeted, with efficiency awareness programs and more incentives for renewable energy projects. The biggest hurdle to this goal is lack of financial resources and private sector investors. Success of the 100 percent renewable energy provision goal will also depend critically on cost-effective energy storage technologies such as massive battery or flywheel storage plants. Alternatively, Aruba could reduce its reliance on heavy fuel to produce electricity more efficiently and emit much less greenhouse gases by using Venezuela natural gas.

Wind and solar energy

3. **Aruba has carried out policies for integrating more renewable energy to the country's energy matrix.** In 2012, N.V. Elmar power distribution company introduced a revised net metering policy. The new policy increases the maximum capacity to 10 kW for residential customers and 100 kW for other customers, and pays owners of renewable energy for surplus electric power production

they supply to the power grid. Lastly, import duties on wind turbines, solar panels, and electric cars and parts were reduced to encourage adoption of clean energy technologies.

4. **The island has ample renewable energy potential from ocean, wind, and solar energy generation.** The Vader Piet wind park contains 10 wind turbines generating 30MW and accounting for about 13 percent of the electricity demand on the island. The Government is examining the installation of a new wind park that could generate another 26MW. WEB Aruba power company is hoping to add 3 MW to 6 MW to the biogas plant with a goal of using 70 percent of household waste.

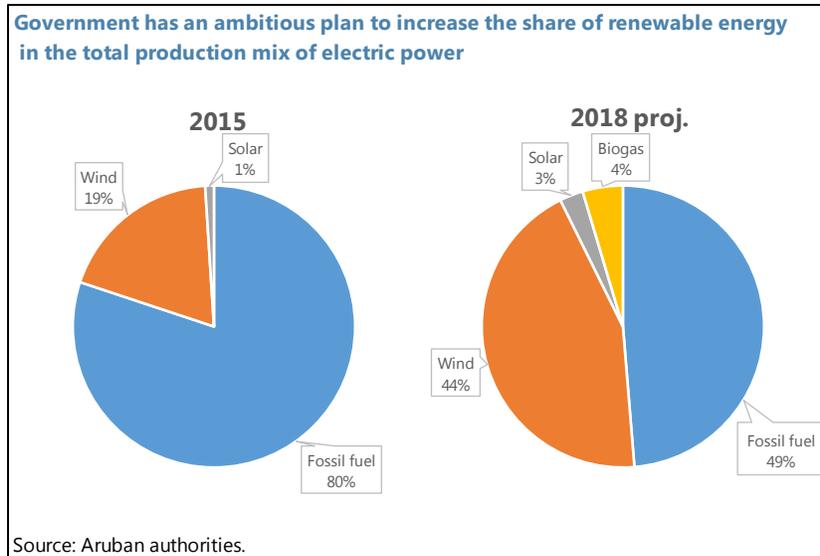
5. **Aruba is home to the largest solar park in the lower Caribbean.** Located at the International Airport of Reina Beatrix, it provides shade to the cars parked underneath and generates 3.4 MW of electricity. The government is incorporating solar panels on the rooftops of public buildings, schools, multi-functional accommodation buildings and the harbor in Barcadera. An additional 6 MW of solar capacity is planned for the residential and commercial sectors.

6. **Aruba will depend heavily on variable wind and solar to reach its renewable energy goals.** Reaching a 100 percent renewable energy framework will require building capacity or integrating storage technologies to compensate for the variable nature of wind and solar power. WEB Aruba is researching ocean thermal energy conversion, geothermal power, and energy storage technologies such as flywheel and underwater compressed air technologies. Because 50 percent of Aruba's energy demand comes from cooling, the WEB Aruba installed a pilot ice storage cooling system that makes ice when electricity costs are lower and then uses the ice the following day to cool buildings instead of traditional air conditioning.

Reducing energy consumption

7. **An electric energy demand reduction program is underway as the government continues to upgrade all public lighting with energy-efficient LED technology.** The government could also improve energy efficiency in the private sector by introducing new energy-efficiency building codes and standards for household electric appliances.

8. **With the introduction of the government's new strategy for its utility companies in 2009, Utilities Aruba N.V. and its subsidiaries underwent some significant changes.** Before 2009, utilities used to function as the liaison between the government and the working entities, and acted mainly as a guarantor for and/or to guarantee the loans of these entities, while at present the shareholders are involved in determining the vision and strategy for power and water production and distribution. Notable efficiency measures that started in 2005 with the process of power and water production, and the introduction of both wind and solar energy in the energy mix, resulted in the lowering of fossil fuels consumption from 6,180 barrels a day to 3,664 barrels a day (2015), and reached almost 20 percent of renewable penetration in 2016.



Oil and gas

9. **Developing oil and gas is a viable route to diversify the economy in the short term to create jobs and add an important source of export revenues.** Citgo Petroleum, a US subsidiary of Venezuela's state-owned oil company, Petroleos de Venezuela (PDVSA), has signed a 15-year contract with the government to reopen processing capacity at Aruba's San Nicolas refinery. In September 2016, the government formally took ownership of the refinery (from the U.S. firm Valero Energy), which made it possible to sign the contract with Citgo shortly after. In October Citgo formally took over control of the refinery, and is expected to invest about USD 700 million to rehabilitate the refinery to enable it to process crude oil from Venezuela's Orinoco Belt. A complementary project could see the construction of a natural-gas pipeline between Aruba and Venezuela.

10. **The refinery overhaul will take up to two years and it is expected to start production in 2019.** The refinery will eventually be able to process 209,000 barrels/day of extra-heavy crude from the Orinoco Oil Belt, transforming it into synthetic crude, which in turn will be sent on to the CITGO refining network in the United States for further processing. At the same time, naphtha will be sold to PDVSA for use as diluent for its extra-heavy crude.

11. **Investment and employment will enjoy a boost in 2017 and 2018, as preparatory works are under way.** In addition to the impact of salaries and wages from local employment, the project will generate increased procurement for services and materials from local providers as well as increased tourism. The government estimates that the reopening of the refinery will have a significant impact on growth (GDP would increase by about 6.0 percent) and additional tax revenues (about Afl 200 million).

Rehabilitation of the oil refinery: CITGO's business plan	
Investment	USD 700 million
Feedstock type	Ultra-heavy crude plus Naphtha
Feedstock reserve volume	250 billion barrels
Refining process	Upgrading extra-heavy crude to synthetic crude
Refining capacity	209,000 barrels per day
Construction schedule	24 to 36 months
Sources: Aruban authorities.	

Developing a knowledge-based economy

12. **Leveraging Aruba's strategic geographic location in the wider Caribbean Sea (situated at the crossroads between Europe and the Americas), the government plans to promote economic development and diversification based on knowledge, innovation and sustainability in the following sectors: tourism, creative industries, intelligence distribution and sustainable technology.** However, to develop a knowledge-based economy, the government should address the shortage of skilled workforce investing in education and revising immigration policy, and improve the ease of doing business.

13. **In 2015, local utility companies, together with renowned foreign organizations including Carbon War Room-Rocky Mountain Institute (CWR-RMI), Clinton Climate Initiative (CCI), Netherlands Organization for Applied Scientific Research (TNO), National Renewable Energy Laboratory (NREL) and the Brattle Group, started the Aruba Resources Integration Study (ARIS), a "deep dive" into the next 50 percent renewable energy penetration.** ARIS will provide models that map out the road forward towards Aruba's ambitious renewable energy goals, while maintaining grid reliability and minimizing overall system costs. The study can serve as a prototype or starting point for fellow island nations. This will include new business models, base load as well as intermittent renewable energy sources, storage possibilities, and time-of-use tariffs for load shifting and shedding, while a smart grid is also under consideration.

14. **In addition, Aruba, in collaboration with the United Nations Development Program, opened a Center of Excellence for the Sustainable Development of Small Island Developing States.** The center aims to strengthen innovation and resilience by offering a platform for South-South cooperation and exchange of knowledge on renewable energy, PPPs, water management, tourism, the environment and health sustainable practices. The Center will be organizing high level training programs on creating sustainable development roadmaps; provision of in-country technical assistance and the development of a virtual platform with access to knowledge products and learning tools. With Aruba's technical expertise and experience in sustainable development the island is seeking to collaborate and share its knowledge with small-island developing states and provide them with opportunities to advance sustainable development efforts.

Appendix VII. Overview of the Financial System

Aruba's financial system is relatively sizeable with assets of about 229 percent of GDP in 2016. Commercial banks dominate the sector with nearly half of the total assets. The rest of the financial system is divided among pension funds, insurance companies, and bank-like institutions. Four of the six commercial banks are foreign owned subsidiaries of parent banks located in Curaçao. Aruba has one offshore bank, which was transformed into a subsidiary subject to local supervision in 2012.

Aruba: Financial Sector Overview, 2016 ¹							
	No. of Institutions	Total Assets			Capital and Reserves ²		
		US Millions	Share	Percent of GDP	US Millions	Percent	Percent of GDP
Total	45	6,075	100	229	1,001	100	38
Banks	7	3,053	50	115	509	51	19
Commercial Banks	5	3,020	50	114	481	48	18
Offshore Banks	2	33	1	1	28	3	1
Non-Banks	5	361	6	14	233	23	9
Bank Like Institutions	3	355	6	13	226	23	9
Credit Unions ³	2	6	0	0	6	1	0
Insurance	23	937	15	35	169	17	6
Life Insurance Companies	7	681	11	26	80	8	3
Non-Life Insurance Companies	12	199	3	7	43	4	2
Captive Insurance Companies	4	57	1	2	47	5	2
Pension	10	1,725	28	65	91	9	3
Company Pension Funds	9	236	4	9	30	3	1
Civil Servants Pension Fund (APFA)	1	1,489	25	56	61	6	2

Source: Central Bank of Aruba.
 1/ Data is preliminary.
 2/ Includes general (unallocated) reserves.
 3/ Most recent available data is 2015.

1. **Banks are largely funded by resident deposits, which account for over 80 percent of liabilities.** About 60 percent of banks' assets are loans to the private sector. They also invest in government securities. Aruba also has one offshore bank with assets of 1.0 percent of GDP, which are only engaged in banking activities with non-residents. After banks, pension funds form the next largest component of the financial sector, dominated by the civil service pension fund (APFA), which has assets of over 56 percent of GDP. Insurance companies have assets of 35 percent of GDP.

2. **Risks stemming from the banking sector seem limited.** Banks maintain strong capital buffers and are resilient to severe credit shocks in stress tests (Financial Sector Supervision Report, 2015). Banks' capital was 28 percent of risk-weighted assets in 2016, up from 18 percent in 2010, while NPLs to gross loans declined to 4.4 in 2016 from 10.7 in 2010. With the banking sector dominated by foreign banks, there is no evidence of the impact of the global trend in withdrawal of CBRs, but local banks are exposed to the possible loss of CBRs.

3. **Aruba’s financial system compares well in key respects with those in the region: there are no systemic banks, and Aruban commercial banks are subject to dual supervision; in contrast to the average of other Caribbean countries, Aruban banks are better capitalized, more profitable, and have lower NPL ratios.** Aruban offshore banking operations are small relative to peers, and credit unions are tiny.

Selected Banking Indicators: Aruba and the Caribbean 1/					
	Capital adequacy	NPL ratio	Liquid assets to total assets	Return on assets	Return on equity
Aruba	27.9	4.4	30.6	2.1	15.1
ECCU	18.5	11.8	34.6	1.0	4.4
Other Caribbean	22.5	8.8	21.8	1.6	10.7

Sources: Central banks.
1/ Aruba and ECCU (2016) and other Caribbean (2015).

Appendix VIII. Key Fiscal and Structural Policy Advice in the Past

Staff recommendations	Government policies
Fiscal Policies	
<p>Generate additional revenues. Increase sales tax (BBO), improve revenue administration and reduce tax arrears, and streamline the tax system.</p>	<p>The government has improved tax administration and is collecting more outstanding taxes.</p> <p>In 2015, the government also changed corporations' income tax to a self-assessed tax and payment when submitting tax returns. Before this reform, the tax office would assess corporations' due taxes and they would pay their tax bill, which led to long lags to collect taxes and a backlog of tax assessments.</p>
<p>Introduce measures to permanently reduce wage bill.</p> <p>Slow wage drift due to automatic raises and promotions for time in grade, as well as modify public sector workers' benefits and allowances.</p>	<p>The government reformed public employees' pension fund, which should yield savings in the medium term.</p> <p>Also, incentives were introduced to promote early retirement, which has had some success to reduce the number of public employees.</p>
<p>Introduce further measures to finance the costly universal health care system (AZV).</p> <p>Introduce modest user fees to rationalize demand for certain health care services.</p>	<p>The government introduced a sales tax (BAZV) to finance AZV, which reduced substantially government's transfers to AZV.</p> <p>AZV is improving control of health expenditures. Also, AZV is upgrading hospital facilities to provide a wider range of medical treatments in the country to reduce expenses with medical treatment abroad.</p>
<p>Fully account additional costs associated with PPPs in the medium-term budget.</p>	<p>The 2017 the budget includes the total projected cost of PPPs.</p>
Structural Policies	
<p>Labor market reform to increase productivity.</p>	<p>No notable new measures.</p>
<p>Target social benefits more effectively to increase the labor force participation rate.</p>	<p>No notable new measures.</p>
<p>Develop sustainable migration policies.</p>	<p>Government is enforcing immigrant laws more strictly to reduce illegal immigrant labor.</p>
<p>Finance renewable energy projects with FDIs as much as possible.</p>	<p>Government has largely followed this policy.</p>
<p>Further diversify the tourism markets.</p>	<p>Aruba Tourism Agency has intensified efforts to promote the Aruba brand in different markets.</p>
<p>Reduce the costs of doing business.</p>	<p>Staff is unaware of any notable new measures or data, but the authorities believe the required time for establishing a business has been shortened.</p>



KINGDOM OF THE NETHERLANDS—ARUBA

May 5, 2017

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION
DISCUSSIONS—INFORMATIONAL ANNEX

Prepared by

Western Hemisphere Department

CONTENTS

FUND RELATIONS	2
STATISTICAL ISSUES	3

FUND RELATIONS

(As of March 31, 2017)

Membership Status

The Kingdom of the Netherlands joined the Fund on December 27, 1945. On February 15, 1961, The Kingdom accepted the obligations of Article VIII, Section 2, 3, and 4 of the Articles of Agreement for all territories.

General Resources Account	SDR Million	Percent Quota
Quota	8,7	100.00
Fund Holding of Currency	8,2	94.55
Reserve Tranche Position	47	5.45
Lending to the Fund		
SDR Department	SDR Million	Percent Allocation
Net cumulative allocation	4,836.63	100.00
Holdings	4,481.43	92.66
Outstanding Purchases and Loans:	None	
Latest Financial Arrangements:	None	

Projected Obligations to Fund¹

(SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Principal					
Charges/Interest	1.21	1.63	1.63	1.63	1.63
Total	1.21	1.63	1.63	1.63	1.63

Implementation of HIPC Initiative

Not Applicable

Implementation of Multilateral Debt Relief Initiative (MDRI)

Not Applicable

Implementation of Post-Catastrophe Debt Relief (CCR)

Not Applicable

Exchange Rate Arrangements

Aruba has a conventional peg; the Aruban florin has been pegged to the U.S. dollar at Afl. 1.79 per U.S. dollar since January 1, 1986. Prior to that, Aruba's currency was called the Antillean guilder, which maintained a peg against the US dollar (1 U.S. dollar = ANG 1.79) since 1971.

Aruba maintains an unapproved exchange restriction arising from the foreign exchange tax on payments by residents to non-residents (1.3 percent of the transaction value).

Last Article IV Consultation Discussions

Discussions for the 2017 Article IV consultation discussions were held in Oranjestad from March 14 to 23, 2017. The last staff report for the 2015 Article IV consultation discussions (IMF Country Report No. 15/116, May 7, 2015) was considered by the Executive Board on April 8, 2015. Article IV consultation discussions with Aruba are conducted on a 24-month cycle.

STATISTICAL ISSUES

I. Assessment of Data Adequacy for Surveillance	
General: Data provision is adequate for surveillance.	
National Accounts: GDP at current prices by the production and expenditure approaches are compiled by the Central Bureau of Statistics (CBS) up to 2011. GDP at constant prices is estimated and disseminated by the Central Bank of Aruba (CBA) up to 2016. Both sets of statistics are available on an annual basis up to 2013. On the expenditure side, changes in inventories are included in capital formation. Moreover, the data on imports and exports of goods and services do not match BOP statistics, reflecting different methodological approaches and raw data sources.	
Price Statistics: CPI data are compiled and published monthly by the CBS.	
Government Finance Statistics: Government finance statistics are prepared and published on a regular basis, but not directly reported to STA. The presentation of the fiscal accounts could be improved in several respects. First, the residual expenditure category “items not identified elsewhere” (that can amount to 3 percent of GDP) should be disaggregated. Second, below-the-line financing does not add up to the fiscal deficit without further adjustments. Third, each financing category has a component “other financial transactions” (in addition to disbursements and amortizations) that should be clarified. Fourth, the authorities combine commercial bank financing and central bank financing into one aggregate category “net recourse to the monetary system”. This item should be disaggregated. Fifth, the authorities should reflect the revenue from the AZV levy and record the transfer of those proceeds to the AZV as the corresponding expense. This would enhance transparency related to government expenditures on health care. Finally, the presentation could be further improved by providing more details on government tax arrears, which the authorities estimate at 20 percent of GDP, as a below-the-line entry in the fiscal tables.	
Monetary and Financial Statistics: The methodology used by the CBA for compiling monetary statistics published in CBA’s Monthly Bulletin, Quarterly Bulletin, and Annual Statistical Digest is broadly consistent with the IMF’s Monetary and Financial Statistics Manual 2000 (MFSM). The CBA reports monetary data to STA on a timely basis. The authorities submit the data in the format of Standardized Report Forms developed by STA. Aruba does not report FSIs for dissemination on the FSI Portal. The central bank survey and monetary survey could be made more consistent. At present, there are differences in NFA and government deposit estimates, presented in the two surveys. Central bank’s estimate of NFA is adjusted for revaluation of gold and foreign exchange; likewise, their estimate for government deposits include development fund allocations. None of the adjustments are currently reflected in the monetary survey.	
External Sector Statistics: The CBA reports quarterly balance of payments and an annual international investment position (IIP) statistics to STA. Aruba participates in the Coordinated Direct Investment Survey (CDIS) and the Coordinated Portfolio Investment Survey (CPIS). Monthly data on the official reserve position are published with a lag of one month. A breakdown in holdings of gold and foreign exchange is provided. Aruba does not participate in the World Bank’s Quarterly External Debt Statistics (QEDS) database; however, it disseminates annual data on gross external debt position by sector—including a breakdown by maturity and instrument—in its Annual Statistical Digest. A debt survey covering both public and private sectors provides information on the amount, currency denomination of foreign debt outstanding, as well as on disaggregation by instrument and amortization payments coming due.	
II. Data Standards and Quality	
Aruba does not participant in the Fund’s GDDS.	No data ROSC has been conducted in Aruba.

Aruba—Table of Common Indicators Required for Surveillance

(As of March 31, 2017)

	Date of Latest Observation	Date Received	Frequency of Data /6	Frequency of Reporting /6	Frequency of Publication /6	Memo Items:	
						Data Quality—Methodological Soundness	Data Quality—Accuracy and Reliability
Exchange Rates	Current	Current	M	M	D and M		
International Reserve Assets and Reserve Liabilities of the Monetary Authorities /1	02/17	3/17	M	N/A	A, Q, M		
Reserve/Base Money	02/17	3/17	M	N/A	A, Q, M		
Broad Money	02/17	3/17	M	N/A	A, Q, M		
Central Bank Balance Sheet	02/17	3/17	M	N/A	A, Q, M		
Consolidated Balance Sheet of the Banking System	02/17	3/17	M	N/A	A, Q, M		
Interest Rates /2	12/16	3/17	M	N/A	A, Q		
Consumer Price Index	12/16	3/17	M	N/A	A, Q, M		
Revenue, Expenditure, Balance and Composition of Financing /3—General Government /4	Q4/2016	3/17	Q	N/A	A, Q		
Revenue—Central Government	12/16	3/17	M	N/A	A, Q, M		
Stock of Central Government Debt /5	2016	3/17	A	N/A	A		
External Current Account Balance	Q3/2016	3/17	Q	N/A	A, Q		
Exports and Imports of Goods and Services	Q3/2016	3/17	Q	N/A	A, Q		
GDP/GNP	2016	3/17	A	N/A	A	Central bank's estimate. CBS's last	
Gross External Debt	2015	3/17	A	N/A	A		
International Investment Position	2015	3/17	A	N/A	A		

1/ Includes reserve assets pledged or otherwise encumbered.

2/ Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.

3/ Includes foreign, domestic bank, and domestic nonbank financing.

4/ General government consists of the central budget and the Development Fund of Aruba. Composition of financing published only annually. 5/ Including by domestic and foreign holders and instruments.

6/ Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).