INTERNATIONAL MONETARY FUND

Staff Country Reports

September 1995

IMF Staff Country Report No. 95/89

Kingdom of the Netherlands - Aruba Recent Economic Developments

This report on recent economic developments in Aruba was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with this member country. In releasing this document for public use, confidential material may have been removed at the request of the member.

Copies of this report are available to the public from

International Monetary Fund • Publication Services
700 19th Street, N.W. • Washington, D.C. 20431

Telephone: (202) 623-7430 • Telefax: (202) 623-7201

Telex (RCA): 248331 IMF UR

Internet: publications@imf.org

Price: \$15.00 a copy

International Monetary Fund
Washington, D.C.

This page intentionally left blank

INTERNATIONAL MONETARY FUND

KINGDOM OF THE NETHERLANDS - ARUBA

Recent Economic Developments

Prepared by B. Bakker and I. Halikias

Approved by the European I Department

July 14, 1995

<u>Contents</u>	<u>Page</u>
Basic Data	iii
I. Introduction	1
II. The Real Economy	2
1. Economic activity	2
2. Labor market developments	3
3. Price developments	5
III. Public Finance	6
IV. Monetary Policy Developments	11
V. Balance of Payments Developments	16
1. Introduction	16
2. The current account during 1993-94	17
3. The capital account during 1993-94	18
Appendix: Medium-Term Scenarios	20
Text Tables	
1. Sectoral Division of Employment	4
2. Fiscal Adjustment in 1995 Budget	7
3. 1994 and 1995 Budgets	8
4. Government Debt and Guarantees, end-1994	10
5. Medium-Term Scenarios, 1994-99	25

<u>Contents</u>	<u>Page</u>
Charts	
1. Indicators of Activity	2a
2. Real GDP and Employment	4a
3. CPI Inflation	6a
4. Public Finance	6b
5. Foreign Reserve Position	12a
6. Money, Credit, and Net Foreign Assets	12b
7. Interest Rates on Domestic Loans and Deposits	14a
8. External Developments	16a
9. Medium-Term Scenarios	24a
Statistical Appendix Tables	
A1. Estimated GDP and Components	26
A2. Components of GDP	27
A3. Contributions to Real GDP Growth	28
A4. Indicators of Tourism Activity	29
A5. Labor Force Trends	30
A6. Legal Minimum Wages	31
A7. Changes in the Consumer Price Index	32
A8. Summary of Trends in the Public Finances	33
A9. Summary of Trends in Public Finance	34
A10. Tax Revenue	35
A11. Monetary Survey	36
A12. Monetary Developments	37
A13. Changes in Sources of Broad Money	38
A14. Balance of Payments Summary	39
A15. Current Account Transactions, Net of Payments Concepts	40

Aruba--Basic Data

Population (end-1993) 77,898
GDP per capita (1993) US\$16,400

Social indicators (1991)
Literacy rate 97 percent
Life expectancy 74 years
Infant mortality (aged under one) 1.1 percent

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Real economy							
(change in percent)							
Real GDP	18.4	12.1	17.1	4.5	5.7	1.9	6.1
Nominal GDP	22.0	16.6	23.9	10.3	9.7	7.3	12.5
Tourist nights	27.7	27.8	27.2	11.5	3.6	3.2	5.1
Unemployment rate							
(percent of labor force)	5.0	1.5	1.3	0.6	0.6	0.5	0.5
Inflation							
(change in percent)							
CPI (Aruba)	3.1	4.0	5.8	5.6	3.8	5.3	6.1
CPI (Curaçao)	2.6	3.9	3.7	4.0	1.5	1.9	1.9
CPI (U.S.)	4.0	4.8	5.4	4.2	3.0	3.0	2.6
Real exchange rate index							
(1985=100) ^{1/}	98.3	97.5	97.9	99.2	100.1	102.2	105.9
Public finance							
(in percent of GDP) ^{2/}							
Taxes	21.5	19.7	17.6	19.1	18.1	20.0	18.9
Expenditure ^{3/}	24.6	20.4	17.7	18.0	20.1	19.4	18.8
Balance	-3.1	-0.7	-0.1	1.2	-2.0	0.6	0.1
Balance of payments							
(in millions of Af.)							
Exports ^{4/}	151.2	191.8	278.3	1,573.0	1,913.9	2,066.3	2,321.2
Imports ^{4/}	635.0	719.7	1,039.7	2,511.1	2,589.6	2,768.2	2,877.1
Trade balance	-483.8	-527.9	-761.4	-938.1	-675.7	-701.9	-555.9
Net services and transfers	387.4	441.1	464.3	581.5	736.3	778.6	707.7
Of which:							
Tourism (net)	442.8	497.5	553.5	630.5	704.6	732.3	699.5
Current account balance	-96.4	-86.8	-297.1	-400.2	57.6	56.1	118.6
(In percent of GDP)	(-8.3)	(-6.6)	(-19.1)	(-23.8)	(3.1)	(2.8)	(5.2)
Overall balance	0.7	40.0	40.8	66.8	65.8	54.7	16.6

	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>
Financial aggregates (percent change over 12 months)							
Net foreign assets	-0.9	26.8	21.5	29.0	22.1	15.1	4.0
Domestic credit	37.4	15.6	12.3	9.1	9.0	1.7	17.3
To private sector	35.8	15.5	12.8	13.3	7.8	6.8	17.0
Money and quasi-money	21.8	19.0	16.7	16.9	12.3	5.7	11.0
Money	20.6	28.0	8.5	18.9	5.5	14.1	10.7
Quasi-money	22.4	14.1	21.7	15.9	16.0	1.6	11.2
Interest rates							
12-month time deposits	7.8	7.9	8.0	7.8	6.8	6.5	6.1
Lending rate	10.2	10.5	10.6	10.6	10.6	10.6	10.6
Exchange rates: U.S. dollar	The Aruban florin is pegged to the U.S. dollar at Af. 1.79 = US\$1						
SDR (end of period)	2.41	2.35	2.55	2.56	2.46	2.46	2.61

-
- 1/ Relative to the U.S. dollar. CPI based.
 2/ Cash basis.
 3/ Net of non-tax revenue.
 4/ Note that the oil refinery reopened in 1990.

I. Introduction

During 1993-94, Aruba's economic expansion continued at a brisk pace, albeit somewhat slower than the very high rates of growth attained during the late 1980s. Growth was mainly supported by private domestic demand, with both the consumption and investment components contributing significantly, while the contribution of the external sector turned negative. This strong growth in domestic demand exacerbated the already severe supply constraints of the Aruban economy, resulting in very tight labor market conditions and an acceleration of inflation. The latter, given the Aruban florin's peg to the U.S. dollar, led to a continued real appreciation of the currency.

The poor quality of public expenditure data renders interpretation and assessment of fiscal policy rather difficult. During 1993-94, the budget deficit remained roughly in balance, and the debt ratio continued to fall rapidly. Nonetheless, in view of the fact that GDP may be significantly above potential, it is estimated that the stance of fiscal policy remained expansionary, while the budget for 1995 apparently continues this expansionary policy.

Monetary policy is primarily geared toward supporting the peg to the dollar by achieving and maintaining adequate foreign exchange reserves, with domestic credit controls used as the main policy instrument. In 1994, unlike in previous years, domestic credit expansion significantly exceeded the ceilings. This development was mirrored by an unfavorable evolution of Aruba's net foreign asset position, with money supply growth almost entirely reflecting domestic credit conditions. Money supply targeting, with a view to controlling inflation, has assumed increasing importance since 1992 as a secondary approach to monetary policy, to be implemented via a more restrictive policy regarding capital inflows.

With regard to the external sector, the current account switched into surplus and the capital account into deficit in 1992, and this pattern continued in 1993-94, becoming more pronounced in the latter year. The widening of the current account surplus in 1994, however, mainly reflected temporary stock fluctuations in the oil sector, while masking a weakening of Aruba's most important export industry, tourism. On the other hand, the widening of the negative balance on the capital account mainly reflected the rapid expansion in domestic credit during that year.

This background paper reviews developments in the Aruban economy during 1993-94. Chapter II describes trends in the real economy, labor market and prices. Chapter III reviews fiscal policy developments including the 1993-94 outturns and the 1995 budget. Chapter IV reviews the framework for monetary policy implementation and describes recent financial market developments. Chapter IV reviews recent developments in the external current and capital account. Finally, an Appendix discusses the medium-term prospects of the Aruban economy, in light of the authorities' development program.

II. The Real Economy

1. Economic activity

Aruba is a small island in the Caribbean, 24 km. from the northern coast of Venezuela. It is 193 square kilometers in area, and has a population of some 78,000. Until 1986, it was part of the Netherlands Antilles, but in that year it gained independent status (*status aparte*) within the Kingdom of the Netherlands, with full jurisdiction over all domestic matters including monetary and fiscal policy. It is one of the most prosperous islands in the Caribbean, with per capita income estimated at about \$ 16,400. A number of features make it attractive for tourism, its most important economic activity: sandy beaches, its location outside the hurricane zone, ideal weather conditions, language skills, and political stability.

When Aruba gained status aparte in January 1986, its economy was in a severe recession. Until 1985, petroleum refining (and related trans-shipment facilities) contributed about a quarter of GDP, but in that year, the Aruban economy suffered a severe shock when, as a result of declining oil prices and a cutback in Venezuelan oil supply, the Exxon-owned Lago refinery was forced to close. GDP declined by as much as a third, and the unemployment rate rose to over 20 percent. ^{1/}

Following the closure of the oil refinery, the government embarked on an ambitious reform program to revitalize the economy. Fiscal incentives, in the form of reduced profit taxes and tax holidays, were offered to encourage foreign investment in tourism. Substantial government guarantees were also granted for foreign borrowing to finance hotel construction. Hotel capacity expanded strongly, and tourist arrivals tripled during the 1987-1992 period (Chart 1 and Table A4). As a result, Aruba enjoyed very rapid growth in the late 1980s, at rates averaging some 17 percent per year during 1987-1990.

Investment in the hotel sector leveled off in 1990. This was partly compensated by a surge in investment in the oil sector, following the signing of an agreement in 1989 with Coastal Corporation of Houston to re-open the refinery. Coastal undertook substantial investment to refurbish and expand the facilities, and by 1991 the oil sector contributed almost as much to total investment as the non-oil sector (Table A3). Nevertheless, economic growth slowed down, to about 5 percent in 1991 and 1992.

In 1993, real GDP growth decelerated further to under 2 percent. Consumption suffered from tax increases introduced in July 1993. Tourism exports declined in real terms for the first time since 1985. Aruba's expensiveness as a tourism center may have contributed to this decline, as

^{1/} Aruba does not have national accounts, so all of the figures presented here on GDP or its components are either official or staff estimates.

CHART 1 ARUBA Indicators of Activity

Sources: Central Bank of Aruba, Quarterly Bulletin; and staff estimates.

1/ Number of overnight stays.

2/ Number of available hotel rooms.

This page intentionally left blank

may the recession in the Netherlands and the economic and political uncertainties in Venezuela. The main contributor to growth was government consumption, which increased strongly, mainly reflecting a surge in wages and salaries paid.

Economic growth rebounded in 1994, and real GDP expanded by 6 percent. The contributions of domestic and foreign demand differed markedly; while domestic absorption contributed almost 14 percentage points to economic growth, net foreign demand made a negative contribution of 7 percentage points (Table A3). The strong increase in domestic absorption could be attributed to both an increase in consumption--fueled by an increase in consumer credit of 28 percent--and a rise in investment. The buoying of investment was mainly associated with housing construction and some large projects such as the building of a coker by Coastal Petroleum. The surge in investment was reflected in a rise in associated imports, and exports also declined, together accounting for the negative contribution of net foreign demand. Revenues from tourism shrank, despite an increase of 5.1 percent in the number of visitor nights; this may indicate some down-market shift in Aruba's tourist clientele, as tourist promotion cast a wider net to fill enlarged hotel capacity. ^{1/} Exports from the free zone declined as well, partly due to the economic crisis in Venezuela.

2. Labor market developments

Employment has grown rapidly since 1987. From 1987 to 1992 employment increased by 70 percent, and unemployment dropped from 15.8 percent in 1987 to 0.5 percent in 1992 (Chart 1 and Table A5). Employment continued to grow at a strong pace in 1993 and 1994, by 8.3 and 6.8 percent respectively. The labor force grew by virtually the same percentage, with both an increase in the participation rate and an inflow of foreign labor, leaving the unemployment rate unchanged at 0.5 percent.

In 1994, a labor force survey was conducted by the Central Bureau of Statistics (CBS). According to this survey, the 1994 unemployment rate amounted to 6.4 percent, substantially above the official unemployment rate of 0.5 percent. The difference between the official unemployment rate and the estimate of 5 percent results mainly from differences in definition. Officially measured unemployment consists of those who register as unemployed with the Department of Labor and request placement. The CBS survey, however, uses standard methodology to sample the population, asking respondents questions regarding their employment status. As a result, the survey measure is more internationally comparable, although it may correspond less closely to excess supply of labor; for instance, the census counts those as unemployed who declare that they are out of a job, although they might well be working in the informal or underground sector. No time

^{1/} It may also indicate an increased use of barter-style transactions to pay for tourist services in Aruba, particularly by tourists from Venezuela, circumventing exchange controls in that country.

series on the CBS unemployment exists: the survey has only been done once, due to the lack of statistical facilities for a periodic survey.

The inflow of foreign labor has been very substantial in recent years. According to the CBS' Labor Force Survey 1994, 28 percent of the working force was foreign born. 1/ In hotels and restaurants - the single most important sector of the Aruban economy, accounting for 17.6 percent of total employment - the percentage was as high as 40 percent. Construction was another sector with a large share of foreign labor (Table 1).

Table 1. Sectoral Division of Employment

	Share of sector in total employment (%)	Share of foreigners in sector (%)
Hotels and restaurants	17.6	40.6
Wholesale and retail trade, repair	17.3	24.8
Public administration and defence	10.7	9.6
Construction	10.4	37.8
Transport, storage, and communications	8.3	9.3
Social and personal services	6.4	28.7
Manufacturing	5.9	24.4
Real estate, renting, business activities	5.5	30.9
Health and social work	4.4	17.4
Financial services	4.1	12.6
Education	3.8	34.0
Household personnel	3.7	90.2
Electricity, gas, and water supply	1.5	4.8
Other	0.4	45.5
Total	100.0	28.3

Source: CBS, Labor Force Survey 1994; and staff calculations.

Average labor productivity 2/ exhibits a downward trend throughout the period 1987-1994 (Chart 2). This decline does not, however, necessarily reflect a less efficient use of labor, but might instead reflect a composition effect: rapid employment increases in more labor-intensive

1/ According to the Labor Department, the percentage is 33 percent.

2/ Real GDP per person employed; figures on hours worked are not available.

- 4a -

CHART 2

ARUBA

Real GDP and Employment (Index, 1987=100)

Sources: Department of Labor; and staff calculations.

This page intentionally left blank

sectors such as tourism could lower average labor productivity even if in any single sector labor productivity did not change. In fact, labor productivity in the hotel sector, for instance, increased by 11 percent in the 1988-1993 period.

3. Price developments

Since 1990, consumer price inflation in Aruba has been higher than in the Netherlands Antilles and the United States, which, given the policy of pegging the Aruban florin to the U.S. dollar, has led to a deterioration of Aruba's competitive position. Inflation appears to have resulted from a tension between rapid demand growth and domestic supply-side constraints.

In 1993, inflation continued to increase. In the first half of the year, it oscillated around 4.7 percent (Chart 3). Inflation got a boost in July, when tariffs of water, electricity and public transportation were raised, and the government introduced a comprehensive package of revenue generating measures, comprising mainly higher excise taxes, and an increase of import duties from 7.5 to 12.5 percent. Consequently, inflation accelerated to 6.4 percent in December (Table A7).

In 1994, inflation initially accelerated further, to a peak of 7.5 percent in May. Thereafter, it gradually declined to 6.1 percent in September. On October 1, 1994, the 5 percentage point surcharge on import duties was revoked, and inflation decelerated further, to 4.7 percent in December. By March 1995, it had reached 3.6 percent.

In October and November 1993, the CBS conducted a spending survey among 519 households, mainly to determine more representative weights for calculating the consumer price index. In September 1994, a new weighting scheme for the consumer prices index was introduced, with lower weights for food, and higher weights for, among others, transport, communication, clothing, footwear and recreation. Moreover, the assumed annual increase of rents was lowered from 12 percent to 5 percent. ^{1/} Taken together, these changes in the calculation method did, however, not have much impact on measured inflation; according to the new method, the December 1994 inflation rate was 4.7 percent, whereas according to the old method it would have been 4.8 percent.

The change in the consumer price index may understate inflationary pressures to the extent that there are price controls on products that in 1993 amounted to nearly one fifth of the CPI basket. Goods subject to controls include bread, electricity, kerosene, electricity and telephone services.

^{1/} Aruba does not have figures on rent increases. Therefore, to calculate the consumer price index, assumptions have to be made about rent increases. These may underestimate the actual increase in rents.

III. Public Finance

Profiting from the economic boom, Aruba's public finances improved substantially in the late 1980s. Due to very rapid economic growth, the share of government current expenditure in GDP declined, from almost 30 percent in 1987 to less than 22 percent in 1991 (Table A9). As a result, the deficit, which in 1987 amounted to 10 percent of GDP, had disappeared by 1991 (Chart 4).

In 1992, the government's financial situation deteriorated markedly. Tax receipts declined, following a 19 percent increase in 1991 which had been brought about by intensified tax collection and administration effort. Expenditures also increased. This led to a shift in the government balance from a surplus of 1.2 percentage points of GDP in 1991, to a deficit of 2.0 percentage points of GDP in 1992. The weakening in the government's financial position continued during the first half of 1993. The government's liquidity position gradually deteriorated, and became critical around the middle of the year. A special commission, chaired by the president of the Central Bank, was installed in April 1993 to advise the government on measures to reverse the deterioration of public finances. Based on the recommendations of the commission, a comprehensive package of revenue-generating measures was introduced on July 17. Import duties were increased from 7.5 to 12.5 percent; there were also increases in excise taxes on mineral oils, cigarettes, beer, and liquor. All in all, tax revenue rose by 14 percent in 1993, to Af. 384 million. Government spending was also to be reduced, through a reduction in public consumption and the postponement of certain planned investments. The combination of tax measures and the restrained spending policy resulted in a turnaround of the fiscal position to a surplus of 0.6 percentage points of GDP in 1993.

In 1994, the total balance, which was projected to have a deficit of Af. 41 million, instead showed a surplus of Af. 1.5 million. The current account, which was budgeted to be in equilibrium, showed a Af. 39 million surplus, resulting from lower than projected expenditure on goods and services. Tax revenues were higher than projected. Despite the abolition in October of the import surcharge introduced in 1993, there was not much effect on revenues as the resulting decrease in tariff rates came too late in the year. The capital account deficit was also lower than expected, as investment turned out to be only half the amount budgeted.

The new government that took office in September 1994 introduced a new 1995 budget (to replace a budget introduced by the previous government but never passed by parliament). This budget projects a 1995 deficit of 31.4 million, with the current account in equilibrium and the capital account showing a deficit despite a planned cut in investment spending. The new government decided to scrap new taxes proposed by the previous government, and to abolish the import surcharge. At the same time, it revised projections of tax revenue upward. The overall effect of the revised projections and the tax reductions amounted to a decline in tax revenue of some Af. 4 million, compared to the initial 1995 budget

CHART 3
ARUBA
CPI Inflation
(In Percent)

Source: Central Bank of Aruba, Monthly Bulletin.

- 6b -

CHART 4

ARUBA

Public Finance
(In Percent of GDP)

Source: Central Bank of Aruba; Ministry of Finance; and staff estimates.
1/ Includes non-tax revenue.

(Table 2). The budget also included new spending increases associated with the new government's programs, amounting to Af. 25 million; but these were to be more than offset by other expenditure cuts of Af. 33 million. An important way to achieve these cuts, is through incentives for the voluntary departure of 320 civil servants (7.5 percent of total public employment). This involves the so-called *lumpsumpregeling*, which offers a lump sum equal to an average of 1 1/2 years' salary to those who leave government employment voluntarily. (The official figures show this payment off-budget; funds were raised through a bond issue, and held in a blocked account at the Central Bank of Aruba.)

Table 2. Fiscal Adjustment in 1995 Budget

(In millions of Af.)

Current balance initial budget	-5
Revised tax revenue projection	+15
Abolishing import surcharge	-15
Not introducing new taxes	-4
New programs	-25
Expenditure cuts	33
Current balance final budget	0

Given that in 1994 realized expenditure was below the budgeted amount, while revenue exceeded the corresponding budget targets, the 1995 budget, if fully executed, would imply a significant fiscal expansion (Table 3). In particular, the increase in spending relative to the realized level of 1994 would be of the order of 13 percent while the increase in revenue would be only 5 percent, with the budget balance switching from a surplus of Af. 1.5 million in 1994 to a deficit of Af. 31.4 million in 1995. It is more likely, however, that, precisely because the 1995 budget was formulated on the basis of the 1994 budget rather than the 1994 outturn, expenditure will fall short of the budget ceiling while revenue will exceed the budget projections, ^{1/} as has been the case in recent years. In order to obtain a rough estimate of the magnitude of these deviations, the rate of change between 1994 and 1995 of the budgeted amounts for most items of revenue and expenditure was applied to the respective 1994 outturns.

^{1/} With respect to revenue, this is also supported by the trends of the first quarter of 1995.

Table 3. 1994 and 1995 Budgets

	1994		1995	
	Budget	Realization	Budget	Staff Estimates
Current account				
Total	0.0	39.1	0.0	45.4
Expenditure				
Wages	245.1	260.0	245.0	245.0
Goods and services	129.9	94.0	131.1	110.0
Interest	21.9	17.3	26.6	26.6
Transfers	63.7	57.8	75.7	70.0
Other	42.1	42.1 ^{1/}	44.7	44.0
Total	502.7	471.3	523.1	495.6
Income				
Taxes on income and profit	172.7	192.5	194.8	212.0
Taxes on goods and services	234.1	228.5	234.2	234.9
Other taxes	15.5	17.7	18.8	18.8
Non-tax revenue	80.5	71.7	75.3	66.5
Total	502.8	510.4	523.2	532.2
Capital account				
Total	-41.2	-25.9	-31.5	-17.6
Expenditure				
Investment	89.7	44.2	73.6	50.0
Other	20.8	22.2	13.3	13.3
Total	110.6	66.4	86.9	63.3
Income				
Grants	40.0	20.1	34.8	25.0
Redemption of loans	4.6	4.6	5.0	5.0
Other	24.8	15.8	15.6	15.6
Total	69.4	40.5	55.4	45.6
Errors and omissions		-11.7 ^{1/}		-11.7
Total balance	-41.2	1.5	-31.4	7.3

Source: Data received from the authorities and staff estimates.

^{1/} Staff estimates

The resulting estimates are presented in the last column of Table 3, and point to a small surplus of Af. 7.3 million for that year. In the area of current expenditure, the biggest adjustment was made in spending on goods and services, as the 1995 budget figure was 40 percent higher than the 1994 outturn. An important adjustment was also made to capital spending, as public investment in 1994 turned out to be only about half the amount budgeted for that year, and similar deviations characterized previous years as well.

The tentative nature of the staff estimates shown in the last column of Table 3 should be emphasized, especially in the area of expenditures. These estimates are predicated on policies' having the officially predicted impact on the budget; notably it is assumed that the lump-sum scheme referred to above, has the predicted impact on wage expenditure. Secondly, even though the adjustments made with regard to the relationship between budgeted and actual expenditures above appear to be consistent with recent experience, there is obviously no guarantee that individual government departments will not raise their level of spending closer to their respective budget ceilings than is implied by the above adjustments.

The new government has announced plans for social policy which will likely have an impact on the fiscal situation over the medium term. First, minimum wages have been raised, and the number of categories has been reduced to two, one for household personnel, and one for all other workers. Second, pensions have been increased by 30 percent in December 1994, doubling their level since 1993. To finance the increase in benefits, employer premiums have been increased by 3.5 percent. Third, plans are being developed to build 5,000 houses in the next couple of years, to alleviate the current housing shortage. Fourth, a general medical insurance scheme will be introduced, to replace the patchwork of existing schemes. The new insurance will at least partially be financed through an increase in the contributions of employers. The existing schemes already cover most of the medical expenses for a large part of the population and are currently provided at no charge; the new scheme is expected to increase efficiency, while introducing a direct charge to the consumer.

In the 1990-1994 period, the cumulative government deficit amounted to only Af. 2 million, less than 1 percent of GDP. Consequently, with rapid GDP growth government debt declined as a percentage of GDP, from 56 percent in 1990 to 39 percent in 1994. Foreign debt, which is slightly over half of total debt, consists mainly of debt to the Netherlands, borrowed on concessional terms (Table 4). About two thirds of domestic debt is owed to the SVB (social insurance bank) and the APF (government pension fund). Debt to the SVB results from 1986, when Aruba gained status aparte, and the SVB of the Netherlands Antilles was split into two separate institutions for Aruba and the Netherlands Antilles. Debt to the APF partly results from the splitting up from the public sector pension fund of the Netherlands Antilles in 1986, and partly from the government payment of insufficient premiums on behalf of its employees over the 1984-1993 period.

Table 4. Government Debt and Guarantees, end-1994

(In millions of Af.)

Foreign Debt	443.4
Of which:	
The Netherlands	347.4
European Investment Bank	18.2
Netherlands Antilles (status aparte)	69.0
Other	8.8
Domestic Debt	420.1
Of which:	
Tradeable	90.6
Non-tradeable	329.5
Of which:	
Short-term	36.7
Long-term	292.8
Of which:	
APF	239.3
SVB	45.9
Other	7.6
Guarantees	394.7
Of which:	
Domestic	0.0
Foreign	394.7

Source: Ministry of Finance, Central Bank of Aruba.

Apart from debt, the government also has outstanding loan guarantees associated mainly with hotel construction; these amount to about 17 percentage points of GDP, and date almost exclusively back to the 1986-88 period. In the years 1990-92, three of these hotel projects failed and the government was forced to deal with the disposition of the property; an ad hoc corporation was established for this purpose. Some guarantees are being challenged by the government in court; others will give rise to a payment in the years to come of around Af. 20 million. No new guarantees have been issued in the past two years, with the exception of a \$1.5 million guarantee for a small time-sharing resort. There exists a reserve blocked at the Central Bank of some Af. 50 million to cover any calls on the guarantees, and Af. 1.5 million is added to this reserve each month.

IV. Monetary Policy Developments

The primary objective of monetary policy in Aruba has been to maintain the fixed exchange rate of the Aruban florin to the U.S. dollar, ^{1/} supported by the intermediate target of maintaining a strong net foreign asset position. In view of the potential vulnerability of Aruba's foreign exchange earnings due to its limited degree of diversification, the monetary authorities adopted a medium-term target of raising net foreign assets to a level of five to six months of (non-oil) imports, high by international standards. Until 1993 the import coverage ratio was short of the target, fluctuating between 3.5 and 4.5 months' imports. Thereafter, it rose sharply, peaking at around 5.5 months' imports in the beginning of 1994, before falling back to just over 4.5 months' imports by the end of the year (Chart 5). In early 1995, foreign exchange reserves started rising again, and by end-March were some 12 percent above their end-1994 level.

The net foreign asset objective has been pursued since 1988 mainly by targeting domestic credit expansion. Underlying this policy is the inverse relationship between domestic credit expansion and net capital inflows, under the assumption of a reasonably stable demand for money and given a high degree of international capital mobility. In particular, restricting domestic credit below overall demand for credit (expected to grow in line with nominal GDP on the assumption of a unitary income elasticity of money demand) would induce Arubans to borrow abroad, thus resulting in higher capital inflows and boosting foreign exchange reserves. The experience of the Aruban monetary authorities, as well as rudimentary empirical tests, ^{2/} confirm that this link has indeed been a strong one. Accordingly, in line with the authorities' objective of raising net foreign assets to achieve the desired import coverage ratio, the target rate of domestic credit expansion has consistently been below (and in some years well below) the projected rate of growth of nominal GDP. The annual credit expansion ceilings are compared with nominal GDP growth:

^{1/} The exchange rate has been pegged at Af. 1.79 to US\$1 since the attainment of "status aparte" in 1986. Before that, Aruba used the Netherlands Antilles guilder, which was fixed at the same exchange rate since 1971.

^{2/} See SM/93/107, Appendix III.

Credit Ceilings and GDP Growth

(Annual percent change)

	1989	1990	1991	1992	1993	1994
Credit ceiling	15	15	12	7	3	7
GDP growth	16.7	23.6	10.3	9.8	7.2	12.7

Indirect instruments of monetary control are nominally available, but little used. In particular, a monetary cash reserve arrangement similar to that in place in the Netherlands and the Netherlands Antilles was introduced in 1991 (on top of the pre-existing prudential liquidity ratio). As of April 1995, the required reserve ratio was set at 6 percent of outstanding current, savings and time deposits with a maturity shorter than two years. However, there have typically been substantial excess reserves; for instance, excess banking system liquidity at the end of 1993 was Af. 164 million, or 16 percent of the broad money supply, while the liquidity ratio was around 36 percent, well above the minimum 20 percent prudential liquidity requirement. As a result, official interest rates have been ineffective in influencing the level of market rates.

Under these conditions, in implementing their domestic credit targeting, the monetary authorities have relied on quantitative annual ceilings on credit expansion by individual banks. In view of the high demand for residential housing and the perceived shortages in this area, mortgage lending was excluded from the credit ceiling until 1994, and in 1994 a separate (and higher) ceiling on mortgage credit expansion was introduced. Furthermore, an additional credit facility over and above the ceilings was granted to banks that were in a position to finance the additional credit expansion by attracting liabilities, with remaining maturity exceeding two years.

Up until 1994, no penalties for exceeding the credit ceilings was put in place; the arrangement was based on a "gentlemen's agreement" between the Central Bank and commercial banks. The latter adhered to the ceilings throughout the period 1989-1993, during that period, domestic credit grew considerably less than nominal GDP and net foreign assets were the fastest growing component of the money stock every year (Chart 6 and Table A13). Thus, during 1989-1993, broad money grew by 14 percent on average, while net foreign assets grew by 23 percent per year on average, while the corresponding average growth of net domestic credit was limited to under 10 percent per year. Under these conditions, commercial banks experienced a sharp increase in excess liquidity, as deposits kept growing more or less in line with (and in some years at a higher rate than) nominal GDP. The excess liquidity problem was rendered more acute by the underdeveloped state of Aruba's money and capital markets, which did not allow banks significant

CHART 5
ARUBA

Foreign Reserve Position

Source: Central Bank of Aruba, Quarterly Bulletin.

CHART 6
ARUBA
Money, Credit, and Net Foreign Assets
(Annual Percent Change)

Source: Central Bank of Aruba, Quarterly Bulletin.

domestic investment opportunities other than loans, and the limits posed by the so-called B-9 regulation on their foreign asset positions. ^{1/} As a result, commercial banks had little choice but to place their excess liquidity at their current account with the Central Bank at a low rate of return.

These trends in banks' excess liquidity are reflected in the evolution of interest rates (Chart 7). In particular, starting in early 1991, banks began to cut deposit rates, which had previously remained broadly constant, as had lending rates. By the beginning of 1993, deposit rates had been reduced by almost 2 percentage points.

Developments in 1993 and 1994 were sharply contrasting, on the one hand confirming the strong link between domestic credit expansion and net foreign assets in a small, fixed-exchange-rate open economy while at the same time exposing the fundamental weaknesses of a system of quantitative credit restrictions. In 1993, the monetary authorities decided to tighten the domestic credit ceilings even more, probably prompted by the fact that, despite the substantial increase in net foreign assets so far attained, it had been insufficient to raise the import coverage ratio to the target range. As a result, domestic credit expansion that year was a meager 1.7 percent, 5.5 percentage points lower than nominal GDP growth and 4 percentage points lower than broad money supply growth. Credit to the private sector was constrained by the ceilings and grew by 6.8 percent, while credit to the public sector contracted. The tightening of domestic credit had the intended effect of leading to a significant increase in net foreign assets, which pushed the import coverage ratio by the beginning of 1994 to around 5.5 months of imports, the mid-point of the target range. At the same time, these trends exacerbated the already severe problems associated with excess banking system liquidity, which occurred despite banks' efforts to discourage depositors by cutting deposit rates by some 1.5 percentage points during 1993. These cuts brought Aruban deposit interest rates below U.S. rates for the first time, creating obvious concerns over possible capital outflows that could weaken the peg of the Aruban florin to the dollar.

After the first quarter of 1994, a complete reversal of monetary conditions occurred. Responding to their accumulated excess liquidity and strong loan demand, commercial banks stepped up credit expansion, violating the credit ceilings. By the end of the year, domestic credit had increased by 17.3 percent on an annual basis, more than 10 percentage points above the ceiling. This acceleration in domestic credit expansion was promptly reflected in Aruba's net foreign asset position. Net foreign assets declined from Af. 506 million in April 1994 to Af. 445 million by year-end,

^{1/} A bank's basic long foreign asset position cannot exceed a specified percentage of its average total Af. liabilities at the end of the previous three months, net of claims on the same depositors, and of other special items. The B-9 maximum was raised from 4 percent to 6 percent in 1992.

resulting in a fall of the import coverage ratio to just over 4.5 months of imports. The fall in net foreign assets in turn reflected a deterioration in the private capital account, which registered a net outflow of Af. 114.5 million in 1994, compared with a net outflow of only Af. 21.2 million in 1993. This trend was most pronounced in the oil sector, where the capital outflows were concentrated in the direct investment (essentially profit repatriation) and loans categories, suggesting that the easing of credit conditions allowed this sector to mainly finance its extensive investment program domestically, requiring little recourse to foreign borrowing or financing from retained earnings. At the same time, the acceleration in domestic credit expansion considerably improved the position of the commercial banking system. While some excess liquidity remained, its level was significantly reduced, from Af. 164 million, or 16 percent of M2, to Af. 116 million, or 10 percent of M2. Accordingly, commercial banks proceeded to raise interest rates on 3- and 6-month deposits by almost 1 percentage point in the second half of 1994. ^{1/}

The Aruban monetary authorities, while stressing the usefulness of domestic credit targeting, recognized that the system of credit controls that had been in place until recently was unsatisfactory in a number of ways. In the first place, as the 1994 developments made clear, the "gentlemen's agreement" on which the credit controls were based did not guarantee that the credit ceilings would be adhered to. Accordingly, starting in 1995, a penalty system was introduced, according to which credit expansion above the ceiling would be penalized at a rate initially set equal to the Central Bank's advance rate. This rate is currently 9.5 percent, but the Central Bank has made it clear that it would stand ready to raise it to stem the excessive rate of credit expansion.

The ceiling on credit expansion was set at 6 percent for 1995, and the base adjusted upward to reflect the expansion that had taken place in 1994. Furthermore, the additional expansion facility, which a commercial bank may use to the extent it increases its liabilities with a remaining maturity exceeding two years, was raised from 3 percent to 4 percent. The rationale for this facility is to promote savings via the banking system to compensate for the monetary effects of credit expansion, to improve the average maturity of banks' liabilities, and to facilitate the financing of long-term loans and housing mortgages. Finally, the Central Bank has suggested that it might consider allowing banks to exceed their credit ceiling on an ad hoc basis to finance important infrastructure projects, provided that the economy is judged not to be in danger of overheating and such lending is in conformity with prudential requirements.

It has also been recognized that the existing system has tended to generate a number of important distortions, both for the banking system and

^{1/} On the other hand, longer-term rates remained unchanged, possibly reflecting the expectation of a resumption of tight credit conditions in the future.

CHART 7
ARUBA
Interest Rates on Domestic Loans and Deposits
(In percent)

Source: Central Bank of Aruba, Quarterly Bulletin.
1/ On deposits of Af. 100,000 and above.

This page intentionally left blank

for the economy as a whole, while the excess liquidity resulting from the direct, quantitative nature of the controls represents a "monetary overhang" that threatens to translate itself into unchecked credit expansion at some point in the future. Accordingly, the monetary authorities recently introduced a number of reforms to render the system more flexible and alleviate some of its distortionary impact. In the first place, it was decided to allow the banks to trade any unused portion under their credit ceiling among themselves. In addition to preventing a freezing of bank market shares, 1/ it is hoped that this reform would promote the development of an interbank market. Secondly, mortgage lending was placed fully under the credit ceiling. 2/ It was judged that excluding mortgage lending from the overall credit ceiling had been responsible for generating important distortions in the allocation of resources between the various sectors of the Aruban economy, while at the same time resulting in an overexposure of the banking system to the residential housing sector, as the share of mortgage lending in total domestic expansion rose rapidly from 3 percent in 1989 to 50 percent by 1993 (Table A14). 3/

These reforms notwithstanding, the Aruban monetary authorities stopped short of moving to a system of indirect monetary control. This would have required either measures to mop up excess bank liquidity or a substantial increase in the required reserve ratio to bring the banking system as a whole into a liquidity shortage position--thus forcing it to rely at the margin on Central Bank lending and ensuring that Central Bank lending rates would directly influence commercial bank rates. The monetary authorities' main reservation with regard to such a step was that the still significant (albeit reduced relative to recent years) excess liquidity position of commercial banks could imply a substantial adverse impact on the Central Bank's profitability. The scope for open-market operations may be rather limited given the underdeveloped state of Aruban financial markets and the oligopolistic structure of Aruba's banking system, 4/ in addition, concerns over Central Bank profitability may constrain changes in the financial system that would make indirect monetary control feasible.

1/ In the past, it had been attempted to prevent a freezing of bank market shares by allowing banks to carry over half the unused portion under their credit ceiling into the following year.

2/ In 1994, a special ceiling on the growth of mortgage lending of 15 percent had been introduced.

3/ In 1994, when the credit ceilings were broken, this share fell back to 22 percent.

4/ There are six commercial banks currently operating in Aruba, five of which are branches or subsidiaries of foreign banks, under consolidated supervision by the Central Bank of the Netherlands or of the Netherlands Antilles. In addition, there is an offshore banking sector, with the number of banks in that sector reduced from nine to four in the course of 1994 on account of the banking crisis in Venezuela; the aggregated balance sheet total of the offshore banks at the end of 1994 amounted to Af. 1,563 million.

Until recently, maintenance of the fixed exchange rate of the Aruban florin vis-à-vis the U.S. dollar, implemented through targeting the composition of the money stock, constituted the exclusive objective of monetary policy. Since 1993, however, the monetary authorities have added control of inflation to the list of monetary policy objectives, to be implemented via targeting of the overall money supply. In targeting the money stock, the Central Bank indicated that, in addition to domestic credit targeting, it would pursue a more restrictive policy in granting licenses for capital inflows. In this connection, a State Ordinance issued in 1992 laid out a set of criteria for approval of applications for foreign exchange licenses for foreign loans. These criteria include an evaluation of the potential profitability of the project concerned, as well as a set of macroeconomic conditions, notably the requirement that sufficient labor must be available to satisfy for the increased labor demand resulting from the execution of the project.

V. Balance of Payments Developments

1. Introduction

Until 1992, the current account in Aruba was in deficit, averaging Af. 160 million, or 11.5 percent of GDP, per year during 1986-91 (Chart 8 and Tables A14 and A15). This trend reflected the extensive investment program in the hotel sector and, after 1990, the investment associated with the reopening of the oil refinery, while these two sectors had not yet reached their full export potential. During this period, current account deficits were comfortably financed by capital inflows, with the capital account balance averaging Af. 200 million per year, of which Af. 170 million reflected private capital transactions, thus allowing a steady increase in foreign exchange reserves. The strength of capital inflows predominantly reflected the extensive foreign financing and foreign direct investment in the hotel and oil sectors, as the size of these projects limited the scope for any significant domestic financing.

During 1992-94 these trends were reversed. On the one hand, the current account turned into surplus, averaging Af. 77, or 3.7 percent of GDP, per year in this period, as investment in the oil and especially the hotel sector decelerated significantly and the export earnings of the tourism sector kept rising (with the exception of 1994). Meanwhile, the capital account weakened and, after being roughly in balance during 1992-93, registered a substantial Af. 94 million deficit in 1994. Underlining this development was Aruba's reduced financing needs as the investment program levelled off, as well as the repatriation of part of the profits of the oil refinery and the hotels to their parent companies abroad. For 1994 in particular, the relaxation of domestic credit expansion was another important factor contributing to the capital account's deterioration. In total, the current account surpluses dominated the deficits on the capital account, even in 1994, and foreign exchange reserves continued to increase during 1992-94.

CHART 8
ARUBA
External Developments
(in millions of Af)

Source: Central Bank of Aruba, Quarterly Bulletin.

This page intentionally left blank

2. The current account during 1993-94

In 1993, the current account registered a surplus of Af. 56 million, or 2.8 percent of GDP, a small reduction relative to 1992. Following the typical pattern, a large trade deficit of Af. 702 million was more than offset by a surplus of Af. 759 million on the services account, itself dominated by tourism. Concerning merchandise trade, a noteworthy development was a fall in the surplus of the oil sector (excluding bunker operations) by some Af. 25 million. While oil exports continued to grow strongly, by 8 percent relative to 1992, they were outpaced by imports which registered a rate of growth of 17 percent. This was largely attributable to temporary stock fluctuations, and in particular to the increase in stocks of crude oil; as will be discussed below, it was to be reversed in the course of the following year. The fall in the surplus of the oil sector was partly offset by an increase in the surplus of the free zone of some Af. 16 million. This development was overshadowed, however, by a decline in the overall level of business activity in this sector, with both exports and imports for the first time registering a fall of 9 percent and 18 percent, respectively. While this trend may be partly attributed to the economic problems facing a number of major importers, notably Venezuela, it may also reflect more fundamental factors, and in particular increased competition originating from the gradual liberalization of international trade and the establishment of a number of competing free-zone centers in the region.

In the area of services trade, the tourism sector's surplus widened by Af. 26 million, as exports continued to grow by some 5 percent. In fact, the growth rate of tourism inflows somewhat exceeded the 3 percent rise in tourist nights, probably in part due to higher revenues arising from cruise tourism. Among other items of the current account, net inflows from private unrequited transfers fell by some Af. 12 million, switching from a surplus of Af. 10 million to a deficit of Af. 1 million, mainly on account of increased transfers to pensioners living abroad and the departure of virtually all foreign workers employed in refurbishing the oil refinery.

In 1994, the current account surplus widened substantially to Af. 119 million, or 5.3 percent of GDP, with the trade deficit falling by Af. 146 million, more than offsetting a Af. 53 million narrowing of the services surplus. This development was entirely attributable to the oil sector, whose surplus rose by Af. 233; in fact, the non-oil current account actually deteriorated by a substantial Af. 114 million, or some 5 percent of GDP. The widening of the oil sector's surplus was to a significant extent transitory in nature, resulting from a running down of crude oil stocks accumulated during 1993. On the other hand, the free zone surplus fell by Af. 28 million, as both exports and imports continued to decline, by 12 percent and 6 percent respectively.

The most noteworthy development in the services trade was the reduction for the first time in tourism inflows, by Af. 24 million, or 3 percent, even as tourist nights continued to grow by some 5 percent. This unprecedented development may in part suggest that the recent real effective appreciation

of the Aruban florin may have come to affect tourist spending behavior, while not yet affecting tourism volume. 1/ At the same time, it might to some extent reflect factors that would tend artificially to reduce the tourism sector's contribution to Aruba's balance of payments. In particular, there are indications that, in response to the introduction of strict exchange controls in Venezuela, an important tourist market for Aruba, a significant number of tourist transactions may have been settled on a barter-type basis, and thus would not have been credited to the tourism sector of the balance of payments. 2/ Regarding other components of the current account, net private remittances declined by a further Af. 12 million, once again mainly driven by payments to pensioners living abroad. This trend can be expected to become more pronounced in the near-term, in view of the Government's plans to bring about a significant reduction in the number of foreign nationals working in Aruba.

3. The capital account during 1993-94

In 1993, the capital account registered a slight deficit (Af. 5 million), with a deficit in the private capital account of Af. 21 million only partially offset by net public capital inflows of Af. 16 million. With regard to the private capital account balance, the deficit mainly reflected substantial net long-term capital outflows, Af. 52 million, in the oil sector. As in 1992, the oil sector outflows were concentrated in the area of direct investment, essentially consisting of profit transfers to the refinery's parent company. Among the non-oil long-term capital flows, the direct investment and real estate categories continued to be in surplus, while the surplus on the short-term capital flows balance fell by over Af. 20 million, probably on account of the sharp reductions in Aruban interest rates during the year.

The capital account deteriorated substantially in 1994, with the overall deficit increasing to Af. 94 million. Once again, the private sector was entirely responsible for the capital account deterioration, registering a deficit of Af. 115 million, against net public sector capital inflows of Af. 21 million. Trends in private capital flows were largely driven by developments in the oil sector, which saw its capital account deficit more than triple to a substantial Af. 170 million. Direct investment, registering net outflows of Af. 146 million, and loans, registering outflows of Af. 32 million, were mainly responsible for the worsening of the oil sector's capital account. This development could be viewed as mainly a consequence of the easing of domestic credit conditions

1/ For a discussion of recent developments in the Aruban florin's real exchange rate, see Chapter I.

2/ The overall current account picture would not be affected, as such arrangements would tend to bias downward other categories of (mostly merchandise) imports.

during 1994. ^{1/} Specifically, it would appear that the increased financing needs of the oil sector during 1994 associated with a substantial investment in the construction of the refinery's coker project were essentially met via domestic borrowing, thus eliminating the need to rely on foreign borrowing or retained profits.

Non-oil private and public sector capital flows helped offset to only a limited extent the deterioration caused by oil sector capital flows. In particular, the non-oil private sector registered a capital account surplus of Af. 55 million, an increase of over Af. 20 million relative to 1993. In contrast to the oil sector, the loans category registered substantial net inflows of Af. 63 million, which however were more than fully accounted for by two major foreign loans to finance the upgrading of the water and electricity supply facilities and the completion of the Marriott Hotel, which were too big to completely finance domestically. Meanwhile, the public sector capital account surplus increased to Af. 21 million, mainly on account of official loans of Af. 14 million received in the context of the development cooperation with the Dutch government and the European Union, which were used to also partly finance the ongoing investment program of the Water and Electricity Company. In addition, total grants received amounted to Af. 24 million, mainly for housing projects and infrastructure improvements.

^{1/} For a discussion of domestic credit expansion and its interaction with trends in net foreign assets, see Chapter III.

Medium-Term Scenarios

For the 1995-1998 period, the Aruban government aims for annual real GDP growth of 4-5 percent. At the same time, it plans to stop the inflow of foreign labor, and replace between one half and three quarters of foreign workers by Arubans, by inducing Arubans living in the Netherlands to return and by reducing the number of civil servants and the number of people on welfare. Given the virtual absence of unemployment in Aruba, and the rapid rise of the participation rate in the past decade, GDP growth of 4-5 percent necessitates--in the absence of foreign labor inflows--labor productivity increases. Indeed, the government aims at annual growth of real GDP per worker of 3.5 percent. However, productivity increases of 3.5 percent may be hard to realize particularly in an economy that is dominated by labor-intensive sectors such as the hotel sector. A productivity increase of this magnitude would be strikingly different from developments in the past decade, during which average productivity declined by some 12 percent. Moreover, there are few instruments available to the Aruban government that would turn such a rapid productivity increase, so soon, into a reality.

One important way the Aruban government may seek to influence the growth rate, consistent with its target, is by stimulating investment. In the past, this has been done through various tax incentives, loan guarantees, and complementary infrastructure investment. At the same time, investment is influenced by developments in the economy, notably by changes in Aruba's competitiveness--which in turn, under a fixed exchange rate, is affected by Aruba's inflation rate relative to its trading partners'.

This appendix illustrates the risks for the Aruban economy if the authorities continue to pursue their target for real growth but the projected productivity increases do not materialize. It compares four scenarios. In the baseline, optimistic scenario, the authorities pursue their ambitious growth target and the envisaged productivity increases do materialize. As a result, the labor market remains in equilibrium, and inflation does not accelerate. In the second and third scenario, productivity growth is only 1 percent. Consequently, labor demand grows substantially faster than in the baseline scenario. The scenarios differ with regard to the immigration policy followed by the authorities. In the second scenario, there is a complete halt to immigration. Strong labor demand growth causes tensions in the labor market, drives up inflation, causes the competitiveness of the Aruban economy to deteriorate, and reduces its growth rate. In the third scenario, there are no restrictions on immigration. Thus, no tensions in the labor market arise. However, as rapid labor demand growth results in large influx of foreign labor--which creates tension in the housing market--it still exacerbates inflationary pressure. So, in both the second and the third scenario, inflation will accelerate and Aruba's competitive position will deteriorate. In the absence of labor productivity increases, an acceleration of Aruban inflation can only be prevented by a slowdown in investment.

Whereas the second and third scenarios point out the risks of aiming investment toward a growth rate that cannot be achieved, except on the optimistic assumptions made in the baseline, the fourth illustrates the implication of aiming for a more realistic growth path; accordingly, it assumes a lower rate of investment, together with the less optimistic productivity growth assumption.

The model used in analyzing the scenarios focuses on the supply side. GDP is constrained by productive capacity, which depends upon both the capital stock and the labor force. A surge in inflation, which, given the fixed exchange rate, results in a deterioration of Aruba's competitiveness, is assumed to affect production capacity in two ways. First, because a loss of competitiveness may make some industries nonviable, it renders some capital in those industries obsolete--in effect, increasing the rate of depreciation. Second, a loss of competitiveness for the same reason reduces private investment by making it less attractive.

The model has been formulated as follows:

$$Y_t = \min(aK_t, bE_tL_t) \quad (1)$$

$$K_t = \delta_{t-1}K_{t-1} + I_{t-1} \quad (2)$$

$$\delta_t = \delta(pc_{t-1}) \quad (3)$$

$$I_t = I_t(pc_t) \quad (4)$$

$$E_t = (1+\theta)E_{t-1} \quad (5)$$

$$POP_t = \xi POP_{t-1} + IMG_t \quad (6)$$

$$LS_t = \phi POP_t \quad (7)$$

$$LD_t = \frac{a K_t}{b E_t} \quad (8)$$

$$L_t = \min(LS_t, LD_t) \quad (9)$$

$$u_t = \left(\frac{LS_t - L_t}{LS_t} \right) \quad (10)$$

$$\Delta pc_t = \phi \left(\frac{LD_t - LS_t}{LD_t} \right) + \mu(pop_t) \quad (11)$$

where:

Y_t	is GDP in period t;
K_t	is the capital stock;
L_t	is employment (in persons);
E_t	is an index for the efficiency of labor;
I_t	is investment;
pc_t	is the inflation rate.
POP_t	is the population;
IMG_t	is immigration;
LS_t	is labor supply;
LD_t	is labor demand;
pop_t	is the population growth rate;
u_t	is the unemployment rate;

GDP is determined by a fixed-proportions production function. The growth of the capital stock is determined by both investment and the depreciation rate. ^{1/} Investment in period t does not increase productive capacity until period t+1. As discussed, inflation, through a loss of competitiveness, results in faster depreciation of the capital stock and lower private investment. The growth of labor productivity (θ) is exogenous, and varies between scenarios.

Population growth is determined by the growth rate of the indigenous labor force (assumed to be 1 percent per year) and the level of immigration (which varies between scenarios). Labor supply is a fixed percentage of the population. Labor demand depends upon productive capacity--which is determined by the capital stock--and on the efficiency of labor. Employment is the minimum of labor demand and supply.

Inflation can increase either because of excess demand in the labor market, or because of the effect of rapid population growth (via the housing market). If there is excess demand in the labor market, wages will rise, which in turn will lead to an increase of prices; if there is rapid population growth, the resulting shortage in the housing market will lead to an acceleration of inflation.

^{1/} Investment of the oil sector is excluded, as this sector is far more capital intensive than other sectors. Instead, it is assumed that the oil sector's share in GDP remains constant.

Results

The starting point in all four scenarios is economic growth for 1995 projected at 5.6 percent, and inflation at 4 percent. ^{1/} The scenarios differ for the period 1996-1999. In the baseline scenario (scenario 1) (Chart 9 and Table 5), labor productivity grows by 3.5 percent per year; in the other three scenarios it grows by 1 percent per year.

In the optimistic baseline scenario, productivity grows by 3.5 percent per year. As the indigenous labor force grows by 1 percent, and GDP by 4.5 percent, the rise in the total labor force just matches the increase in labor demand. As a result, no immigration occurs, and no inflationary pressures arise from either the labor market or from immigration.

In the other three scenarios, labor productivity grows at only 1 percent per year--still faster than in the experience of recent decades. As investment is initially the same as in the baseline scenario, lower productivity growth results in faster labor demand growth. In the "Free Immigration" scenario (scenario 2), labor supply adjusts to labor demand through immigration of foreign labor, with the unemployment rate remaining stable at 0.5 percent. In this scenario, no direct inflationary pressures arise from the labor market. However, rapid employment growth causes a large influx of foreign labor, which--through its impact on the housing market--increases inflation; as a result, the competitive position of Aruba deteriorates, and GDP growth slows down.

In the "No Immigration Scenario" (scenario 3), there are neither inflows nor outflows of foreign labor. With labor productivity growing at only 1 percent, the growth of the indigenous labor force (1 percent) is too small to match the growth in labor demand. The resulting excess demand for labor pushes up wages, leads to an acceleration of inflation, which depresses investment, and reduces GDP growth. The surge in inflation may be so strong, and its impact on GDP growth so large, that it results in an overshooting: in later years, excess demand for labor disappears, and is replaced by excess supply.

In the "prudent development" scenario (scenario 4), investment is reduced, and economic growth slows down to 2.0 percent, compatible with the growth of the indigenous labor force. As a result, inflationary pressures do not emerge, and Aruba's competitive position is unimpaired. This path implies a sharp initial drop in investment (which only, however, returns investment to its 1993 level).

The scenarios indicate that if the projected productivity increases do not materialize, inflation might become a serious problem for the Aruban economy. The resulting loss in competitiveness would result in an economic

^{1/} In the model, production capacity in 1995 depends upon investment in 1994 which is, of course, under all scenarios the same.

slowdown, that under some scenarios might be so pronounced that unemployment would start to emerge. The overheating of the economy, and the resulting loss in competitiveness could, however, be prevented by a more prudent approach to economic development, with a lower level of investment.

CHART 9
ARUBA
Medium Term Scenarios

CHART 9

ARUBA

Medium Term Scenarios, Continued.

Table 5. Aruba: Medium Term Scenarios, 1994-99

	1994	1995	1996	1997	1998	1999
<u>Optimistic Scenario</u>						
Growth rate Labor productivity	-0.7	1.0	3.5	3.5	3.5	3.5
Growth rate real GDP	6.1	5.6	4.5	4.5	4.5	4.5
Growth rate employment	6.8	4.5	1.0	1.0	1.0	1.0
Growth rate population	1.9	4.5	1.0	1.0	1.0	1.0
Unemployment rate	0.5	0.5	0.5	0.5	0.5	0.5
Growth rate real investment	41.4	-9.2	5.8	5.8	5.7	5.7
Inflation	6.1	4.0	4.0	4.0	4.0	4.0
Consumer price index (1994=100)	100.0	104.0	108.2	112.5	117.0	121.7
Nominal non-oil investment	300.0	283.3	311.7	343.0	377.0	414.5
Real non-oil investment	300.0	272.4	288.2	304.9	322.3	340.7
<u>Free Immigration Scenario</u>						
Growth rate Labor productivity	-0.7	1.0	1.0	1.0	1.0	1.0
Growth rate real GDP	6.1	5.6	4.5	3.6	2.9	2.4
Growth rate employment	6.8	4.5	3.5	2.6	1.9	1.4
Growth rate population	1.9	4.5	3.5	2.6	1.9	1.4
Unemployment rate	0.5	0.5	0.5	0.5	0.5	0.5
Growth rate real investment	41.4	-9.2	3.3	1.7	0.7	0.3
Inflation	6.1	4.0	5.2	6.1	6.5	6.7
Consumer price index (1994=100)	100.0	104.0	109.5	116.1	123.6	131.9
Nominal non-oil investment	300.0	283.3	308.0	332.2	356.2	381.2
Real non-oil investment	300.0	272.4	281.4	286.2	288.1	288.9
<u>No Immigration Scenario</u>						
Growth rate Labor productivity	-0.7	1.0	1.0	1.0	1.0	1.0
Growth rate real GDP	6.1	5.6	2.0	2.0	2.0	-0.9
Growth rate production capacity	6.1	5.6	4.5	2.2	-0.5	-1.1
Growth rate employment	6.8	4.5	1.0	1.0	1.0	-1.9
Growth rate population	1.9	4.5	1.0	1.0	1.0	1.0
Unemployment rate	0.5	0.5	0.5	0.5	0.5	3.3
Growth rate real investment	41.4	-9.2	-0.5	-7.4	-8.0	-0.4
Inflation	6.1	4.0	7.1	10.6	10.9	7.0
Consumer price index (1994=100)	100.0	104.0	111.4	123.2	136.6	146.2
Nominal non-oil investment	300.0	283.3	302.1	309.5	315.5	336.4
Real non-oil investment	300.0	272.4	271.2	251.2	231.0	230.1
<u>Prudent Development Scenario</u>						
Growth rate Labor productivity	-0.7	1.0	1.0	1.0	1.0	1.0
Growth rate real GDP	6.1	5.6	2.0	2.0	2.0	2.0
Growth rate employment	6.8	4.5	1.0	1.0	1.0	1.0
Growth rate population	1.9	4.5	1.0	1.0	1.0	1.0
Unemployment rate	0.5	0.5	0.5	0.5	0.5	0.5
Growth rate real investment	41.4	-40.5	2.6	3.1	2.9	2.0
Inflation	6.1	4.0	4.0	4.0	4.0	4.0
Consumer price index (1994=100)	100.0	104.0	108.2	112.5	117.0	121.7
Nominal non-oil investment	300.0	185.6	198.1	212.4	227.3	241.1
Real non-oil investment	300.0	178.5	183.1	188.8	194.3	198.2

Table A1. Aruba: Estimated GDP and Components

(In millions of Aruban florins at current prices)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Gross Domestic Product	725	876	1069	1246	1544	1704	1870	2007	2259
Private absorption	539	616	861	1026	1336	1476	1538	1572	1966
Consumption	416	492	603	694	929	1006	1133	1156	1405
Private investment	123	124	258	332	406	471	405	416	561
Non-oil	123	124	258	332	320	247	200	200	300
Oil				0	86	224	205	216	261
Government absorption	212	277	272	295	314	289	336	386	398
Consumption	191	212	233	254	244	263	290	337	354
Investment	21	65	39	41	70	26	46	49	44
Exports (net of related imports and payments)	261	328	417	471	546	643	787	839	812
Tourism	187	258	319	362	413	459	526	551	535
Refining	0	0	0	0	4	35	36	42	43
Free zone	0	11	15	44	51	63	100	116	87
Other	74	59	82	64	77	86	126	129	147
Other imports and payments	287	345	481	546	651	704	791	790	918

Sources: Staff estimates based on data supplied by the authorities

Table A2. Aruba: Components of GDP

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Gross Domestic Product	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Private absorption	74.4	70.3	80.6	82.3	86.5	86.6	82.3	78.4	87.0
Consumption	57.4	56.2	56.4	55.7	60.2	59.0	60.6	57.6	62.2
Private investment	17.0	14.2	24.1	26.6	26.3	27.6	21.6	20.7	24.8
Non-oil	17.0	14.2	24.1	26.6	20.7	14.5	10.7	10.0	13.3
Oil	0.0	0.0	0.0	0.0	5.6	13.1	10.9	10.8	11.5
Government absorption	29.2	31.6	25.5	23.7	20.3	17.0	18.0	19.2	17.6
Consumption	26.3	24.2	21.8	20.4	15.8	15.4	15.5	16.8	15.7
Investment	2.9	7.4	3.6	3.3	4.5	1.5	2.5	2.4	2.0
Exports (net of related imports and payments)	35.9	37.4	39.0	37.8	35.4	37.7	42.1	41.8	36.0
Tourism	25.8	29.4	29.9	29.0	26.7	26.9	28.1	27.5	23.7
Refining	0.0	0.0	0.0	0.0	0.3	2.1	1.9	2.1	1.9
Free zone	0.0	1.2	1.4	3.6	3.3	3.7	5.3	5.8	3.9
Other	10.2	6.7	7.7	5.2	5.0	5.0	6.7	6.4	6.5
Other imports and payments	-39.5	-39.4	-45.0	-43.8	-42.2	-41.3	-42.3	-39.4	-40.6

Sources: Staff estimates based on data supplied by the authorities.

Table A3. Aruba: Contributions to Real GDP Growth

(in percent)

	1987	1988	1989	1990	1991	1992	1993	1994
Real GDP growth	16.6	18.4	12.1	17.1	4.5	5.7	1.9	6.1
Nominal growth rate	20.8	22.0	16.6	23.9	10.3	9.7	7.3	12.5
GDP deflator	3.6	3.1	4.0	5.8	5.6	3.8	5.3	6.1
Private absorption	7.6	25.0	11.7	18.9	4.0	0.3	-2.4	14.0
Consumption	8.1	10.6	6.0	14.8	1.5	5.1	-1.9	8.4
Private investment	-0.5	14.4	5.7	4.2	2.5	-4.7	-0.5	5.6
Non-oil	-0.5	14.4	5.7	-2.4	-5.6	-3.2	-0.5	4.1
Oil	0.0	0.0	0.0	6.5	8.1	-1.5	0.0	1.5
Government absorption	7.7	-1.5	1.1	0.1	-2.6	2.0	1.6	-0.5
Consumption	1.9	1.6	1.0	-1.9	0.3	0.9	1.6	-0.2
Investment	5.8	-3.1	0.0	2.0	-2.9	1.1	0.0	-0.4
Exports (net of related imports and payments)	7.7	8.7	3.4	3.6	4.0	6.8	0.5	-3.7
Tourism	8.6	5.9	2.7	2.3	1.4	2.8	-0.1	-2.3
Refining	0.0	0.0	0.0	0.3	1.9	0.0	0.2	-0.1
Free zone	1.4	0.4	2.6	0.3	0.5	1.9	0.6	-1.7
Other	-2.3	2.3	-1.9	0.7	0.2	2.1	-0.1	0.4
Other imports and payments	-6.4	-13.9	-4.1	-5.6	-1.0	-3.4	2.2	-3.7

Sources: Staff estimates based on data supplied by the authorities.

Table A4. Aruba: Indicators of Tourism Activity

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Total revenue (Af. millions)	283.0	390.8	483.7	548.4	625.6	695.3	796.3	835.4	811.2
Total visitors (thousands)	181.2	231.6	278.0	344.3	432.7	501.3	541.7	562.0	582.1
Average stay (nights)	7.1	7.0	7.5	7.7	7.8	7.5	7.2	7.2	7.3
Expenditure per tourist per day (Aruban florins)	213.2	234.2	228.1	203.7	181.6	185.0	204.0	207.0	192.0
Hotel occupancy rate (percent)	70.9	73.0	78.7	76.8	74.4	69.2	71.8	80.0	74.9
Hotel capacity (number of rooms)	2078	2776	3140	3612	4946	5705	5804	6213	6313
Net contribution to foreign exchange earnings (percent) ^{1/}	71.7	78.7	76.6	76.9	75.6	71.4	66.8	65.7	65.9

Sources: Central Bank of Aruba, Quarterly Bulletin; Aruba Tourism Authority; and staff estimates.

^{1/} Gross tourism revenue, less related required imports, as a percentage of gross current foreign exchange earnings, less related required imports.

Table A5 Aruba. Labor Force Trends

(In thousands)

	1987	1988	1989	1990	1991	1992	1993	1994
Population	59.9	60.4	61.8	64.7	68.9	71.2	77.9	79.4
Labor Force	22.1	23.6	25.6	29.9	31.7	33.9	36.7	39.2
Employment	18.6	22.5	25.2	28.9	31.5	33.7	36.5	39
Unemployment	3.5	1.1	0.4	1.0	0.2	0.2	0.2	0.2
Unemployment rate (percent)	15.8	4.7	1.6	3.3	0.6	0.6	0.5	0.5
Participation rate (percent) <u>1/</u>	36.9	39.1	41.4	46.2	46.0	47.6	47.1	49.4

1/ As percentage of the population.

Sources: Central Bureau of Statistics; Department of Labor; and staff estimates.

Table A6. Aruba: Legal Minimum Wages 1/

(In Aruban florins per month)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Category: <u>2/</u>										
1. Construction and industry <u>2/</u>	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	925.4	994.5
2. Finance and tourism <u>3/</u>	686.9	686.9	686.9	686.9	686.9	686.9	830.2	830.2	876.7	... <u>4/</u>
3. Other industry <u>4/</u>	595.0	595.0	... <u>3/</u>	...	...	...	...	...	...	...
4. Household personnel	283.9	283.9	283.9	341.7	341.7	341.7	379.3	413.0	436.1	464.0

1/ Per January 1st.2/ Excludes electronics, textiles, and clothing.3/ Banks, insurance companies, transportation, hotels, restaurants, recreation, casinos, and public utilities.4/ Agriculture, distribution, electronics, textiles, clothing, laundries, and some other categories.5/ This category was eliminated in 1988, and included under Category 2.6/ This category was eliminated in 1994, and included under Category 1.

Table A7. Aruba: Changes in the Consumer Price Index

(Annual percentage change)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
(End of period)									
Total	1.8	3.5	3.9	4.3	7.1	3.7	4.5	6.4	4.7
Food	6.7	5.4	9.2	7.3	8.2	3.2	4.8	4.4	4.9
Beverage and tobacco	1.9	18.2	10.4	5.7	6.4	7.3	2.6	5.8	5.4
Clothing and footwear	--	1.6	8.1	6.6	8.0	11.0	5.6	15.1	7.9
Housing costs	-1.9	1.2	0.6	1.4	6.3	4.6	6.9	10.2	5.2
Housekeeping and furnishings	0.6	0.4	3.8	3.8	6.5	2.9	7.4	5.2	5.7
Recreation and education	0.6	2.0	3.5	6.1	3.5	5.6	3.2	2.2	1.2
Miscellaneous	--	2.4	2.5	2.9	4.1	3.0	4.1	3.1	2.5
Medical care	1.1	2.0	2.6	0.5	2.3	4.0	3.6	3.0	5.4
Transport and communications	2.5	5.1	-1.7	-0.8	9.5	-0.7	0.4	6.2	3.3
(Period average)									
Aruba	1.1	3.6	3.1	4.0	5.8	5.6	3.8	5.3	6.1
United States	1.9	3.7	4.0	4.8	5.4	4.2	3.0	3.0	2.6
Netherlands Antilles	1.3	3.8	2.6	3.9	3.7	4.0	1.5	1.9	1.9

Source: Central Bank of Aruba, Quarterly Bulletin.

Table A8. Aruba: Summary of Trends in the Public Finances

(in millions of Aruban florins)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Taxes	189.3	206.6	230.0	245.9	271.3	326.3	338.1	401.8	426.3
Direct taxes	133.6	130.8	139.4	143.8	156.4	188.3	188.9	221.3	233.3
Indirect taxes	55.7	75.8	90.6	102.1	114.9	138.0	149.2	180.5	193.0
Current Expenditure	234.5	262.1	291.3	317.3	320.6	367.4	401.9	440.7	465.4
Wages and Salaries	128.4	137.0	139.2	154.2	161.7	163.0	185.0	238.4	260.0
Goods and Services	62.4	75.1	94.0	100.0	82.6	100.2	104.8	98.3	94.0
Interest payments	7.5	8.1	10.6	12.1	12.4	14.6	15.5	12.1	17.3
Transfers	33.2	38.3	45.1	49.5	44.0	43.6	47.0	45.1	49.2
Other	3.0	3.6	2.4	1.5	19.9	46.1	49.6	46.8	44.8
Investment	21.0	65.0	39.0	41.0	69.8	26.0	45.9	49.0	44.2
Other expenditure net of non-tax revenue <u>1/</u>	-78.2	-30.8	-67.1	-103.5	-117.0	-87.1	-71.7	-101.0	-84.8
Grants	30.5	23.3	16.8	17.8	17.5	19.9	18.1	15.3	20.1
Deficit (-)	12.0	-89.7	-33.2	-8.9	-2.0	20.0	-37.9	13.0	1.5
Financed by:									
Net foreign capital	18.8	9.3	4.6	5.2	2.1	3.4	17.9	1.0	0.8
Loans received	25.0	19.1	13.7	14.4	12.1	14.5	32.2	12.7	18.0
Repayments on loans received	6.2	9.8	9.1	9.2	10.0	11.1	14.3	11.7	17.2
Net domestic capital	0.0	20.0	19.5	0.0	0.0	0.3	12.0	23.6	0.6
Net recourse to the monetary system (-)	30.8	-60.4	-9.1	-3.7	0.1	23.7	-8.0	37.6	2.9

1/ Includes net lending, non-registered borrowing, lending to public institutions, and errors and omissions.

Sources: Central Bank of Aruba; Department of Finance; and staff estimates.

Table A9. Aruba: Summary of Trends in Public Finance

(percentage of GDP)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Taxes	26.1	23.6	21.5	19.7	17.6	19.1	18.1	20.0	18.9
Direct taxes	18.4	14.9	13.0	11.5	10.1	11.1	10.1	11.0	10.3
Indirect taxes	7.7	8.7	8.5	8.2	7.4	8.1	8.0	9.0	8.5
Current Expenditure	32.3	29.9	27.2	25.5	20.8	21.6	21.5	22.0	20.6
Wages and Salaries	17.7	15.6	13.0	12.4	10.5	9.6	9.9	11.9	11.5
Goods and Services	8.6	8.6	8.8	8.0	5.3	5.9	5.6	4.9	4.2
Interest payments	1.0	0.9	1.0	1.0	0.8	0.9	0.8	0.6	0.8
Transfers	4.6	4.4	4.2	4.0	2.9	2.6	2.5	2.2	2.2
Other	0.4	0.4	0.2	0.1	1.3	2.7	2.7	2.3	2.0
Investment	2.9	7.4	3.6	3.3	4.5	1.5	2.5	2.4	2.0
Other expenditure net of non-tax revenue	-10.8	-3.5	-6.3	-8.3	-7.6	-5.1	-3.8	-5.0	-3.8
Grants	4.2	2.7	1.6	1.4	1.1	1.2	1.0	0.8	0.9
Deficit (-)	1.7	-10.2	-3.1	-0.7	-0.1	1.2	-2.0	0.6	0.1
Financed by:									
Net foreign capital	2.6	1.1	0.4	0.4	0.1	0.2	1.0	0.0	0.0
Loans received	3.4	2.2	1.3	1.2	0.8	0.9	1.7	0.6	0.8
Repayments on loans received	0.9	1.1	0.9	0.7	0.6	0.7	0.8	0.6	0.8
Net domestic capital	0.0	2.3	1.8	0.0	0.0	0.0	0.6	1.2	0.0
Net recourse to the monetary system (-)	4.2	-6.9	-0.9	-0.3	0.0	1.4	-0.4	1.9	0.1

1/ Includes net lending, non-registered borrowing, lending to public institutions, and errors and omissions.

Sources: Central Bank of Aruba; Department of Finance; and staff estimates.

Table A10. Aruba: Tax Revenue ^{1/}

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Taxes	189.3	206.6	230.0	245.9	271.3	326.3	338.1	401.8	426.3
Direct taxes	133.6	130.8	139.4	143.8	156.4	188.3	188.9	221.3	233.3
Wage taxes	51.6	51.6	58.4	72.0	89.1	92.5	100.2	116.1	124.2
Income taxes ^{2/}	15.9	14.5	22.0	26.2	25.2	20.8	18.8	18.8	15.1
Profit taxes	24.4	19.7	19.9	23.3	17.4	45.1	34.3	43.9	52.0
Solidarity tax	26.7	29.5	20.8	2.8	2.0	1.1	1.9	1.2	1.2
Other	15.0	15.5	18.3	19.5	22.7	28.8	33.7	41.3	40.8
Land tax	2.2	2.0	2.7	2.5	2.9	2.8	2.8	6.0	2.9
Hotel room taxes	3.1	3.7	6.0	6.5	7.4	9.9	10.9	14.3	14.5
Gambling taxes	4.0	4.8	4.2	4.7	5.8	9.1	12.6	12.9	14.3
Motor vehicle taxes	5.7	5.0	5.4	5.8	6.6	7.0	7.4	8.1	9.1
Indirect taxes	55.7	75.8	90.6	102.1	114.9	138.0	149.2	180.5	193.0
Excises	29.6	41.3	47.5	49.8	52.6	67.1	71.2	76.6	86.8
gasoline	15.9	25.6	28.6	27.3	26.7	34.9	37.3	40.9	49.2
tobacco	4.8	3.4	4.7	5.2	6.2	8.6	9.3	9.3	8.8
beer	3.9	6.1	8.4	9.9	12.4	15.1	16.1	17.4	19.1
liquor	5.0	6.2	5.8	7.4	7.3	8.5	8.5	9.1	9.7
Import duties	21.0	28.3	36.2	42.2	50.9	57.5	63.5	77.6	89.4
Other taxes ^{3/}	5.1	6.2	6.9	10.1	11.4	13.4	14.5	26.3	16.8

Source: Tax Department.

^{1/} Cash basis.^{2/} Include income surtax^{3/} Includes property transfer tax and stamp duties

Table All. Aruba: Monetary Survey

(In millions of Af.; end of period)

	1988	1989	1990	1991	1992	1993	1994
Net foreign assets	149.6	189.7	230.5	297.3	363.1	417.8	434.4
Central bank	172.4	162.0	182.9	223.8	264.2	324.0	318.3
Commercial banks	-22.8	27.7	47.6	73.5	98.9	93.8	116.1
Net domestic credit	486.6	562.7	631.9	689.5	751.5	764.6	897.1
Public sector	19.1	22.9	22.8	-0.9	7.1	-30.5	-33.4
Central government	26.8	33.2	28.3	11.1	24.3	-17.8	-25.4
Development aid	-7.7	-10.3	-5.5	-12.0	-17.2	-12.7	-8.0
Private sector	467.5	539.8	609.1	690.4	744.4	795.1	930.5
Money supply (M2)	545.6	649.2	757.8	886.0	995.0	1,052.0	1,167.9
Money (M1)	190.1	243.4	264.1	314.0	331.3	377.9	418.4
Quasi-money	355.5	405.8	493.7	572.0	663.7	674.1	749.5
Other items (net)	90.6	103.2	104.6	100.8	119.6	130.4	163.6

Source: Central Bank of Aruba, Quarterly Bulletin.

Table A12. Aruba: Monetary Developments
(Percent change over same period year earlier)

	1988	1989	1990	1991	1992	1993	1994
Net foreign assets	-0.9	26.8	21.5	29.0	22.1	15.1	4.0
Net domestic credit	37.4	15.6	12.3	9.1	9.0	1.7	17.3
Money supply (M2)	21.8	19.0	16.7	16.9	12.3	5.7	11.0
Money (M1)	20.6	28.0	8.5	18.9	5.5	14.1	10.7
Quasi-money	22.4	14.1	21.7	15.9	16.0	1.6	11.2
Other items (net)	58.1	13.9	1.4	-3.6	18.7	9.0	25.5

Source: Central Bank of Aruba, Quarterly Bulletin.

Table A13. Aruba: Changes in Sources of Broad Money

	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
	(In millions of Af.)					(Changes in percent) ^{1/}				
Public sector (net)	-0.1	-23.7	8.0	-37.6	-2.9	-0.0	-3.1	0.9	-3.8	-0.3
1. Government	-4.9	-17.2	13.2	-42.1	-7.7	-0.8	-2.3	1.5	-4.2	-0.7
2. Development aid	4.8	-6.5	-5.2	4.5	4.7	0.7	-0.9	-0.6	0.5	0.4
Private sector credit (net)	69.3	81.3	54.0	50.7	135.4	10.7	10.7	6.1	5.1	12.9
1. Loans to enterprises	43.5	28.7	25.0	-2.3	58.3	6.7	6.8	2.8	-0.2	5.5
2. Consumer credit	22.9	40.2	8.9	30.6	47.0	3.5	2.7	1.0	3.1	4.5
3. Housing mortgages	3.0	13.3	18.2	24.4	30.3	0.5	1.3	2.1	2.5	2.9
4. Other	-0.1	-0.9	1.9	-2.0	-0.2	-0.0	-0.1	0.2	-0.2	--
Other items (net)	-1.4	3.8	-18.8	-10.8	-33.2	-0.2	0.5	-2.1	-1.1	-3.2
Total domestic assets (net)	67.8	61.4	43.2	2.3	99.3	10.4	8.0	4.9	0.2	9.4
Foreign assets (net)	40.8	66.8	65.8	54.7	16.6	6.3	8.8	7.4	5.5	1.6
Total change in money supply (M2)	108.6	128.2	109.0	57.0	115.9	16.7	16.9	12.3	5.7	11.0
Of which: Money (M1)	20.7	49.9	17.3	46.6	40.5	3.2	6.6	2.0	4.7	3.8
Quasi-money	87.9	78.3	91.7	10.4	75.4	13.5	10.3	10.3	1.0	7.2

Source: Central Bank of Aruba, Quarterly Bulletin.

^{1/} In percent of M2 at the beginning of the period.

Table A14. Aruba: Balance of Payments Summary

(in millions of Aruban florins at current prices)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Current Account Balance	-35.0	-42.1	-96.4	-86.8	-300.6	-400.2	57.6	56.1	118.6
Merchandise	-324.2	-368.7	-483.8	-527.9	-761.4	-938.1	-675.7	-701.9	-555.9
Tourism	260.9	353.1	442.8	497.5	553.5	610.5	704.6	732.3	694.7
Other current transactions	28.3	-26.5	-55.4	-56.4	-92.7	-72.6	28.7	25.7	-20.2
Transportation	2.0	-2.5	-1.1	8.8	1.3	47.6	89.6	99.7	161.9
Investment income	-13.1	-25.8	-30.5	-20.2	-13.9	-13.9	-13.1	-20.1	-21.3
Government services	13.0	1.0	-10.4	-10.8	-20.8	-29.2	-33.3	-28.9	-22.0
Other services	22.3	0.0	-11.9	-42.8	-39.8	-47.4	-24.6	-24.5	-127.0
Private remittances	4.1	0.8	-1.5	8.6	-19.5	-29.7	10.1	-0.5	-11.8
Capital Account Balance	112.7	56.9	93.6	127.1	345.7	455.3	0.3	-4.9	-93.5
Private Capital	63.4	24.3	72.2	107.5	326.1	432.0	-35.7	-21.2	-114.5
oil sector	0.0	0.0	0.0	16.8	205.2	312.4	-75.5	-52.2	-169.5
non-oil sector	63.4	24.3	72.2	90.7	120.9	119.6	39.8	31.0	55.0
Government Capital	49.3	32.6	21.4	19.6	19.6	23.3	36.0	16.3	21.0
Inflows	55.5	42.4	30.5	28.8	29.6	34.4	50.3	28.0	38.1
Grants	0.0	0.0	0.0	14.4	17.5	19.9	18.1	15.3	23.7
Loans	0.0	0.0	0.0	14.4	12.1	14.5	32.2	12.7	14.4
Outflows	6.2	9.8	9.1	9.2	10.0	11.1	14.3	11.7	17.1
Errors and Omissions	4.2	8.2	3.5	-0.3	-4.3	11.7	7.9	3.5	-8.6
Change in monetary gold	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in Reserves	91.9	23.0	0.7	40.0	40.8	66.8	65.8	54.7	16.5

Sources: Central Bank of Aruba; and staff estimates.

Table A15. Aruba: Current Account Transactions, Net of Payments Concepts

(In millions of Aruban florins at current prices)

	1986	1987	1988	1989	1990	1991	1992	1993	1994
Current account	-35	-42	-96	-87	-301	-400	58	56	119
Inflows	487	596	780	879	1084	2501	3028	3236	3520
Tourism inflows	283	391	484	548	626	695	796	835	811
Refining and Bunkers inflows	0	0	0	0	38	1265	1486	1683	2001
Freezone inflows	0	37	71	131	184	273	376	343	301
Other merchandise exports	53	44	81	61	56	78	134	135	155
Private remittances	33	26	26	35	43	50	66	64	65
Investment income	13	16	20	24	27	32	26	24	17
Other current receipts	105	83	100	80	110	109	144	151	169
Outflows	522	639	876	966	1384	2901	2970	3180	3401
Export related imports	128	185	268	310	575	2017	2013	2205	2283
Tourism outflows	96	133	164	186	213	236	271	284	276
Refining	0	0	0	0	196	1525	1385	1613	1701
Free zone	0	26	55	87	133	209	276	227	213
Other	32	27	48	36	34	47	80	81	93
Export related payments	53	41	50	40	55	55	72	76	85
Government imports	7	9	11	12	12	13	16	19	22
Investment related imports	76	87	181	232	284	329	283	296	398
Other merchandise imports	166	169	175	166	180	174	293	266	195
Private remittances	29	25	27	26	63	80	56	65	77
Investment income	26	42	50	44	40	46	39	44	38
Other current payments	37	81	114	136	175	188	198	210	303

Sources: Central Bank of Aruba; and staff estimates.