Abstract

In 2021, the Aruban economy is expected to continue its recovery path set forth in the second half of 2020. Specifically, real GDP is projected to grow by 15.5 percent under the baseline scenario, 17.9 percent in the optimistic scenario, and by 13.0 percent in the pessimistic scenario. The anticipated economic recovery in 2021 is spurred by the speedy tourism recovery after the international travel restrictions were lifted, as well as the continued implementation of the Government of Aruba’s (GOA) wage subsidy and FASE programs, which aid in maintaining private consumption.

In 2022, a sustained recovery of the tourism sector, and a pick-up in private investment, are expected to further incite real GDP growth. The forecasted growth rate ranges between 3.1 percent (pessimistic) and 12.0 percent (optimistic), with a baseline real GDP growth of 7.7 percent.

The foreseen nominal growth in tourism service exports ranges between 42.4 percent (pessimistic) and 59.6 percent in 2021 (optimistic) compared to a year earlier, with a baseline growth of 51.0 percent. Compared to 2021, the anticipated growth in nominal tourism service exports for 2022 varies between 19.5 percent (pessimistic) and 46.6 percent (optimistic), with an expansion of 33.8 percent in the baseline scenario. The tourism sector recovery, as well as the rebound in private investment (in 2022), will likely lead to additional income for local employees. This, in turn, is expected to push up the demand for goods and, by extension, the import of goods.

Centrale Bank van Aruba
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1. Introduction

The Research Department (RD) of the Centrale Bank van Aruba (CBA) recently updated its Gross Domestic Product (GDP) forecast for 2021 based upon the latest gains in economic development and available data up to and including October 2021. In addition, the RD made its first projections for the year 2022. This economic forecast follows new information on public consumption, updated expectations regarding the strength of the recovery of the tourism sector, and recent insights into public and private investment. The baseline scenarios are based on the assumption of the most likely developments with regard to the different components of GDP (i.e., consumption, investment, imports, and exports). A pessimistic and an optimistic scenario complement the baseline scenarios in 2021 and 2022. These additional scenarios deviate from the baseline based on the expected speedy recovery in tourism, which in turn affects consumption, investment, import, and export levels.

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 percent under the baseline scenario, 17.9 percent in the optimistic scenario, and 13.0 percent under the pessimistic scenario (Chart 1). The expected growth in 2021 follows mainly from the resurgence in tourism exports and to a lesser extent from the heightened consumption, as a result of the continued implementation of the GoA’s wage subsidy and FASE programs. During 2022, real output is projected to expand by 7.7 percent under the baseline scenario, 12.0 percent in the optimistic scenario, and 3.1 percent under the pessimistic scenario. Compared to 2021, the main drivers of economic growth in 2022 are expected to be the tourism sector and private investment, while the GoA’s support programs come to a halt in December 2021.
2. Economic forecast

2.1 Gross domestic product and its components

Several scenarios were produced for the years 2021 and 2022. For 2021, the following scenarios are distinguished:

1. **Baseline Scenario 2021**: The tourism sector is expected to remain the primary driver of economic growth in 2021, as it continues to make a robust recovery during the year. The number of stay-over visitors is projected to reach 69.0 percent of the 2019 level, while daily spending by tourists is anticipated to gradually decrease to $470.47 at the end of 2021 compared to $603.11 registered a year earlier. The foreseen contraction in daily spending by tourists is expected to have a dampening effect on the recuperation in the level of tourism credit, despite a significant recovery in the level of stay-over visitors. To be specific, the forecasted growth in tourism service exports is estimated at 51.0 percent compared to 2020 (with the 2021 level at 77.2 percent
compared to the 2019 level). The forecast assumes that the FASE and the wage subsidy program will be discontinued as of year-end 2021. The availability of the programs is projected to drive up real private consumption by 5.0 percent under the baseline scenario. The upswing in the tourism sector paired with the government’s assistance programs positively impacted the unemployment rate in 2021, which is estimated to have fallen to 9.5 percent. The baseline scenario further assumes a general increase in prices as the 12-month average inflation is foreseen to result in 0.5 percent, steered primarily by rising prices in the energy component (i.e., gasoline prices). Private investment is envisioned to decline in 2021, as there are few new construction projects in 2021. On the other hand, imports are projected to increase in 2021 following the rebound in the tourism sector and private consumption which offset the significant decline in investment.

2. **Pessimistic Scenario 2021:** Compared to the baseline scenario, the pessimistic scenario assumes a slower recovery in stay-over visitors (65.0 percent of the 2019 level). This sluggish gain leads to a lower growth in tourism service exports, which is foreseen at 42.4 percent compared to 2020. The assumed developments result in an estimated unemployment rate of 9.7 percent in 2021, which is slightly higher than the unemployment rate in the baseline scenario. Nonetheless, the picking up in the tourism sector, supported by the continuation of the FASE and wage subsidy programs are sufficient to achieve an expected growth in real private consumption of 4.9 percent. The pessimistic scenario takes into account a larger extent of delays in construction, resulting in a diminished investment amount vis-à-vis the baseline scenario. Nonetheless, the brisk recovery in tourism activities is enough to anticipate a positive growth in imports. The pessimistic scenario assumes the same inflation rate as in the baseline scenario.

3. **Optimistic Scenario 2021:** For the optimistic scenario in 2021, the number of stay-over visitors is expected to rise to 73.0 percent of the 2019-level. While the rebound in the tourism sector is relatively stronger, private consumption remains relatively stable compared to the baseline scenario. This is due to the expected substitution of FASE or wage subsidy income for wages, while not many new jobs are anticipated to be created. As a result, disposable income is likely to remain virtually unchanged as opposed to the baseline scenario. Regarding private investment, fewer delays are expected, leading to a higher investment compared to the baseline scenario. Following the greater increase in investment and tourism exports, imports is projected to be more elevated than in the baseline scenario.
For 2022, the following scenarios are identified:

1. **Baseline Scenario 2022: The tourism sector is anticipated to continue its recovery in 2022, topped off by a pick-up in investment.** The number of stay-over visitors in the baseline scenario is expected to amount to 95.0 percent of the 2019-level. In addition, tourism credits per night are assumed to have normalized at levels that are slightly higher than the pre-pandemic levels of 2019. Consequently, tourism service exports in nominal terms are forecasted to grow by 33.8 percent compared to 2021. With this growth, the level of tourism credits in 2022 surpasses the pre-pandemic level of tourism credits, standing at 103.4 percent of the 2019-level. The assumption is that the FASE and the wage subsidy programs will be halted by the end of 2021, and will not be available in 2022. Nonetheless, the rebound in the tourism sector is expected to lead to a lower level of unemployment compared to 2021 (7.7 percent). The latter has a positive effect on private consumption. This is complemented by a slight growth in public consumption, as (in all scenarios) government consumption and investment are expected to remain relatively stable compared to 2021, due to spending cutbacks as well as liquidity constraints. Even so, the projected relatively higher level of inflation in 2022 leads to a dampening in both private and public consumption in real terms.

In contrast to 2021, a pick-up in investment is expected, as projects that experienced delays in 2020 and 2021 are likely to start in 2022. Imports are projected to increase in 2022, due to the expansions in total exports and private investment. The forecasted 12-month average rate of inflation for 2022 is expected to reach 2.7 percent, mainly driven by utility prices. Hereby, the assumption is that the price of oil barrels used in the production of energy will not be hedged at the same price as in 2021, but will be bought at the reigning market prices or hedged at a higher price than in 2021.

2. **Pessimistic Scenario 2022: While a recuperation is still expected in the tourism sector, and private investment is projected to strengthen, both do so at a slower pace compared to the baseline scenario for 2022.** In the pessimistic scenario, the predicted number of stay-over visitors reaches 80.0 percent of the 2019-level. As a result, tourism credits would increase by 19.5 percent in nominal terms compared to 2021, which brings it to 87.0 percent of the 2019-level. As is the case in the baseline scenario, FASE and wage subsidy programs are assumed to be discontinued in 2022. Nonetheless, unemployment is expected to drop further compared to 2021 (8.7 percent). While the latter positively affects private consumption, and public consumption is expected to edge up, the accelerated pace of inflation in 2022 is likely to have a dampening effect on private consumption and public consumption. With regard to investment, a pick-up is foreseen, albeit at a lower level than in the baseline scenario. The projected rate of inflation in the pessimistic scenario is equal to that in the baseline, i.e., 2.7 percent.
3. Optimistic Scenario 2022: In the optimistic scenario, a stronger upswing is foreseen in the tourism sector as well as in investment, compared to the baseline scenario for 2022. The optimistic scenario takes into account a number of stay-over visitors that exceeds the pre-pandemic level (110.0 percent of the 2019-level). The resulting growth in tourism service exports is projected at 46.6 percent in nominal terms compared to 2021. The corresponding level of tourism service exports equals a recovery of 119.7 percent in terms of the 2019-level. In the optimistic scenario, the assumption remains that the FASE and wage subsidy program are discontinued in 2022. Given the strong recovery in the tourism sector, however, the rate of unemployment is projected to be lower than in 2021 (7.4 percent). This is foreseen to have a positive effect on private consumption. Furthermore, a small expansion is anticipated in nominal public consumption. The level of inflation in 2022, however, leads to a dampening in both components in real terms. Investment is also expected to rebound, with the pace of construction more likely to be faster than in the baseline scenario. The projected rate of inflation in the optimistic scenario stands at 2.7 percent.

In all scenarios for 2022, the expected rate of inflation remains a major source of uncertainty. Globally, there are various factors producing upward pressure on the level of prices, such as supply chain disruptions due to pandemic and weather disturbances. These, in turn, are expected to push up the prices of imported goods. In addition, the volatility in oil prices may also result in higher utility prices domestically, particularly if the barrels of oil used in the production of water and electricity are bought at the expected market prices in 2022 or hedged at a higher price than in 2021. Consequently, the projected real GDP figures for 2022 may result lower than presented in this economic outlook.

Based on the aforementioned assumptions and scenarios, the following forecast results emerge for the respective GDP components.

1. 2021 Baseline Scenario results

A real GDP growth of 15.5 percent is expected under the 2021 baseline scenario, mainly pushed by the recovery in real tourism exports (+56.7 percent). The recuperation in tourism exports, paired with the GoA’s financial support to individuals and businesses, under the execution of the FASE and wage subsidy programs, is expected to further drive up real private consumption (+5.0 percent). The latter will offset the small decrease in real public consumption (-0.5 percent), resulting in an expansion of 3.3 percent in real total consumption. On the flip side, real total investment is projected to contract in 2021 (-20.5 percent), following decreased investment appetite in the private sector and limited fiscal space for government investment. Real imports are anticipated to go up by 9.7 percent, derived from the movements in the other GDP components.
2. 2021 Pessimistic Scenario results

The pessimistic scenario for 2021 assumes a slower recovery rate in tourism compared to the baseline scenario, while the wage subsidy and FASE programs remain in place throughout the year. Under this scenario, real GDP is predicted to go up by 13.0 percent, mainly as a result of growth in real tourism exports (+47.8 percent), real other exports (+19.3 percent), and real private consumption (+4.9 percent). The upward development in real private consumption compensates for the decline in real public consumption (-0.5 percent), resulting in a rise in real total consumption of 3.2 percent. Meanwhile, real investment is expected to decline (-23.6 percent) relative to the baseline scenario. Lastly, the pessimistic scenario foresees an expansion of 6.5 percent in real imports, attributable to the increase in exports and total consumption.

3. 2021 Optimistic Scenario results

The optimistic scenario presumes a real GDP growth of 17.9 percent for 2021, based on a swift recuperation of tourism sector activities as well as an expansion in private consumption. The recovery within tourism exports is the result of a sharp increase in expected tourism arrivals and tourism credits. Meanwhile, total investment is likely to decrease (-17.4 percent) compared to the baseline scenario. Despite the reduced total investment, real imports are anticipated to go up by 12.8 percent, following the upward movements in real tourism export (+65.7 percent), real other exports (29.3 percent), and real private consumption (+5.1 percent).

4. 2022 Baseline Scenario results

In the baseline scenario, real GDP grows by 7.7 percent compared to the 2021 baseline scenario. This growth is mainly driven by the expected sustained recovery in real tourism exports (+28.7 percent), and upturn in real total investment (+5.9 percent). The increase in total investment, in turn, follows the improvement in private investment (+6.1 percent), which is partly offset by a contraction in real public investment (-2.7 percent). The cessation of the FASE and wage subsidy program leads to a projected marginal decrease in private consumption (-0.9 percent). Amplified by a decline in public consumption (-0.8 percent), these developments negatively impact real total consumption (-0.9 percent), compared to the 2021 baseline scenario. Real imports are anticipated to go up by 10.0 percent, mainly due to the forecasted growth in real tourism exports (+28.7 percent), real other exports (+3.5 percent), and real total investment (+5.9 percent).
5. **2022 Pessimistic Scenario results**

A real GDP growth of **3.1 percent** is projected under the pessimistic scenario. The lower rate of growth follows from a slower recovery in real tourism exports (+15.0 percent) and real total investment (3.8 percent), compared to the baseline scenario. As a consequence of the relatively moderate recovery of real tourism exports and the halt of the FASE and wage subsidy program, a slightly larger contraction in real private consumption (-1.5 percent) is forecasted, compared to the baseline scenario. In addition, real public consumption (-0.8 percent) is also foreseen to decrease, leading to a downturn in real total consumption (-1.3 percent). The main driver behind the growth in real total investment is the anticipated rise in private investment (+4.0 percent), while real public investment (-2.7 percent) is expected to decline. Even though real tourism exports would rise, real other exports turn into a downturn (-1.5 percent). These developments ultimately lead to an expansion in real total exports of 10.6 percent. Following the upturns in real total exports, and real total investment, real imports expand by 4.4 percent.

6. **2022 Optimistic Scenario results**

Due to the anticipated stronger rebound of real tourism exports (+41.0 percent) and real total investment (+7.7 percent) in the optimistic scenario, a real GDP growth of **12.0 percent** is foreseen. In the optimistic scenario, the expansion in real tourism exports is matched by a rise in real other exports (+8.5 percent), which leads to an increase in real total exports of 39.1 percent. While a more positive performance of the tourism sector is expected, the discontinuation of the FASE and wage subsidy program dampens real private consumption (-0.7 percent), albeit to a smaller extent than in the baseline scenario. The anticipated growth in real public consumption also remains negative (-0.8 percent), leading to a decline in real total consumption of -0.7 percent. Real total investment, on the other hand, is likely to increase due to an expansion in real private investment (+8.0 percent), which is partly counterbalanced by a drop in real public investment (-2.7 percent). Following the developments in the aforementioned GDP components, real imports is foreseen to grow by 15.2 percent.
Table 1: Growth of real GDP and its components 2020-2022 (in percent)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2020 e</th>
<th>2021 o f</th>
<th>2021 b f</th>
<th>2021 p f</th>
<th>2022 o f</th>
<th>2022 b f</th>
<th>2022 p f</th>
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<td><strong>Current Outlook</strong></td>
<td></td>
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<tr>
<td>GDP</td>
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<td>17.9</td>
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<td>-0.9</td>
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<tr>
<td>Public consumption</td>
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<td>-0.5</td>
<td>-0.5</td>
<td>-0.8</td>
<td>-0.8</td>
<td>-0.8</td>
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<tr>
<td>Investment</td>
<td>-20.9</td>
<td>-17.4</td>
<td>-20.5</td>
<td>-23.6</td>
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<td>5.9</td>
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<tr>
<td>Private investment</td>
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<td>-16.9</td>
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<td>-2.7</td>
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<tr>
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<td>32.7</td>
<td>22.2</td>
<td>10.6</td>
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<tr>
<td>Tourism exports</td>
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<td>56.7</td>
<td>47.8</td>
<td>41.0</td>
<td>28.7</td>
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<tr>
<td>Imports</td>
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<td>6.5</td>
<td>15.2</td>
<td>10.0</td>
<td>4.4</td>
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Source: CBA  
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2.2 Nominal growth rates

For 2021, the nominal GDP growth hovers between an expansion of 11.3 percent and 16.7 percent, with a projected baseline of 14.0 percent (Table 2). For 2022, a baseline nominal GDP growth of 12.2 percent is anticipated. This nominal output projection ranges between 6.8 percent and 17.3 percent, with the outcome depending largely on which scenario plays out.

Table 2: Growth of nominal GDP and its components 2020-2022 (in percent)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2020 e</th>
<th>2021 o f</th>
<th>2021 b f</th>
<th>2021 p f</th>
<th>2022 o f</th>
<th>2022 b f</th>
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<tr>
<td>GDP</td>
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<td>2.0</td>
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<td>1.1</td>
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<td>-19.0</td>
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<td>10.7</td>
<td>8.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Private investment</td>
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<td>-15.3</td>
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<tr>
<td>Public investment</td>
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<td>-30.8</td>
<td>-30.8</td>
<td>-30.8</td>
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<td>Exports</td>
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<tr>
<td>Tourism exports</td>
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<td>51.0</td>
<td>42.4</td>
<td>46.6</td>
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<td>Imports</td>
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<td>12.7</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Source: CBA  
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Box A: Inflation

This box serves as an explanatory note to the inflation expectations inherent in the current GDP forecast.

Inflation: A rise in the general level of prices of goods and services that households acquire for the purpose of consumption in an economy over a period of time.

End of period (EOP) inflation: The percentage change in the general level of prices of goods and services in a period, compared to the same period of the previous year.

12 month average inflation: The average percentage change in the general level of prices of goods and services in the last 12 months, compared to the preceding 12 months.

In the current GDP forecast, the projected 12 month average inflation rates for 2021 and 2022 are 0.5 percent and 2.7 percent, respectively. They follow from Consumer Price Index (CPI) data for Aruba up to and including September 2021, as well as global oil forecast data up to and including October 2021. With regard to local price developments, the assumption is that there are no changes in water and electricity prices for 2021, given that the price per fuel oil (HFO) barrel used in the production of water and electricity is hedged at lower than market prices, while for 2022, on the other hand, no hedge is assumed. Consequently, the price per barrel of oil used in the production of water and electricity is assumed to follow the expected higher international oil prices.

In addition to the volatility in oil prices, various other major developments present risks to the inflation forecast, many of which are tilted to the upside. Among others are potential fiscal measures needed in order to cope with the COVID-19 crisis prior to the planned fiscal reform of January 2023, as well as supply chain distortions due to pandemic and weather disturbances. As a result, the real GDP forecast figures, particularly those for 2022, may result lower than presented in the current outlook.
2.3 Outlook assumptions and risks

Given the uncertainties related to the pace of economic recovery following the COVID-19 pandemic, a number of assumptions were made to arrive at the various scenarios. The main assumptions and risks to the scenarios are:

- **Inflation.** Internationally, there is rising uncertainty with regard to future inflation developments and the associated downside risks. Particularly, as the International Monetary Fund (IMF) pointed out, the risk that the inflationary pressures may prove to be non-transitory. For the year 2022, there is a substantial level of uncertainty with regard to the general level of prices in Aruba. The source of this uncertainty is twofold. Firstly, it is related to the price that will be paid for the fuel oil (HFO) barrels used in the production of water and electricity. Local utility prices could experience upward pressure if these barrels are bought at the expected market prices in 2022 or hedged at a higher price than in 2021. Furthermore, supply chain disruptions are also bound to negatively impact the prices of the import of goods, with possible further hikes in construction materials as well as food prices. Food price shocks are no longer confined to the United States and the European Union, but have also started to affect the Latin America and Caribbean region. As such, presently, the surge in food prices is taking hold of our main regional source markets.

- **Duration and depth of the pandemic.** In all scenarios, the duration and depth of the pandemic are important factors underlying the outcomes. The impact of new variants of COVID-19, subsequent waves of contagion, as well as vaccination rates, could bring about significant downside risk to the results.

- **Speed of recovery.** The specific assumptions regarding the recovery of stay-over visitors and tourism credits are instrumental for the outcomes in each scenario. If tourists turn out to be more reluctant to travel and/or spend less during their stay-over than in these assumptions, this could mean lower receipts from tourism activities, stagnation in consumption recovery, and in turn a weaker rebound in economic output. Conversely, if the propensity to travel and/or visitor spending is larger than assumed in the scenarios, GDP growth could be higher than anticipated.

- **Employment wage restoration.** The assumption in the estimations is that as tourism activities recover and economic activity picks up, persons who are dependent on the FASE and wage subsidy program will receive their pre-pandemic wages paid by their employers. This assumption implies that the businesses dependent on aforementioned program will keep their employees and remain in business for the whole year. Moreover, the planned flexibilization of the labor laws is not taken into account. In addition, the 12.6 percent cut in the wages of public sector employees is expected to remain in place in the foreseeable future. Taken together, these developments would likely lead to a much more cautious spending pattern, thereby negatively impacting private consumption.
• **Investment projects.** The timely execution of relatively large investment projects is always a source of downside risk for GDP projections. Moreover, setbacks in these investment projects also could reduce FDI inflows and, thus, international reserves.

• **Additional government measures.** The government may introduce additional measures to reduce its deficit, such as further lowering personnel expenses and/or introducing tax and other income generating measures for the general public prior to the tax reform scheduled for January 1, 2023. Such measures could have a dampening effect on private and public consumption. This effect would be even larger if the government is unable to obtain full financing of its deficit or short-term liquidity support. In that case, more stringent measures could be necessary.

### 3 Concluding remarks

Due to the open nature of the Aruban economy and its huge tourism dependency, international developments, especially in the United States, play a significant role in its economic output. Recovery from the COVID-19 pandemic is, thus, dependent on the economic rebound in other countries, particularly the United States, the successful roll-out of the vaccine, the outbreak of new variants, and the willingness of people to travel. This willingness relates to potential safety concerns, but also to the continued adverse impact that the crisis may have had on their disposable income.

**Based upon available data, the Aruban economy is forecasted to continue its recovery path in 2021 and 2022.** While uncertainties related to new variants of COVID-19 and waves of contagion are expected to persist, the positive performance of the tourism sector drives economic growth. The upbeat development of the tourism sector is being amplified by the availability of the GOA’s FASE and wage subsidy programs in 2021, and the pick-up in investment in 2022. As outlined in the three scenarios used by the CBA, real GDP is projected to grow by 15.5 percent in 2021, but could range between 13.0 percent and 17.9 percent. For 2022, real GDP growth is forecasted at 7.7 percent, with a range between 3.1 percent and 12.0 percent. In nominal terms, this reflects an expansion of 14.0 percent, varying between 11.3 percent and 16.7 percent for 2021, and a 12.2 percent rise in GDP hovering between 6.8 percent and 17.3 percent for 2022.