

Kingdom of the Netherlands—Aruba

2013 Article IV Consultation



KINGDOM OF THE NETHERLANDS—ARUBA

2013 ARTICLE IV CONSULTATION

August 2013

Kingdom of the Netherlands—Aruba: Selected Issues and Statistical Appendix

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KINGDOM OF THE NETHERLANDS—ARUBA

SELECTED ISSUES AND STATISTICAL APPENDIX

June 11, 2013

Approved By
European Department

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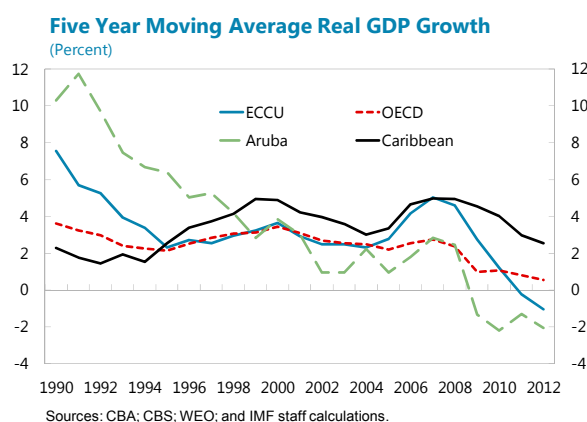
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SUSTAINING POTENTIAL GROWTH¹

As in the other Caribbean countries, there are growing concerns in Aruba about the slowdown in economic growth over the past two decades and the consequent tepid outlook for potential growth. Tackling such concerns requires identifying the underlying factors. This chapter presents an overview of Aruba's economic growth performance since 1990, analyzes factors behind the slowdown, and discusses how potential growth can be sustained.

A. Growth Performance

1. Aruba's real GDP growth has been on a downward slide since 1990. After growing on average by 4.8 percent in the 1990s and close to 2 percent during 2000-07, real GDP contracted on average by 2.4 percent during 2008-12. While a slowdown in growth was felt everywhere in the region in recent years, Aruba's downturn was particularly deep. Real GDP contracted by over 11 percent in 2009 as global financial crisis and shut down of refining by Valero hit Aruba's economy. There was a temporary turnaround in output in 2011, based on a recovery of the tourism sector and the resumption of oil refining. However, real GDP contracted again in 2012 due to the second shutdown of refining in March 2012, which eventually led to the decision of converting the company into a transshipment facility, thereby eliminating its refining function. Aruba has lost, at least for now, a significant source of export and investment. The level of real GDP in 2012 remained 12 percent below its pre-crisis level and its recovery is expected to be slow.



2. The volatility of GDP growth has increased over time. The standard deviation of real GDP growth rose from 2.8 in the 1990s to 4.2 during 2000-07 and 5.6 during 2008-12. The volatility, which is considerably higher than in

GDP Growth and Volatility
(Based on real GDP Growth rates)

Countries	Average growth			Average Std. Dev.		
	1990-99	2000-07	2008-12	1990-99	2000-07	2008-12
Aruba	4.8	1.9	-2.4	2.8	4.2	5.6
Caribbean 1/	3.2	4.3	2.6	2.1	2.1	1.3
ECCU	3.3	3.5	-1.0	1.7	2.4	3.3
OECD	2.7	2.6	0.6	0.8	0.9	2.6

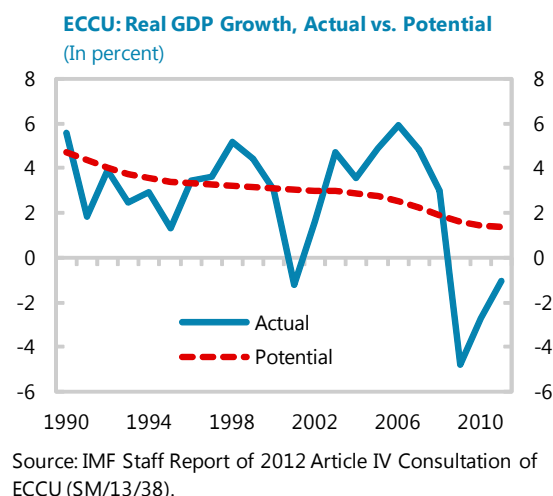
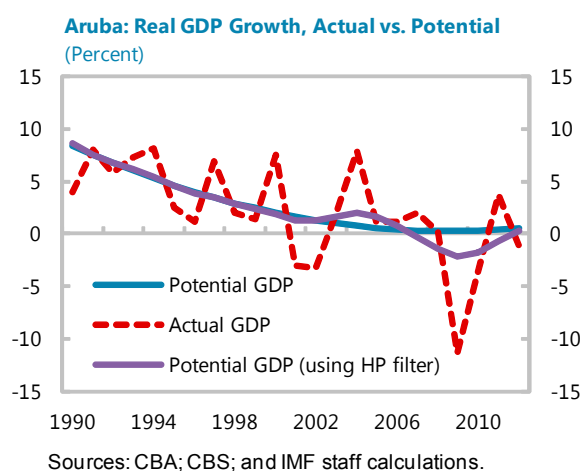
Sources: WEO; ECCB; and IMF staff calculation.

1/ Simple average.

¹ Prepared by Haiyan Shi. The author would like to thank the Aruban authorities, Sebastian Acevedo, and Xin Li for sharing the data, and seminar participants at the Central Bank of Aruba for useful comments.

other Caribbean countries, reflects (i) Aruba's vulnerability to business cycles in source countries that drive tourism and FDI into Aruba, and (ii) the fluctuation in international oil prices that affect the profitability of oil refining. Tourism accounts for over 80 percent of economic activities with more than 60 percent of Aruba's tourists originating in the US. This highlights Aruba's susceptibility to economic slowdown in the US. Similarly, the slim margins of the oil refining industry are sensitive to the crude/light oil price ratio and a fall in this margin has led to repeated suspension of oil refining in recent years.

3. Potential output in Aruba has also declined over time. We derive Aruba's potential output using two methods, a time-trend polynomial function and the HP filter. Both methods show that potential output has been on a declining trend over the years, with current potential growth near or below zero depending on the estimation method. The declining trend is also visible in the Eastern Caribbean Currency Union (ECCU) countries, but Aruba's shows a faster pace.

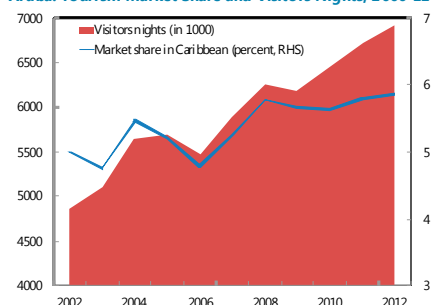


B. What Explains the Modest Growth Performance

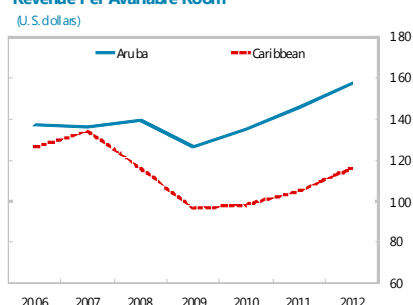
4. A lack of competitiveness in the tourism sector, which plagues some of Aruba's Caribbean neighbors, does not seem to be the explanation.

- Aruba's market share in Caribbean tourism has increased signaling sound competitiveness. The sector has navigated the most recent financial crisis better than its Caribbean peers with a faster rebound. Strong efforts by the authorities to diversify the market favoring fast-growing South American emerging market economies (such as Venezuela, Brazil, Chile, and Colombia) and Aruba's reputation as a "high-end" destination have helped with the faster recovery, as tourism losses have been concentrated more in the lower-cost segments of the market. Revenue per available room has also been consistently higher than the Caribbean average. A sizable share of Aruba's resorts is owned by timeshare owners which provided stability during the global crisis.

Aruba: Tourism Market Share and Visitors Nights, 2000-12



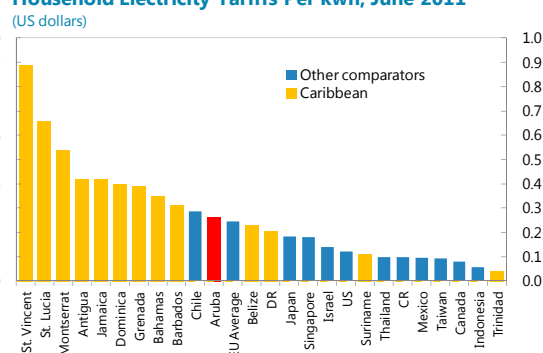
Revenue Per Available Room



Sources: CBS; CBA; and Aruba Tourism Authority.

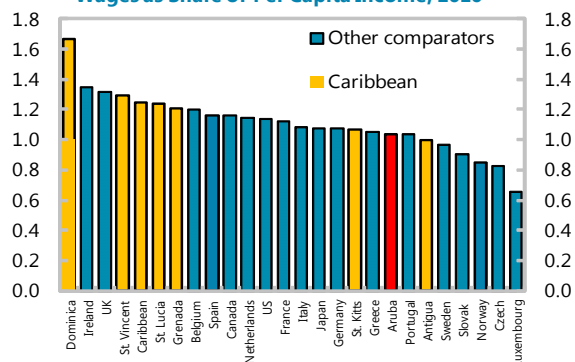
- Input costs, such as electricity and wages, and cost to import are low compared to other countries in the region. Electricity tariff, at US\$0.26 per kwh, is among the lowest in the region. Many firms, especially in the ECCU countries, identify high electricity tariff as a major constraint to doing business. Moreover, tourism requires large labor input and imported intermediate goods making wage and import costs a major issue in competitiveness. Limited data does not allow us to make a sectoral wage analysis. But a very broad comparison based on the ratio of average wage to per capita income, and the shipping costs of imports shows Aruba's competitive strength in the region.

Household Electricity Tariffs Per kwh, June 2011



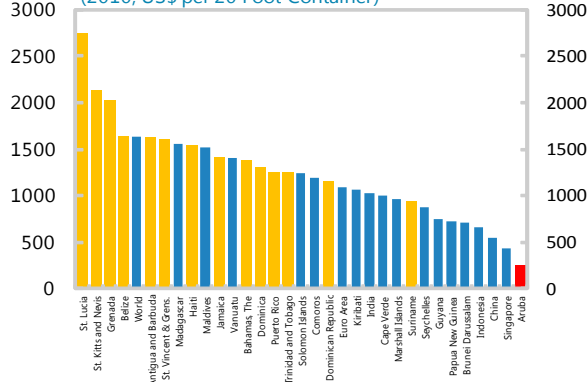
Sources: Utility Companies, International Energy Agency, U.S. Energy Information Administration, Europe's Energy Portal.

Wages as Share of Per Capita Income, 2010



Cost to Import

(2010, US\$ per 20 Foot Container)



Sources: World Bank, Doing Business Indicators; National pension companies for ECCU countries; OECD; and Aruban authorities.

Box 1. Aruba's Labor Law: Examples of Rigidities

Aruba's labor market is highly regulated:

- An employment contract will be entered before the hiring and the employer is not allowed to ask the employee to perform other jobs except the one specified in the contract.
- Temporary workers are only allowed to be hired through a temporary agency for a period of up to 12 months in the same position/function. After 12 months, there is a pause of 3 months before it is possible to use the same temporary worker in the same position/function.
- To lay-off workers, employers are required by law to obtain a dismissal permit from the Director of the Department of Labor and make severance pay based on the employee's last salary and the years of service.
- The total working time in a week (including overtime) cannot exceed 55 hours.

Source: Aruban Authorities.

5. However, Aruba's structural competitiveness portray a more mixed picture. Aruba is not included in the World Bank's Doing Business Indicators. But anecdotal evidence suggests that there are impediments to doing business in the form of restrictive hiring and firing procedures (Box 1), high borrowing costs for new entrepreneurs, and unclear and complex licensing requirements for starting a business. These challenges aggravate further the obstacles to economic diversification that are common to small island economies.

6. We used a Cobb-Douglas production function with constant returns to scale to calculate the contribution of each factor to growth. The basic production function includes capital and labor as factor inputs:

$$Y = AK^\alpha L^{1-\alpha} \quad (1)$$

where, Y is aggregate output, A is total factor productivity, K is the physical capital stock, L is the stock of labor, and α is the factor-income share of capital. Taking logs, differentiating with respect to time, and expressing the variables as growth rates give us:

$$\frac{\dot{Y}}{Y} = \frac{\dot{A}}{A} + \alpha \frac{\dot{K}}{K} + (1-\alpha) \frac{\dot{L}}{L} \quad (2)$$

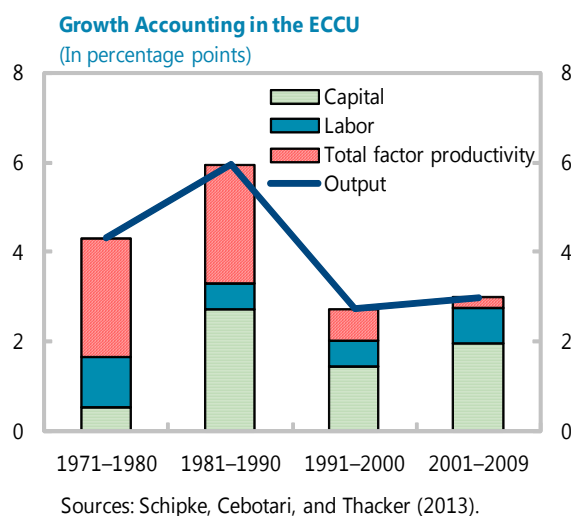
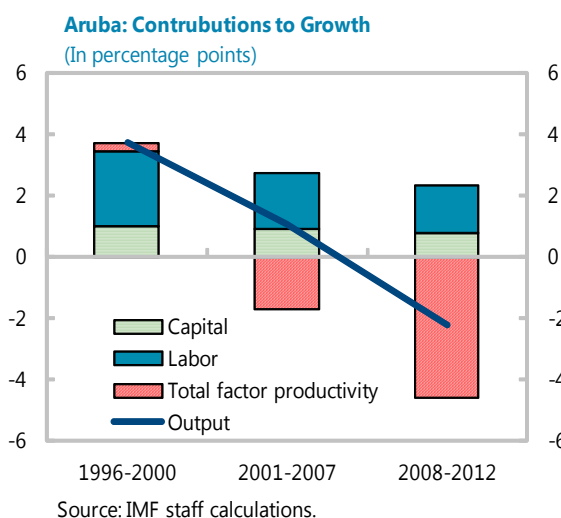
The contribution of each factor is then calculated as its growth rate multiplied by its share, with TFP as the residual. Following Lee (2005), α is assumed to be 0.35, constant and equal across countries. We construct labor stock L using labor force data from Aruba Central Bureau of Statistics (CBS). The physical capital stock is constructed using investment data from the national accounts. Average depreciation (δ) is assumed to be 6 percent per year over the period. So capital stock accumulates according to the following formula:

$$K_{t+1} = (1-\delta) \cdot (K_t) + I_t \quad (3)$$

Where, K_t denotes the capital stock at time t and I_t denotes investment at time t .

7. The results indicate that the slowdown in growth during the past decade can largely be attributed to falling total factor productivity (TFP). Similar to its Caribbean peers, Aruba's TFP

has declined noticeably since the 1990s, partly as a result of economy's greater reliance on the labor-intensive tourism sector. High dependency on tourism could lead to lower productivity growth in the future—on the critical assumption that other sectors (e.g., manufacturing) are more prone to stimulate productivity growth (WEO, 2011). However, since TFP captures productivity developments and shocks, larger negative contribution in recent years also reflects negative shocks experienced in the last four years. In addition, labor's contribution has also declined over time.



C. Outlook for Potential Growth

8. Aruba's projected decline in labor force poses a challenge for sustaining current potential growth rate. The 2010 census shows that the share of population above 65 years has increased from 7.4 percent in 2000 to 10.4 percent in 2010, and is expected to more than double in 2030. Based on this, the CBS projected three growth scenarios for 2010-2030: low, medium and high. Under the low growth scenario, Aruba would need a total of 45,025 immigrant workers in 2030, accounting for 37.4 percent of the projected population, to sustain a growth rate of around 1 percent. In the medium scenario, a total of 74,121 immigrant workers would be needed in 2030, or about 52 percent of the total projected population, to sustain a growth rate of 1.6 percent (the current potential growth rate). Such high levels of immigrant workers, required under all growth scenarios, is likely to pose pressures on housing, other existing infrastructure, and the already burdened health and education services. Attention therefore needs to be given on how to increase productivity through improving the business environment, increasing labor force participation rate, skill improvements and technological upgrading. At 64.7 percent, labor force participation rate in Aruba is low even compared to the members of the European Union (average participation rate at 72.2 percent), where low participation is recognized as a key obstacle to growth performance.

Aruba: CBS's Three Scenario Projection 2010-2030

					2030	
					Required immigration (person)	Immigrants (% of total population)
	2010-2015	2015-2020	2020-2025	2025-2030		
Low scenario					45025	37.4
Growth real GDP (%)	1.26	1.19	1.12	1.06		
Growth labor productivity (%)	0.5	1	1	1		
Unemployment	7	5	5	5		
Mid scenario					74121	48.3
Growth real GDP (%)	2.13	1.93	1.76	1.61		
Growth labor productivity (%)	0	0	0	0		
Unemployment	7	6	5	5		
High scenario					88741	52.1
Growth real GDP (%)	3.01	2.62	2.31	2.07		
Growth labor productivity (%)	0	0	0	0		
Unemployment	7	6	5	5		

Source: Aruba authorities and staff calculations.

9. Another possible challenge may be

limited room for growth in tourism.

Following Thacker, Acevedo, and Perrelli (2012), a model was estimated to capture the “exhaustion effect” of tourism on growth. The 5-year moving average growth rate was regressed on tourist arrivals (as a ratio to population), trade openness, annual inflation rate and the “exhaustion effect”, which was approximated by a quadratic representation of the ratio of tourist arrival to population. The results of three alternative estimations are shown in the text table. The sample covers 1990-2012. Tourist arrival as a ratio to total population always has a positive effect on growth. However, the quadratic representation of the ratio shows a negative effect in contrast to the positive effect found in Thacker, Acevedo, and Perrelli (2012) for other Caribbean

countries. The results indicate that the tourism industry in Aruba may have reached a saturation point with a possible declining rate of growth dividend.² Limited availability of still-to-be-developed land and the need for immigrant labor also provide support for the “exhaustion effect”.

Aruba: The impact of tourism on growth

Dependent variable: 5-year moving average growth rate

	(1)	(2)	(3)
Tourist arrival (ratio of total population)	0.79** (0.29)	0.79** (0.30)	0.65** (0.28)
Tourist arrival (ratio of total population)^2	-0.05** (0.02)	-0.05** (0.02)	-0.04** (0.02)
Trade openness		0.00 (0.01)	
Inflation			0.005** (0.002)
Constant	-2.98** (1.13)	-2.96** (1.16)	-2.44** (1.06)

Note: ** denotes significant at 5 percent level.

² Based on the 2013 report of World Travel & Tourism Council, Aruba ranks second highest in the world on the contribution of tourism sector to GDP.

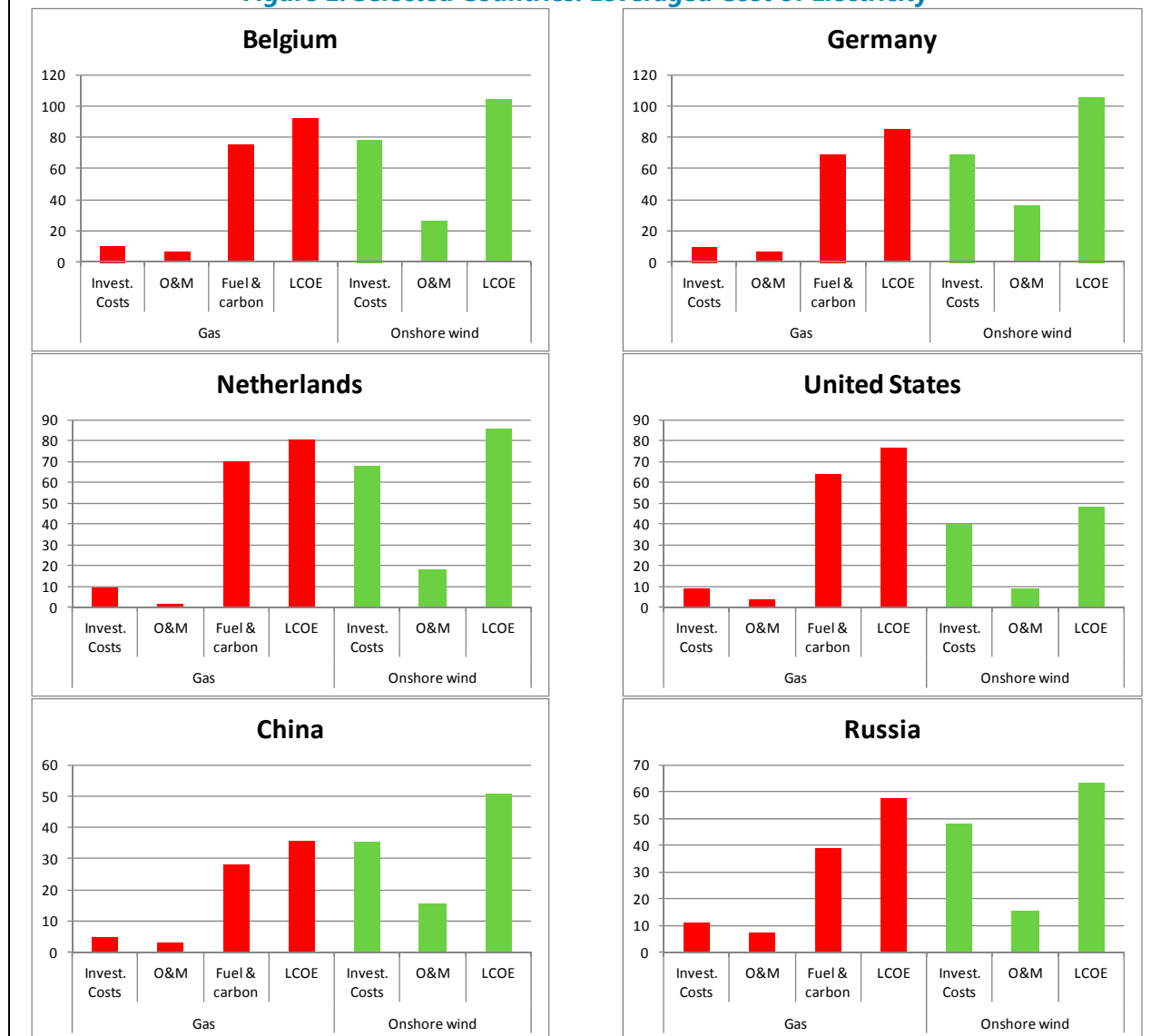
D. Potential for Developing Renewable Energy

10. The government of Aruba has identified the renewable energy sector as a new growth pillar. Their goal is to make Aruba 100 percent dependent on solar and wind energy. One windmill park is currently in use and provides about 15 percent of total energy needs. Another windmill park is planned to be built in 2014 and is expected to increase the share of wind energy to 25 percent. The government also plans to establish research laboratories, to attract companies from overseas to use the island as a test platform for renewable energy products and to turn Aruba into a gateway between South America, the U.S. and Europe for commerce and investment.

11. Aruba holds considerable potential for developing the renewable energy sector. Solar and wind resources are abundant in the island. There is potential for boosting productivity through technological advances and a knowledge-based platform. If successful, developing the renewable energy sector would help reduce input cost, boost competitiveness, and reduce pollution to the environment by replacing the fuel- and gas-powered energy.

12. However, developing the renewable energy sector requires huge upfront investment (Figure 1). Based on the report of International Energy Agency and Nuclear Energy, a very high portion of the Leveraged Cost of Electricity (LCOE) of onshore wind energy is investment cost while operation management (O&M) costs are minimal. In contrast, fuel and carbon costs comprise the majority of LCOE of gas-powered energy. Securing such financing without jeopardizing external sustainability would require success in attracting FDI inflows.

13. Being an island economy and having a shortage of skilled labor may also pose constraints. As Aruba is an island and cannot hook up to the electrical grid of other countries, it may not be possible for it to be 100 percent dependent on renewable energy. Backup power plants will always be necessary. There are also technological and other constraints to storing wind energy, which worsens as the number of windmills increases. Exporting non-tourism services to South America, including in the field of renewable energy, may face difficulties in light of shortage of skilled labor.

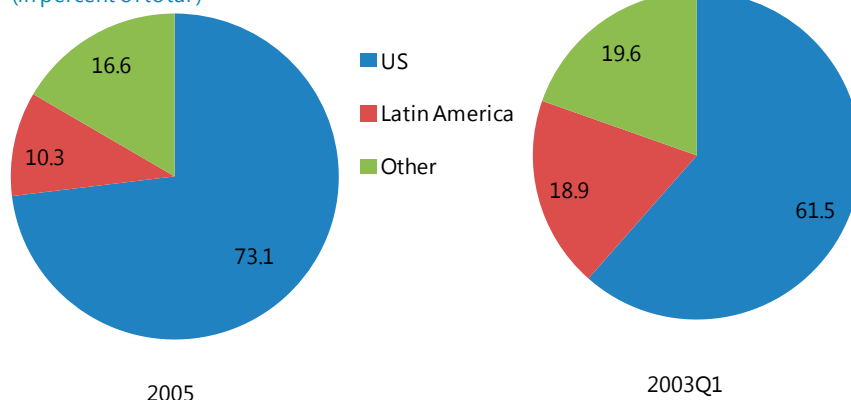
Figure 1: Selected Countries: Leveraged Cost of Electricity

Source: *Projected Costs of Generating Electricity*, 2010 Edition, by International Energy Agency and Nuclear Energy.

E. Policy Recommendations

14. Aruba needs to maintain its current price competitiveness in tourism. Continued diversification in the tourism source markets is useful. Marketing efforts in the past have almost doubled the tourist arrivals from Latin America between 2005 and 2013. Given that tourists from U.S. still account for more than 60 percent of the total, there is room to diversify more.

Visitor Arrivals
(in percent of total)



Sources: CBA; and Aruba Tourism Authority.

15. Improving structural competitiveness is important for economic diversification. Efforts should focus on:

- Improving the ease of doing business by making the recently established one-stop-shop for investors operational;
- Improving labor market flexibility, pursuing domestic reforms (such as, social benefits and the pension scheme) to increase the labor force participation rate, and adopting a comprehensive immigration plan in coordination with social partners;
- Working with new entrepreneurs to foster an understanding of financial management, and create incentives for reducing borrowing costs, including through greater competition in the banking system.

16. Aruba should aim to finance its renewable energy and other future growth initiatives sustainably. Aruba's external debt at around 105 percent of GDP is very high. Given the high investment needs of developing renewable energy, it is important that Aruba finances these and other future projects through FDI.

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REBUILDING FISCAL SPACE¹

A. Background

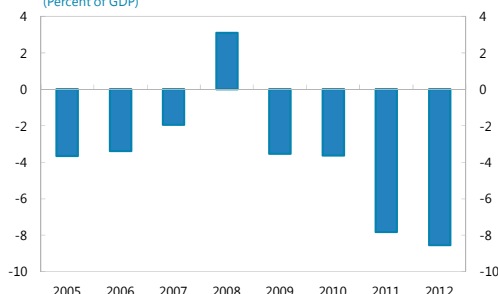
1. Aruba's fiscal position has deteriorated substantially in the aftermath of the global financial crisis. The overall deficit that averaged around 3 percent of GDP during 2005-07 almost doubled during 2009-12. Tax revenues (excluding the one-off oil refinery tax settlement payments) remained broadly stable at around 20 percent of GDP, although the cut in turnover tax (BBO) rate substantially weakened indirect tax revenues. Grants started to decline in 2009 and came to a halt in 2011. While the fiscal deterioration was largely due to the increased levels of government expenditure, especially the current spending, the loss of grants also played a role. Although all categories of current spending grew, public sector wage related costs were the main driver of the rise, followed by spending on goods and services. Meanwhile, capital spending remained broadly unchanged at relatively low level of 1½ percent of GDP.

2. The expansionary fiscal stance was accompanied by a fast rise in public debt. While the pre-crisis debt levels hovered around 45 percent of GDP and even declined in 2007-08, the estimated public debt ratio at end-2012 stood at 67 percent of GDP. The post-crisis increase in public debt largely reflected sharp economic contraction in 2009-10, but, for the last two years, higher primary deficits and interest costs were the largest contributors to the increase in the public debt-to-GDP ratio. In 2012, a part of financing came from the use of government deposits which substantially eroded fiscal buffers.

3. Without additional reforms, the average deficit observed during 2009-12 is likely to persist in the medium term bringing the public debt level above 80 percent of GDP in 2018. In addition, the fiscal impact of aging population, affecting both pension and health related spending,

Aruba Fiscal Balance

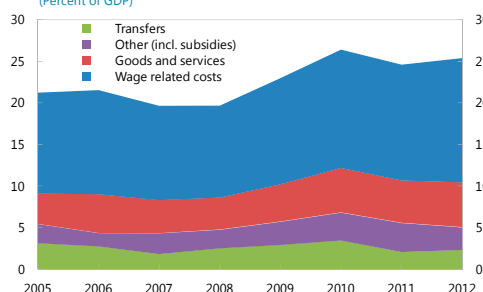
(Percent of GDP)



Sources: Aruban authorities; and IMF staff calculations.

Government Current Non-Interest Expenditure

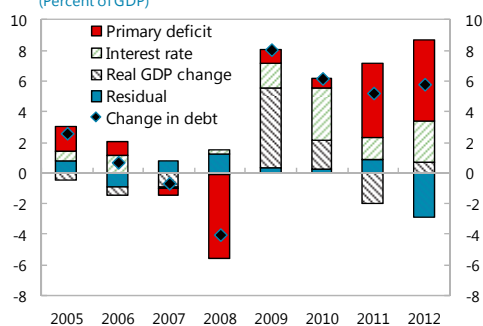
(Percent of GDP)



Sources: Aruban authorities; and IMF staff calculations.

Government Debt-creating Flows

(Percent of GDP)



Sources: Aruban authorities; and IMF staff calculations.

¹ Prepared by Vahram Stepanyan. The author is grateful to Aruban authorities for providing data and for helpful discussions.

and commitments under the public-private partnerships (PPP) pose significant risks to the sustainability of public finances in the longer term.

4. Very high levels of public debt can be detrimental to economic growth. This is not only because of financing risks, but also because of the drag that debt imposes on the economy by crowding out private investment and limiting fiscal space. Theoretical literature suggests a non-linear relationship between public debt and growth, and some empirical studies find that public debt beyond certain thresholds can have negative effects on economic activity (e.g. Caner et al., 2010).

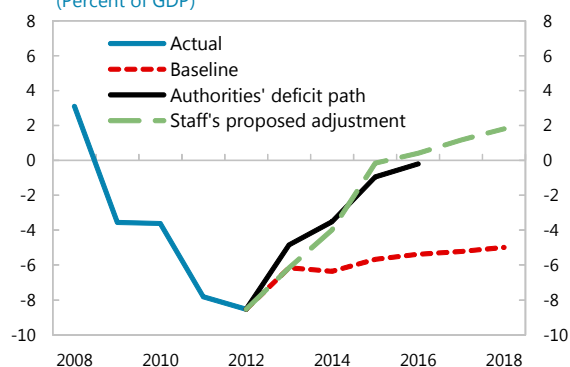
5. The detrimental effects of very high levels of public debt have been examined also for the Caribbean region. Greenidge et al. (2012) find that at 55-56 percent of GDP the debt's effect on economic growth turns from positive to negative. Although such thresholds are estimated to be higher for developed economies (80-90 percent of GDP) and emerging market countries (60-80 percent of GDP), for small island economies like Aruba, a lower threshold seems appropriate given higher risk premia on interest rates (compared to advanced economies) and lower potential growth (compared to emerging market economies).

B. Addressing Near-Term Challenges

6. The near-term challenge is to implement a credible fiscal consolidation to avoid a high debt-low growth environment faced by many other Caribbean countries. The Aruban authorities have already announced intentions for fiscal consolidation in their Financial Economic Memorandum of December 2012. In particular, their medium-term outlook envisages a balanced budget by 2016 which they plan to achieve mostly based on expenditure measures, including restraining public sector wage related expenditure; however, the measures are yet to be defined and legislated.

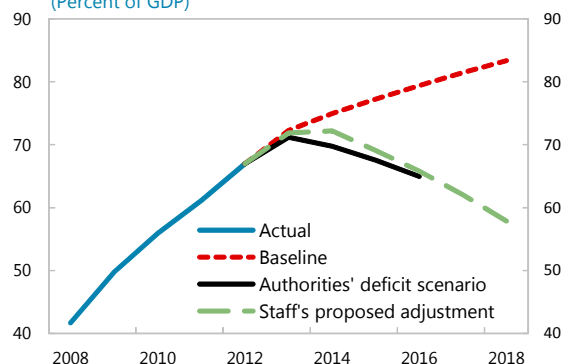
7. Our analysis shows that a more ambitious consolidation based on both expenditure and revenue measures is needed to address sustainability risks. Specifically, reaching a balanced budget in 2015 and ensuring surpluses of 1 percent of GDP on average thereafter will bring the public debt down to below 60 percent of GDP in 2018, an adjustment that seems appropriate for the medium term. Such an adjustment will, first of all, create fiscal space to address risks related to contingent liabilities, particularly growing ageing and health care related costs. It will also lower financing risks for the government, boost the economy's resilience to shocks, and improve its growth prospects. All these are important factors given Aruba's vulnerability to shocks evidenced by volatility of output and fiscal stance in the recent past.

Scenario Analysis of Fiscal Deficits
(Percent of GDP)



Sources: Aruban authorities; and IMF staff calculations.

Scenario Analysis of Public Debt
(Percent of GDP)



8. When planning a fiscal consolidation, its impact on the economy, including through composition of the adjustment, should be an important consideration. A review of various studies on the size of fiscal multipliers suggests that a plausible range for spending and revenue impact multipliers could be 0.5-1 and 0.1-0.5, respectively, and lower than that for small island economies like Aruba.² Estimates of expenditure and tax multipliers are not available for Aruba, but given the highly open economy, the fiscal multipliers are unlikely to be large. Moreover, credible consolidation could well improve investor confidence and result in better financing terms. Regarding the composition of the adjustment, it should consist of both expenditure and revenue side measures.

9. Another important consideration is the presence of fiscal responsibility frameworks which can contribute to successful fiscal consolidations. Such frameworks can ensure discipline when implementing and sustaining spending cuts. There is evidence that around a quarter of successful major debt reduction episodes achieved through fiscal consolidation were preceded or accompanied by the introduction of fiscal rules and that consolidation efforts were more successful with expenditure-based rules (Amo-Yartey et al, 2012). In a welcome move, the Aruban authorities have recently initiated work on the introduction of a fiscal council and fiscal rules. In particular, they are considering both a debt rule and a nominal expenditure ceiling which seem appropriate for Aruba. In this regard, an important first step would be the strengthening of fiscal institutions by building adequate capacity for reporting. It is also important to put in place proper monitoring and corrective mechanisms for the effective implementation of fiscal rules.

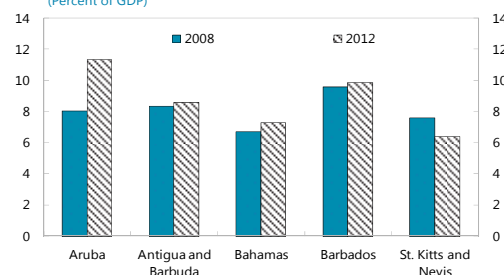
10. A large part of the fiscal consolidation should come from expenditure reduction, but revenue measures are also needed. Expenditure cuts should focus on public sector wage bill, as

² See, for example, Coenen et al. (2012). For Caribbean countries, some studies show multipliers in the range of 0.1-0.2 (Schipke et al., 2013; Guy and Belgrave, 2011).

well as on improved spending efficiency, including rationalization of transfers and subsidies. At the same time, Aruba needs to undertake measures with a view to boost revenues from indirect taxes.

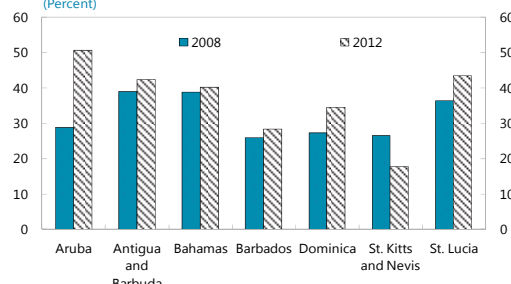
- **Public sector personnel cost.** At above 11 percent of GDP, compensation of government employees is the largest component of government spending. Adding wage subsidies to the picture brings wage-related spending close to 15 percent of GDP. Given the recent performance of the economy, a substantial divergence has emerged between growth in public wage costs and the growth of the economy. Wage-related spending is also high as a percent of total revenues. Targeting a gradual reduction in wage related costs to their 2009 level can create savings of around 2 percent of GDP by 2018. In order to make consolidation durable, this should be achieved through a combination of a permanent reduction in the number of government employees (which grew by 3 percent in 2012) and a review of the wage compensation policies in the public sector.

Compensation of Government Employees 1/
(Percent of GDP)



Sources: CBA; IMF WEO database and staff calculations.
1/ The numbers for Aruba exclude wage subsidies.

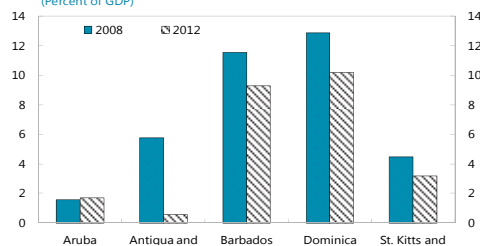
Government Wage Bill as a Share of Total Revenue 1/
(Percent)



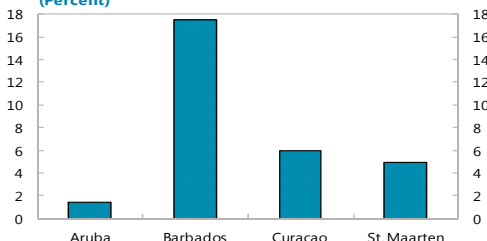
Sources: CBA; IMF WEO database and staff calculations.
1/ The numbers for Aruba exclude wage subsidies.

- **Other current spending.** Spending on goods and services should decline in line with the reduction in the number of public sector employees and a further reduction should be targeted with efforts focusing on raising the efficiency of public spending. Also, transfers and subsidies, especially transfers to the health care system, will need to be contained and reduced. Altogether, restraining these categories of spending can produce savings of around 2½ percent of GDP.
- **Capital spending.** Government capital spending levels are relatively low in Aruba and it would be difficult to achieve savings from this spending category as bringing it further down can have a negative impact on publicly provided infrastructure and, hence, on economic growth.
- **Revenue measures.** While overall tax revenues in percent of GDP seem to be broadly in line with those of regional peers, the authorities should consider raising more revenues from indirect taxes. The introduction of a VAT is one potential measure. Simulations based on rather conservative assumptions on coverage and collection efficiency

Government Capital Spending
(Percent of GDP)



Indirect Tax Rates 1/
(Percent)



Sources: KPMG Corporate; and Indirect Tax Survey 2012.
1/ VAT or turnover taxes.

suggest that a VAT with a standard rate of 15 percent (and a lower rate for the tourism sector) could yield around 6 percent of GDP in revenues; however, its implementation would require proper preparation. More feasible near-term measures could include: (i) raising the BBO rate back to its original level of 3 percent which would provide additional 2 percent of GDP in revenues; and (ii) increasing excise taxes and import duties to levels that would produce an additional 1 percent of GDP in revenues.

- **Other savings.** A steadfast implementation of the above measures will result in gradual improvement in the government fiscal balances which in turn can generate savings from lower interest expenditure to the tune of 1 percent of GDP by the end of the consolidation period when compared to the scenario with unchanged policies.

C. Addressing Challenges Related to Ageing

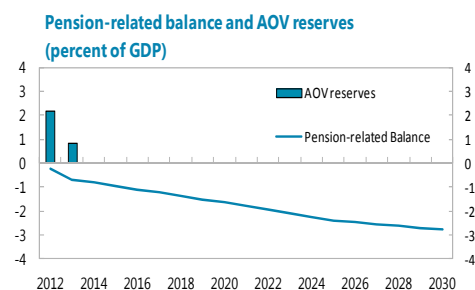
11. The fiscal impact is likely to be significant in Aruba if trends of rapid ageing identified in the 2010 Census continue. With ageing population, public spending on pension and healthcare is expected to increase.³ Demographic projections suggest that the share of old people will increase substantially over the next two decades reaching almost 24 percent in 2030. As a result, the old-age dependency ratio (people aged 60 and over to those aged 16-59) will rise markedly by 2030.

Aruba: Population Projections and Dependency Ratios

Year	Total Population	Share in Total Population (percent)			Dependency Ratio
		Age 0-15	Age 16-59	Age 60 & over	
2010	101,484	20.8	63.8	15.4	0.24
2015	115,256	18.6	63.4	18.0	0.28
2020	126,765	18.0	61.6	20.4	0.33
2025	139,569	18.4	59.0	22.6	0.38
2026	142,332	18.5	58.7	22.8	0.39
2030	153,386	18.9	57.6	23.5	0.41

Sources: Aruba's Central Bureau of Statistics (CBS); and IMF staff calculations.

12. Aruba's old age pension (AOV) and general health insurance (AZV) schemes' finances will come under increasing strain. The AOV balance turned negative already in 2009 and its reserves have been used to cover the shortfall; however, the reserves are projected to run out in 2014.⁴ Our projections, which assume unchanged pension parameters and costs growing at the inflation rate, suggest that the AOV's



Source: Aruba SVb, CBS; and IMF staff calculations.

³ Our analysis is based on the medium growth scenario of the CBS's latest population projections.

⁴ Central Bureau of Statistics of Aruba (2011).

deficit will reach close to 3 percent of GDP by 2030. Regarding the AZV, over the last six years its operations were balanced by annual transfers from the central government which amounted to around 2½ percent of GDP in 2012. AZV projections suggest that health care costs will be increasing reflecting inflation and ageing related cost pressures. This means that, absent any changes to the system, government transfers to AZV will have to increase, while regional comparison shows that Aruba's public spending on health care is already one of the highest.

13. The old-age pension and health care schemes will be an increasing drag on the budget, and, if left unchecked, could threaten the long-term sustainability of government finances. Aruba, hence, needs to initiate immediate measures targeting improvement of the financial situation of the AOV and AZV. Also, since AOV reform can affect long-term growth through changing the labor force participation rate, Aruba should consider it as part of structural reforms aimed at boosting its potential growth. Possible reform measures could include⁵:

- *Raising the statutory retirement age:* A gradual raise in the retirement age will strengthen old-age pension finances through more years of contributions and fewer years of pension benefit payments. It will also contribute to increasing the labor supply, consumption and, hence, can boost economic growth.
- *Increasing the old-age insurance contribution rates:* A consideration should be given to increasing the current rates, especially that for employee contribution which, at 3½ percent, appears to be on the low side. This should, however, be considered in the context of overall level of labor taxation, including income taxes and all types of social security contributions, which, if very high, could have adverse effect on labor supply.
- *Reducing the replacement rate:* One way to slow down the increase in pension costs may be through lower pension benefits. This can be achieved by changing the indexation approach or linking the pension benefit to demographic factors such as the increase in life expectancy. The recent introduction of mandatory general pension will most likely lead to a higher replacement rate for overall pensions in the longer term and help reduce the pressure on AOV to increase pension benefits.
- *Increasing revenues and containing costs of the health care system:* More revenues could be raised by increasing contribution rates (currently at 9 percent for employers and 2.5 percent for employees) and costs can be reduced by shifting part of the burden to beneficiaries through introduction of copayments and deductibles (currently, the government pays for 100 percent of the cost).

⁵ Pension reform measures draw on the analysis by Clements et al (2012).

14. Given the current level of payroll taxes and replacement rate in Aruba, the pension reform should focus on increasing retirement age.

The current retirement age for the AOV beneficiaries is 60 years which is relatively low compared to many regional peers where it has been raised to the range of 62-65 years. Our simulations suggest that raising the retirement age can be a highly effective measure to contain pension spending. These simulations are for illustrative purposes and, the shorter the transition period to higher mandatory retirement age is, the larger will be the positive impact of such reforms on AOV finances.

Pension Spending Under Illustrative Reform Scenario
(Percent of GDP)

	2010	2020
No change	4.4	6.0
Increase retirement age to 63 by 2020	4.4	4.7
Increase retirement age to 65 by 2020	4.4	3.9

D. Conclusions

15. Strong fiscal management is required to avoid excessive debt and to create sufficient space for addressing shocks and risks from contingent liabilities. In the context of the fixed exchange rate, fiscal policy is the main stabilization tool and has a role to play in boosting the economy's potential growth. At the current juncture, and given fiscal multipliers are unlikely to be large in Aruba, all these objectives call for fiscal consolidation without delay.

16. While consolidation should focus on expenditure reduction, generating higher revenues should also be part of the policy mix. Restrained public sector wage bill, improved spending efficiency, including rationalization of transfers and subsidies, and containment of aging-related spending are obvious targets for consolidation. At the same time, Aruba should consider tax measures with a view to boost revenues from indirect taxes.

17. Immediate measures targeting improvement of the financial situation of the old-age pension and general health care schemes are needed. Such measures could include a combination of changes to the retirement age, contribution rates and generosity of pension and medical benefits. Given the current level of total contributions and relatively moderate replacement rate, reforms should primarily rely on changing the retirement age and shifting part of the medical costs to beneficiaries.

18. Adopting a well-designed and effective fiscal responsibility framework will contribute to successful fiscal consolidation. Well-designed fiscal rules and monitoring mechanisms to ensure transparency and timely implementation of the budget can help deal with discretionary policy making arising from political expediency. In this regard, the authorities' intention to introduce a framework consisting of fiscal rules and a fiscal council is a welcome move.

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Table A1. Aruba: Indicators of Tourism Activity, 2005-12

(Millions of Aruban florins at current prices; unless otherwise indicated)

	2005	2006	2007	2008	2009	2010	2011	2012
Total revenue	1,960	1,896	2,162	2,413	2,184	2,236	2,415	2505
(percent change)	4.0	-3.2	14.0	11.6	-9.5	2.4	8.0	3.7
(percent change, in real terms)	0.6	-6.6	14.0	11.6	-9.5	2.4	8.0	3.7
Stay-over visitors (thousands)	733	694	772	827	813	825	869	904
(percent change)	0.6	-5.2	11.2	7.1	-1.7	1.5	5.4	4.0
Tourist nights (thousands)	5,695	5,471	5,880	6,265	6,173	6,466	6,686	6,907
(percent change)	1.0	-3.9	7.5	6.5	-1.5	4.8	3.4	3.3
Average stay (nights)	7.8	7.9	7.6	7.6	7.6	7.8	7.7	7.6
Expenditure per tourist (Aruban florins)	344	347	368	385	354			
Hotel occupancy rate (percent)	83.4	74.8	74.6	72.5	72	74.1	74.9	78.8
Cruise tourists (thousands)	553	591	482	556	607	569	600	582
(percent change)	-4.1	7.0	-18.5	15.4	9.1	-6.2	5.4	-2.9

Sources: CBA, Quarterly Bulletin; Aruba Tourism Authority; CBS; Aruba Hotel and Tourism Association; and the Cruise Tourism Authority.

Table A2. Aruba: Components of GDP, 2005-12

(Percent of GDP)

	2005	2006	2007	2008	2009	2010	2011	2012
Gross domestic product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private absorption	84.7	88.1	87.7	86.9	85.3	87.6	88.6	85.9
Consumption	52.7	54.4	56.5	55.3	56.8	60.4	61.5	62.3
Private investment 1/	32.0	33.6	31.3	31.7	28.5	27.2	27.1	23.7
Government absorption	24.7	24.2	22.9	23.6	27.2	28.9	27.3	29.9
Consumption	23.1	22.7	21.7	22.0	25.4	27.2	26.0	27.6
Investment 2/	1.5	1.5	1.2	1.6	1.8	1.8	1.4	2.3
Net exports 3/	-9.4	-12.3	-10.6	-10.5	-12.5	-16.5	-15.9	-15.8
Export of goods and services	68.5	65.9	66.1	67.7	63.8	61.0	67.8	65.4
Import of goods and services	77.9	78.1	76.8	78.2	76.3	77.6	83.7	81.2

Source: CBS.

1/ Private investment is equal to private gross fixed capital formation and private changes in inventories.

The investment of the oil sector is included in these figures.

2/ Public investment is equal to public gross fixed capital formation and public changes in inventories.

3/ Exports less imports of goods and services. The activities of the oil refinery are registered on a net basis, namely a refining fee is computed and used as the oil sector's output and export. Other goods and/or services imported or exported by the oil sector are included in the trade figures. Refinery products delivered to Aruban users are registered as import.

Table A3. Aruba: Real GDP, 2005-12
(Millions of Aruban florins at constant 1995 prices)

	2005	2006	2007	2008	2009	2010	2011	2012
Gross domestic product	2,975	3,008	3,068	3,073	2,725	2,627	2,725	2,692
(percent change)	2.1	1.1	2.0	0.2	-11.3	-3.6	3.7	-1.2
Private absorption	2,866	2,961	2,968	2,877	2,593	2,482	2,572	2,453
Consumption	1,743	1,811	1,798	1,696	1,621	1,616	1,680	1,688
Private investment 1/	1,123	1,150	1,170	1,181	972	866	892	765
Government absorption	677	712	728	739	779	756	721	783
Consumption	637	668	681	680	716	700	677	708
Investment 2/	40	44	46	59	63	56	44	75
Net exports 3/	-568	-665	-627	-542	-647	-612	-568	-544
Export of goods and services	2,164	2,103	2,210	2,247	1,930	1,733	1,983	1,878
Import of goods and services	2,732	2,768	2,838	2,790	2,577	2,345	2,550	2,422

Source: CBS.

1/ Private investment is equal to private gross fixed capital formation and private changes in inventories.

The investment of the oil sector is included in these figures.

2/ Public investment is equal to public gross fixed capital formation and public changes in inventories.

3/ Exports less imports of goods and services. The activities of the oil refinery are registered on a net basis, namely a refining fee is computed and used as the oil sector's output and export. Other goods and/or services imported or exported by the oil sector are included in the trade figures. Refinery products delivered to Aruban users are registered as import.

Table A4. Aruba: Contributions to Real GDP Growth, 2005-12
(Percent)

	2005	2006	2007	2008	2009	2010	2011	2012
Private absorption	12.8	3.2	0.2	-3.0	-9.2	-4.0	3.4	-4.4
Consumption	6.0	2.3	-0.4	-3.3	-2.4	-0.2	2.4	0.3
Private investment 1/	6.8	0.9	0.7	0.4	-6.8	-3.9	1.0	-4.7
Government absorption	-1.1	1.2	0.5	0.4	1.3	-0.9	-1.3	2.3
Consumption	-0.7	1.0	0.4	-0.1	1.2	-0.6	-0.9	1.1
Investment 2/	-0.4	0.1	0.1	0.4	0.1	-0.2	-0.5	1.1
Exports less imports 3/	-9.6	-3.2	1.2	2.8	-3.4	1.3	1.7	0.9
Goods	3.4	-2.1	3.6	1.2	-10.3	-7.2	9.5	-3.8
Services	13.1	1.2	2.3	-1.6	-6.9	-8.5	7.8	-4.7
Real GDP growth	2.1	1.1	2.0	0.2	-11.3	-3.6	3.7	-1.2
Memorandum item:								
Nominal growth rate	4.6	4.0	7.9	5.0	-9.0	-4.3	6.7	-0.2

1/ Private investment is equal to private gross fixed capital formation and private changes in inventories.

The investment of the oil sector is included in these figures.

2/ Public investment is equal to public gross fixed capital formation and public changes in inventories.

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Table A5. Aruba: Changes in Consumer Price Index, 2006–12

(Annual percentage change)

	2006	2007	2008	2009	2010	2011	2012
Total index	3.6	5.4	9.0	-2.1	2.1	4.4	0.6
Food and non-alcoholic beverages	5.2	13.7	11.2	4.6	-2.3	4.4	2.6
Alcoholic beverages and tobacco	0.9	11.2	3.5	4.6	-1.0	10.7	2.4
Clothing and footwear	1.2	4.4	7.1	0.2	-5.3	-1.5	-7.1
Housing	7.4	5.5	13.8	-8.2	9.4	7.2	0.8
Household operation	1.5	4.6	3.7	2.6	-1.2	-0.3	-4.2
Health	0.0	-2.7	13.1	2.0	-0.7	-0.9	1.7
Transport	1.7	7.1	11.3	-6.5	1.9	7.5	3.2
Communications	0.0	2.3	-0.3	-0.9	0.7	3.1	1.3
Recreation and culture	3.1	8.7	4.4	2.4	-0.4	2.2	-2.3
Education	3.6	6.0	8.0	-4.4	1.1	3.5	2.0
Restaurants and hotels	3.0	6.4	2.3	7.3	-0.2	1.7	4.7
Miscellaneous goods and services	2.1	-0.2	3.5	2.8	-0.7	0.5	0.3
Aruba	3.6	5.4	9.0	-2.1	2.1	4.4	0.6
Aruba (excl. energy-related components)	1.9	4.2	4.7	2.3	-0.6	1.7	0.4
Aruba (excl. energy- & food-related components)	1.4	3.0	3.3	1.8	-0.3	1.2	0.1
United States	3.2	2.9	3.8	-0.4	1.6	3.2	2.1
Curacao	3.1	3.0	6.9	1.8	2.8	2.3	3.3
The Netherlands	1.2	1.6	2.5	1.2	1.3	2.3	2.5
Real exchange rate index (1995=100) 1/	105.4	108.0	113.4	111.3	111.8	113.1	111.5

Sources: CBA; CBS Aruba; CBS Netherlands; CBS Netherlands Antilles; Bureau of Labor Statistics.

1/ Relative to the U.S.A. Based on CPI 12-month averages.

Table A6. Aruba: Legal Minimum Wages, 2006-12

(Aruban florins per month)

	2006	2007	2008	2009	2010	2011	2012
Category							
Construction and industry	1,360	1,460	1,505	1,543	1,543	1,543	1,605
Household personnel	635	681	702	720	720	720	749

Source: Aruban Department of Labor.

Table A7. Aruba: Operational Budget of the Social Insurance Bank (SVB), 2006–12

	2006	2007	2008	2009	2010	2011	2012
(Millions of Aruban florins)							
Total contributions	187.5	203.8	226.9	223.1	198.2	221.7	247.8
Total benefits	199.9	202.8	223.4	233.6	242.4	259.5	274.4
Administrative and interest costs	-10.3	-10.2	-10.8	-11.6	-13.5	-13.1	-13.9
Administrative costs	-11.0	-10.7	-11.6	-11.4	-13.2	-12.8	-13.9
Interest costs	0.7	0.5	0.7	-0.2	-0.3	-0.2	0.0
Overall balance	-22.7	-9.3	-7.4	-22.1	-57.7	-50.8	-40.5
Old age and widowers and orphans insurance							
Contributions	165.2	171.8	192.1	187.5	165.0	186.0	212.5
Benefits	175.0	179.7	198.7	205.4	217.0	235.8	251.6
Administrative and interest costs	2.2	2.2	1.9	1.3	0.6	1.0	-3.7
Administrative costs	-2.0	-2.1	-2.3	-2.7	-3.5	-3.3	-3.7
Interest costs	4.2	4.3	4.1	4.0	4.1	4.2	0.0
Balance	-7.6	-5.6	-4.7	-16.7	-51.4	-48.8	-42.8
Sickness and accident insurance							
Contributions	21.5	30.4	33.3	32.6	30.9	33.5	33.3
Benefits	24.4	23.0	23.9	25.8	23.1	23.1	22.8
Administrative and interest costs	-12.8	-12.7	-13.3	-12.7	-13.8	-13.7	-10.6
Administrative costs	-8.6	-8.2	-8.9	-8.4	-9.4	-9.2	-10.6
Interest costs	-4.3	-4.5	-4.4	-4.3	-4.4	-4.5	0.0
Balance	-15.7	-5.3	-3.9	-5.8	-6.0	-3.3	-0.1
Severance insurance							
Contributions	0.8	1.5	1.5	1.9	1.3	1.4	1.5
Interest revenues	0.7	0.7	1.1	1.0	1.0	0.8	0.5
Benefits	0.4	0.1	0.9	2.3	2.3	0.7	0.0
Administrative costs	-0.4	-0.4	-0.4	-0.2	-0.3	-0.4	0.4
Balance	0.6	1.6	1.2	0.4	-0.3	1.2	2.4
(Overall balances, percent of GDP)							
Total contributions	4.3	4.4	4.6	5.0	4.6	4.9	5.4
Total benefits	4.6	4.3	4.5	5.2	5.7	5.7	6.0
Administrative and interest costs	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3
Administrative costs	-0.3	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3
Interest costs	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance	-0.5	-0.2	-0.2	-0.5	-1.3	-1.1	-0.9
Old age and widowers and orphans insurance							
Contributions	3.8	3.7	3.9	4.2	3.9	4.1	4.7
Benefits	4.0	3.8	4.0	4.6	5.1	5.2	5.5
Administrative and interest costs	0.1	0.0	0.0	0.0	0.0	0.0	-0.1
Administrative costs	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
Interest costs	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Balance	-0.2	-0.1	-0.1	-0.4	-1.2	-1.1	-0.9
Sickness and accident insurance							
Contributions	0.5	0.7	0.7	0.7	0.7	0.7	0.7
Benefits	0.6	0.5	0.5	0.6	0.5	0.5	0.5
Administrative and interest costs	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2
Administrative costs	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Interest costs	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
Balance	-0.4	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
Severance insurance							
Contributions	0.02	0.03	0.03	0.04	0.0	0.0	0.0
Interest revenues	0.02	0.02	0.02	0.02	0.0	0.0	0.0
Benefits	0.01	0.00	0.02	0.05	0.1	0.0	0.0
Administrative costs	-0.01	-0.01	-0.01	0.00	0.0	0.0	0.0
Balance	0.01	0.04	0.02	0.01	0.0	0.0	0.1
Memorandum items:							
Number of beneficiaries per category							
Old age and widowers and orphans insurance	15,193	16,355	17,113	17,880	18,684	19,647	20,626
Old age	14,112	14,582	15,312	16,081	16,885	17,775	18,756
Widowers and orphans	1,081	1,773	1,801	1,799	1,799	1,872	1,870
Sickness and accident insurance	33,901	31,682	35,820	35,321	29,615	30,370	28,798
Sickness	31,372	29,414	33,440	33,589	28,315	29,025	27,559
Accident	2,529	2,268	2,380	1,732	1,300	1,345	1,239
Severance insurance	121	47	187	414	425	124	51
Number of insured per category							
Old age and widowers and orphans insurance	137,146	138,206	140,242	132,312	130,004	132,088	133,826
Old age	68,573	69,103	70,121	66,156	65,002	66,044	66,913
Widowers and orphans	68,573	69,103	70,121	66,156	65,002	66,044	66,913
Sickness and accident insurance	65,820	67,881	68,965	64,804	65,936	67,262	69,736
Sickness	29,971	30,739	31,177	29,352	29,859	30,437	31,743
Accident	35,849	37,142	37,788	35,452	36,077	36,825	37,993
Severance insurance 1/	35,849	37,142	37,788	35,452	36,077	36,825	37,993

Source: SVB.

1/ Concerns the same category of insured as those insured for accidents.

Table A8. Aruba: Financial Balance of AZV, 2006-12

(Percent of GDP)

	2006	2007	2008	2009	2010	2011	2012
Revenue	4.1	3.6	3.6	4.0	4.4	5.2	5.5
Expenditures	6.3	6.4	6.4	7.2	8.1	7.9	8.1
Health	5.9	6.0	6.0	6.8	7.7	7.5	7.8
Management	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Other Costs	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Deficit	-2.2	-2.8	-2.8	-3.2	-3.8	-2.7	-2.6
Transfer from Central Govt	2.2	2.8	2.8	3.2	3.8	2.7	2.6
Primary Transfer	2.2	2.1	2.4	2.7	3.4	2.5	2.5
Additional Transfer	0.0	0.7	0.4	0.5	0.4	0.2	0.1

Sources: Aruban authorities; and IMF staff estimates.

Table A9. Aruba: Non-Oil Balance of Payments Summary, 2005-12

(Millions of Aruban florins)

	2005	2006	2007	2008	2009	2010	2011	2012
Current account	-349	-612	-249	-209	-47	22	-365	-8
Merchandise trade balance	-1,325	-1,396	-1,392	-1,498	-1,351	-1,256	-1,543	-1,491
Exports of goods	111	138	133	162	160	214	245	260
Imports of goods	1,436	1,533	1,525	1,660	1,511	1,470	1,788	1,751
Services	1,275	1,136	1,434	1,634	1,548	1,600	1,704	1,762
Exports of services	2,332	2,339	2,629	2,862	2,731	2,767	2,997	3,140
Imports of services	1,057	1,204	1,195	1,228	1,183	1,167	1,293	1,378
Of which: Travel and tourism (net)	1,560	1,515	1,722	1,971	1,752	1,802	1,937	2,017
Income and current transfers	-298	-352	-291	-345	-244	-322	-526	-279
Income	-140	-190	-148	-205	-125	-207	-409	-165
Current transfers	-158	-162	-143	-140	-120	-116	-117	-114
Financial and capital account	204	597	302	555	25	-100	238	96
Financial account	171	559	269	274	-36	-115	232	94
Direct investment	201	513	226	349	93	-54	330	177
Portfolio investment	41	-85	109	76	8	22	19	258
Loans to general government	-6	-25	-22	-45	-20	-24	-18	-18
Banking sector (net increase in liabilities)	-19	54	85	-26	-42	-8	-33	27
Other 1/	-46	102	-129	-80	-75	-51	-66	-350
Capital account	33	38	34	281	61	15	6	2
Errors and omissions	104	114	24	58	82	59	63	31
Change in reserves (=-increase) 2/	40	-99	-77	-403	-61	19	65	-119

Sources: Central Bank of Aruba; and staff estimates.

1/ Excluding changes in currency and deposits of the banking sector related to the transactions effectuated by the oil sector.

2/ Including gold, excluding revaluation differences.

Table A10. Aruba: Non-Oil Balance of Payments Summary, 2005–12

(Percent of GDP)

	2005	2006	2007	2008	2009	2010	2011	2012
Current Account	-8.4	-14.7	-6.0	-5.0	-1.1	0.5	-8.8	-0.2
Merchandise trade balance	-31.8	-33.5	-33.4	-35.9	-32.4	-30.1	-37.0	-35.7
Exports of goods	2.7	3.3	3.2	3.9	3.8	5.1	5.9	6.2
Imports of goods	34.4	36.8	36.5	39.8	36.2	35.2	42.9	42.0
Services	30.6	27.2	34.4	39.2	37.1	38.4	40.9	42.2
Exports of services	55.9	56.1	63.0	68.6	65.5	66.3	71.8	75.3
Imports of services	25.3	28.8	28.6	29.4	28.4	28.0	31.0	33.0
Of which: Travel and tourism (net)	37.4	36.3	41.3	47.2	42.0	43.2	46.4	48.3
Income and current transfers	-7.2	-8.4	-7.0	-8.3	-5.8	-7.7	-12.6	-6.7
Income	-3.4	-4.5	-3.6	-4.9	-3.0	-5.0	-9.8	-3.9
Current transfers	-3.8	-3.9	-3.4	-3.4	-2.9	-2.8	-2.8	-2.7
Financial and capital account	4.9	14.3	7.2	13.3	0.6	-2.4	5.7	2.3
Financial account	4.1	13.4	6.4	6.6	-0.9	-2.7	5.6	2.3
Direct investment	4.8	12.3	5.4	8.4	2.2	-1.3	7.9	4.3
Portfolio investment	1.0	-2.0	2.6	1.8	0.2	0.5	0.5	6.2
Loans to general government	-0.1	-0.6	-0.5	-1.1	-0.5	-0.6	-0.4	-0.4
Banking sector (net increase in liabilities)	-0.5	1.3	2.0	-0.6	-1.0	-0.2	-0.8	0.6
Other 1/	-1.1	2.4	-3.1	-1.9	-1.8	-1.2	-1.6	-8.4
Capital account	0.8	0.9	0.8	6.7	1.5	0.4	0.1	0.0
Errors and omissions	2.5	2.7	0.6	1.4	2.0	1.4	1.5	0.7
Change in reserves (-=increase) 2/	1.0	-2.4	-1.9	-9.7	-1.5	0.5	1.6	-2.8

Sources: Central Bank of Aruba; and staff estimates.

1/ Excluding changes in currency and deposits of the banking sector related to the transactions effectuated by the oil sector.

2/ Including gold, excluding revaluation differences.

Table A11. Aruba: Bank-Like Institutions—Balance Sheet, 2005–12

(Millions of Aruban florins, end of period)

	2005	2006	2007	2008	2009 1/	2010	2011	2012
Assets								
Cash and due from banks	64.3	48.5	33.8	43.7	59.1	47.0	39.1	68.3
Investments	12.0	23.7	28.0	25.6	24.9	24.1	55.1	21.9
Loans	413.2	420.0	474.4	495.5	486.2	469.2	469.2	430.9
Commercial 2/	117.1	103.9	144.5	167.1	162.3	150.1	151.0	112.3
Individuals 3/	296.1	316.1	329.9	328.4	323.9	319.1	318.3	318.6
Government	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other assets	114.4	108.4	119.9	124.5	138.8	149.4	147.0	153.3
Total assets	603.9	600.6	656.1	689.3	709.0	689.7	710.4	674.4
Capital and liabilities								
Deposits	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Borrowings	323.2	354.5	385.8	404.8	401.3	371.2	377.1	325.7
Commercial	271.6	296.9	321.2	328.7	322.8	282.7	257.5	236.1
Individuals	0.0	0.0	0.0	6.5	6.9	6.9	7.0	7.0
Government	51.6	57.6	64.6	69.6	71.6	81.6	112.6	82.6
Other liabilities	73.9	35.7	34.8	35.0	37.2	31.4	32.5	31.3
Capital and reserves 4/	206.8	210.4	235.5	249.5	270.5	287.1	300.8	317.4
Total capital and liabilities	603.9	600.6	656.1	689.3	709.0	689.7	710.4	674.4

Source: Central Bank of Aruba.

1/ Preliminary figures

2/ Corrected for loan loss provisions.

3/ Corrected for unearned income.

4/ Including general (unallocated) reserves.

Table A12: Aruba: Life Insurance Companies—Balance Sheet, 2005–11

(Millions of Aruban florins, end of period)

	2005	2006	2007	2008	2009	2010	2011
Assets							
Investments	373.2	397.9	456.8	489.7	583.2	619.3	661.3
Shares	2.6	2.9	2.8	2.1	5.0	22.6	22.9
Bonds	190.1	219.5	247.6	250.1	316.1	327.1	371
Real estate	14.0	10.3	10.3	10.1	0.1	0.1	0.2
Time deposits	53.7	64.8	72.6	93.7	119.2	115.1	99
Mortgage loans	72.9	59.1	72.6	89.7	97.7	102.8	110.3
Other loans	39.9	41.3	50.9	44.0	45.1	51.6	57.9
Fixed assets	0.4	7.4	8.2	5.8	5.2	4.6	4.9
Due from affiliated companies	19.4	22.5	20.0	22.3	72.7	49.9	54.3
Current assets	58.5	64.5	65.1	100.3	47.1	116.0	122.0
Total assets	451.5	492.3	550.1	618.1	708.2	789.8	842.5
Capital and liabilities							
Technical provisions	364.6	400.9	444.3	500.6	531.4	586.6	631.2
Long-term liabilities	0.0	0.0	0.8	1.1	1.0	1.0	1.0
Due to affiliated companies	5.0	5.4	6.5	16.8	17.7	38.1	36.3
Current liabilities	22.1	19.0	23.4	30.4	43.8	39.3	38.0
Capital and reserves	59.8	67.0	75.1	69.2	114.3	124.8	135.9
Total capital and liabilities	451.5	492.3	550.1	618.1	708.2	789.8	842.5

Source: Central Bank of Aruba.

Table A13: Aruba: Pension Funds—Balance Sheet, 2005-11

(Millions of Aruban florins, end of period)

	2005	2006	2007	2008	2009	2010	2011
Assets							
Investments	192	220	239	197	221	231	258
Shares	52	56	63	50	55	65	61
Bonds	58	72	86	76	90	98	116
Real estate	10	10	10	10	13	13	13
Time deposits	36	41	36	17	18	16	8
Mortgage loans	14	15	16	16	18	18	22
Other investments	23	27	28	29	27	20	37
Fixed assets	0	0	0	0	0	0	0
Current assets	21	15	16	17	20	33	16
Total assets	213	235	255	215	241	263	274
Capital and liabilities							
Technical provisions	182	195	216	194	209	224	247
Long-term liabilities	0	0	0	0	0	0	0
Current liabilities	2	2	2	4	2	2	2
Capital and reserves	30	37	36	18	30	38	24
Total capital and liabilities	213	235	255	215	241	263	274

Source: Central Bank of Aruba.

Table A14. Aruba: Construction Indicators, 2005–12

	2005	2006	2007	2008	2009	2010	2011	2012
Number of construction permits granted	1,584	1,303	1,151	962	857	899	786	837
Houses	1,092	782	674	525	499	506	376	437
Apartments	25	30	28	39	33	29	36	53
Office buildings	15	22	25	13	9	10	9	10
Stores and shopping malls	25	34	29	16	11	23	11	12
Others	427	435	395	369	305	331	354	325
Total value of construction permits (Afl. million)	283.2	525.7	447.6	670.5	343.2	488.8	299.9	442.7
Houses	113.7	108.6	115.3	105.3	93.6	116.8	86.2	91.5
Apartments	5.0	13.8	12.4	62.7	13.2	21.8	34.3	180.9
Office buildings	10.1	39.2	40.9	11.3	8.1	17.0	21.4	20.2
Stores and shopping malls	17.4	78.2	64.4	29.5	10.2	59.5	22.9	19.5
Others	137.0	286.0	214.5	461.7	218.1	273.7	135.0	130.7
Total cement imported (x 1,000 Kg)	88,719	78,413	78,582	67,040	52,224	37,149	52,143	48,766
Number of electrical installations approved	2,763	2,463	2,138	2,272	2,021	1,506	1,524	1,598
Houses	857	686	560	583	467	380	359	380
Apartments	258	204	259	277	199	174	286	277
Enterprises	296	252	291	292	231	152	176	274
Others	1,352	1,321	1,028	1,120	1,124	800	703	667

Sources: Department of Public Works; Department of Technical Inspection; CBS.

Table A15. Aruba: Utilities, 2005–12

	2005	2006	2007	2008	2009	2010	2011	2012
Water								
Quantity (x 1,000 m3)	11,399	11,474	11,750	11,445	11,383	11,047	10,465	10,631
Value (Afl. million)	82.9	95.9	102.3	122.9	103.3	114.3	117.1	114.7
Connected premises	34,905	35,989	36,824	37,992	38,857	39,424	40,162	41,338
Electricity								
Quantity (x 1,000 KWH)	759,336	761,362	781,073	764,291	773,909	789,581	771,841	759,386
Value (Afl. million)	228.2	262.8	279.3	344.1	283.4	339.1	370.6	396.6
Connections	40,765	41,502	42,419	43,062	43,635	43,975	44,561	44,993
Number of users	36,737	37,630	38,495	39,207	39,743	40,238	40,837	41,276
Gas								
Quantity (x 1,000 pounds)	19,133	19,275	19,979	20,486	20,511	20,399	20,885	20,773
Value (Afl. million)	11.8	12.6	15.0	18.3	20.5	20.2	22.8	25.0
Households	7,416	7,387	7,355	7,496	7,654	7,342	7,493	6,879
Commercial users	11,717	11,888	12,624	12,990	12,857	13,057	13,392	13,894
Utilities index	138.9	139.4	142.9	140.1	141.1	142.6	139.2	138.3

Sources: WEB Aruba N.V.; N.V. ELMAR; Arugas N.V.

Table A16. Aruba: Housing Mortgages, 1996–12

(Millions of Aruban florins, end of period)

	Commercial banks (1)	Mortgage banks (2)	Pension funds (3)	Life insurance companies (4)	Other (5)	Total (6)
1996	239	195	36	34	5	508
1997	259	239	41	40	5	584
1998	296	269	50	49	5	670
1999	345	277	59	61	6	748
2000	395	283	63	73	8	822
2001	438	296	74	72	9	889
2002	485	303	84	68	4	944
2003	544	281	91	62	18	996
2004	581	287	113	57	17	1056
2005	704	229	126	54	16	1129
2006	747	243	138	59	15	1202
2007	786	245	156	72	18	1276
2008	797	240	184	89	19	1330
2009	819	232	208	91	19	1369
2010	866	222	219	96	22	1425
2011	906	215	253	96	21	1490
2012	945	206	265	100	26	1541

Source: Central Bank of Aruba.