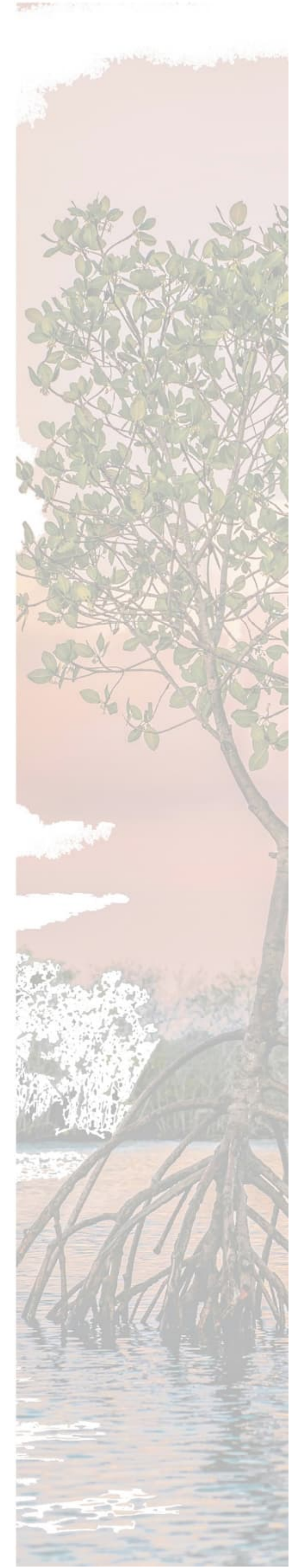
# STATE OF THE ECONOMY 2023 Q4

CENTRALE BANK VAN ARUBA

Cover design: Mangroves are hotspots of biodiversity, connecting life on land with life below the water. These ‘forests of the sea’ are essential to the health and vibrancy of our coastal ecosystems, including our community livelihoods. They provide a vital habitat for marine life, help to protect against coastal erosion and storm surges, as well as filter pollutants from the sea. Mangroves are one of nature’s most effective tools in the fight against climate change and are integral to nature.



## Executive Summary

### Robust tourism performance and a pick-up in investment activities drove continued economic growth in 2023.

Despite initial signs of performance normalization as growth slowed down in Q2 2023, tourism again boosted the economy in 2023. Heightened demand from the United States, Canada, and Colombia, sparked the number of stay-over visitors, along with stronger tourism spending and tourism revenues[1]. Resilient, albeit slowing, growth of global services helped push tourism demand in service-oriented economies like Aruba's. Expanded tourism demand and the subsequent rise in domestic demand (in nominal terms) led to an improvement in consumption indicators, even with inflationary constraints. Furthermore, private investment advanced heedless of continued elevated international prices, tighter global financial conditions, and the implementation of the turnover tax (B.B.O.) at the border in Aruba in August 2023. Meanwhile, the expansion in tourism and the pick-up in investment activities lifted import levels. At the end of December 2023, reduced gasoline prices were the primary factor decelerating the 12-month average inflation to 3.4 percent from 5.5 percent at the end of 2022. The 12-month average core inflation softened slightly to 2.1 percent, down from 2.2 percent at the end of December 2022. Regarding government tax performance, enhanced turnover, income, and profit tax collections pushed up total tax revenues, which has passed the level registered in the same period of 2019. Compared to 2022, tax revenues surged by 27.6 percent, propelled by improved labor market conditions, economic activities, and the 2023-tax reform. On the other hand, government expenditure rose by 5.7 percent. On balance, the Government of Aruba (GoA) recorded a financial surplus of Afl. 314.3 million at the end of 2023, rebounding from an Afl. 80.2 million deficit in 2022. Meanwhile, total government debt shrank by Afl. 148.8 million to Afl. 5,566.8 million in 2023 compared to 2022. Due to the combination of nominal GDP growth with the debt contraction, the debt-to-GDP ratio fell to 84.5 percent by the end of 2023, 12.6 percentage points lower than in 2022.



1 As measured by estimated tourism credits in the Balance of Payments of the CBA.

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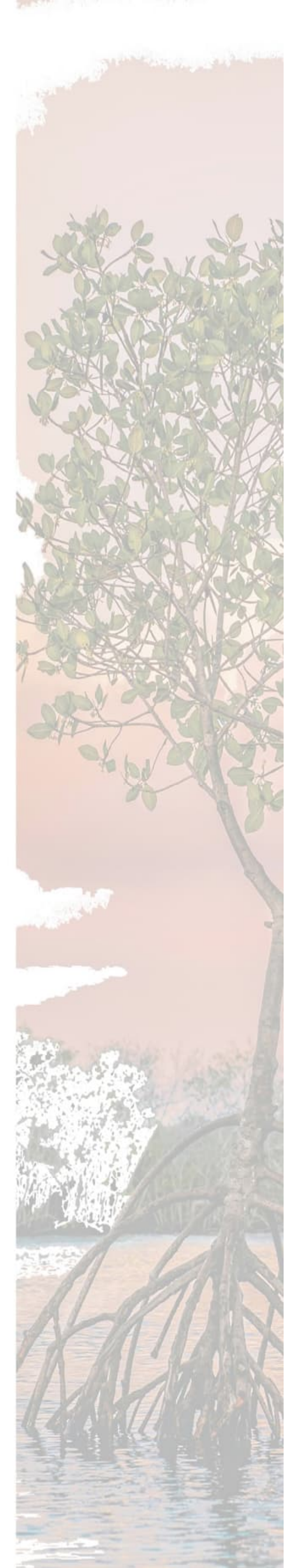
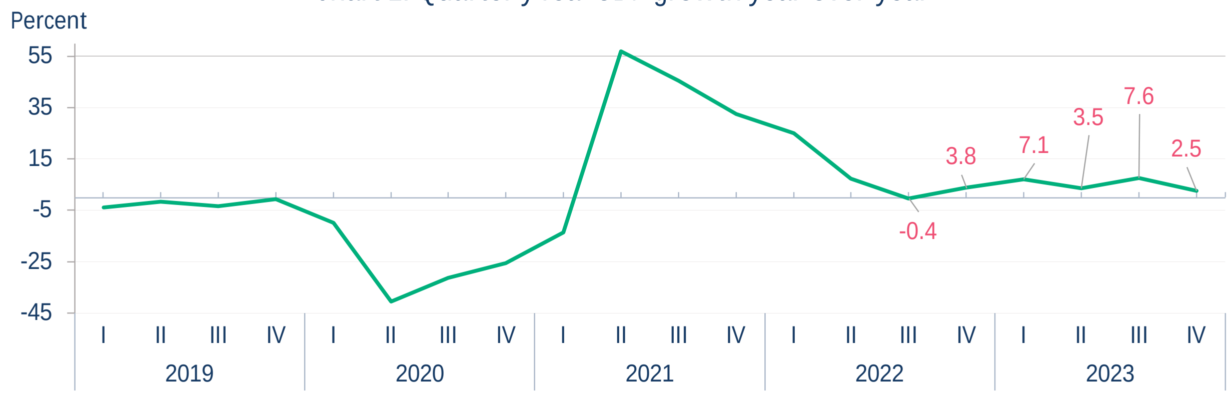


# I. DOMESTIC ECONOMY

## Economic growth

In 2023, the Aruban economy – measured in real Gross Domestic Product (GDP) – grew by an estimated 5.2 percent compared to 2022 (Chart 1). Tourism remained a vital contributor to economic growth, with increases in stay-over visitors and tourist spending. A pick-up in the pace of construction projects – mostly related to the tourism sector – complemented the buoyant performance of the tourism sector. This positive development drove up investment during the period under review. On the other hand, consumption stayed relatively flat in 2023, as the smaller size of the public sector (measured as the number of employees) and inflation eroded the gains brought about by the tourism-driven upturn in private sector employment and the growth in wages due to partial inflation indexation and a tight labor market. Following the strong expansions in tourism and investment, imports rose during 2023.

Chart 1: Quarterly real GDP growth year-over-year




Calculations: CBA

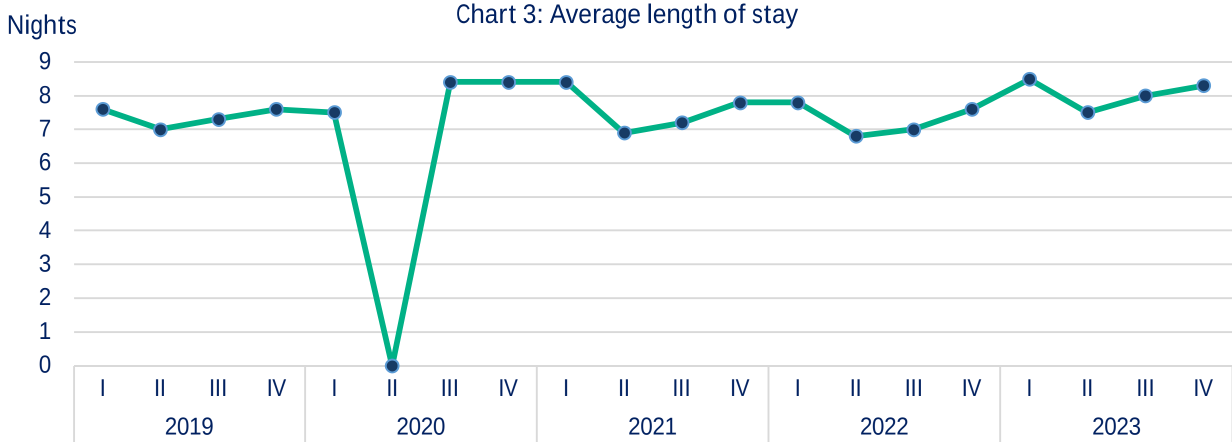
## Tourism

During 2023, all tourism-related indicators showed gains compared to 2022 (Table 1). The total number of stay-over visitors grew by 14.5 percent during the year under review compared to the previous year (Chart 2). Upturns in the number of visitors from the United States (+95.207 visitors; +11.1 percent), Canada (+21.882 visitors; +52.9 percent), and Colombia (+19.265, +57.7percent) were the main contributors to the growth indicated above. At the same time, the average length of stay (ALoS) of visitors registered 8.1 nights in 2023, which marks an expansion compared to the ALoS in 2022 (7.3 nights). This indicates that, on average, tourists spent a longer time on the island compared to the year before (Chart 3). Consequently, the number of visitor nights increased by 27.3 percent (+2,188.559 nights). In terms of 2019-levels, stay-over visitors reached 112.6 percent, while total visitors' nights amounted to 123.6 percent, as the ALoS in 2023 also outperformed the ALoS in 2019 (7.4 nights).

Chart 2: Stay-over visitors and visitor night growth (in %)


Source: Aruba Tourism Authority (ATA)

Chart 3: Average length of stay




Source: ATA

Data from the hotel sector also pointed to a buoyant performance by the tourism industry (Table 1). In 2023, revenue per available room (RevPAR[2]) rose by 14.7 percent compared to 2022. This development resulted from a higher hotel occupancy rate (2023: 78.0 percent vs. 2022: 75.0 percent) and a 10.4 percent surge in the average daily rate (ADR). In addition, the category 'other accommodations' also registered growth in terms of stay-over visitors (+26.5 percent) in 2023 compared to 2022. As a result, in 2023 the market share for 'other accommodations' grew to 28.0 percent from 25.0 percent in 2022. During the period under review, the ADR for short-term rental properties consistently outperformed the ADR reported during the previous year. Consequently, in 2023, total revenue from short-term rental properties expanded by 42.2 percent compared to 2022. Compared to 2019, RevPAR in 2023 grew by 13.8 percent. This development mainly resulted from a 23.7 percent upturn in the ADR, while occupancy dropped by 6.8 percentage points. Compared to 2019, the category 'other accommodations' strengthened by a marked 42.4 percent. Consequently, the market share of 'other accommodations' shifted from 21.8 percent in 2019 to 28.0 percent in 2023. Furthermore, the ADR for short-term rental properties in 2023 persistently surpassed the ADR reported in 2019.

[2] RevPAR is the product of the average daily rate and the hotel occupancy rate.

During the period under review, revenue[3] from tourism activities recorded at local commercial banks jumped by 14.6 percent compared to a year prior. The expansion in tourism revenue was attributed to the growth in total visitor nights, partially mitigated by lower tourism spending per night. Tourism spending per night amounted to Afl. 371.4 in 2023, compared to Afl. 412.7 in 2022, equivalent to a contraction of 10.0 percent. Compared to 2019-levels, the advances in tourism revenue per night (+15.1 percent) surpassed the upturn in total visitor nights (+12.6 percent). Accordingly, total reported tourism revenue reached 142.3 percent of the 2019-level in 2023.

In 2023, cruise arrivals continued on a recovery path toward 2019-levels. During the period under review, the total number of cruise visitors amounted to 817.670, from 317 ship calls. This development implies an improvement compared to 2022, which registered 610.474 cruise visitors from 306 ships. During June – November 2023, the number of cruise visitors was lower relative to the levels logged in both 2022 and 2019. The underperformance likely resulted from cruise companies extending the deployment of their ships for the summer season in Europe at the expense of the Caribbean. As a result, the number of cruise visitors in 2023 reached 98.3 percent of the 2019-levels.

[3] Tourism revenue corresponds to the definition of tourism credits as defined by the IMF BPM 6 manual. The cut-off date for the data used was March 4, 2024.

Table 1: Tourism indicators for Aruba
2023

| | 2019 | 2022 | *2023* |
|---|---|---|---|
| Stay-over visitors | 1,118,944 | 1,100,997 | *1,260,402* |
| Average length of stay (in nights) | 7.4 | 7.3 | *8.1* |
| Total visitor nights | 8,247,848 | 8,004,242 | *10,192,801* |
| Cruise visitors | 832,001 | 610,474 | *817,670* |
| Hotel occupancy (%) | 84.8 | 75.0 | *78.0* |
| Average daily rate (US$) | 275.7 | 309.0 | *341.1* |
| Revenue per available room (RevPAR) (US$) | 233.9 | 231.9 | *266.1* |
| Tourism revenue per night (in Afl.) | 322.6 | 412.7 | *371.4* |
| Tourism revenue* (in Afl. million) | 2,660.4 | 3,303.0 | *3,785.7* |

Sources: CBA, ATA, AHATA

*Only those registered at local commercial banks.

## Consumption

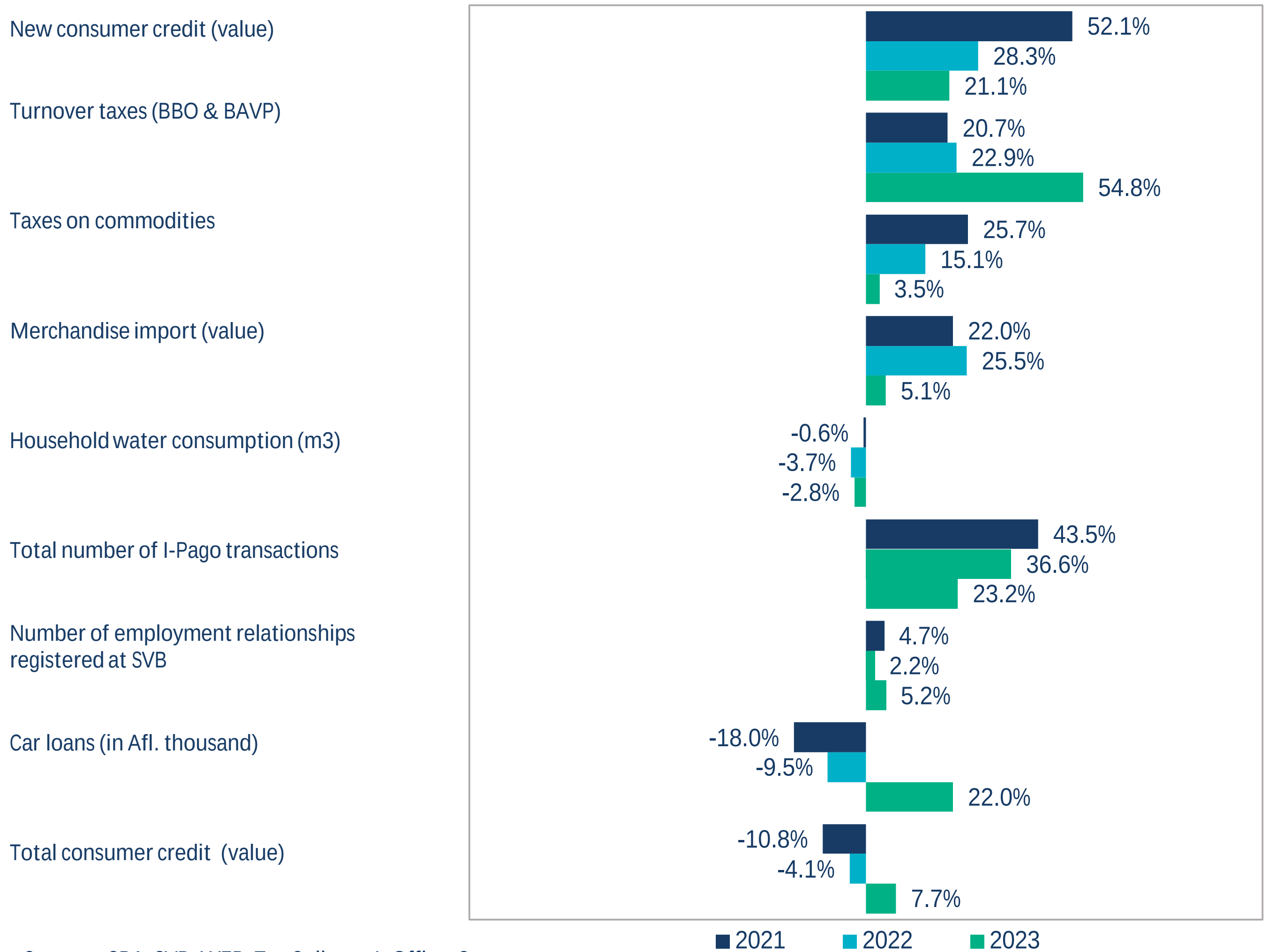
In 2023, the majority of consumption-related indicators pointed to improved economic conditions (Chart 4). During the period under review, revenue from turnover taxes surged by 54.8 percent compared to 2022. Heightened domestic consumption and the robust performance of the tourism sector positively affected the jump in turnover tax revenue. However, the increased revenue was not solely the result of higher consumption. The 1.0 percentage point rise in the B.B.O. rate as of January 1, 2023, as well as the implementation of the B.B.O. at the border as of August 1, 2023, played a significant part in the registered gain in turnover taxes mentioned above. Higher receipts from taxes on commodities provided a further indication of improved consumption, increasing by 3.5 percent in 2023. Data on merchandise imports (+5.1 percent) also pointed to better economic conditions compared to 2022, following the rise in domestic consumption (in nominal terms) and buoyant tourism activity.

Developments in commercial banking data complemented the tax and import indicators mentioned earlier. In 2023, the value of new consumer credit loans expanded by 21.1 percent. The total value of consumer credit loans also rose (+7.7 percent), with all components registering increases. Car loans, which grew by 20.0 percent compared to the previous year, recorded the most noteworthy upturn in consumer credit. The developments in car loans during the reviewed period were significantly different from those seen in 2022 and 2021 (2021: -18.0 percent; 2022: -9.5 percent). The expansion in car loans during 2023 reflects the availability of cars following the global semiconductor shortage, and car sale campaigns by local commercial banks in the summer of 2023. Additionally, the lowering of import duties on vehicles may have contributed to this growth. Consumer Confidence Survey (CCS) responses matched the car loan data, as the proportion of respondents who indicated that buying an automobile was suitable increased quarter-on-quarter during 2023, with the most notable jump in the third quarter of 2023 (2023-Q2: 5.7 percent; 2023-Q3: 12.3 percent; 2023-Q4: 14.0 percent).

Moreover, the total number of transactions processed by I-Pago jumped by 23.2 percent, mainly driven by transactions between Afl. 0 and Afl. 250 (+32.0 percent). Transactions above Afl. 250 also rose, albeit to a lesser extent (+15.7 percent). The registered growth in the number of transactions processed by I-Pago points to increased spending activities settled through the Aruban banking system.

In 2023, the number of employment relationships registered at the Sociale Verzekeringsbank (SVB) also expanded (+5.2 percent) compared to 2022. This expansion, which was more than double the growth recorded in 2022 (+2.2 percent), likely intensified the propensity to consume.

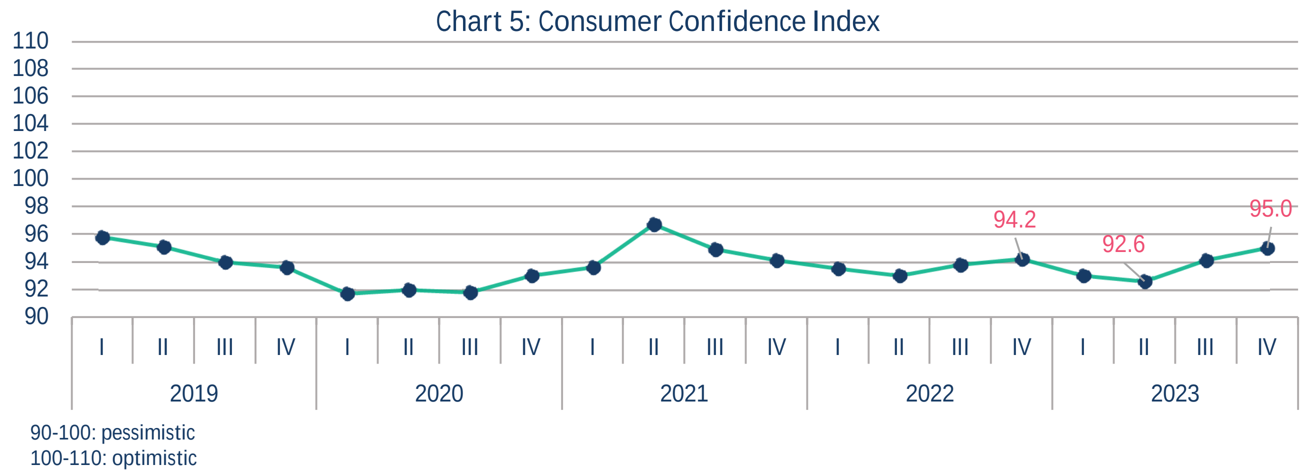
Chart 4: Consumption-related indicators
(YTD Dec 2023 vs. YTD Dec 2022 vs. YTD Dec 2021)




Sources: CBA, SVB, WEB, Tax Collector's Office, Customs Department

Available utility usage data was unclear regarding consumption. Household water consumption (in cubic meters) contracted by 2.8 percent, suggesting a more moderate use of water by consumers. Simultaneously, water sales to households (in Afl.) climbed by 12.0 percent following the elevated water tariff introduced August 1, 2022. For 2023, available data on household electricity consumption in kWh increased by 10.2 percent, resulting from greater prepaid (+19.2 percent) and post-paid (+9.2 percent) energy sales. Compared to 2022, prepaid energy connections went up by 8.6 percent (7,191 connections), while post-paid connections grew by 0.7 percent (3,444 connections). This development points to a higher propensity to control electricity consumption at home by using prepaid energy installations. A substitution from post-paid to prepaid meters by existing consumers might be at play, or consumers seeking new energy meter connections may exhibit a stronger preference for prepaid meters. Another potential explanation is related to the surge in residential rentals, which may be more inclined to use prepaid energy installations to avoid the risk of liability for unpaid energy bills, and the administrative burden of name-switching on contracts.

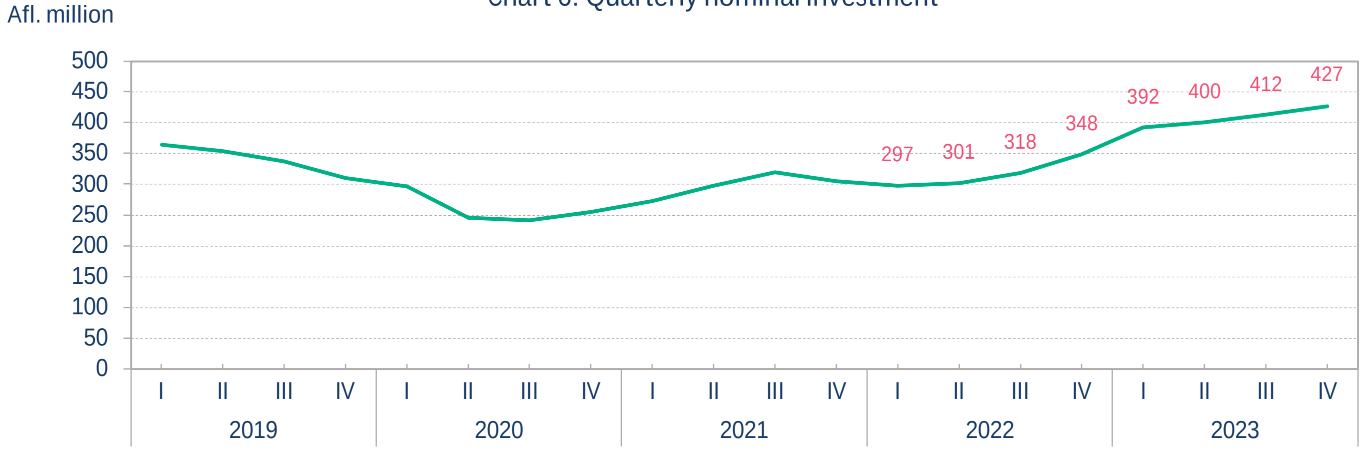
The Consumer Confidence Index (CCI) reflected the developments in most consumption-related indicators, picking up in the second half of 2023 after being on a downward path since the first quarter of 2023 (Chart 5). Consumers were less pessimistic in the fourth quarter of 2023 (CCI: 95.0), compared to the same period of the previous year (CCI: 94.2). The rise in the CCI followed improved consumer sentiments regarding their present situation and their expected future. The uptick in the Future Expectation Index, from 94.0 in 2022-Q4 to 95.6 in 2023-Q4, may be due to less uncertainty about price developments and the implementation of the BBO at the border as of August 1, 2023. Although the CCS's consumption and borrowing habits index did not show progress compared to 2022-Q4 (2022-Q4: 95.1, 2023-Q4: 94.9), a higher number of respondents indicated that large-scale spending, in particular on automobiles and vacations, was suitable compared to 2022-Q4. On average, however, the CCI remained virtually flat, as the average value of the CCI in 2023 (2023 Q1-Q4 average: 93.7) edged up slightly compared to 2022 (2022 Q1-Q4 average: 93.6). Moreover, on average, the CCI has not surpassed the pre-pandemic level of 94.6 registered in 2019, since 2021 (2021 Q1-Q4 average: 94.8).




## Investment

According to the CBA's Economic Outlook of March 2024, estimated investments surged by 28.9 percent in 2023, with the fourth quarter exhibiting a 22.7 percent year-over-year growth (Chart 6). Investment indicators mirrored this improvement in investments (Chart 7), underlining increases except for construction permits.

Chart 6: Quarterly nominal investment




Calculations: CBA

Construction permit data initially indicates a decline in investment in 2023 (see Chart 7). During this period, the value of construction permits reached Afl. 536.4million, a fall of 9.4 percent compared to 2022. The aforementioned drop was mainly attributable to apartment permits, which decreased by Afl. 119.2 million (-51.2 percent) in value. *However, based on current data and assumptions, Box 1 shows that yearly investments are likely more related to yearly construction permits lagged by one quarter.* For instance, investments from 2023 Q1 to 2023 Q4 correlate with construction permits from 2022 Q4 to2023 Q3 . Against this backdrop, construction permits rose by Afl. 419.7 million (+119.9 percent) in 2022Q4-2023Q3 compared to 2021Q4-2022Q3, which is more aligned with the estimated investment jump of 28.9 percent in 2023. During 2022Q4-2023Q3, year-over-year construction permit growth was most pronounced in apartments (+Afl. 187.7 million) and “others”, which is related to hotel projects (+Afl. 192.9 million).

## Box 1: The time gap between investment indicators and overall investments

Considering that quarterly investment figures are unavailable in Aruba, investment indicators such as (1) construction permits, (2) imported machines and electrotechnical equipment, imported base metals and derivative works, and (3) new housing and business mortgages should approximate (the unobserved) quarterly overall investments. However, these investment indicators presumably lag or lead investments. Accordingly, the analysis in this Box aims to discern the lag and lead effect of the indicators on overall investments.

There are numerous reasons why these three indicator categories lag or lead investments. First, construction permits conceivably lead investments because of legal considerations. Second, customs could record investment-related imports ahead of investments if those imported materials pass through intermediaries. Conversely, import registration can occur after investments if, for example, a company makes investments before the investment-goods arrive in Aruba. Third, loan registration likely occurs prior to investments, and, at least for housing mortgages, as banks release loan tranches, people can make investments on their new house.

The analysis in this Box utilizes a regression model to discern the three main indicators' lag or lead effect on overall investments. In this model, yearly overall investments depend linearly on the four-quarter sum of construction permits, imported machines and electrotechnical equipment, imported base metals and derivative works (hereafter: investment-related imports), new housing mortgages from commercial banks and non-monetary financial institutions (NMFIs), and new business mortgages and long-term loans from commercial banks (hereafter: long-term loans). Based on the discussion in the previous paragraph, some indicators were assumed to have lags while others displayed leads:

$$
\begin{aligned}
Investment_t = {} & \alpha + \beta_{currrent} * \sum_{i=1}^{4} ConstrPerm_{t,i} + \beta_{lag} * Lag\left(\sum_{i=1}^{4} ConstrPerm_{t,i}\right) \\
& + \delta_{current} * \sum_{i=1}^{4} InvImp_{t,i} + \delta_{lag} * Lag\left(\sum_{i=1}^{4} InvImp_{t,i}\right) + \delta_{lead} * Lead\left(\sum_{i=1}^{4} InvImp_{t,i}\right) \\
& + \gamma_{current} * \sum_{i=1}^{4} LongTermLoans_{t,i} + \gamma_{lag} * Lag\left(\sum_{i=1}^{4} LongTermLoans_{t,i}\right) + \theta * ControlVars
\end{aligned}
$$

The regression results in Box Table 2 underline the statistically significant effects of imported investment goods and construction permits on nominal overall investments. Explicitly, an increase of Afl. 1.0 million in the one-quarter lead of imported investment goods results in an expected growth of Afl. 1.6 million in nominal investments. The multiplier larger than one may indicate that businesses do not directly import investment goods themselves, and, thus, that local intermediaries are involved (e.g., large hardware stores and construction developers), with each intermediary adding its profit margin. Even if no intermediaries are involved, the outsourced installation costs of the imported machines also make up investments.

As for the lagged effect of imported investment goods on overall investments, it is roughly half of the lead effect. There are different explanations for the weaker lagged effect compared to the lead effect. First, import registration may occur more frequently before a project finalization rather than after. Second, import registration can materialize after investments, if companies make investments prior to the arrival of investment-goods in Aruba. Accordingly, fewer intermediaries participate in the goods acquisition, so the value-added to investments is presumably lower.

As for long-term loans, the analysis found no significant effects. This occurrence may be related to some mortgage funds going to pre-owned houses, and accordingly, does not impact investments. Additionally, the NMFI data did not cover business mortgages nor long-term business loans.

Regarding the control variables, the GVA in the manufacturing sector, which as a proxy for the change in inventories, was a statistically significant and robust predictor of investments as evidenced by regressions (3) and (4) in Box Table 2. However, the GVA in the trade sector was not statistically significant. The effect of economic momentum on investments was significant in regression (2) but was not robust to a different regression specification such as in (4). Last, the index for U.S. financial conditions was insignificant across all regressions. Thus, based on available evidence and the analysis period, investments in Aruba seem to be invariant to U.S. financial conditions.

Box Table 2: Nominal overall investments regressed against various indicators related to investments

| | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| One quarter lead of imported investment goods | 1.60* | 1.52* | 1.38* | 1.38* |
| One quarter lag of imported investment goods | 0.85** | 0.88** | 0.64** | 0.67** |
| One quarter lag of construction permits | 0.57* | 0.55* | 0.50* | 0.50* |
| Economic momentum proxy (change in GDP) | | 0.17*** | | 0.05 |
| Change in inventories proxy (GVA manufacturing sector) | | | 1.03* | 0.92* |
| Estimated partial effects are reported along with standard errors in parenthesis | | | | |
| R-squared | 0.85 | 0.88 | 0.91 | 0.91 |
| Period | 2000-2019 | 2000-2019 | 2000-2019 | 2000-2019 |
| *p-value<0.01, **p-value<0.05,***p-value<0.10 | | | | |

Since the analysis determines the leads and lags for various investment indicators related to yearly investments, quarterly nominal investments become computable. The core presumption is that the same (lag and lead) relationship between the investment indicators and investment in regression (1)[4] holds quarterly and yearly. The analysis produces Chart 6 using the Chow-Lin technique to derive high-frequency estimates (i.e., quarterly nominal investment) of a low-frequency indicator (i.e., yearly nominal investments) by applying the relationship between the low-frequency data (i.e., yearly imported investment goods and construction permits) and the low-frequency indicator to the high frequency data (i.e., quarterly imported investment goods and construction permits). As can be observed from Chart 6, investments in each quarter of 2023 were consistently above the corresponding quarter of 2022.

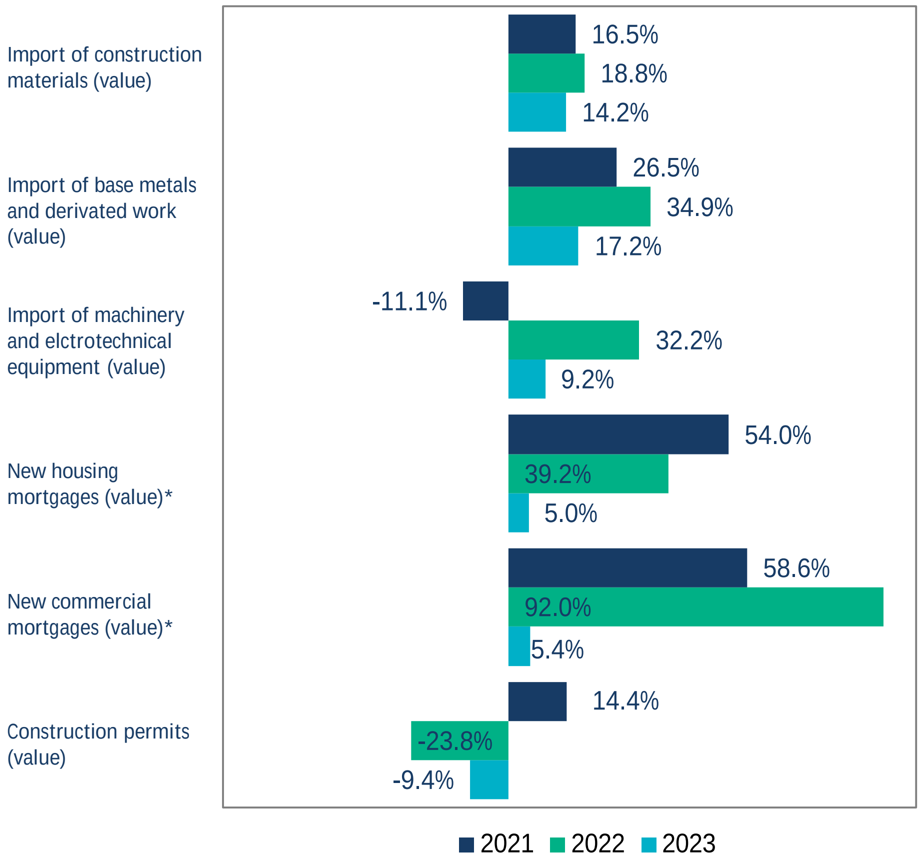
Overall, the main takeaways are that leads and lags of investment indicators shape investments. Understanding these patterns allows for more accurate estimation of quarterly nominal investments.

Import indicators of investment also reflected robust investment activities. The imported value of base metals and derivative works expanded by 17.2 percent, while that of machinery and electrotechnical equipment increased by 9.2 percent compared to 2022. Similarly, the value of imported construction materials rose by 14.2 percent. Following the insights offered in Box 1, the analysis should include import indicators at their first-quarter lag or lead levels. Against this backdrop, the one-quarter lagged sum of imported base metals and derivative works and imported machinery and electrotechnical equipment was Afl. 519.4 million during 2022 Q4 - 2023 Q3. This level represents a year-over-year boost of 28.2 percent. Likewise, the one-quarter lead sum was projected at Afl. 496.4 million in 2023 Q2-2024 Q1, 7.6 percent higher than the prior year.

In 2023, new housing mortgages expanded compared to 2022. Specifically, the value of new housing mortgages grew by 5.0 percent after accounting for an artificial (non-investment-related) boost in the first quarter of 2022. In this instance, one bank took over the loan portfolio of another bank; these were registered as new housing mortgages but did not affect the stock of loans. Nevertheless, the Consumer Confidence Survey results for 2023 contrasted with developments in new housing mortgages, as more respondents indicated that taking out a mortgage was unsuitable (2022: 58.0 percent, 2023: 61.4 percent). Regarding new commercial mortgages, an increase was evident in this category (+5.4 percent) when correcting for the already-mentioned loan portfolio acquisition.

[4] Regression (4) would be better for estimating quarterly investments, but a quarterly proxy for wholesale GVA is not readily available.

Chart 7: Investment-related indicators
(Percentage change current year vs. prior year )




*Corrected for 2022 loan portfolio takeover.

Sources: CBA, CBS, DOW

Business Perception Survey (BPS) results differed from most investment-related indicators. In particular, through the BPS, businesses were asked if their investments have had improved, stayed the same, or worsened compared to last year's quarter. After conducting an analysis of the answers to those questions, the Research Department derived a BPS investment index, which inched down to 105.4 in 2023 from 105.5 in 2022 (Chart 8). Hence, the BPS investment index remained flat, notwithstanding the limitation of the investment deductibility tax scheme to local investments only (per January 2023) and the introduction of B.B.O. at the border in August 2023.

Regarding the BPS investment plans over the next twelve months, results suggested lackluster investment activities. Significantly more companies reported no investment plans (2022: 32.4 percent, 2023: 39.0 percent). Additionally, in 2023, the proportion of businesses with small (less than Afl. 1 million) to medium (between Afl. 1 and Afl. 5 million) investment plans totaled 43.0 percent — 7.4 percentage points lower than the same period in 2022 (Chart 9). Nevertheless, an important caveat is that the investment plans pertain to long-standing incumbent firms. Consequently, the reported investment plans may not reflect new hotels' investments. *Another caveat is that the BPS investment plans are a twelve-month forward-looking indicator. Therefore, depending on the quarter of the survey, analyses should weigh yearly investment plans appropriately.* For example, the third quarter survey for 2023 covers expected investment plans in 2023 Q4 and 2024 Q1–Q3. Hence, only one quarter is relevant to the 2023 analysis. Following this method, small and large investment plans became more optimistic, medium investment plans less pessimistic, and the occurrence of no investment plans edged down in 2023 compared to 2022.

The BPS index edged up in 2023, distinct from the BPS investment index. Explicitly, the average BPS index climbed from 105.6 in 2022 to 106.2 in 2023. This minor improvement resulted from the slightly enhanced current and future short-term economic conditions index.

Chart 8: Business Perception Index

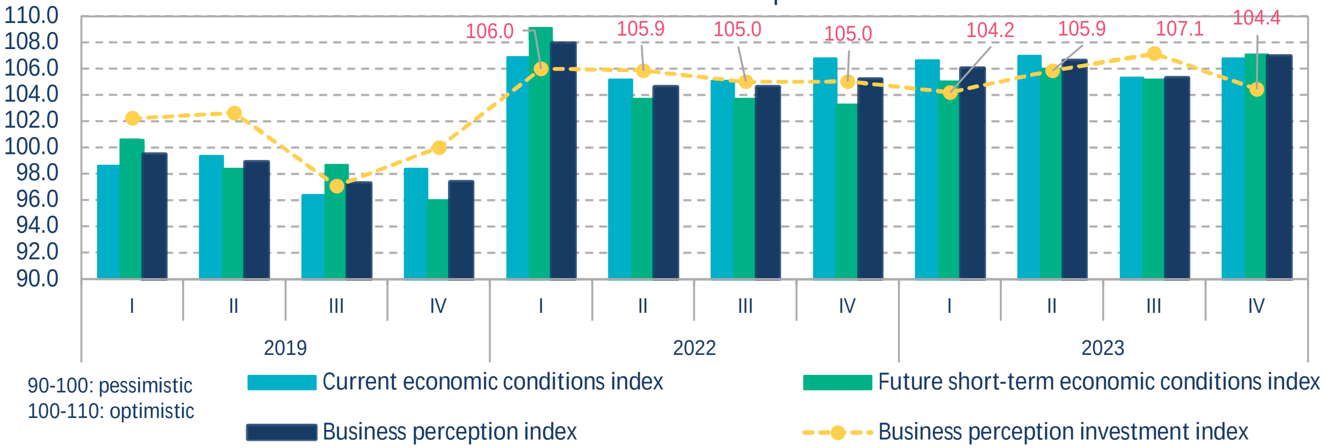
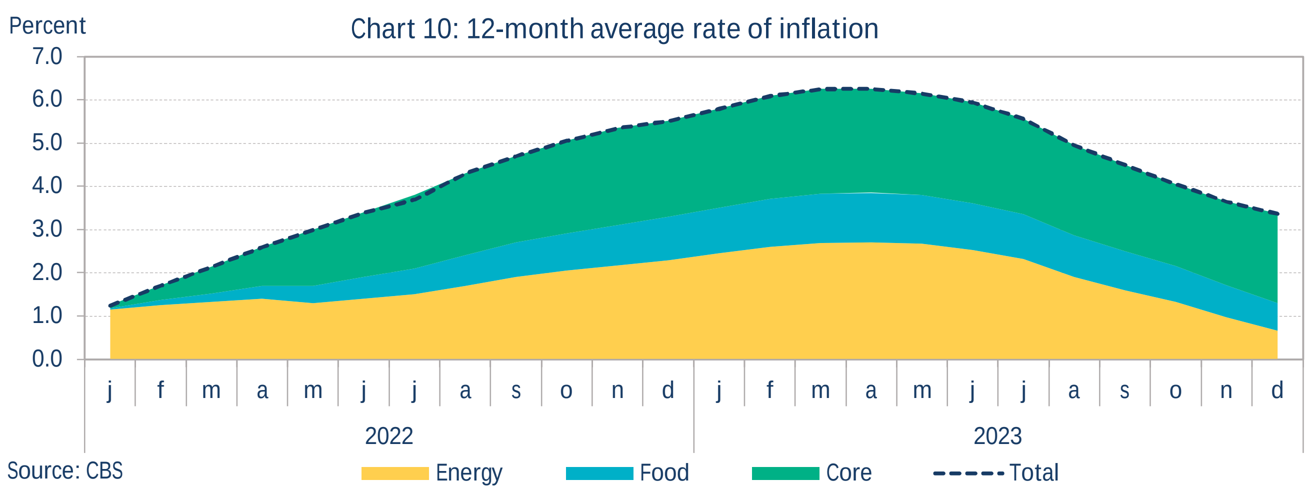



Chart 9: Share of businesses responses on their investment plans
Inner circle: 2022. Outer circle: 2023.


Source: CBA

## Consumer price index (CPI)

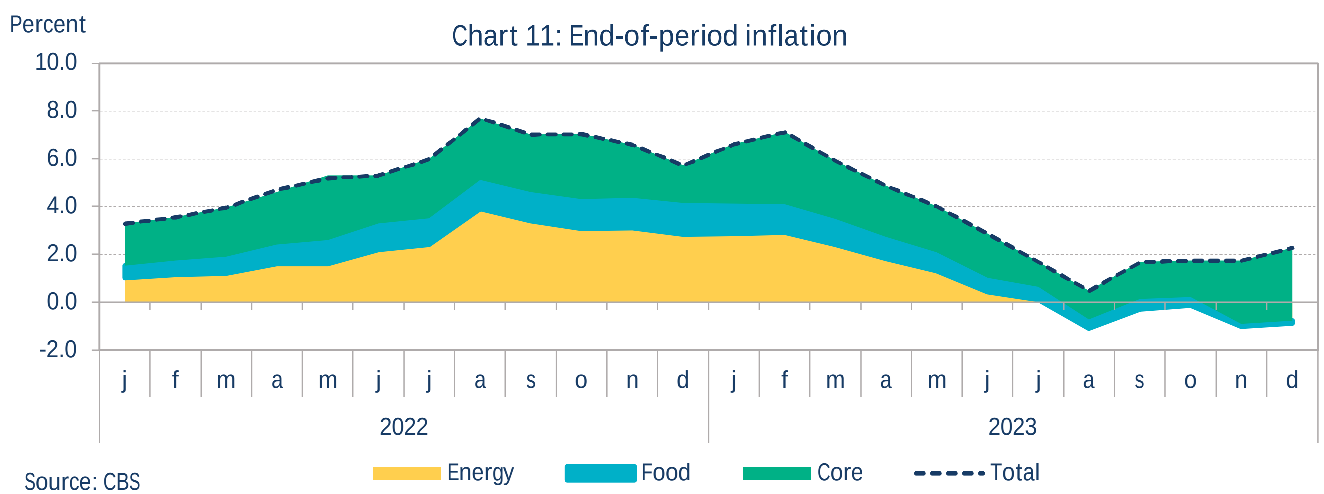
At the end of December 2023, the 12-month average inflation totaled 3.4 percent, 2.2 percentage points lower than in 2022 (Chart 10). The components housing (+1.7 percentage points), which continued to reflect the hike in utility tariffs of August 2022, and food and non-alcoholic beverages (+0.7 percentage point) were the main drivers of the 12-month average inflation. The components household operation (+0.3 percentage point), communication (+0.3 percentage point), restaurants and hotels (+0.3 percentage point), miscellaneous goods and services (+0.3 percentage point), health (+0.1 percentage point), and education (+0.1 percentage point) also registered price hikes. On the other hand, the components transport (-0.2 percentage point), recreations and culture (-0.2 percentage point), and clothing and footwear (-0.1 percentage point) mitigated the 12-month average inflation.



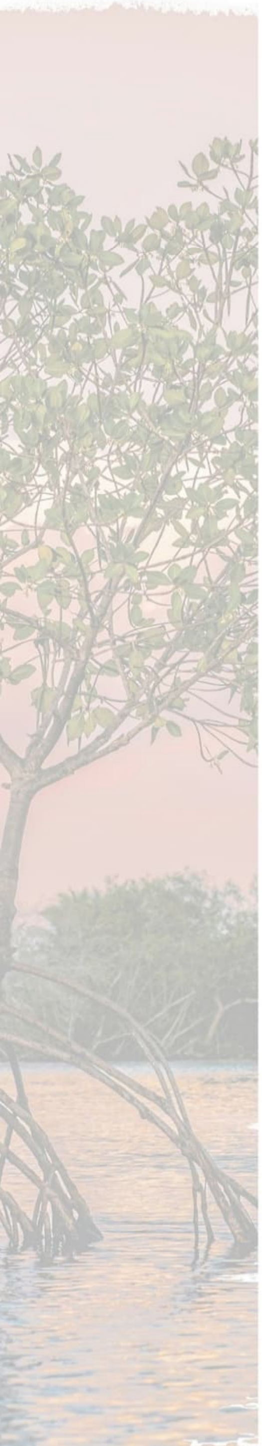
Source: CBS

The End of Period (EoP) inflation rate reached 2.3 percent at the end of 2023, i.e., 3.5 percentage points lower than in December 2022 (Chart 11). After recording 1.7 percent EoP inflation for three consecutive months (since September 2023), the December figure represents an accelerated price level increase compared to previous months. The component communication (+1.6 percentage points) was the main driver of EoP inflation. Additionally, the components household operation (+0.4 percentage point), miscellaneous goods and services (+0.4 percentage point), food and non-alcoholic beverages (+0.2 percentage point), restaurants and hotels (+0.2 percentage point), education (+0.2 percentage point), and health (+0.1 percentage point) helped push up EoP inflation. On the other hand, lower prices for transport (-1.0 percentage point), clothing and footwear (-0.1 percentage point), and recreation and culture (-0.1 percentage point) had an easing effect on the EoP inflation rate. An increased contribution from the component communication to the EoP led to upward adjustments in prices for numerous services, including landline, telefax, and cable, since July of 2023. Furthermore, a reduction in transport prices was mainly the result of decreasing vehicle prices, aside from the lower prices of oil on the international market and the resulting reduced prices for gasoline.

Chart 11: End-of-period inflation




Source: CBS

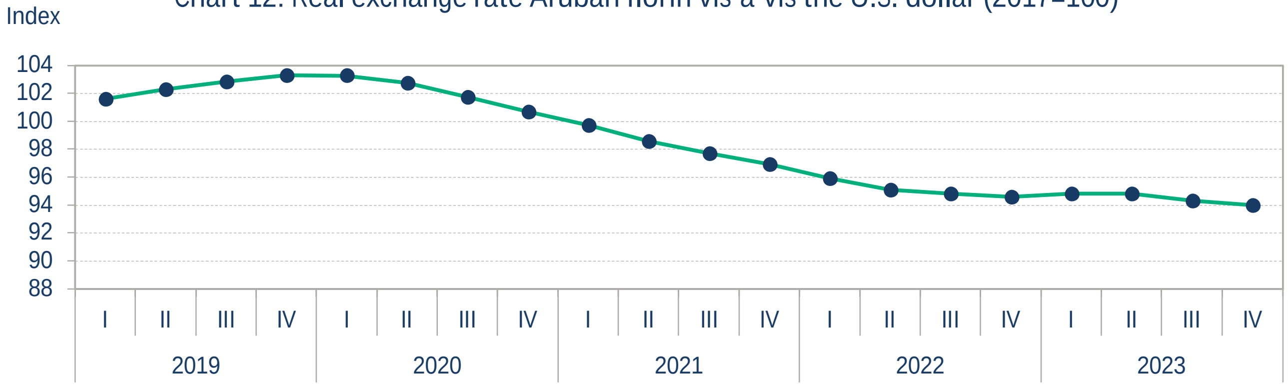


In 2023, the core component of inflation was increasingly the main driver of total CPI. In contrast to 2022, a combination of food and energy components were the main contributors to total inflation, especially toward the end of the year. As food prices normalized and the contribution from the energy component decreased, total inflation started to come down in 2023. However, the EOP core inflation rose mainly due to an increase in the prices of communication services starting in July 2023. At the end of 2023, EOP core inflation stood at 3.1 percent, 1.5 percentage points higher than at the end of 2022. During 2023, the 12-month average core inflation remained relatively stable, partly as a result of an increase in the housing component (+0.6 percentage point contribution). The increase in the housing component largely reflected higher prices for maintenance and repair. Additionally, the components communication (+0.3 percentage point contribution), household operation (+0.3 percentage point contribution), miscellaneous goods and services (+0.3 percentage point contribution), and restaurant and hotels (+0.3 percentage point contribution) also contributed to the 12-month average core inflation. In December 2023, the 12-month average core inflation reached 2.1 percent, 0.2 percentage point lower than December 2022.

## International competitiveness

After stabilizing at 94.8 earlier in 2023, the real exchange rate descended, reaching 94.0 in the fourth quarter of 2023 (Chart 12). This downward trajectory shows the sustained improvement in the competitive position of the Aruban florin vis-à-vis the US dollar. The improvement comes from lower inflation in Aruba compared to the United States.

Chart 12: Real exchange rate Aruban florin vis-à-vis the U.S. dollar (2017=100)

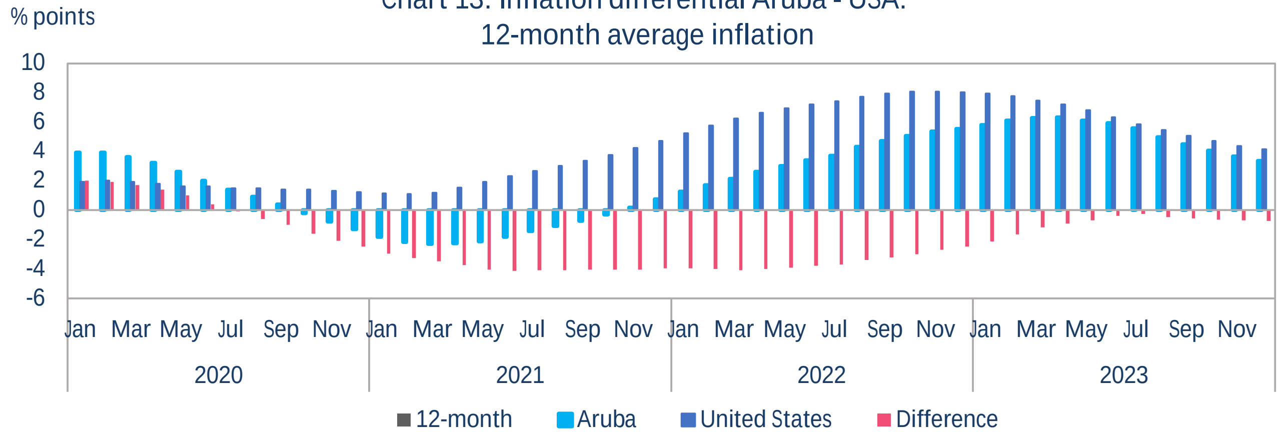



Source: CBA

At the end of 2023, U.S. 12-month average inflation stood at 4.1 percent compared to 8.0 percent the year before (Chart 13). In Aruba, the 12-month average inflation reached 3.4 percent compared to 5.5 percent in 2022 at year's end. The differential between U.S. and Aruban inflation continued to narrow over 2023, on account of several factors, including lower fuel oil and gas service prices[5], easing in the tightness of the U.S. labor market[6], and significant tightening in the monetary stance of the Federal Reserve.

[5] Bureau of Labor Statistics News Release – Consumer Price Index December 2023
[6] Based on IMF World Economic Outlook, October 2023

Chart 13: Inflation differential Aruba - USA:
12-month average inflation




Calculations: CBA

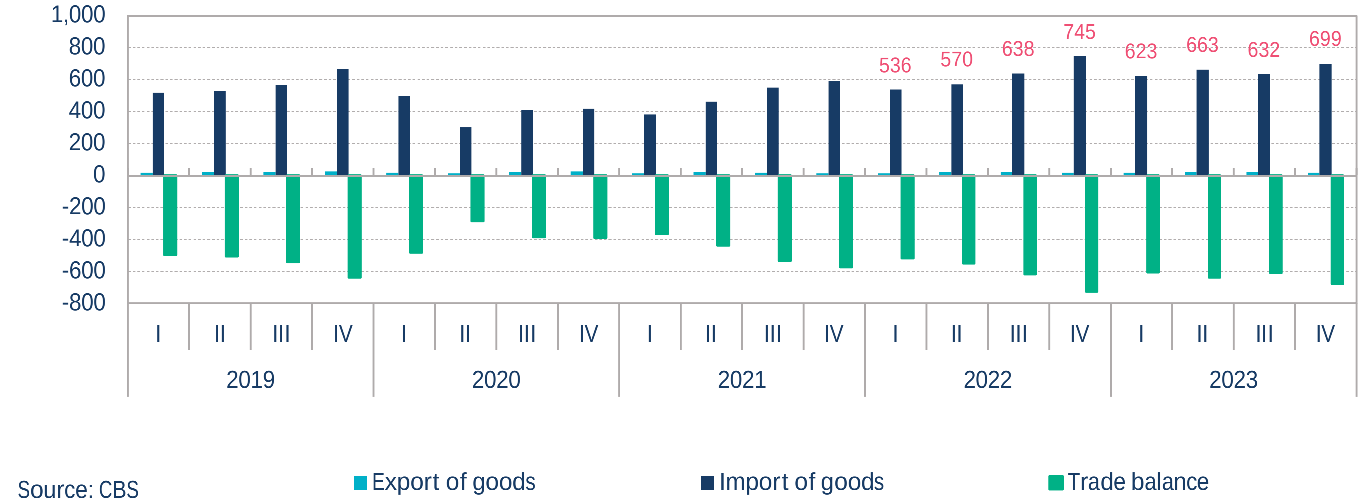
## Foreign trade

At the end of 2023, the trade deficit stood at Afl. 2,542.4 million compared to Afl. 2,420.5 million at the end of 2022 (Chart 14). An expansion of Afl. 127.6 million (+5.1 percent) in imported goods largely explains the widening in the deficit, while the impact of an increase in exported goods was minute (+ Afl. 5.7 million).

Continued strong tourism performance, domestic consumption, and investments likely led to the rise of imported goods. Specifically, estimated real imports rose by 1.5 percent, pushing up nominal imports. However, the effect of higher imported prices (+3.6 percent) on nominal imports was more pronounced. Most components of nominal imported goods showed growth, with those contributing the most including transport equipment, such as cars, motorcycles, and cycles (+37.8 percent), base metals and derivative works (+17.2 percent), and optical instruments, apparatus, and equipment (+14.7 percent). The main components of the latter are watches and medical equipment. Components that partly mitigated the increased imports were miscellaneous manufactured articles (-8.9 percent), live animals and other animal products (-5.8 percent), and mineral products (-4.5 percent). The latter category comprises “ores, slag, and ash, petrochemical products (excluding crude oil and butane)”, and “alt, sand, stone, and cement”.

The export of goods reached Afl. 73.6 million in 2023, representing an advance of Afl. 5.7 million compared to 2022. The principal items supporting export growth were food products (+ Afl. 2.9 million) and base metals and derivative works (+ Afl. 2.4 million). In contrast, the weakened export of machinery and electrotechnical equipment (- Afl. 3.3 million) had a dampening effect.

Chart 14: Foreign trade




Source: CBS

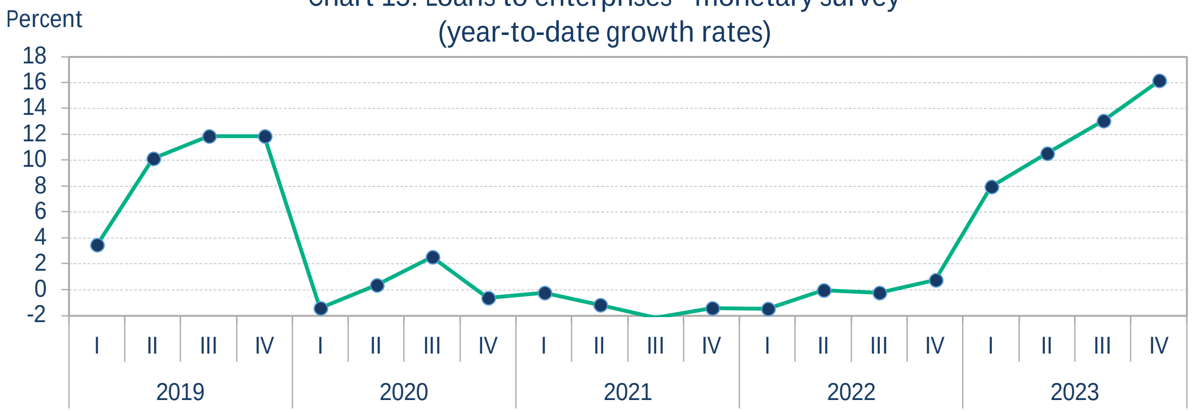
## Monetary survey

In 2023, credit provided by the local commercial banks expanded by 9.8 percent driven largely by a rise in business loans compared to 2022. More favorable domestic interest rates compared to those available abroad led to the increase in business loans. Overall credit growth more than tripled in 2023 compared to 2022. A higher amount of business loans (+16.1 percent

[Chart 15]), loans to individuals (+5.3 percent), and other credit (+8.3 percent) pushed up overall credit at the end of 2023, compared to December 2022.

Term loans longer than two years (+25.3 percent), complemented by commercial mortgages (+13.0 percent), drove the increase in business loans despite contractions in term loans shorter than two years (-85.1 percent) and current accounts (-12.5 percent). The growth in term loans longer than two years was mainly due to greater demand for local refinancing of existing foreign loans, given the interest rate differential resulting from relatively low interest rates on the domestic market vis-à-vis rates abroad.

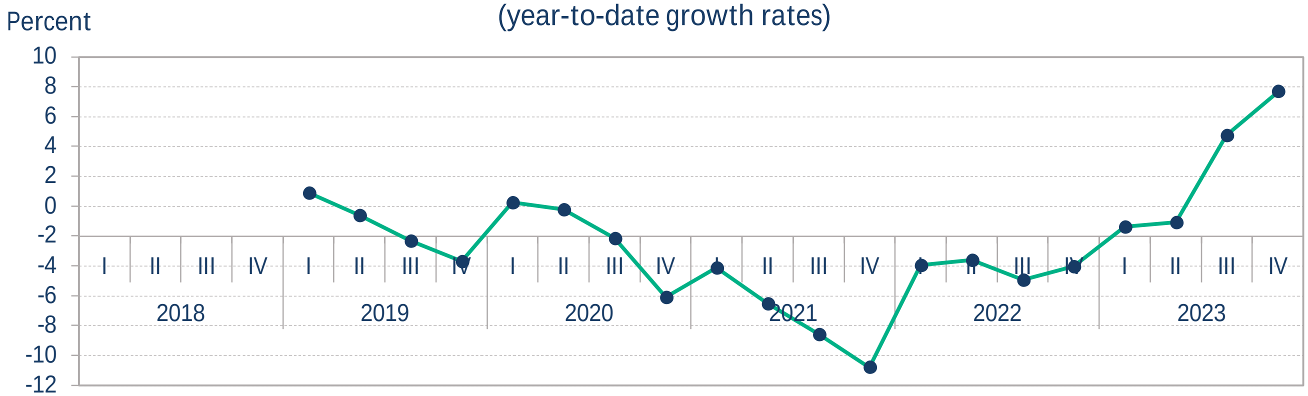
Chart 15: Loans to enterprises - monetary survey
(year-to-date growth rates)




Source: CBA

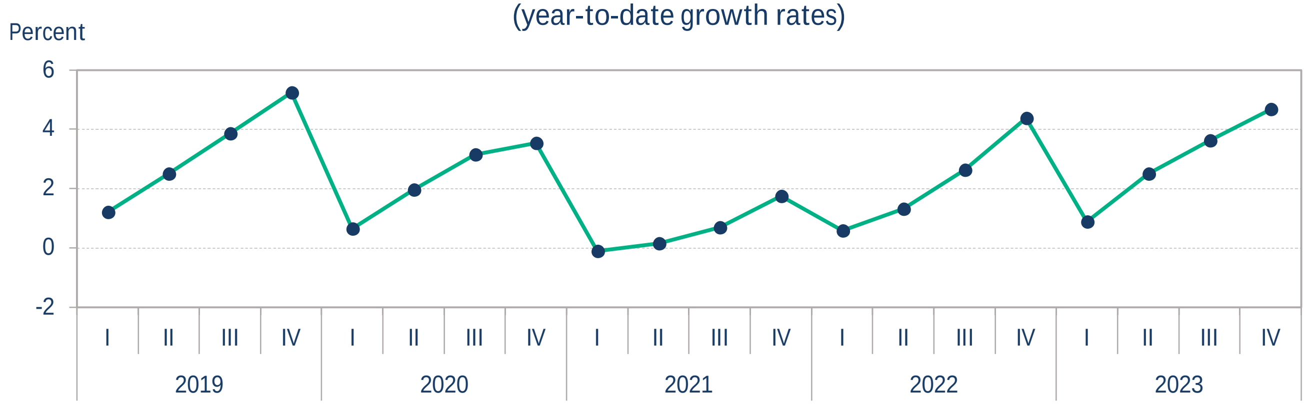
At the same time, loans to individuals grew due to a considerable demand for consumer credit (+7.7 percent) and housing mortgages (+4.7 percent) (Chart 16 & 17). Following a long-term decline, consumer credit picked up in the third quarter of 2023. A jump in car loans (+22.0 percent), credit cards (+3.3 percent), and other consumer credit (+7.9 percent) were the main contributors to the increase in total consumer credit. Meanwhile, personal loans (+0.2 percent) remained flat in 2023 compared to 2022.

Chart 16: Consumer credit - monetary survey
(year-to-date growth rates)




Source: CBA

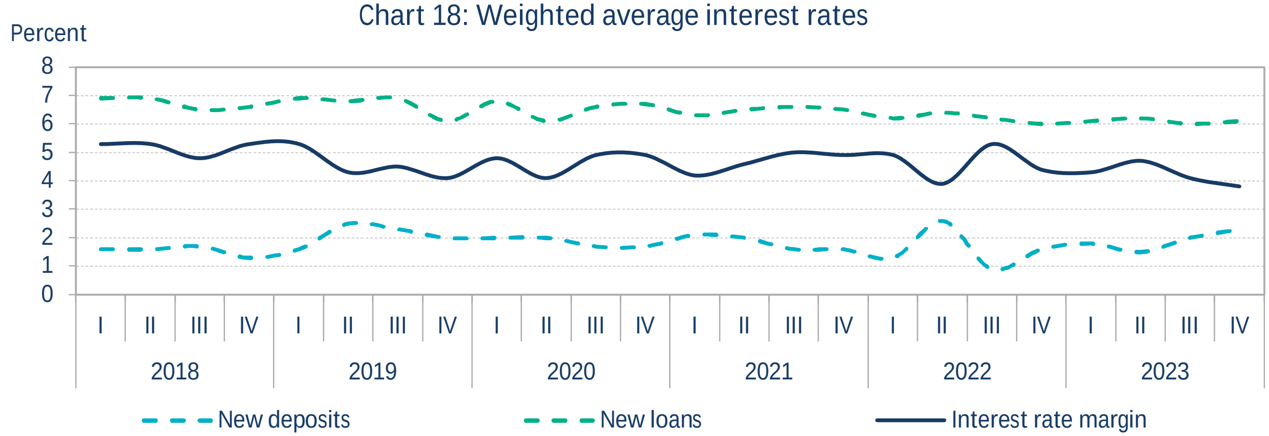
Chart 17: Housing mortgages - monetary survey
(year-to-date growth rates)




Source: CBA

The quarterly weighted average interest rate margin fell to 3.8 percent at the end of 2023, down from 4.4 percent at the end of the fourth quarter of 2022 (Chart 18). The lower interest rate margin resulted from higher average interest rates on new deposits (Q4 2022: 1.6 percent; Q4 2023: 2.3 percent), while the average interest rate on new loans was virtually unchanged (Q4 2022: 6.0 percent; Q4 2023: 6.1 percent). The average interest rate on deposits mainly widened due to an upturn in the interest rate on time deposits shorter than 12 months, which doubled from 1.1 percent in Q4 2022 to 2.2 percent in Q4 2023. Most loan components' interest rates remained unchanged, while the average interest rate on consumer credit dropped from 8.6 percent in Q4 2022 to 8.3 percent in Q4 2023. However, the latter was insufficient to cause a fall-off in the weighted average interest rate on new loans.

Chart 18: Weighted average interest rates



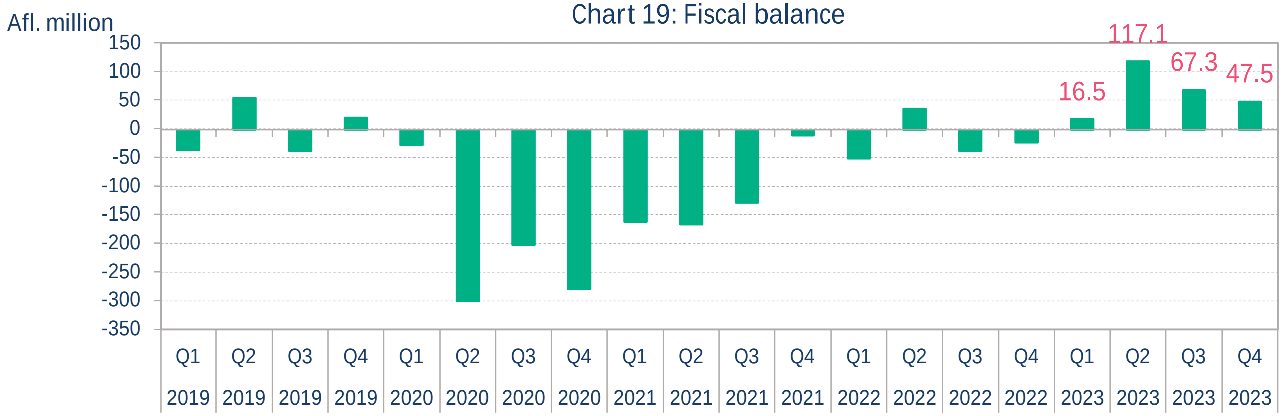

Source: CBA

The financial soundness indicators stayed adequate in 2023. The capital adequacy ratio shrank to 32.7 percent, down from 39.8 percent at the end of 2022. Asset quality, measured as nonperforming loans to gross loans, strengthened, reaching 1.7 percent compared to 3.5 percent in 2022. Nonperforming loans had been following a downward trend since April 2021, likely due to the resilient rebound of the Aruban economy following the COVID-19 pandemic. The commercial banks' aggregated prudential liquidity ratio (PLR) stood at 25.5 percent at the end of 2023 (minimum required PLR: 18.0 percent), i.e., 4.3 percentage points lower than the end of 2022. This lower level coincided with liquidity outflows related to the local refinancing of foreign loans early in 2023.

## Government

At the end of 2023, the government of Aruba (GoA) recorded a financial surplus of Afl. 248.3 million compared to an Afl. 80.2 million deficit during 2022 (Chart 19). This turnaround represented a jump of Afl. 407.5 million in government revenues, partially offset by a rise in government expenditures (on a cash basis) of Afl. 80.1 million. Moreover, the surge in government revenues continued the upward trend observed since 2021, exceeding the level (i.e., Afl. 1,718.9 million vs Afl. 1,402.4 million) registered in 2019.

Chart 19: Fiscal balance




Calculations: CBA

In 2023 and compared to 2022, total government revenue[7] widened by Afl. 407.5 million (+31.1 percent) to Afl. 1,718.9 million. This development was mainly the outcome of a strong upturn in tax revenues (+Afl. 325.7 million, +27.8 percent). Nontax revenues contributed to a lesser degree to this shift: + Afl. 81.7 million (+59.1 percent).

Higher receipts from the turnover tax (+Afl. 121.9 million; +54.8 percent) and taxes on income and profit (+Afl. 116.1 million; +30.7 percent) were the main contributors to the change in tax revenues in 2023 (Chart 20). There are different conditions that create an upward pressure on the former. Effective January 1, 2023, the BBO rate rose by 1 percentage point; and starting on August 1, 2023, the Aruban tax authorities began collecting BBO at the border at a rate of 7 percent on imported goods. Other explanations for the surge in turnover tax revenue include but are not limited to higher local consumption and increased tourism spending in 2023. The other main contributor to the change in tax revenues, being taxes on income and profit, went up as a result of receipt gains in income tax (+Afl. 50.8 million; +161.3 percent), profit tax (+Afl. 50.5 million; +39.4 percent), and wage tax (+Afl. 14.8 million; +6.7 percent). During 2023, the upward movement in income tax and wage tax revenue reflects improved employment, which concord with data retrieved from the Sociale Verzekeringsbank (SVb)[8] and improved economic conditions. According to the SVb, at the end of 2023, the number of employment relationships reached 43,727, up from 41,565 at the end of 2022. Receipts from profit taxes likely rose due to stronger economic activity.

In 2023, other key players in the expansion in tax revenues were income from taxes on services (+Afl. 65.1 million, +141.4 percent), taxes on commodities (+Afl. 12.0 million, +3.5 percent), and foreign exchange tax (+Afl. 12.4 million, +22.8 percent). Income from taxes on services jumped mainly due to an Afl. 60.9 million (+814.2 percent) expansion in hotel room tax collections in 2023 vis-à-vis 2022. This development mirrored an increase in the tourist levy rate from 9.5 percent to 12.5 percent since the 1st of January 2023. Additionally, the larger share of total hotel room tax that the Government of Aruba (GoA) receives contributed to this rise as per January 1st, 2023. Furthermore, heightened tourism arrivals and rising hotel room rates also played a role in the amount of hotel room tax collected during the year. Moreover, taxes on commodities widened primarily as a consequence of higher import duties (+Afl. 13.8 million, +7.0 percent). In 2023, income from taxes on property dragged down tax revenues, decreasing by Afl. 9.9 million (+19.0 percent).The latter was propelled by a contraction of Afl. 13.0 million (-27.7 percent) in transfer tax revenues. In 2022, transfer tax collection reached a peak of Afl. 47.0 million — therefore, the development in 2023 might be indicative of a partial cooling in the real estate market in 2023. Moreover, non-tax revenues rose

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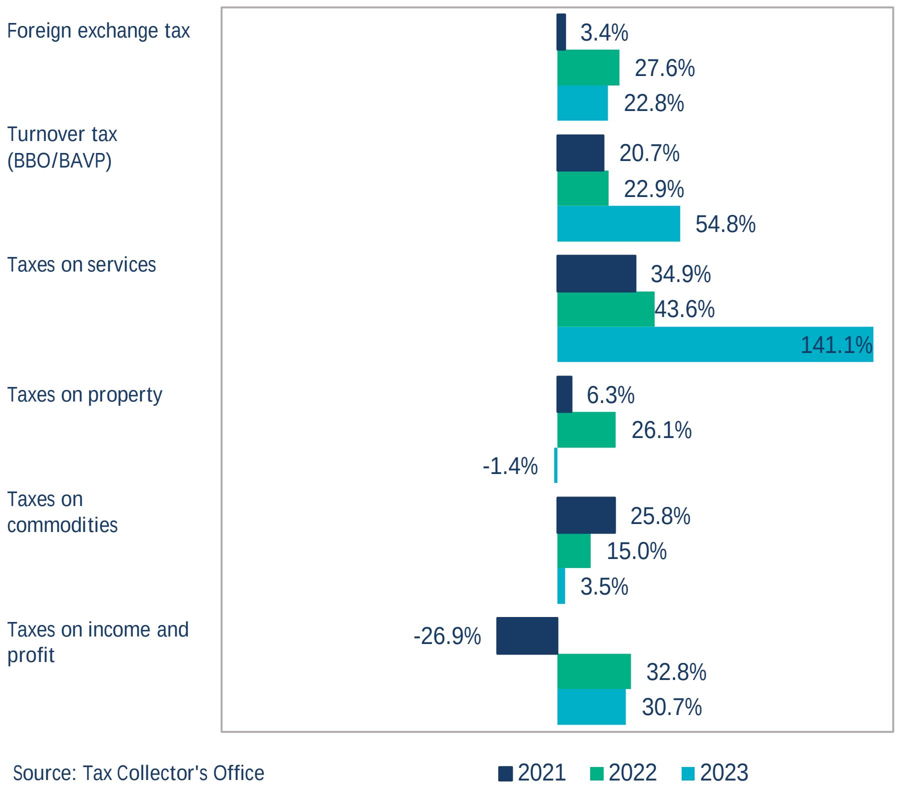
7 Based on tax revenue and preliminary available nontax data.

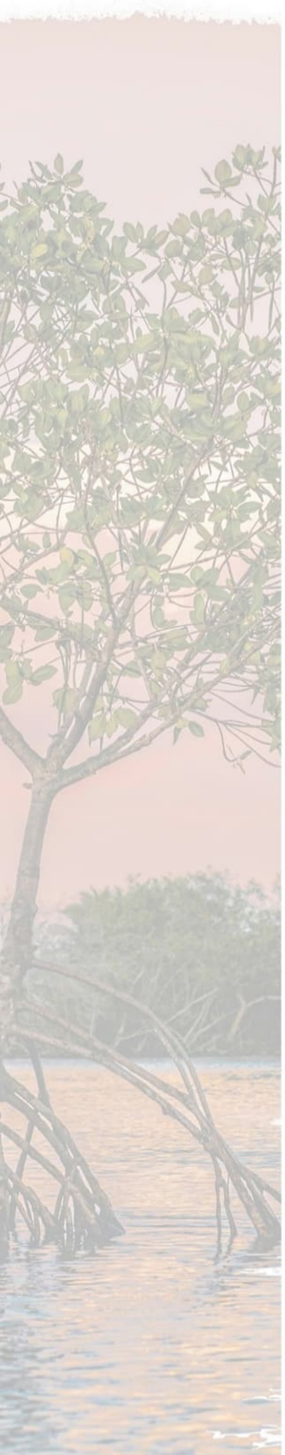
8 https://www.svbaruba.org/organisatie/statistieken/?lang=nl

to Afl. 220.1 million, pushed up by increased state-owned companies' dividend payments to the GoA (+Afl. 41.8 million, +59.1 percent).

Chart 20: Government tax revenue
(Percentage change 2023 vs. 2022)

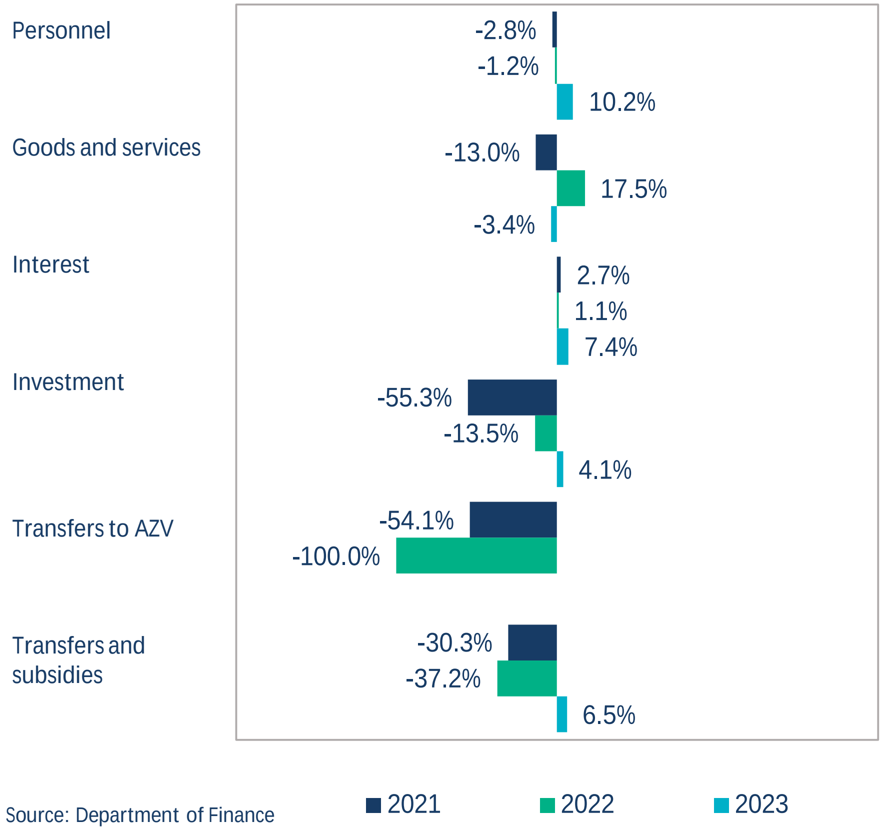



Source: Tax Collector's Office



Government expenses (on a cash basis) reached Afl. 1,459.3 million at the end of 2023. This development reveals an expansion of Afl. 80.1 million or 5.8 percent compared to 2022. Most components of government expenditures showed an uptick compared to the same period in 2022 (Chart 21). The largest increases were noted in personnel-related expenses (+Afl. 55.3 million or +10.2 percent), and interest payments (+Afl. 18.3 million or +7.4 percent). Personnel expenses rose likely in relation to the complete roll-back of the COVID-19 curtailment of public-sector wages. Meanwhile, interest payments expanded as a result of rising interest rates from tighter global financial conditions.

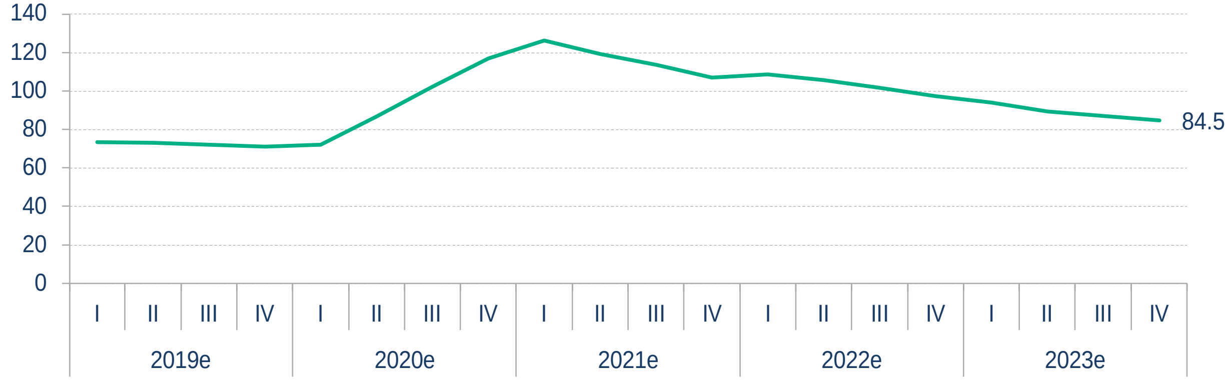
Chart 21: Government expenditure
(Percentage change 2023 vs. 2022)




Source: Department of Finance

Total government debt shrank by Afl. 152.9 million to Afl. 5,562.7 million in 2023 compared to the previous year. Lower foreign debt owed to financial institutions in the U.S. (-Afl. 171.2 million) was the predominant factor in the decline in government debt. Meanwhile, the debt owed to the Dutch government for liquidity support (Afl. 915.5 million) was rolled over and stayed unchanged compared to December 2022, albeit at a significantly higher interest rate. Domestic debt expanded (+Afl. 55.7 million), mostly associated with an increase in issued government bonds (+Afl. 157.3 million). The latter was partly mitigated by a decline in treasury bills stock (-Afl. 53.8 million) and non-negotiable domestic debt (-Afl. 47.8 million). Total government debt (as a ratio to GDP) stayed above the 2019 Q4 pre-pandemic level of Afl. 4,318.9 million (or 71.1 percent of GDP), highlighting the pandemic-induced expansion of government debt. Due to the combination of nominal GDP growth with debt contraction, the debt-to-GDP ratio fell to 84.5 percent at the end 2023, marking a reduction of 12.6 percentage points compared to the end of 2022 (Chart 22).

Chart 22: Debt-to-GDP ratio



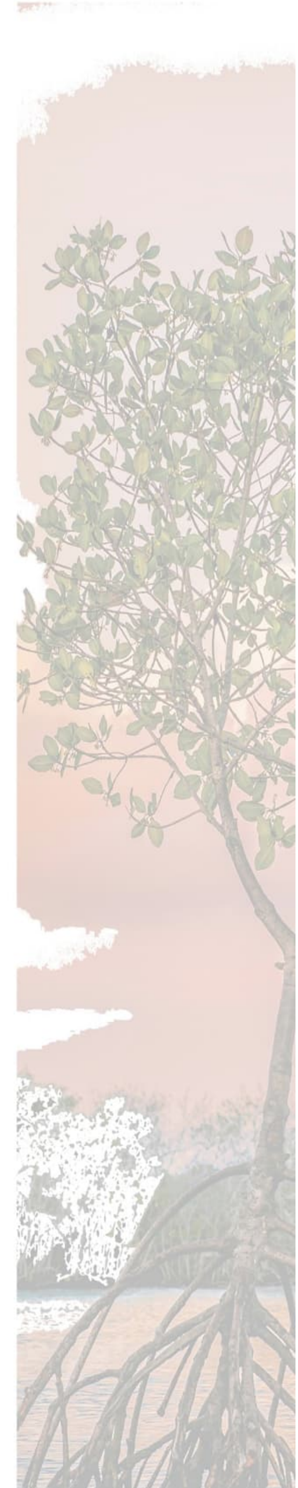

Calculations: CBA
e = estimated

## II. INTERNATIONAL DEVELOPMENTS

The recovery of the global economy proved remarkably resilient in 2023[9]. Amidst easing supply pressures and contractionary monetary policy inflation fell faster than expected in 2023. The decrease also was accompanied by minimal effects on unemployment and economic activity. In particular, these developments reflect well for development in the supply chains and for the tightening in central banks' monetary policy. However, as a result of tightening to combat inflation, demand is foreseen to cool, resulting in lower global growth in 2024.

According to the IMF's World Economic Outlook (WEO) for April 2024, the global economy is estimated to have grown by 3.2 percent in 2023. It is forecasted to grow at the same rate in 2024. The update represents an upward revision for both years (2023 and 2024: +0.1 percentage point) compared to the January 2024 IMF WEO Update. However, the projected growth remains below the 2000 - 2019 historical average of 3.8 percent. This low pace of expansion can be attributed to both near-term and long-term effects. In the short-term, the high borrowing costs and cessation of fiscal support have immediate impacts. Meanwhile, on the longer-term horizon the after-effects of the COVID-19 crises, the ongoing Russia-Ukraine war, weak growth in productivity, and increasing geoeconomic fragmentation may dampen growth prospects in the medium-term.

The outlook defines risks for global growth as balanced amid disinflation and resiliency in the global economy. On the upside, looser financial conditions than projected could increase economic activity in the short-term, although with the possibility of requiring further action in the longer-term. Additionally, inflation could drop faster than anticipated amid gains in labor force participation, allowing central banks to ease their plans earlier than currently planned. Moreover, a boost in productivity growth is likely due to developments in artificial intelligence and structural reforms. On the downside, geopolitical tensions, such as the Russia-Ukraine war and the conflict between Israel and Gaza, could increase the risk of new commodity price spikes, supply chain disruptions, and more persistent inflation. These could prevent the loosening of the abovementioned financial conditions. A diverging trend in the disinflation pace across major economies could put further pressure on currency markets and the financial sector. At the same time, property sector challenges in China (and other economies) could also threaten global growth expectations for 2024 and beyond. Last, high debt among governments globally may lead to tax hikes, eroding confidence, slow economic activity, and reduced support for reforms needed to protect against climate change risks.



9 IMF World Economic Outlook January Update 2024 – Moderating Inflation and Steady Growth Open Path to Soft Landing

For advanced economies, growth is estimated at 1.6 percent in 2023 and forecasted for 1.7 percent in 2024. In the United States, stronger-than-expected growth in 2023 is expected to partially persist into 2024. The Euro area is anticipated to grow by 0.4 percent in 2023 and projected to be 0.8 percent in 2024. The 2023-estimate reflects the high exposure to the war in Ukraine, while the 2024-figure is driven by more robust household consumption as the shock to energy prices is presumed to normalize, pushing up real income growth. Overall, in 2023 governments in advanced economies eased fiscal policy, including the United States and the Euro area. In 2024, the fiscal stance is expected to tighten, making budgetary space to curb high debt levels. Regarding monetary policy, with inflation expected to continue easing, central banks are projected to start lowering their policy rates in the second half of 2024.

In the emerging markets and developing economies (EMDEs), growth is projected at 4.3 percent in 2023 and 4.2 percent in 2024. In 2023, stronger-than-expected growth and increased government investment in capacity-building against natural disasters in China pulled up the forecasted figures. For Latin America and the Caribbean (LAC), the growth is anticipated to ease downward from 2.3 percent in 2023 to 2.0 percent in 2024. The latter is mainly related to anticipated negative growth for Argentina amid its ongoing challenges with macroeconomic stability[10]. While the fiscal policy stance in the EMDEs is estimated to have remained neutral, the stance eased for Brazil and Russia in 2023. In 2024, the fiscal stance of EMDEs is projected to remain broadly neutral. As for monetary policy, several EMDEs started to ease during the second half of 2023 – Brazil, Chile, and China – while advanced economies were still tightening.

10 IMF World Economic Outlook January Update 2024 – Moderating Inflation and Steady Growth Open Path to Soft Landing

Table 3: Projections for the world economy and selected economies (Real GDP growth, in percent)

| Indicator | 2023e | 2024f |
|---|---|---|
| World | 3.2 | 3.2 |
| United States | 2.5 | 2.7 |
| Euro Area | 0.4 | 0.8 |
| Latin America and the Caribbean | 2.3 | 2.0 |

Source: IMF WEO April 2024

e = estimate ; f = forecast

## III. CONCLUSION

In 2023, persistent vigorous tourism performance drove economic growth. Growth in stay-over visitors and tourist spending was the main contributors to the estimated year-on-year increase in real GDP of 5.1 percent. Consumption and investment indicators were primarily positive due to increased local demand for goods and services, and more optimistic business sentiments.

In 2023, tourism indicators continued to be robust, albeit showing initial signs of performance normalization as expansion slowed in the second quarter of 2023. The US market was the main driver of tourism demand, with the Canadian and Colombian markets increasing in significance. The hotel sector performance reflected a strong development in tourism-related activities. The hikes in the number of stay-over visitors, total visitor nights, and tourism revenue led to a strengthening of the average hotel occupancy rate, average daily rate (ADR), and revenue per available room (RevPar).

At the end of December 2023, the 12-month average inflation stood at 3.4 percent, i.e., 2.1 percentage points lower than in 2022. The main contributors were the components housing (which continued to be impacted by the hike in utility tariffs of August 2022) and food and non-alcoholic beverages. The End-of-Period (EoP) inflation slowed to 2.3 percent at the end of December 2023, down from 5.7 percent at the end of 2022.

At the end of the fourth quarter 2023, the real exchange rate for the Aruban florin vis-à-vis the U.S. dollar fell by 0.6 index point compared to the same period of 2022. The continued descent of the real exchange rate reaching 94.0 index points follows the sustained improvement in the competitive position of Aruba vis-à-vis the United States, which began in the second quarter of 2020 and started to slow down in 2022. A narrowing inflation differential between the United States and Aruba resulted in the stabilization of the real exchange rate.

In 2023, overall credit growth accelerated after remaining virtually flat since 2020. The uptick in overall credit was predominantly related to larger business loans, followed by higher loans to individuals. The former is primarily the consequence of greater demand for local refinancing of existing foreign loans due to lower interest rates on the domestic market vis-à-vis those abroad.

Government revenues surged in 2023 against the same period in 2022. Improved economic conditions and the 2023 tax reform led to a jump in total tax revenues that exceeded the level registered in the same period of 2019. On the other hand, expenditures rose by 5.7 percent. On balance, the GoA recorded a financial surplus for the first time since the COVID-19 pandemic (Afl. 314.3 million). Subsequently, total government debt shrank by Afl. 148.8 million to Afl. 5,566.8 million in 2023 compared to 2022. Due to the combination of nominal GDP growth with the debt contraction, the debt-to-GDP ratio fell to 84.5 percent by the end of 2023, i.e., 12.6 percentage points lower than in 2022.

In January 2023, the International Monetary Fund (IMF) published its most recent World Economic Outlook (WEO). The WEO contained updates to the global growth projections presented in October 2023. The IMF estimates a decline in global growth to 3.1 percent in 2023 and maintaining at 3.1 percent in 2024, down from the 3.5 percent estimated for 2022. Forecast risks remain broadly balanced.

CENTRALE BANK VAN ARUBA

J.E. Irausquin Blvd 8
P.O. Box 18
Oranjestad, Aruba
Phone: (+297) 5252 100