



# ARUBA'S OVERALL CUSTOMS REVENUE ANALYSIS & TRADE FACILITATION PERFORMANCE

2014-2022



DEPARTAMENTO  
DI ADUANA



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# CONTENTS

<b>ABBREVIATIONS</b> .....	<b>4</b>
<b>EXECUTIVE SUMMARY</b> .....	<b>5</b>
<b>1. METHODOLOGY</b> .....	<b>6</b>
<b>2. DUTIES, TAXES AND FEES ON IMPORTED ITEMS COLLECTED BY CUSTOMS</b> .....	<b>7</b>
<b>3. RESEARCH FINDINGS</b> .....	<b>8</b>
<b>4. CUSTOMS REVENUE TO CIF VALUE TO REAL GDP RATIO</b> .....	<b>14</b>
<b>5. IMPLEMENTATION OF VAT/CPI/INFLATION GROWTH RATES</b> .....	<b>17</b>
<b>6. WEIGHTED MONTHLY AVERAGE EXCHANGE RATE AND REVENUE PERFORMANCE</b> . . . .	<b>18</b>
<b>7. CONCLUSIONS/RECOMMENDATIONS</b> .....	<b>19</b>

# ABBREVIATIONS

<b>AF</b>	Aruban Florins
<b>ASYCUDA</b>	Automated System for Customs Data
<b>ASYPCA</b>	ASYCUDA Post Clearance Audit (Module)
<b>AW</b>	ASYCUDAWorld
<b>CBA</b>	Centrale Bank van Aruba
<b>CIF</b>	Cost, Insurance and Freight
<b>CPI</b>	Consumer Price Index
<b>DCEA</b>	Department of Customs and Excise of Aruba
<b>FY</b>	Financial Year
<b>GDP</b>	Gross Domestic Product
<b>GoA</b>	Government of Aruba
<b>UN</b>	United Nations
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>WB</b>	World Bank

# EXECUTIVE SUMMARY

This report uses eight years of historical data to examine customs revenue performance in Aruba. It aims to inform revenue forecasting, planning and monitoring processes used in country. The research was primarily based on the proposition that the effective implementation of the ASYCUDAWorld system assures:

- a consistent increase in customs revenues
- an improved national trade supply chain through faster customs clearance processing
- greater predictability in the trade environment
- a higher level of trader revenue compliance and equity, and
- greater efficiency in revenue collection while simultaneously promoting investment towards economic growth and increased national income

ASYCUDAWorld (AW) implementation started following the signing of the AW project document in December 2011. After some initial administrative delays, work on the project accelerated in August 2014, with the declaration module going live in March 2014 and thereafter, the manifest module went live in October 2014.

This study primarily focuses on the DCEA's annual revenue performance between the **financial years 2014–2022**. Additionally, it examines revenue foregone due to duty and tax exemptions for the same period under review. This analysis will consider, among other aspects, the performance of tax revenues being the largest contributor to the revenue portfolio; and the identification of strengths and weaknesses in the Aruba's revenue generation, collection and administration capacities.

The study observed impressive revenue growth rates, in particular relating to the immediate post-AW commercial implementation phase and post-2020, early pandemic recovery period. The data further revealed that for the majority of years under the period of review, customs revenue has been increasing at a much faster rate than the rate of increase of Aruba's GDP and the CIF value of imported goods. Furthermore, the implementation of AW in Aruba, as well as the efficiencies employed in the customs administration's collection, risk management (as evidenced by the significant reduction in the customs intervention rates) and post clearance audit processes, were the most significant changes in the local trade supply chain during the review period. The study therefore empirically concludes that these variables were the major contributing factors for increased efficiencies in customs revenue collection and enhanced trade facilitation.

# 1. METHODOLOGY

This study also considered macroeconomic factors such as real gross domestic product (GDP) growth rate, inflation rate, consumer price index (CPI), currency exchange rate fluctuations and the volume of trade, in seeking to provide an analysis of the effectiveness of the current revenue collection system as well as the indicators for trade facilitation. This was achieved in the context of tax reforms such as the implementation of ASYCUDAWorld and other policy changes, which would have been implemented in Aruba during the period of study. This is essential in order to evaluate the impact of these policy initiatives and some other macroeconomic variables on the overall customs revenue performance of the DCEA.

The overall customs revenue analysis will therefore use the customs revenue/total CIF value to GDP ratio and the customs revenue growth rate to establish Aruba's customs revenue performance during the period under review.

## 1.1. CUSTOMS TAX REVENUE TO CIF VALUE TO GDP RATIO

This method will attempt to ascertain whether the customs tax revenue and total CIF value of imported goods are increasing at a higher rate than the rate of increase of the national income or the GDP of Aruba.

**Customs Tax-to-CIF Value-GDP ratio equation:**

**Customs tax-to-CIF value-GDP ratio = Customs tax revenue / Aruba GDP**

## 1.2. CUSTOMS REVENUE/TOTAL CIF VALUE/GDP GROWTH RATES

This method will seek to assess the change in revenue, total CIF value, GDP, CPI and inflation rates over the last fiscal year as a percentage relative to the base year. It will establish the estimated growth rate of revenue over a period.

This growth rate will be estimated concerning the past fiscal year and will be calculated as the percentage change over the base year as follows:

**Customs revenue/ total CIF value/GDP growth rates equation:**

**$\Delta R/R$**

**Where;**

**$\Delta R$  = change in customs revenue collections/ total CIF value/GDP growth rates over the past year, and**

**R = customs revenue collections/total CIF value, GDP growth rates**

## 2. DUTIES, TAXES AND FEES ON IMPORTED ITEMS COLLECTED BY CUSTOMS

The following are the duties, taxes and fees levied on imported items and collected by the DCEA:

- Import duties
- Excise duty on beer
- Excise duty on spirits
- Excise duty on petroleum oils
- Excise duties on cigarettes
- Customs fee<sup>1</sup>

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<sup>1</sup> The customs fee is not a tax but a fee that customs levied for giving service to the client and has indirect relation with the imported/exported or warehoused goods.

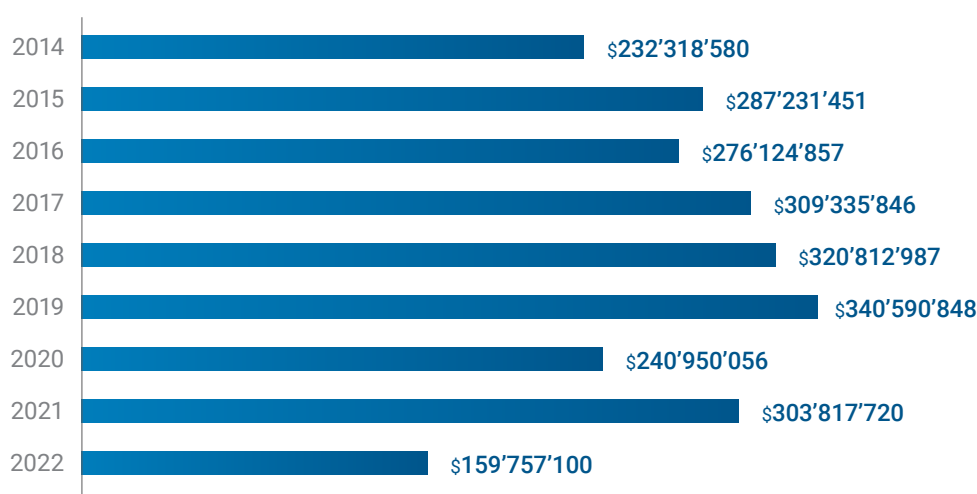
# 3. RESEARCH FINDINGS

The following illustrates the findings of an analysis of the various parameters under review for the period **March 2014–June 2022** namely:

1. overall revenue performance
2. revenue growth in comparison to total cost, insurance and freight value of goods imported (CIF value)
3. revenue growth in comparison with growth in GDP
4. total annual revenue collected on petroleum
5. total annual weight of imports (kilograms)
6. total annual entry lines
7. total annual declarations
8. total annual containers imported
9. customs intervention (color) lanes
10. average release times (hours) – from lodgment to customs documentary checks
11. inflation rates, Sept 2021 to May 2022
12. consumer price index (CPI), Sept 2021–May 2022
13. five year weighted monthly average exchange rate of Aruba florins to dollars, 2018–2022
14. various policy implications the above data may pose

## 3.1. OVERALL CUSTOMS REVENUE PERFORMANCE MARCH 2014–JUNE 2022

**Figure 1. Comparative Total Revenue March 2014–June 2022**





**Table 1. Monthly Customs Revenue Performance March 2014–June 2022 (Aruban Florins)**

Month	FY 2014 Revenue	FY 2015 Revenue	FY 2016 Revenue	FY 2017 Revenue	FY 2018 Revenue	FY 2019 Revenue	FY 2020 Revenue	FY 2021 Revenue	FY 2022 Revenue
January	-	18'736'332	20'008'522	23'742'128	27'390'971	31'447'402	32'391'242	20'012'805	23'043'820
February	-	22'748'678	22'176'712	15'785'063	24'043'130	26'271'641	24'078'658	18'564'753	25'475'349
March	2'628'835	22'620'104	21'345'096	38'182'403	25'529'933	25'761'189	22'322'261	21'735'147	29'833'536
April	23'114'687	21'828'953	23'773'015	23'860'280	25'388'033	26'341'168	15'881'970	20'241'970	26'489'768
May	22'629'158	21'590'280	20'844'209	22'328'559	28'395'258	27'130'887	10'229'880	26'332'137	27'082'256
June	26'054'773	23'324'982	24'341'568	21'918'609	26'221'503	25'203'914	14'485'005	25'226'680	27'832'371
July	22'888'390	24'360'569	23'231'327	23'899'831	26'384'610	31'516'135	21'407'897	28'663'230	-
August	21'328'849	22'483'152	25'298'749	24'295'177	28'661'027	27'548'868	18'551'411	27'146'362	-
September	27'064'256	26'719'157	25'597'957	29'522'940	26'077'748	27'691'583	19'751'381	27'938'304	-
October	28'053'645	23'716'269	18'132'344	27'211'990	25'418'515	29'770'235	19'368'583	28'282'985	-
November	26'484'981	29'154'730	21'855'917	29'299'406	27'827'674	29'535'783	20'978'412	28'067'810	-
December	32'071'006	29'948'245	29'519'441	29'289'460	29'474'585	32'372'043	21'503'356	31'605'537	-
<b>TOTALS</b>	<b>232'318'580</b>	<b>287'231'451</b>	<b>276'124'857</b>	<b>309'335'846</b>	<b>320'812'987</b>	<b>340'590'848</b>	<b>240'950'056</b>	<b>303'817'720</b>	<b>159'757'100</b>

The ASYCUDAWorld system went live in March 2014 in regards only to the declaration module. The manifest module went live in October of 2014. As depicted in **table 3 below**, the DCEA recorded an impressive revenue growth rate of 23.64% for 2015 over the previous comparative period of 2014. It is worth noting that this period was in the immediate post-AW commercial implementation phase. Subsequently, there was a decrease of -3.87% in 2016 and -12.03% respectfully in revenue collection recorded over the next two years. As the AW system was thereafter fully implemented with all other customs regimes, the revenue rebounded, recording a 12.03% in 2017, a 3.71% increase during the year 2018 over the previous year 2017 and then up 6.16% in 2019. The 26% increase in revenue collection in 2021 over 2020 illustrates the post-2020 / early pandemic recovery from a decline of -29%.

**Table 2. Total Revenue March 2014–June 2022 (Aruba Florins)**

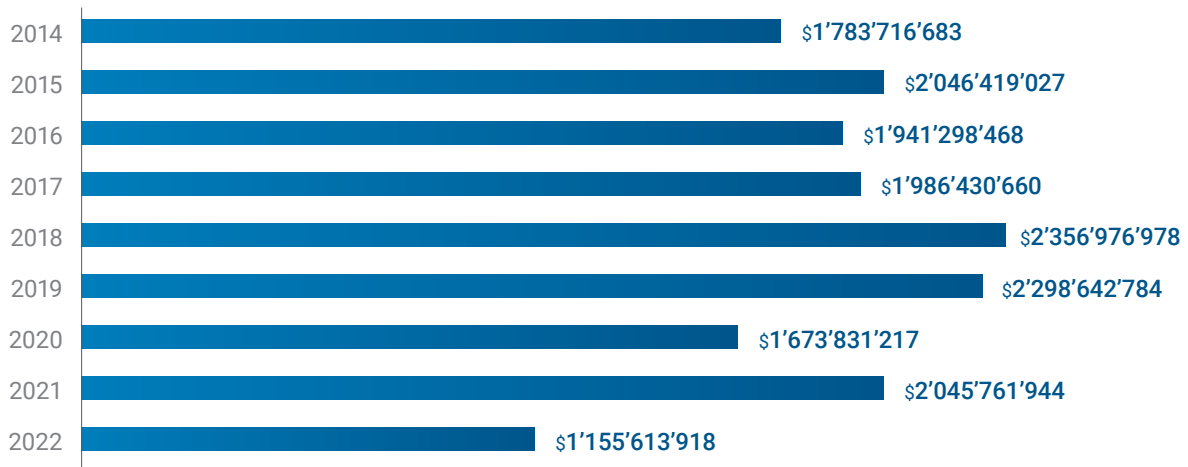
Year	2014–2022 Revenue Totals
2014	\$ 232'318'580
2015	\$ 287'231'451
2016	\$ 276'124'857
2017	\$ 309'335'846
2018	\$ 320'812'987
2019	\$ 340'590'848
2020	\$ 240'950'056
2021	\$ 303'817'720
2022	\$ 159'757'100

**Table 3. Growth Rate in Revenue Current Years 2015 to 2021**

Current Year	Customs Revenue Growth Rates
2015	23.64%
2016	-3.87%
2017	12.03%
2018	3.71%
2019	6.16%
2020	-29%
2021	26%

Based on the above trends, the research forecasts that, all things remaining equal, the total revenue to be collected at the end of 2022 is expected to be approximately \$370,000,000 Aruban florins, as per a baseline scenario.

**Figure 2. Comparative Total CIF Values for March 2014–June 2022**



**Table 4. CIF Totals March 2014–June 2022**

Year	2014–2022 CIF Totals
2014	\$ 1'783'716'683
2015	\$ 2'046'419'027
2016	\$ 1'941'298'468
2017	\$ 1'986'430'660
2018	\$ 2'356'976'978
2019	\$ 2'298'642'784
2020	\$ 1'673'831'217
2021	\$ 2'045'761'944
2022	\$ 1'155'613'918

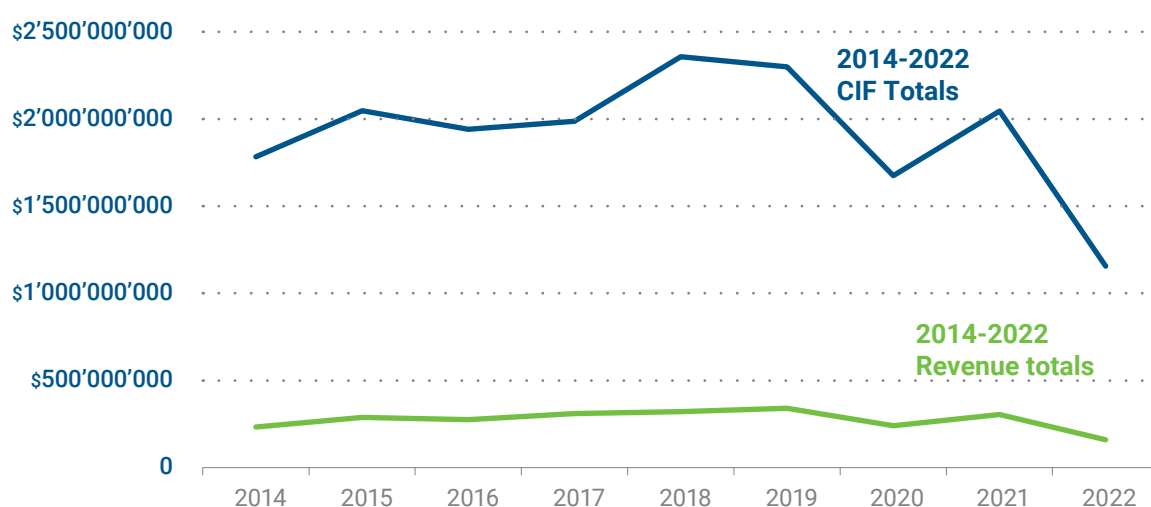
**Table 5. CIF Growth Rate Current Years 2015 to 2021**

Current Year	CIF Value Growth Rate
2015	14.73%
2016	-5.14%
2017	-2.32%
2018	18.65%
2019	-2.47%
2020	-27%
2021	22%

In examining the performance of total CIF value of imported goods, the analysis revealed an increase of 14.73% during the immediate post AW implementation period 2014-15. The 2020 decline in CIF values of -27% is consistent with global trends during the pandemic in that year. However, total CIF value of imported goods increased by 22% in 2021 over the previous year's figure, which is indicative of a rebound in international trade and portrays a good picture concerning the resilience of the Aruban economy in this sensitive period.

**Figure 3** below illustrates the comparative trend analysis of total CIF value of imported goods as against total revenue collected for March 2014 to June 2022.

**Figure 3. Comparative Total CIF Values to Total Revenue Collected for March 2014–2022**

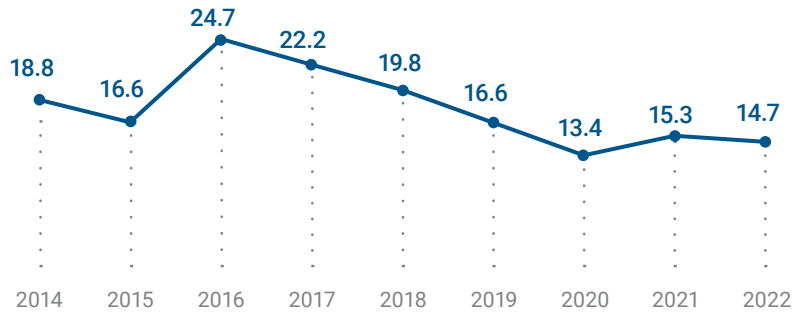


It should be noted from the growth rates of customs revenue for the years (2014–2015: 23.64%); (2016–2017: 12.03%); (2017–2018: 3.71%); (2018–2019: 6.16%); and (2020–2021: 26%), that all increased at a faster rate than total CIF values for the same periods. This report will now briefly examine some of the variables, which could have contributed to this strong customs revenue performance.

According to the DCEA, as of 1 January 2019, the excise on undenatured alcohol, liquors and other spirituous beverages increased to AWG 2635 per hectoliters from a previous rate of AWG 1844. This would help account for the 2019 revenue increase of 6.16%.

In consideration that, there were no changes in tax rates, the negative GDP growth rate and the comparative 14.73% increase in total CIF values, it is reasonable to conclude that the increase of 23.64% in revenue collected during the immediate post-implementation phase of ASYCUDAWorld (2014–2015) is reflective of efficiency gains because of the transition to the new system. This is also indicative of the successful strategic shift by the DCEA towards a greater risk management based approach to revenue collection and control. This conclusion is reliably supported by the average customs release times of 16.6 (hours from lodgment of declaration to customs documentary release). This is down by an average of 18.8 hours in 2014. Currently the average customs release times stands at 14.7 hours, which is a commendable performance (see figure 4).

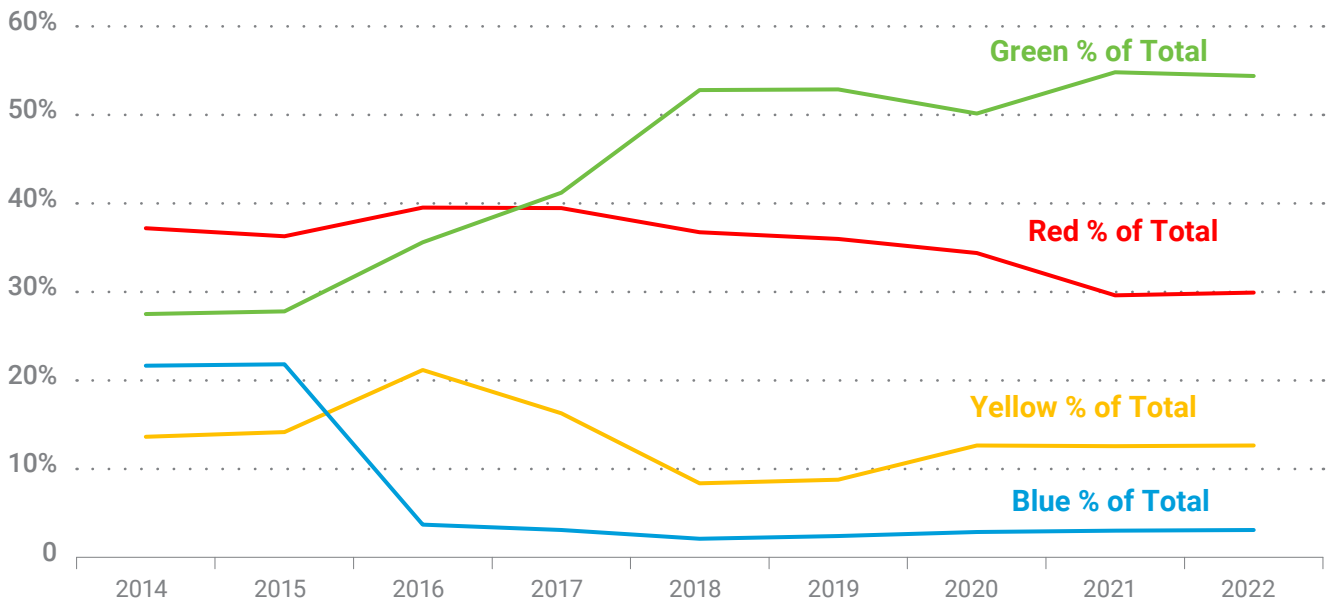
**Figure 4. Average Customs Release Times (Hours) 2014–2022**



Source: ASYCUDAWorld.

The analysis also illustrated an excellent performance in the customs intervention rate with physical examinations (red lane) declining from a high of 39.52% in 2016 to a record low of 29.60% in 2021 and documentary checks declining from a high of 21.17% to a low of 12.55% in 2021 (see figure 5). This is indeed a positive trending towards international best standards and practices. Like the average release times, this is a very good indicator of efficiency gains with the effective use of ASYCUDAWorld and its rigorous risk management capacities as well as the effectiveness of the administrative and operational procedures in support of risk management.

**Figure 5. Color Lane Performance 2014–2022**



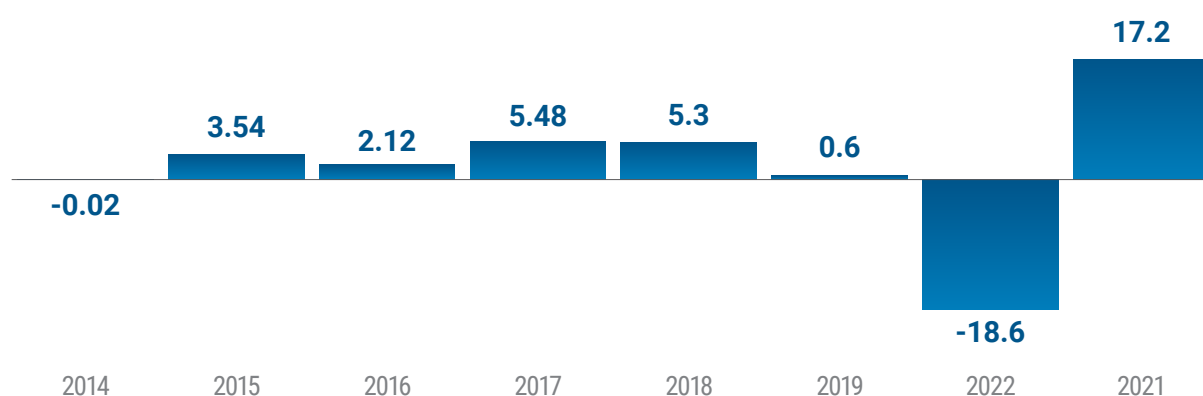
Source: ASYCUDAWorld.

# 4. CUSTOMS REVENUE TO CIF VALUE TO REAL GDP RATIO

## GDP growth (annual %)<sup>2</sup>

Annual percentage growth rate of GDP at market prices based on constant local currency. Aggregates are based on constant 2015 prices, expressed in dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.

**Figure 6. Aruba Real GDP Growth Rates Current Years 2014–2021<sup>3</sup>**



Source: <https://data.worldbank.org/country/Aruba>

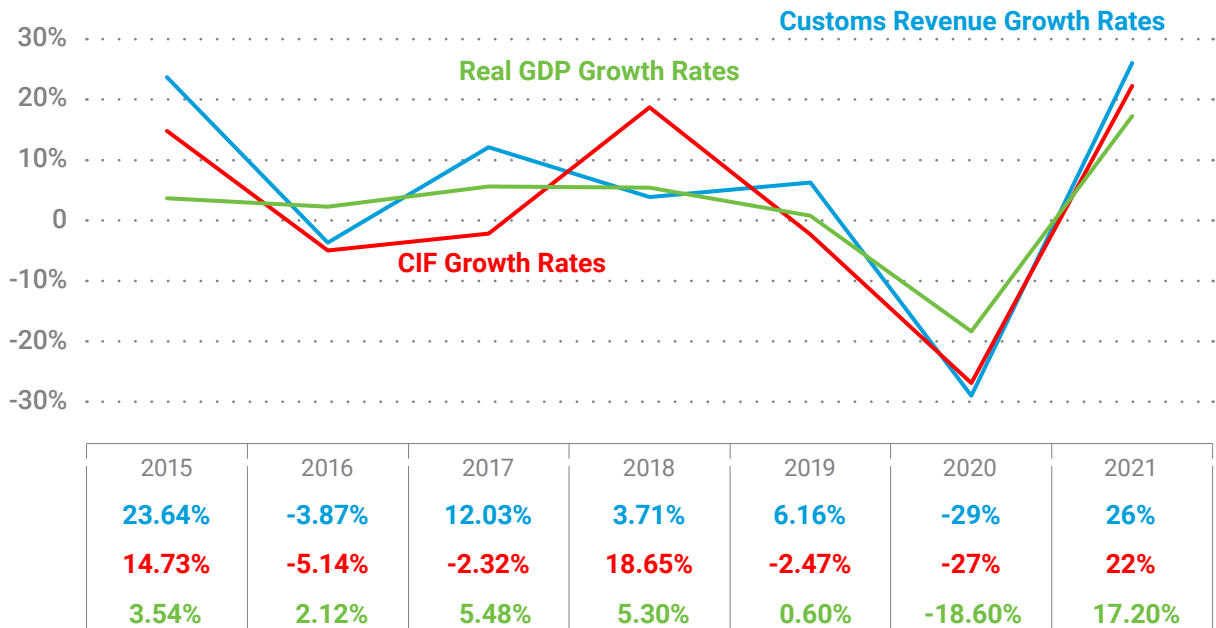
GDP in Aruba<sup>4</sup> is expected to reach \$3 billion by the end of 2022, according to Trading Economics global macro models and analysts' expectations. In the long-term, the Aruba GDP is projected to trend around \$3.10 billion in 2023 and \$3.20 billion in 2024, according to Trading Economics econometric models. Real GDP growth rate fluctuated from a high of 5.48% at the end of 2017 to a low of -18.6% at the end of 2020. Real GDP growth rate then increase to 17.2% at the end of 2021 (figure 6).

<sup>2</sup> World Bank national accounts data, and OECD National Accounts data files

<sup>3</sup> <https://data.worldbank.org/country/Aruba>

<sup>4</sup> <https://tradingeconomics.com/aruba/gdp>

**Figure 7. Customs Revenue to CIF Value to GDP Ratio {Real GDP}<sup>5</sup>**



Source: <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=AW>

It can be deduced from **figure 7 above**, that for the majority of years under the period of review, customs revenue has been increasing at a much faster rate than the rate of increase of Aruba’s GDP and the CIF value of imported goods. However, due to the pandemic, customs revenue registered a significant decline in growth rate in 2020 (-29%) being outpaced by both GDP (18.6%) and CIF value (-27%).

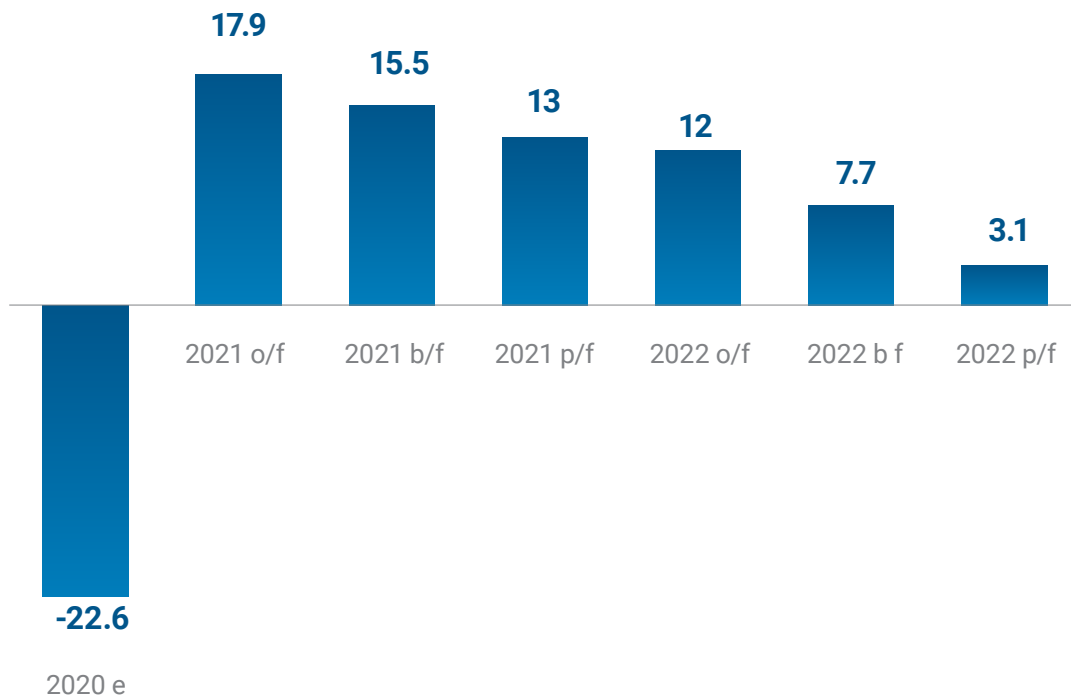
Aruba’s real GDP growth was relatively stagnant in 2014, only registering -0.02% with a rebound between 2015 to 2018 and then slowing down once more in 2019 registering a 0.6% growth rate during that year. During the disruption of the pandemic in 2020, Aruba’s economy showed heavy resilience in real GDP growth of 18.6% and then an impressive 17.2% by the end of 2021. Both CIF value of imported goods and customs revenue registered growth rates increases in 2021 by 22% and 26% respectively. This reflects robust resilience in the Aruba trading economy in the face of the pandemic’s disruptive effects.

According to the Centrale Bank van Aruba (CBA), “the Aruban economy is foreseen to continue its path to recovery, albeit subject to heightened downside risks. In 2021, real GDP is anticipated to grow by 15.5% under the baseline scenario, 17.9% in the optimistic scenario, and 13.0% under the pessimistic scenario” (See CBA figure 8)<sup>6</sup>:

<sup>5</sup> <https://data.worldbank.org/country/Aruba>

<sup>6</sup> Source: Economic Outlook - December 2021, <https://www.cbaruba.org/readBlob.do?id=10738>

**Figure 8. GDP Growth 2020–2022**



Source: CBA Economic Outlook Report December 2021.  
e = estimate, f = forecast, o = optimistic, b = baseline, p = pessimistic

According to the CBA, this forecast growth in 2021 would be expected mainly from the resurgence in tourism exports and to a lesser extent from the heightened consumption, because of the continued implementation of the GoA's wage subsidy and FASE programmes. By end-2022, real output is projected by the CBA to expand by 7.7 percent under the baseline scenario. The main drivers of economic growth in 2022 are expected to be the tourism sector and private investment.



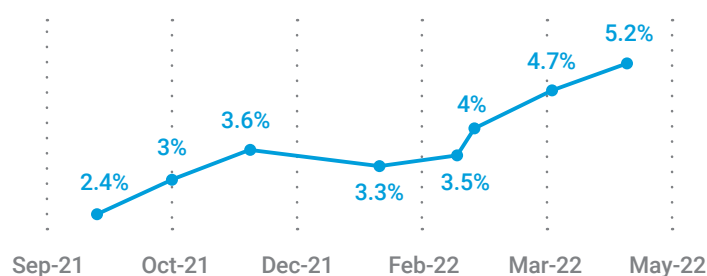
# 5. IMPLEMENTATION OF VAT/CPI/ INFLATION GROWTH RATES

During the research mission on which this report was based, the Government of Aruba outlined a desire to implement VAT in the upcoming year of 2023. If this major tax policy change is indeed implemented, it effectively imposes a national sales tax on Aruban consumers. A VAT is levied on the “value added” to goods and services as they go through each stage of the production process.

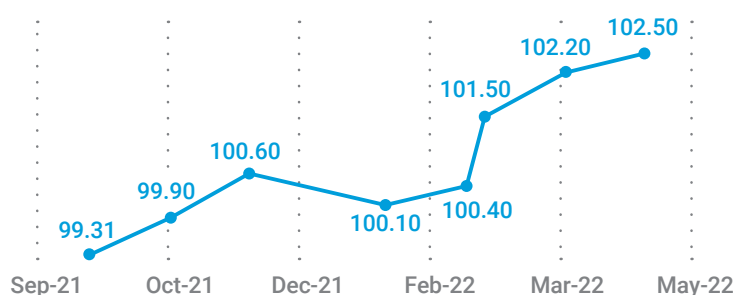
VAT is typically administered in the rest of the Caribbean region, by taxing the total value of sales of companies, whilst allowing them to claim a credit for taxes paid on their purchases of raw materials, intermediate materials, and capital goods from other businesses. This means that the VAT will be applied to the extra value of a particular product, every time there is a transaction, which adds value to that product. The fact that these businesses receive a credit for the taxes, which they have paid, the total tax will be added to the final sales price paid by the consumer. An examination of the inflation and CPI rates for the period September 2021 to May 2022 illustrate an increasing trend (See figures 9 and 110 below).

Accordingly, the implementation of VAT would most likely cause an almost proportionate rate increase in the consumer price index (CPI). A certain increase in government budget spending due to VAT revenue collection would more than likely exacerbate inflationary rates and suppress GDP growth.<sup>7</sup>

**Figure 9. Inflation Rates Sept 2021–May 2022**



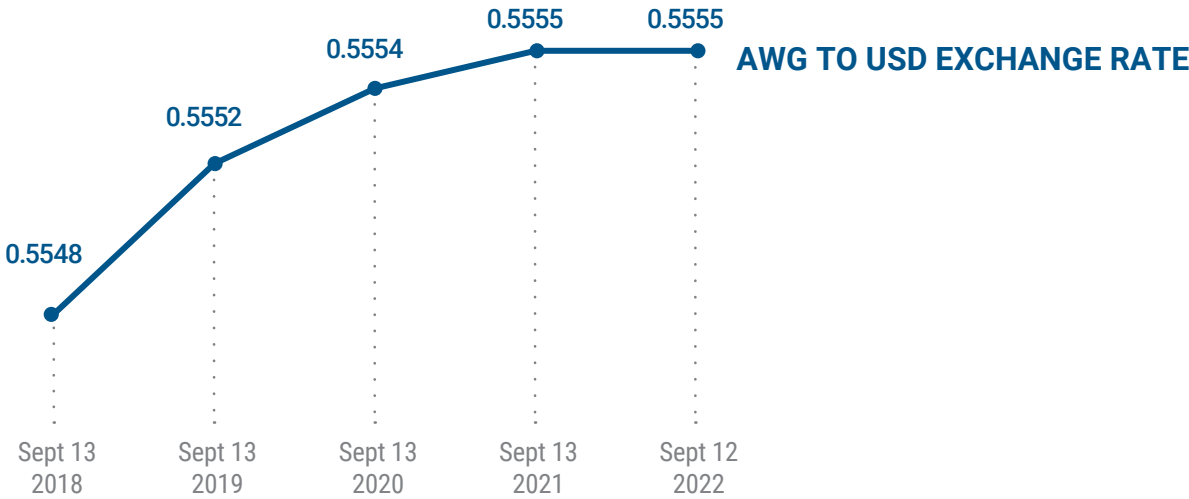
**Figure 10. Aruba CPI Sept 2021–May 2022**



<sup>7</sup> The Aruban Department of Taxes initially announced a 1% increase to the turnover tax (BBO) rate effective 1 January 2023. As a result the combined BBO, BAVP, and BAZV rate will increase to 7%. The proposed VAT system previously announced for implementation from 1 January 2023 was then delayed. It was subsequently reported that as of June 1st 2023 turnover tax (BBO) will be levied at the border (at import), in which the merchant (wholesaler or reseller) can deduct a part of the BBO paid at import with the BBO paid after sales transaction.

# 6. WEIGHTED MONTHLY AVERAGE EXCHANGE RATE AND REVENUE PERFORMANCE

Figure 11. Five Year Weighted Monthly Average Exchange Rate, Aruba Florins to US Dollars, 2018–2022<sup>8</sup>



The selling exchange rates for the Aruban florin to the U.S dollar stayed relatively flat at approximately 1 AWG = \$0.55 between the period Sept 13 2018 to Sept 12 2022 (figure 11). This relative stability in the foreign exchange therefore does not illustrate any significant contributing factor to revenue performance (a significant devaluation of the Aruban florin against the U.S dollar would have resulted in significant increases in the CIF values of imported goods and by extension – total revenue collected).

8 <https://www.exchangerates.org.uk/AWG-USD-exchange-rate-history.html>

# 7. CONCLUSIONS/RECOMMENDATIONS

Taking into consideration the study's review of the most significant variables, which may have contributed to the strong customs revenue and trade facilitation performance from March 2014 to June 2022, that is:

- Tax policy changes
- Total CIF value of imported goods
- Real GDP growth
- Total revenue collected on imported petroleum products
- Exchange rate (selling)

Analysis suggests that when all these factors are considered, ASYCUDAWorld's implementation in 2014 as well as the efficiencies in the customs administration's collection, risk management and post clearance audit processes, were the most significant changes in the local trade supply chain. Arguably, these variables were therefore the major contributing factors for increased efficiencies in customs revenue collection.

Additionally, it has been illustrated that there is a positive relationship between customs revenue growth and economic growth, which implies that economic growth directly affects the revenue forecasts of a given financial year. It is therefore critical that policy makers accurately identify the economic variables supporting customs revenue forecasts prior to formulating revenue forecasts. Policymakers are also advised to always factor in appropriate contingency appropriations for the variances to growth forecasts when making revenue projections.

The ASYCUDAWorld implementation project in Aruba has afforded the country with tremendous economic opportunities, which points to a more favorable trade and investment climate. A successful implementation of the system has proven that significant benefits can be accrued to revenue, trade facilitation, economic growth and investment.

The current initiative to further enhance trade facilitation through the implementation of the ASYCUDA Trusted Trader programme and ASYPCA is a step in the right direction as Aruba continues to position itself as an international model jurisdiction for trade facilitation and revenue collection efficiency. The customs administration is also urged to boost the human resource and analytical capacities of the Customs Post Clearance Audit team as well as to give due consideration to the implementation of the ASYCUDA electronic Single Window for trade. The establishment of an electronic Single Window is recognized by international organizations as an important step forward, adopting recommended best practices and creating transparency while expediting procedures to facilitate trade. Consolidating the key stakeholders of Aruba's trade supply chain together under a single framework will ensure that there is better coordination, synchronization and full automation of trade information processing within the trade sector. Such an initiative would enhance the existing efficiencies identified in this analysis by further reducing clearance times, streamlining operations, harmonizing data, and reducing associated costs.



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