Financial Position of Aruban Households 2017[1]

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Contents

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Executive Summary

The financial position of households is an important determinant of economic activity as it determines household spending on consumer goods. The share of private consumption in gross domestic product (GDP) in Aruba averaged 57 percent during the period 1995-2017, suggesting that fluctuations in private consumption are important drivers of fluctuations in economic activity.

During the period September 30 to December 3, 2017, the CBA conducted the survey "Nos Cartera y Nos Finansa". This survey, which covered all households in Aruba, had a sample size of 1,400 households. The addresses for these households[4] were selected randomly with the help of the Central Bureau of Statistics (CBS). The CBA hired interviewers to conduct the survey. The survey yielded a response rate of 58.9 percent or 824 interviews, which coincides with a confidence level of 95 percent and a margin of error of 3.3 percent.

Nearly half of the households in the sample consisted of one or two members. Households with three members (21 percent) and with four members (17 percent) also were well represented in the sample. When only the working age population was taken into account (household members over the age of 15), nearly two-thirds of the households surveyed consisted of one or two members. Households with 3 members made up another 21 percent.

The number of surveyed households per district was proportionate to district sizes measured by population. For example, Oranjestad West, the (sub) district with the highest population,[5] had the largest share of the total number of surveyed households.

Interviews were conducted with the individual with (the most) knowledge of the household finances in each household. Of the interviewed household members, 51 percent were male and 49.0 percent female. The largest age category in the household sample was 51-60. In terms of place of birth, 61 percent of household members interviewed were born in Aruba, followed by 9.2 percent in Colombia, 6.4 percent in the Dominican Republic, and 5.7 percent in Venezuela. The majority of respondents were either employed or self-employed; a significant share of retirees also was represented. Respondent unemployment stood at 4.4 percent. As for education, 45.3 percent of those interviewed had a HAVO degree or higher, while 18.1 percent had a university degree, and 26.7 percent had primary education or less.

This survey provides information on different aspects of the financial position of households including income, wealth, and debt positions. The following are the main findings.

Household monthly income was between Afl. 3,001 and Afl. 4,500 for a little over 20 percent of households. About three-quarters of households had a monthly income of less than Afl.

[4] For the purposes of this survey, a household was defined as all individuals and financially dependent family members (i.e., a single adult or a couple plus dependent children who live in the same dwelling).

[5] Central Bureau of Statistics, 2010, Fifth Population and Housing Census.

6,000. Median household income was Afl. 3751.[6] The average income per member of the household was Afl. 1,714 per person, slightly higher than the minimum wage (median income per household member was Afl. 1,500).

In terms of income distribution, 20 percent of households earned 40 percent of total income. The ratio of income of the highest earning 20 percent to the income of the lowest 20 percent was 5.9. When compared to OECD countries, Aruba is in the group of countries with a medium to large discrepancy between the rich and the poor.

The asset most frequently possessed by households is their house. Around 64 percent of households in the survey owned the house they live in. The median value of the owned residence was Afl. 250,000. In addition, households also may have savings. Close to 35 percent of the households in the sample reported having savings at a bank, while a little over 20 percent also had savings elsewhere. In contrast, more than half of the households didn't have any savings. The majority of households with savings had less than Afl. 5,000. The proportion of households that owned stock or bonds was much smaller (1.5 percent).

Twenty-seven (27) percent of households spent more than household income. The level of household income appears to be an important factor in determining whether a household overspends. Over half (52.3 percent) of the households earning less than Afl. 2,000 per month spent more than their income. Meanwhile, for households earning over Afl. 12,000, the proportion of overspending was only 15 percent. Income stability of households was another important determinant of household overspending. Households with the least stable income had an overspending ratio of 41.8 percent, while the figure was just 23 percent for the households with the most stable income. Finally, households with a higher debt service ratio also were more likely to overspend. The proportion of overspending was 46.8 percent for households with a debt service ratio of 39-50 percent and 83.7 percent for those with a debt service ratio of 51-100 percent. In contrast, only 17 percent of households with a debt service ratio of less than 15 percent overspent.

Overspending is not necessarily an urgent problem when households have sufficient savings to cover deficits. However, the survey results show that 74.5 percent of households that overspent did not have enough savings to cover this. Of those households with enough savings to compensate for the overspending, 52.6 percent would deplete their savings in less than a month, while less than 20 percent could cover the overspending for more than a year.

With regard to debt, the survey indicates that on average the debt service of households was 25 percent of income. Nonetheless, nearly 1 of every 5 households with debt repayments had a debt repayment (including interest) to income ratio that is considered risky (higher than 38 percent). According to the survey results, however, a higher debt repayment ratio does not lead to an increase in arrears, but it is related to overspending. Looking at these statistics

[6] The median income for households was determined by taking the mid-point of the income category that was at the 50 percent mark of the cumulative income distribution of the households in the sample.

together, one can conclude that a fraction of Aruban households had problems with either overspending or overleveraging or both in 2017. These problems seem largely related to low income and income instability. Note, however, that some underreporting may exist on issues such as arrears and informal borrowing, and that such underreporting may hide the full extent of the financial problems of a portion of the Aruban households.

Given these initial results, policymakers are advised to keep promoting financial education to address the issue of overleveraging and overspending. This financial education should be geared particularly towards households with lower income and less steady sources of income. The commercial banks and other credit providers could contribute to consumer education by having a comprehensive and transparent screening process at the time of loan applications. Installing a central credit registry could be an important step in this regard. Moreover, an assessment of the current legal framework to protect consumers should be carried out, benchmarked against international best practices. One important addition to this legal framework is the introduction of a legislation consumer credit. To this end, the CBA has proposed a draft state ordinance to the Government of Aruba for consideration.

1 Introduction

The financial position of households is an important determinant of economic activity as it determines household spending on consumer goods. Given the share of private consumption in gross domestic product (GDP), which averaged 57 percent during the period 1995-2017, the fluctuations in private consumption are important drivers of fluctuations in economic activity. Households' outlays on consumer durables are in general relatively volatile and can have a large impact on economic activity. Consumers often use loans to finance purchases on durables to spread the payments over time. Changes in the financial situation of households influence the ability of households to take out a loan for the purchase of such durable goods.

This report presents results of the household survey conducted in 2017 among Aruban households. Following surveys on this subject conducted in countries such as the United States, the United Kingdom, the Netherlands, and Spain, the Aruban survey addresses several aspects of household finances, such as income and wealth, debt, and spending. The structure of the report is as follows. After discussing the survey methodology in Section 2, analyses of households' income and wealth positions are presented in Section 3, data on households' use of credit instruments and their debt positions are described in Section 4, and households' spending on consumer goods is discussed in Section 5. Section 6 concludes with some of the highlights presented in the report.

2. Survey methodology and sample characteristics

2.1 Methodology

During the period September 30 to December 3, 2017, the CBA conducted the survey "Nos Cartera y Nos Finansa". This survey, which covered all households of Aruba, had a sample size of 1,400 households. The addresses for these households[7] were selected randomly with the help of the Central Bureau of Statistics (CBS). The CBA hired interviewers to conduct the survey. The survey yielded a response rate of 58.9 percent or 824 interviews, which coincides with a confidence level of 95 percent and a margin of error of 3.3 percent.

2.2 Sample characteristics

Demographic data were collected to provide a profile of households and for cross-tabulation with financial characteristics.

Household size

Table 1 depicts the size of the households, distinguishing between total household members (including children) and the working-age (15 and older) household members. Nearly half of the households consisted of one or two members. Households with three members (21 percent) and with four members (17 percent) also were well represented in the sample. When only the working age population is taken into account (household members over the age of 15), nearly two-thirds of the households consisted of one or two members. Households with 3 members made up another 21 percent. The reason to look at only the working age members of the household is to get an idea of the number of persons in the household that could potentially contribute to household income.

[7] For the purposes of this survey, a household was defined as all individuals and financially dependent family members (i.e., a single adult or a couple plus dependent children who live in the same dwelling).

Table 1: Household size

Members	Total Household size (including children)	Working-age members only
1 member	17.5%	20.8%
2 members	29.4%	45.0%
3 members	21.0%	21.1%
4 members	17.0%	8.9%
5 members	9.7%	3.0%
6 members	3.0%	1.0%
7 members	1.6%	0.2%
8 members	0.6%	0.0%
9 members	0.2%	0.0%

Household distribution amongst districts

Table 2 presents the sample distribution over the districts of Aruba. Oranjestad West & Oost percentages and San Nicolas Noord & Zuid percentages were consolidated in the further analysis. The number of surveyed households per district was proportionate to district sizes measured by population. For example, Oranjestad West, the (sub) district with the highest population,[8] had the largest share of the total number of surveyed households.

Table 2: Households per district

District	%
Noord/Tanki Leendert	21.2%
Oranjestad West	13.8%
Oranjestad Oost	12.5%
Paradera	13.5%
Santa Cruz	14.4%
Savaneta	10.8%
San Nicolas Noord	10.1%
San Nicolas Zuid	3.6%

[8] Central Bureau of Statistics, 2010, Fifth Population and Housing Census.

Other characteristics

In each household, interviews were conducted with the individual with (the most) knowledge of the household finances. Of the interviewed household members, 51 percent were male and 49.0 percent were female. When considering all household members (i.e., interviewed and not-interviewed), the gender difference is larger, with 7.8 percentage points more females than males. The largest age category for both the interviewed household members and all members of the household is 51-60, as shown in Table 3. No household members in the age category of 15-20 were interviewed.

Table 3: Age of household members

Age	Interviewed household members	Total household members
15-20	-	7.7%
21-30	6.6%	13.7%
31-40	13.7%	15.6%
41-50	21.8%	18.3%
51-60	24.0%	19.6%
61-70	19.2%	14.5%
71-80	9.7%	6.8%
80+	5.0%	3.7%

Table 4 presents the sample distribution by place of birth: 61 percent of household members interviewed were born in Aruba, followed by 9.2 percent in Colombia, 6.4 percent in the Dominican Republic, and 5.7 percent in Venezuela. The most frequent places of birth in the "others" category were the Netherlands, Suriname, and Haiti.

Table 4: Place of birth

Place of birth	Interviewed household members	Total household members
Aruba	61.0%	64.7%
Colombia	9.2%	8.8%
Dominican Republic	6.4%	5.6%
Venezuela	5.7%	5.3%
Others	17.7%	15.6%

Table 5 gives the sample distribution by activity status. The majority of respondents were either employed or self-employed, with a significant share of retirees as well. Respondent unemployment stood at 4.4 percent.

Table 5: Activity status

Activity	Interviewed household members	Total household members
Employed	52.3%	50.5%
Self-employed	9.3%	6.8%
Not employed (looking)	4.4%	6.0%
Retired	29.3%	21.1%
Not employed (health)	2.3%	2.5%
Student	0.4%	8.4%
Working in own household	2.1%	4.7%
Other	-	-

As for education (Table 6), 45.3% of those interviewed had a HAVO degree or higher, while 18.1 percent had a university degree, and 26.7 percent had primary education or less. In comparison, the 2010 Census showed that 30.7 percent of the population had a HAVO degree or higher, 11.9 percent had a university degree, while 39.3 percent had primary education or less.[9] Most of the respondents in this survey possessing a foreign degree reported having a *bachillerato*, which is a secondary education degree similar to a secondary or high school degree.

[9] Central Bureau of Statistics, 2010, Fifth Population and Housing Census.

Table 6: Highest attained education

Education	Interviewed household members	Total household members
Less than primary	4.2%	3.3%
Primary	22.5%	21.9%
EPB, LTS	10.6%	13.2%
MAVO, MULO	17.4%	20.1%
MAO, MTS, EPI, MBO	13.2%	15.2%
HAVO	4.6%	5.4%
VWO	1.1%	1.1%
HBO (Bachelor)	13.8%	10.0%
WO (Master)	3.9%	2.5%
Ph.D., Doctoral Degree	0.4%	0.4%
Others, Foreign Degree	8.3%	6.4%
Special Education	0.2%	0.6%

3. Income and wealth

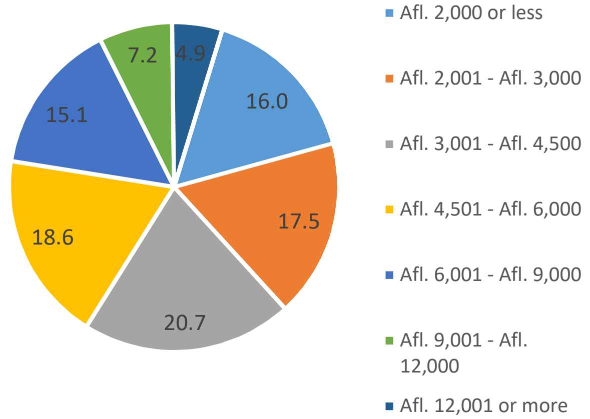
3.1 Steady Income

It is important for a household's economic well-being that at least one member of the household has a regular source of income to help cover the household's expenses. The majority of surveyed households (95.3 percent) responded that at least one member of the household had a steady income from a salary, a pension, or some other source. A small minority (4.7 percent) did not have a steady income. No steady income does not necessarily mean that these households have no income, only that they do not receive income on a monthly (or weekly) basis.

Income distribution

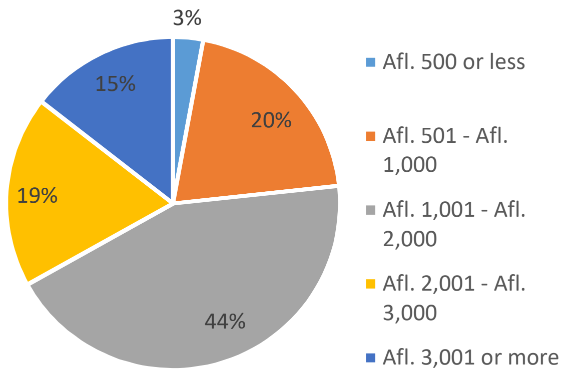
Respondents reported total monthly gross income per household by summing up the incomes of all members. The results show that 20.7 percent of households had a total monthly income between Afl. 3,001 and Afl. 4,500 (Chart 1). Almost three-quarters of the surveyed households (72.9 percent) had a monthly income of Afl. 6,000 or less.

Chart 1: Household income distribution in percent



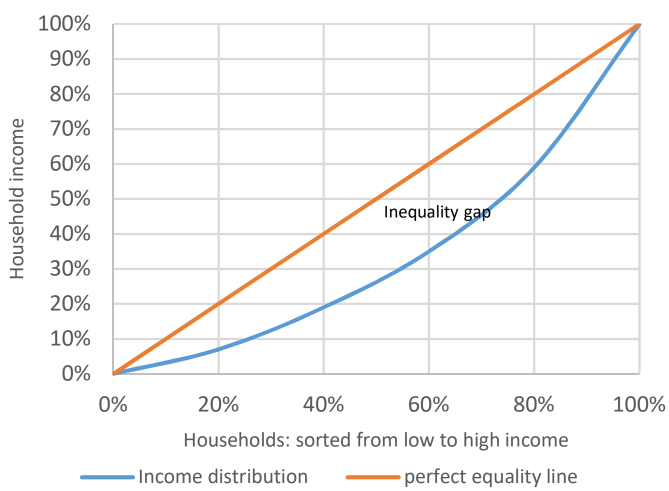
Looking at the monthly income per individual member of the household, including children and adults that do not generate income, provides some insight into how much disposable income a household has available for every person living under its roof. The survey data show an average of Afl. 1,714 per person per month, which is just above the minimum wage. Around two-thirds of households had an income per person of Afl. 2,000 or lower (Chart 2).

Chart 2: Average monthly income per household member



A Lorenz curve (Chart 3) is frequently used to depict the income distribution. The horizontal axis shows the households sorted from lowest to highest income. The vertical axis shows total income accumulated for the respective group of households. If the Lorenz curve is a 45 degree line, perfect income equality exists. Normally, the curve is a convex line lying below the 45-degree line; this is the case for Aruba. Chart 3 shows that 80 percent of Aruban households earn almost 60 percent of the total income, or alternatively, 20 percent receive 40 percent of total household income. The ratio of the income share of the highest income 20 percent to the income share of the lowest earning 20 percent equals 5.9, indicating that the highest income group has 5.9 times more income than the lowest income group. This figure is comparable to the OECD countries of Italy and Portugal (5.9) according to OECD's 2015 figures.[10] Aruba falls in the group of the OECD countries where a medium to large discrepancy exists between the rich and the poor. The countries with the lowest ratios are Denmark and Iceland (both at 3.6), while Chile (10.0) and Mexico (10.4) record the highest ratio.

Chart 3: Income distribution



Another metric for income inequality is relative income poverty, which is defined by the OECD as household income less than 50 percent of the median. The median income per household for the overall sample was Afl. 3,751. Consequently, the relative income poverty mark is 50 percent or Afl. 1,875. It turns out that 16.1 percent of the Aruban households in the survey had an income less than 50 percent of the median. The percentage for households is high when compared with OECD countries (e.g., Chile and Japan are at 16.1 percent; Israel has the highest percentage at 19.5 percent; Denmark has the smallest group at 5.5 percent followed by the Czech Republic at 5.9 percent).

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[10] OECD's figures are estimated using average income after taxes and transfers adjusted for household size, whereas CBA's figures are average gross income before taxes and transfers adjusted for household size.

Finally, the Gini coefficient (also known as Gini index), i.e., the size of the area between Lorenz's income distribution line and the perfect equality 45-degree line, measures the degree of inequality in household income. An index of 100 signifies perfect inequality while an index of 0 signifies perfect equality. The Gini index for Aruban households is 36.6, positioning Aruba between countries such as the United Kingdom and Liberia (both at 33.2) and Guinea and Jordan (both at 33.7) according to World Bank data (Table 7). The countries with the lowest Gini coefficients (most equal income distribution) are Azerbaijan, Ukraine, Slovenia, and Iceland, while the countries with the highest income inequality are Zambia, Botswana, Namibia, and South Africa.[11] Aruba falls in the middle range according to this measure of income inequality. It should be noted that Aruba would also end up in the group of countries with the highest income inequality when considering only OECD countries.

Table 7: Gini index for selected countries

Country	*Index*
Azerbaijan	16.6
Ukraine	25
Slovenia	25.4
Iceland	25.6
...	
Netherlands	29.3
...	
United Kingdom	33.2
Liberia	33.2
Aruba	**33.6**
Guinea	33.7
Jordan	33.7
...	
USA	41.5
...	
Zambia	57.1
Botswana	60.5
Namibia	61
South Africa	63

Source: World Bank

Box 1: Household characteristics

The data in Box 1 examine whether specific household demographic characteristics are related to level of income. One characteristic is the country of birth of the person with the financial knowledge (who therefore responded to the survey on behalf of the household). If his/her country of birth was Aruba, the household had a higher monthly income than other households. On the other hand, household income was relatively low when the respondent was born in Colombia or the Dominican Republic.

[11] The most recent available published data from the period 2003-2016 were used for comparison as a calculated Gini index for 2016 was not available for all countries.

	Income categories		
Characteristics	**Less than Afl. 3,000**	**Afl. 3,001 - Afl. 6,000**	**More than Afl. 6,000**
Place of birth			
Aruba	29.4	37.6	33.0
Colombia	42.1	51.3	6.6
Dominican Republic	56.6	39.6	3.8
Others	30.1	40.4	29.5
Venezuela	48.9	34.0	17.0
Income stability*			
Least stable	56.7	28.9	14.4
Moderately stable	51.8	35.1	13.1
Very stable	13.0	47.8	39.1
Most stable	23.6	41.1	35.3
Education*			
Least educated	53.5	32.3	14.2
Moderately educated	34.1	45.1	20.8
Very educated	8.0	44.0	48.0
Most educated	23.7	36.5	39.9

**A proxy variable was used for income stability. All members of the household were given a ranking based on their activity status. Individuals who do not work were given value 1, retired individuals 2, and employed persons 3. The rankings are averaged for the household. The lower the rank, the least stable the household income. A similar approach was used for the proxy variable of education. Individuals with primary education or less got value 1, secondary education 2, and tertiary education 3.*

Another household characteristic is income stability, which measures the degree to which each member of the household contributes to household income with a regular income. Households that include persons without a job fall in the least stable category. As expected, the more stable the household, the higher its monthly income.

In general, a positive relationship existed between education and income. However, the "most educated" category had a lower income compared to the category "highly educated" (which had a lower attained education level than the "most educated" group) indicating that education is not the only income-determining factor.

The differences in income were all significant at the 99 percent level for place of birth, income stability, and education.

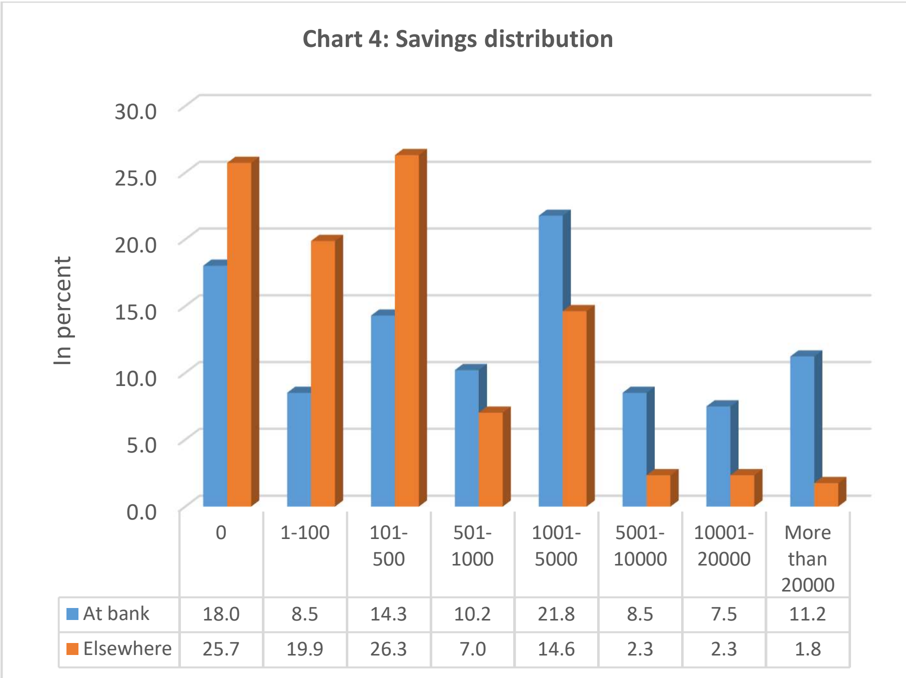
3.2 Wealth

Next to income, households also have financial assets, which could be used when income is insufficient for current spending. Savings in a bank account is an example of such assets. Table 8 indicates the share of households having at least one member with savings at a bank and/or elsewhere (informal). The most common method of informal saving is at home. This includes savings in a piggy bank or in a safe. More than half of households in the survey did not save at all, 11.3 percent saved only informally, while the remaining households also or only had a savings account at a bank.

Table 8: Savings

Savings at bank	Savings elsewhere	%
Yes	No	26.2%
No	Yes	11.3%
Yes	Yes	9.5%
No	No	53.0%

Regarding the amount of savings, a substantial group (18 percent) of the surveyed households who responded that they had a savings account at a bank, had a zero balance (Chart 4). The majority of households (72.8 percent) had Afl. 5,000 or less saved at the bank or saved informally (93.5 percent). Informal savings were more popular than savings at a bank for amounts of Afl. 500 or less.



Aside from savings, households also may possess stocks or bonds. According to the survey, only a small group of households (1.5 percent) reported that at least one member possessed stocks or bonds. This small group had a relatively high average income (Afl. 8,525). The median portfolio value of households' stocks or bonds holdings was Afl. 54,750.

Finally, the survey contained questions on home ownership. An estimated 64 percent of households owned their residence while close to 30 percent were renting. The group that indicated residence ownership was asked to estimate its value (Chart 5). The median value of owned residences was Afl. 250,000. Differences were reported between regions. In the region 'Noord', 47 percent of residences were valued at over Afl. 500,000, the highest percentage for any region and value category. The second highest percentage was for San Nicolas, where 29.5 percent of residences were valued at Afl. 100,000 or less.


Chart 5: Value of residence
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
Afl. 500.001 or more
Afl. 250.001 - Afl. 500.000
Afl. 100.001 - Afl. 250.000
Afl. 100.000 or less

4 Debt

4.1 Credit instruments

Households were asked to specify the types of credit instruments that are used by at least one member of the household. Overall, one-third (34.3 percent) of surveyed households did not make use of any credit instrument, while the rest used at least one instrument (Table 9).

Table 9: Total credit instruments in percentage

Credit instrument	Percent
Mortgage	23.5
Credit Cards	32.2
Personal loans	16.0
Car loans	14.9
Purchases in installments	8.1
Student loans	3.5
Tax debt	13.1
Loan at non-banks (formal)	15.9
Loan at non-banks (informal)	2.1
No credit instruments	34.3

Among the households that used credit instruments, almost half (49.2 percent) possessed more than one instrument (Chart 6).

A credit card was the most popular instrument for the group with more than one credit instrument. In fact, the credit card was overall the instrument most used by households (265 households had 945 credit cards). A very small group of households (0.2 percent) used all credit instruments. Two types of instruments appeared to be underreported, i.e., student loans and loans at nonbanks that are considered informal (e.g., pawnshops, family, etc.).

Significantly more individuals in the sample had a university degree (over 10 percent) than there were households with a student loan (around 4 percent). One would expect these two figures to be somewhat closer to each other. Anecdotal evidence suggests that informal lending has been increasing in recent years, yet only 2.1 percent of households confirmed having an informal loan. Additionally, households were asked in general terms which type of informal financial service providers they borrow money from, and around 19 percent admitted having borrowed money from either pawnshops, family, friends, employers, or other persons, and even within this group, the response for pawnshops was relatively small. It is possible that pawnshops are viewed negatively by part of the Aruban society and that respondents were hesitant to admit using this type of instrument.

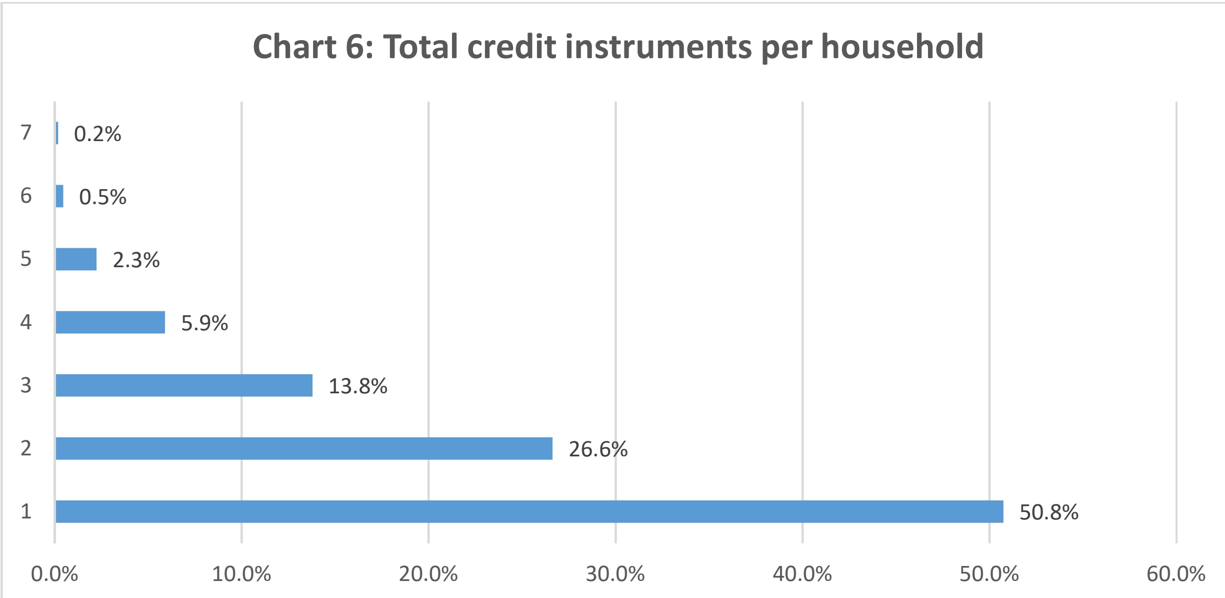


Chart 6: Total credit instruments per household
7
6
5
4
3
2
1
0.2%
0.5%
2.3%
5.9%
13.8%
26.6%
50.8%
0.0%
10.0%
20.0%
30.0%
40.0%
50.0%
60.0%

4.2 Credit rejection

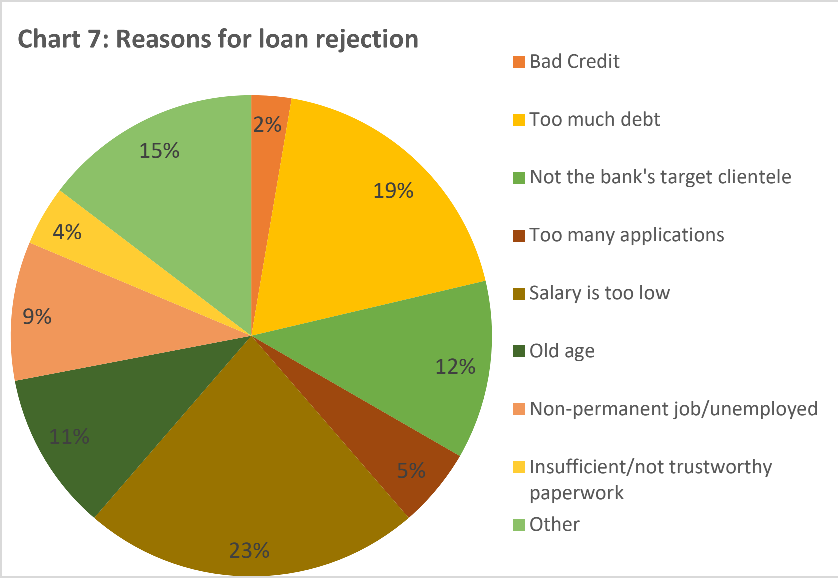


Chart 7: Reasons for loan rejection

The household survey asked respondents if any member of the household ever had an application for credit rejected and also the reason for the rejection. A relatively small number of households (8.6 percent) indicated that at least one member had a credit application rejected (Chart 7). The group that confirmed credit rejections was asked to specify the reason(s) they were denied credit. The top reason for rejection was a salary that was too low to qualify for credit, followed by rejections due to too much existing debt.

4.3 Debt

Aruban households had to indicate their monthly debt payments (principal and interest) for every credit instrument they used. Not surprisingly, monthly mortgage payments were on average the highest, while products purchased in installments had the lowest monthly debt payment (Table 10). This finding corresponds to the magnitudes of the original loan amount for these two types of loans, which were, respectively, the highest and lowest, among the credit instruments. Informal loans that are most of the time short term are paid off in a month or two on average when comparing the payments and the original loan amount.

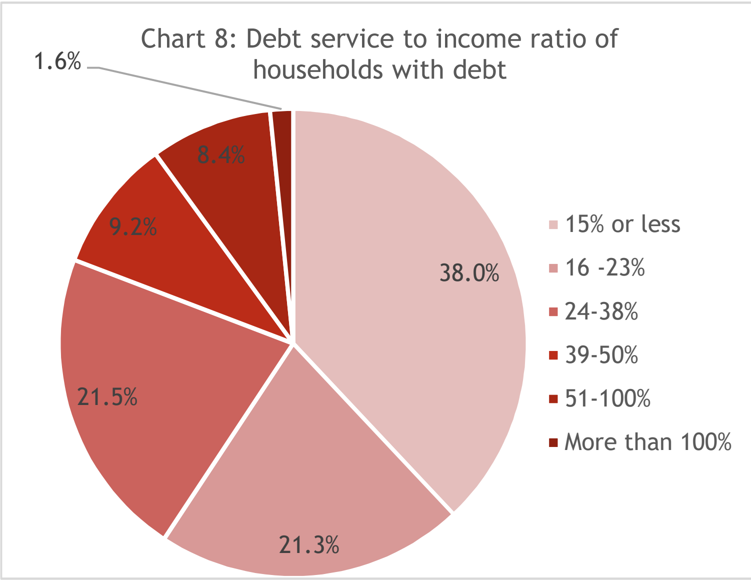
The picture does not change much when you compare the monthly debt repayments in percent of reported household income (Table 11). Mortgages still have the highest debt repayment to income ratio (28 percent). Car loans and personal loans again ranked second and third. The largest difference occurs when you look at student loans in fifth place in monthly debt repayments, but only the second lowest in terms of repayment to income ratio.

Table 10: Payments and original loan amount per credit instrument

Credit instrument	Average monthly debt payments	Median original loan amount category
Mortgage	Afl. 1,669	AFl. 100,000 – Afl. 200,000
Car loans	Afl. 861	Afl. 25,000 – Afl. 40,000
Personal loans	Afl. 664	Afl. 10,000 – Afl. 20,000
Student loans	Afl. 546	Afl. 60,000 -Afl. 120,000
Loan at nonbanks (formal)	Afl. 445	Afl. 5,000 – Afl. 10,000
Credit Cards	Afl. 373	Afl. 2,500 – Afl. 5,000
Loan at nonbanks (informal)	Afl. 337	Afl. 250 – Afl. 500
Tax debt	Afl. 282	Afl. 3,000 – Afl. 5,000
Purchases in installments	Afl. 281	Afl. 1,200 – Afl. 2,500

Table 11: Debt repayment in percentage of reported income (average)

Credit instrument	
Mortgage	28%
Car loans	13%
Personal loans	12%
Student loans	6%
Loan at nonbanks (formal)	11%
Credit Cards	5%
Loan at nonbanks (informal)	8%



4.4 Debt service ratio

The total monthly debt payments for all credit instruments in use totaled on average Afl. 1,460 per household. Comparing the overall monthly debt payments with monthly income indicates the debt burden. The average debt service-to-income ratio was 25 percent. Households are considered overburdened when debt payments are over 38 percent of their monthly income.[12] Nearly 20 percent of the surveyed households with debt repayments were overburdened with debt (Chart 8). A small group (1.6 percent) even had a debt service-to-income ratio of over 100 percent. This ratio may reflect either over-reporting of debt or underreporting of income as households also were asked if they had arrears in debt payment, and only a small percentage indicated having arrears. No relationship between arrears and the debt service-to-income ratio could be ascertained as the majority of the group with a ratio over 100 percent did not have any arrears.

Box 2: Households consisting of retirees

A relatively large group of the interviewed households consisted of retirees. The financial position of these "pensioner households", being economically inactive, may differ from that of other households. This box explores some of the characteristics of these households. Of the 824 households interviewed, 118 (or 14 percent) consisted of one or two retirees (see Table B2.1).

[12] Jeanne M. Hogarth, Sondra G. Beverly, and Marianne Hilgert (2003). Patterns of Financial Behaviors: Implications for Community Educators and Policymakers, Discussion Draft, Federal Reserve System Community Affairs Research Conference.
Romero, A.G. (2007). Schuldsanering bij particuliere huishoudens. Een benadering vanuit de landenrisico-analyse, Central Bank of Curaçao and St. Martin, presentation *Schulden Bureau Vrouwenzaken* and the University of the Netherlands Antilles.

Table B2.1: Size of pensioner households

Members	Total household size (including children)	Percentage
1	63	53.4
2	55	46.6
Total	118	100

A little over a quarter of these households had an average gross monthly income between Afl. 951 and Afl. 1,500, while 58.5 percent had an average gross monthly income of Afl. 2,500 or less.

The most common types of debt instruments for the group of retirees were tax debt and credit cards (see Table B2.2). About one in every four households had at least one of these. Other types of loans, such as mortgages and car loans, were rare.

Table B2.2: Usage of credit instruments by pensioner households

Credit instrument	Percent of pensioner households
Mortgage	2.6
Credit Cards	25.5
Personal loans	7.3
Car loans	0.9
Purchases in installments	5.4
Student loans	0
Tax debt	26.9
Loan at non-banks (formal)	3.5
Loan at non-banks (informal)	0

With regard to the original amount of tax debt, about 41 percent of responding pensioner households had debt between Afl. 1,501 and Afl. 5,000. Another 22.7 percent had an original debt amount of Afl. 1,500 or lower (see Table B2.3).

The table on basic consumer goods spending shows these households' median spending on consumer goods (see Table B2.4). The highest expense was for groceries with a median monthly outlay between Afl. 251 and Afl. 500. The second category in terms of spending was gasoline with a monthly median between Afl. 101 and Afl. 200. Meanwhile, median monthly expenses on medicine as well as on recreation were between Afl. 51 and Afl. 100.

Table B2.3: Original amount of tax debt of pensioner households

Original loan amount category in Afl.	Percent of pensioner households
1-500	9.1
501-1,500	13.6
1,501-3,000	18.2
3,001-5,000	22.7
5,001-7,500	9.1
7,501-15,000	18.2
15,001-45,000	9.1

Table B2.4: Basic consumer goods spending by pensioner households		
Expense	Percentage of pensioner's households	Median monthly spending category in Afl.
Groceries	100	251-500
Gasoline	72	101-200
Public Transport	90.7	26-50
Clothing and footwear	50	26-50
Medicine	43.2	51-100

The next table shows the fixed expenses for the retiree households. The category with the highest expense is that of utilities, with a median between Afl. 251 and Afl. 500. This next highest category is telephone and internet for which the median outlay was between Afl. 101 and Afl. 200. Similar to the overall sample, the median expense for rent was relatively high between Afl. 251 and Afl. 500. However, the proportion of pensioner households paying rent, with 13.6 percent, was lower than that of the overall sample (30.9 percent). Likewise, the median spending on domestic help was relatively large at Afl. 251 – Afl. 500, but only around 20 percent of the pensioner households reported these expenses.

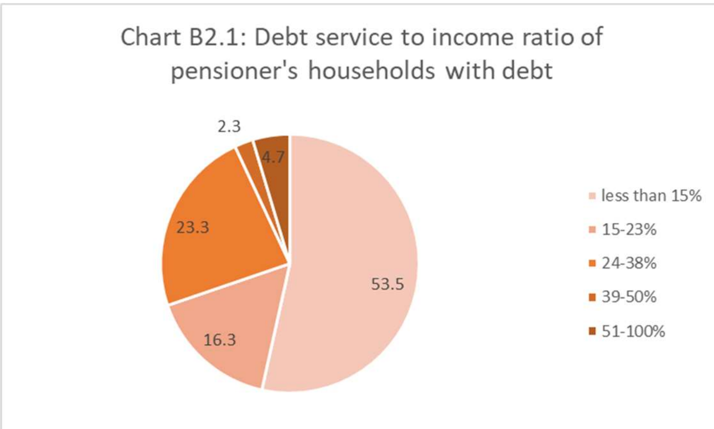
Table B2.5: Fixed expenses of pensioner households		
Expense	Percentage of pensioner households	Median monthly expense category in Afl.
Rent	13.6	251-500
Utilities	99.2	251-500
Telephone & internet	88.1	101-200
Cable TV	79.7	51-100
Tuition	4.2	1-50
Childcare	0.8	101-250
Domestic help	20.3	251-500

Annual spending on consumer durables is presented in Table B2.6. The most important category in terms of magnitude is building materials with a medium annual expense between Afl. 500 and Afl. 1,000. A number of other categories reported similar median spending. However, the proportion of households that reported these expenses such as major appliances, furniture, and electronics was much smaller.

Table B2.6: Spending on consumer durables of pensioner households		
Expense	Percentage of households	Average annual expense in Afl.
Building material	42.4	501-1,000
Furniture	15.3	501-1,000
Small appliances	20.3	101-250
Major appliances	25.4	501-1,000
Electronics	14.4	501-1,000

About 30 percent of households consisting of retirees reported overspending. Table B2.7 on overspending shows the degree of overspending these households reported. The median overspending amount on a monthly basis lay between Afl. 101 and Afl. 500. Moreover, the monthly overspending for around 25 percent of the overspending households was between Afl. 501 and Afl. 2,000, while one in five overspending households had a monthly income shortfall of less than Afl. 100.

Table B2.7: Overspending by pensioner households	
Percentage of pensioner households	Median monthly overspending in Afl.
19.4	1-100
44.4	101-500
25	501-2000
11.1	More than 2,000



Regarding the debt to income ratio, close to two-thirds of pensioner households reported not having any debt (see Chart B2.1 on debt service to income ratio of households consisting of pensioners). Of the remaining households that did report having debt, more than half had a debt to income ratio of less than 15 percent. A relatively small group of about 7 percent had a debt to income ratio of 39 percent or higher, which is considered overburdened. This is a much smaller proportion than the 20 percent for the overall sample.

5 Spending

5.1 Consumption expenditures

The surveyed households were asked to fill in their monthly expenses on several items. For the purposes of this report, these items were segmented into three spending categories. (1) Basic consumer goods spending; this category comprises expenditures on groceries, gasoline, etc. If households did not spend on these categories every month, they were instructed to provide an estimation of their monthly spending.[13] (2) Fixed expenses, including rent, utilities, etc. (3) Large purchases not typically bought on a monthly basis, such as furniture, electronics, etc. These large purchases are called spending on consumer durables in this report.

Table 12 presents households' average monthly spending on basic consumer goods. Groceries were in the consumer basket of every household (99.8 percent). It also was the item with the highest monthly spending amount (Afl. 760). The second highest expense was for gasoline at Afl. 334, but a smaller proportion of households had this expenditure (86.9 percent). Conversely, a much smaller share of households used public transport (16.9 percent). Roughly 11 percent of households had both gasoline and public transportation expenses. Half of these households had one or more children under the age of 14; hence, it is possible that their public transportation spending is on the school bus.

Recreation expenses seem to be underreported as this category included, among other things, spending on food in restaurants, snack bars, trucks, etc., alcohol expenses in the liquor store and elsewhere, sporting events, entertainment events, cigarette expenses, gambling, gym club membership, and other such expenses. One would assume that nearly all households would have at least one of these expenses, but around one-third did not report any expenses in this category. However, it is possible that some of these expenses were reported under groceries, since alcohol, cigarettes, and lottery tickets all can be bought at supermarkets.

Table 12: Household basic consumer goods spending

Expense	Percentage of households	Average monthly spending in Afl.	Average spending per household member in Afl.
Groceries	99.8%	760.2	305.8
Gasoline	86.9%	334.7	131.1
Public Transport	16.9%	115.8	47.0
Clothing and footwear	59.0%	153.5	58.0
Medicine	34.8%	131.6	55.2

[13] For example, if they spent Afl. 100 every 2 months on gasoline they would have to report Afl. 50 per month on gasoline.

Table 13 shows the fixed expenses for households. Rent was the highest expense at an average of Afl. 937 per month. However, the majority of households did not pay rent (64 percent of households owned their residence, while 15.4 percent of households had a mortgage). Ninety-seven (97) percent of households had utilities (water & electricity) expenses, paying on average Afl. 436 per month. Expenses on domestic help, child care, and child support were fairly high compared to other expenses, but only a small fraction of households had those types of expenditures.

Table 13: Household fixed expenses

Expense	Percentage of households	Average monthly expense in Afl.
Rent	30.9%	937.4
Utilities	97.0%	436.7
Telephone & internet	87.9%	191.4
Cable TV	76.2%	103.1
Tuition	36.7%	190.8
Child care	8.3%	295.8
Child support	3.9%	465.6
Domestic help	13.5%	391.3

Spending on consumer durables includes purchases of refrigerators, television sets, and washing machines, which households typically do not purchase each year. Therefore, a smaller proportion of households reported any spending on consumer durables (Table 14). Not surprisingly, households spent on average the highest amount of their consumer durable expenses on home construction repair & maintenance. This finding probably reflects that consumer durables is a broad category that includes the purchase of concrete, cement, tiles, metal, painting, roof work, plumbing, tools and do-it-yourself equipment.

Table 14: Household spending on consumer durables

Expense	Percentage of households	Average annual expense in Afl.
Home construction repair & maintenance	38.8%	7,050.1
Furniture	18.2%	1,940.9
Small appliances	23.4%	251.3
Major appliances	27.7%	2,153.4
Electronics	31.2%	1,150.7

Since the electronics category includes mobile phones, that figure may be somewhat underreported considering that mobile phones are so common nowadays. Phone contracts usually have a duration of 2 years, after which the client has the opportunity to replace his/her phone. Therefore, one would expect that around 50 percent of households would have reported this expense, rather than the 31.2 percent actually reported. The average reported annual spending on electronics per household member was Afl. 432.

Total consumption expenditures per household were estimated by adding all three categories of consumption spending together. Table 15 shows that two-thirds (66 percent) of households spent between Afl. 1,001 and Afl. 3,000 on a monthly basis.

Table 15: Total household consumption expenditures	
Total consumption expenditures per month in Afl.	Percentage of households
1,000 or less	7.8
1,001-2,000	34.7
2,001-3,000	31.3
3,001-4,000	14.5
4,001-5,000	6.5
5,001-6,000	3.2
6,001 or more	2.1

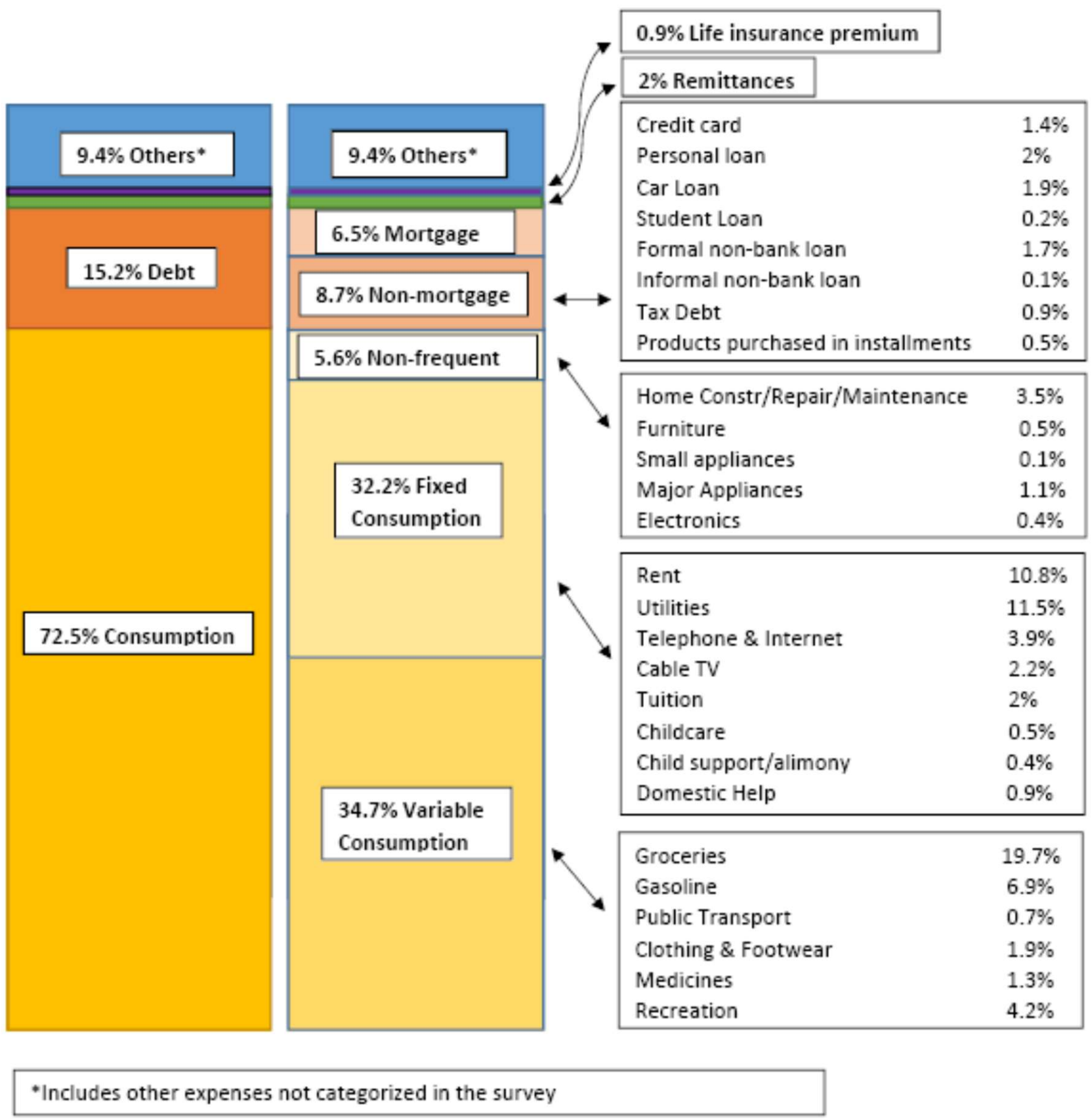
Dividing the total consumption expenditures by the number of household members results in an average consumption expenditure of Afl. 1,016 per household member per month (Table 16). Some (outlier) households had a very low cost per member per month (less than Afl. 70), while others had extremely high monthly costs (above Afl. 6,000).

Table 16: Total expenditures per household member in Afl.	
Average	1,016
Minimum	66.00
Maximum	6,050

5.2 Monthly expenditure distribution

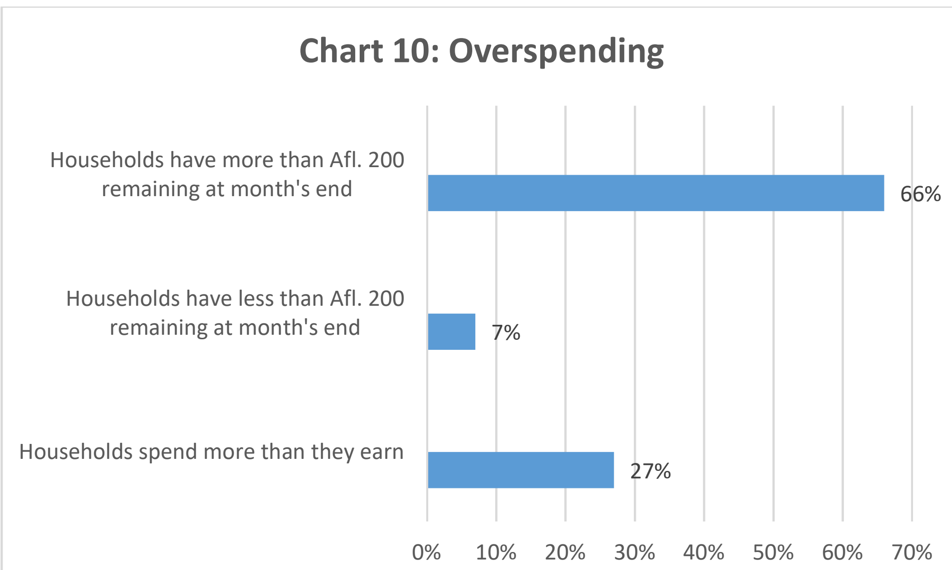
The survey identified over 90 percent of the monthly total (i.e., consumption and other) expenditure distribution of households (Chart 9); 9.4 percent of income was classified in the "others" category, which is either saved or spent on categories not covered in the survey. On average, the sample households spent roughly 73 percent of their income on consumption, and 15 percent on debt repayment. Of the 73 percent comprising consumption expenditures, almost half (35 percent) was spent on so-called variable consumption, where the highest share consisted of groceries, followed by gasoline expenses. These percentages are consistent with the data in Table 12. Utilities, rent, and telephone & internet costs made up the largest share of fixed expenses. Debt repayments are separated into mortgage and non-mortgage. The share of mortgage payments was the highest among the debt payments and the fifth highest among all expenditure categories.

Chart 9: Spending pattern



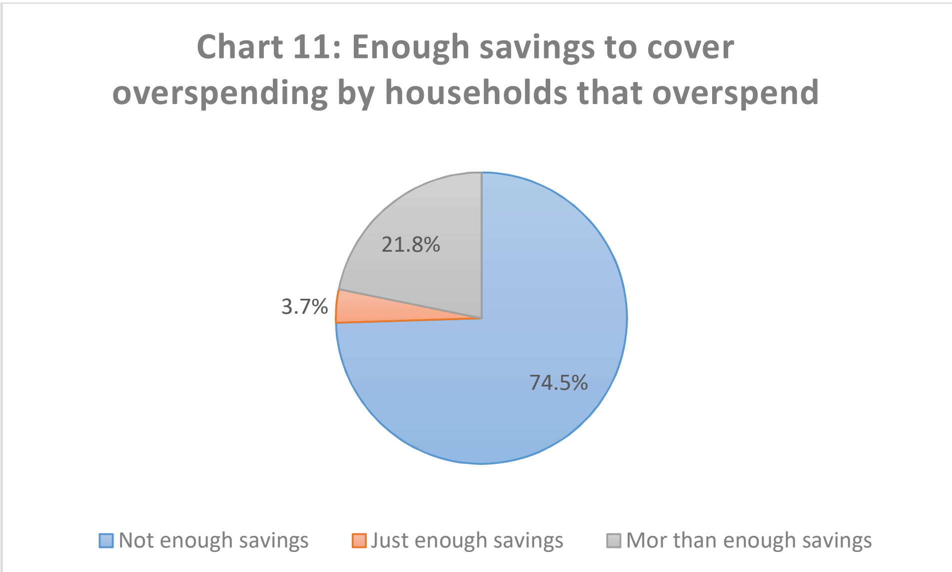
5.3 Overspending

Not all households in the survey managed to match their spending with their income every month, which results in household overspending. Households may use savings to cover the extra spending or financial stress may result if the overspending is structural. Around 27 percent of the sample households spent more than earnings (Chart 10). More than 50 percent of the group of overspending households exceeded monthly income by Afl. 500 or more; 73 percent of household earned Afl. 4,500 per month or less, while 16 percent of households had a monthly income of Afl. 2,000 or less. Therefore, Afl. 500 in overspending is a substantial amount for these households equaling, respectively, 11 percent (of those earning Afl. 4,500 per month or less) and 25 percent (of those earning Afl. 2,000 or less) of their income. In contrast, 7 percent of households spent less than earnings but were left with less than Afl. 200 at the end of the month. The remainder of the households (66 percent) had more than Afl. 200 left at the end of each month. However, this leftover amount apparently was not put towards savings in the majority of households, considering the abovementioned absence of savings in 53 percent of households.



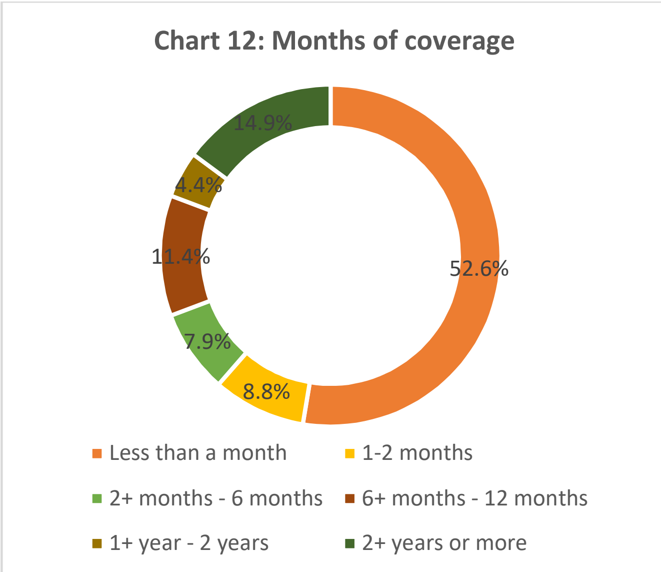
5.3.1 Can savings cover overspending?

Households that overspend now and then may have enough savings to absorb the deficit. However, households that overspend structurally are not likely to have savings at their disposal. When the overspending group of households was segmented by level of overspending, we found that 74.5 percent of overspending households had insufficient savings to cover their overspending (Chart 11). A small group (3.7 percent) had just enough savings to cover its overspending. This finding means that at the end of the month these households would have zero savings, a situation that would become problematic if the overspending occurs every month, since no savings would be left in the next month to cover the overspending. Finally, nearly 22 percent of households with overspending had more than enough savings to cover the extra spending.[14]



It is possible to assess how long the groups with just enough savings and those with more than enough savings can live before depleting their savings if their monthly spending habits vis à vis their income are structural. The overspending amount of each household was compared to its savings amount to determine for how many months the savings could cover the amount of excess spending. Only a small group (less than 20 percent) of households would be able to live off their savings for more than 1 year. The majority did not have enough to cover 1 month (Chart 12).

[14] This analysis was performed using averages of the overspending and savings categories. These percentages may deviate when the analysis is performed on an individual basis.



5.3.2 Which households overspend?

Certain household characteristics may be related to overspending. Table 17 assesses whether household size, income, income stability, education, and debt burden are significantly related to overspending. The analysis found that household size was not significantly related to overspending as the overspending patterns between different size households did not deviate a lot. The share of households that overspent (around 30 percent) was about the same for each household size class (this is also the case for the sizes not presented in the table). On the other hand, household monthly income was significantly related to overspending. The higher household income, the less likely overspending was reported (15 percent for incomes over Afl. 12,000 versus 52.3 percent for incomes less than Afl. 2,000).

Table 17: Household characteristics and overspending				
		In percent		
		Overspending	No overspending	χ^2 significance (p-value)
Household size (number of members)	1	31.2	69.8	0.622
	4	30.0	70.0	
	7	30.7	69.3	
Income (monthly)	Less than Afl. 2,000	52.3	47.7	0.000
	Afl. 3,000 - Afl. 6,000	42.1	57.9	
	More than Afl. 12,000	15.0	85.0	
Income stability	Least stable	41.8	58.2	0.001
	Moderately stable	29.8	70.2	
	Very stable	20.4	79.6	
	Most stable	23.0	77.0	
Education	Least educated	32.2	67.8	0.072
	Moderately educated	25.7	74.3	
	Very educated	23.3	76.7	
	Most educated	21.6	78.4	
Debt service ratio	No debt	19.9	80.1	0.000
	Less than 15%	17.0	83.0	
	39-50%	46.8	53.2	
	51-100%	83.7	16.3	

A significant relationship between income stability and overspending also was found. Overspending was more prominent in the least stable households compared to the most stable households. [15] This relationship also was the case with regard to education, although it was weak. Finally, households with high debt service ratios were more likely to overspend compared to households with low ratios (or to households without debt).

[15] A proxy variable was used for Income stability. All members of the household were given a ranking based on their activity status. Individuals who did not work were given value 1, retired individuals 2, and employed persons 3. The rankings were averaged for the household. The lower the rank, the least stable the household income. A similar approach was used for the proxy variable education. Individuals with primary education or less got value 1, secondary education 2, and tertiary education 3.

6 Concluding remarks

This survey collected information on different aspects of the financial position of Aruban households. The results presented in this report address the households' income, wealth, and debt positions. This section summarizes the main findings.

For the Aruban households included in the survey, household monthly income was between Afl. 3,001 and Afl. 4,500 for a little over 20 percent of households. About-three quarters of households had a monthly income of less than Afl. 6,000. Median household income was Afl. 3,751.[16] The average income per member of the household was Afl. 1,714 per person, slightly higher than the minimum wage (median income per household member was Afl. 1,500).

In terms of income distribution, 20 percent of households earned 40 percent of total income. The ratio of income of the highest earning 20 percent to the income of the lowest 20 percent was equal to 5.9. When compared to OECD countries, Aruba is in the group of countries with a medium to large discrepancy between the rich and the poor.

The asset most frequently possessed by households was their house. Around 64 percent of the surveyed households owned the house that they lived in. The median value of the owned residence was Afl. 250,000. In addition, close to 35 percent of the households in the sample reported having savings at a bank, while a little over 20 percent also had savings elsewhere. In contrast, more than half of the households didn't have any savings. The majority of households with savings had less than Afl. 5,000. The proportion of households owning stock or bonds was much smaller (1.5 percent).

A little over a quarter (27 percent) of households spent more than household income. The level of household income was an important factor in determining whether a household overspent. Over half (52.3 percent) of the households earning less than Afl. 2,000 per month spent more than their income. Meanwhile, for households earning over Afl. 12,000, the proportion of overspending was only 15 percent. Income stability of households was another important determinant of household overspending. Households with the least stable income had an overspending ratio of 41.8 percent, compared to just 23 percent for the households with the most stable income. Finally, households with a higher debt service ratio also were more likely to overspend. The proportion of overspending was 46.8 percent for households with a debt service ratio of 39-50 percent and 83.7 percent for those with a debt service ratio of 51-100 percent. In contrast, only 17 percent of households with a debt service ratio of less than 15 percent overspent.

Overspending is not necessarily an urgent problem when households have sufficient savings to cover deficits. The survey results show that 74.5 percent of households that overspent did not have enough savings to cover their overspending. Of those households that did have

[16] The median income for households was determined by taking the mid-point of the income category that was at the 50 percent mark of the cumulative income distribution of the households in the sample.

enough savings to compensate for the overspending, 52.6 percent would deplete their savings in less than a month, while less than 20 percent could cover the overspending for more than a year.

With regard to debt, the survey results indicated that on average debt service of households was 25 percent of income. Nonetheless, nearly 1 of every 5 households with debt repayments had a debt repayment (including interest) to income ratio that is considered risky (higher than 38 percent). According to the survey results, however, a higher debt repayment ratio did not lead to an increase in arrears, but was related to overspending. Looking at these statistics together, it can be concluded that a fraction of Aruban households in the sample had problems with either overspending or overleveraging or both in 2017. These problems seem related largely to low income and income instability. Note, however, that some underreporting on issues such as arrears and informal borrowing may have occurred. Such underreporting could hide the full extent of the financial problems of a portion of Aruban households.

Given the initial results of the survey, policymakers are encouraged to keep promoting financial education to address the issue of overleveraging and overspending. This financial education should be particularly geared towards households with lower income and less steady sources of income. The commercial banks and other credit providers could contribute to this education by having a comprehensive and transparent screening process at the time of loan applications. Installing a central credit registry could be an important step in this direction. Moreover, an assessment of the current legal framework to protect consumers should be carried out, benchmarked against international best practices. One important addition to this legal framework is the introduction of a legislation consumer credit. To this end, the CBA has proposed a draft state ordinance to the Government of Aruba for consideration.