

A REVIEW OF CASH HANDLING AND MANAGEMENT PRACTICES IN ARUBA

Currency Consulting International Limited

1. Introduction

The Centrale Bank van Aruba

On January 1st 1986, Aruba obtained its separate status ('Status Aparte') with the Kingdom of the Netherlands. Prior to that date, Aruba was part of the Netherlands Antilles. Upon the inception of the Status Aparte and pursuant to the Central Bank Ordinance, a new monetary authority, the Centrale Bank van Aruba was established.

Simultaneously, a new legal tender, the Aruban Florin (AFL), was introduced at a fixed rate with the U.S. Dollar of AFL 1.79 = USD 1.

The mission of the Bank is to maintain the internal and external value of the Florin and to promote the soundness and integrity of the financial system, to be accomplished by motivated and qualified employees, for the general benefit and well being of the people of Aruba.

Purpose of this Report

As part of the Bank's continuing role in bringing banknotes and coins into circulation, and concurrent with preparations for relocation of the Bank's headquarters to purpose built premises on the western edge of Aruba's capital Oranjestad, the Bank commissioned a study of cash handling and management practices. The assignment, completed by specialist consultancy company Currency Consulting International, consisted of two broad elements: first, a review of the Central Bank's existing internal practices, with a view to ensure best practice is adopted within the Bank's new facility; and secondly completion of a series of interviews with the principal commercial banks in Aruba, in order to expand the Bank's understanding of private sector cash handling activities.

In addition to discussions with two of the principal Armored Carrier Companies, detailed face-to-face interviews were conducted with Aruba's five commercial banks. The participants are listed below in Figure 1.

Figure 1: Commercial Bank Interview Participants

Aruba Bank N.V.
Banco di Caribe N.V. (Aruba Branch)
Caribbean Mercantile Bank N.V.
Interbank Aruba N.V.
RBTT Bank Aruba N.V.

While the individual responses provided by interviewees remain confidential to the Central Bank, as part of the Bank's continuing communications policy, and with the agreement of the participants, this report has been produced to provide a general summary of findings and industry trends. Where appropriate, comparisons have been made to other published research.

About Aruba

Discovered and claimed for Spain in 1499, Aruba was acquired by the Dutch in 1636. The island's economy has been dominated by three main industries. A 19th century gold rush was followed by prosperity brought on by the opening in 1924 of an oil refinery. The last decades of the 20th century saw a boom in the tourism industry. Aruba seceded from the Netherlands Antilles in 1986 and became a separate, autonomous member of the Kingdom of the Netherlands.

Aruba is located about 12 degrees north of the equator, approximately 29km (18 miles) off the Paraguaná Peninsula of Venezuela. The island, one of the Lesser Antilles islands, is about 30 km (19 miles) long and about 8 km (5 miles) wide with an area of 193 sq km (75 sq miles).

The island's population of just over 90,000 is boosted by significant visitor numbers, totaling more than 691,000 in 2001. North American visitors represent approximately two thirds of all tourists. As a consequence of recessionary pressures in the United States, aggravated by the terrorist attack of September 11th 2001, Aruba has experienced a marked downturn in the country's tourism industry, a mainstay of the Aruban economy.

One notable aspect of the island's concerted effort to attract tourists, and to make their vacation experience as enjoyable as possible, is the island-wide acceptance of U.S. dollars. The U.S. currency co-circulates widely alongside the domestic Aruban Florin.

2. Serving the Marketplace

Points of Presence and Delivery Channels

Aruba has five commercial banks, and a number of other financial institutions supervised by the Central Bank. Of the five commercial banks, Banco di Caribe is a branch of Banco di Caribe N.V. and Caribbean Mercantile Bank is a subsidiary of Maduro & Curiel's Bank N.V. Both are established in Curaçao in the Netherlands Antilles.

In October 2001, Royal Bank of Trinidad & Tobago acquired the assets and liabilities of First National Bank of Aruba N.V. and ABN Amro Bank N.V. Aruba branch and consolidated them as RBTT Bank Aruba N.V.

In total, the five commercial banks operate 20 branches and 65 Automated Teller Machines (ATMs) island wide. Full details are provided in Figure 2.

Branch numbers have remained relatively stable in recent years, with just one or two closures as part of branch reviews or rationalization activities. Most interviewees expect

few further changes in the structure of their branch networks. By contrast, ATM numbers continue to increase. Participants described modest plans for additional ATM installations.

Aruba has a significant number of ATMs, which are not sited at traditional branch locations, but in alternative ‘third party’ sites. Currently, there are 42 such ATMs, which represent two thirds of all ATMs on the island. These ATMs are typically located in shopping malls, gas stations and at major beach resorts.

In addition to dispensing Florins to domestic cardholders, approximately 80 percent of the island’s ATMs also dispense U.S. Dollars to cardholders with access to the international Cirrus and Maestro networks.

As Figure 3 illustrates, the island is well served with ATMs – in part to meet the needs of the significant number of visitors to Aruba.

Figure 2: Number of Bank Branches and ATMs in Aruba (as at June 2002)

Bank	Number of branches	Number of ATMs
Aruba Bank	5	13
Banco di Caribe	1	4
Caribbean Mercantile	6	25
Interbank Aruba	3	9
RBTT Bank Aruba	5	14
Total	20	65

Figure 3: Comparison of ATM Access in Selected Countries
(latest available figures as at June 2002)

Country	Number of ATMs	Each ATM serves a population of
Aruba	65	1,392
Netherlands	6,700	2,359
United Kingdom	34,300	1,739
United States	324,000	858

Cash Products and Services

Aruban banks make little distinction in the way cash services are segmented, either for individual or business customers.

In most cases, in order to deposit or withdraw cash, individuals have free access to their own bank branches or ATMs.

Only two banks, Banco di Caribe and Caribbean Mercantile Bank, have domestic ATM reciprocity facilities. Bank customers can use one another's ATMs for a small Aruban Florin transaction fee.

Reciprocity between most other ATMs is possible if cardholders have Cirrus / Maestro branded cards. However, transactions are routed through international payment switches, which are settled in U.S. Dollars and incur significantly higher transaction fees.

For business customers, Florin cash withdrawals and deposits are also usually free. All the banks offer night depository facilities – usually for a fixed annual fee – which are widely used.

Fees are usually levied for utility bill payment and payment into third party accounts. Foreign currency exchange also invariably incurs transaction fees in addition to exchange rate differentials.

3. Cash Operations

Management and Cost Structures

Participants described straightforward organizational arrangements for the handling and management of their cash.

Most branches have a series of tellers who report to a Head Teller. The Head Teller typically controls the level of cash held at each teller position and overall within the

branch's reserve cash vault. The tellers and Head Teller usually fall under the direction of the Branch Manager.

Individual branch activity is customarily coordinated through the Head Teller or another senior bank official at the bank's Head Office or principal branch.

None of the participants reported that the cost of cash handling was discretely measured, and in most cases cash related costs incurred are recorded as part of the total branch operating costs.

Branch Cash Operations

Participants described similar branch cash ordering, depositing and management arrangements.

In most cases, individual branches will determine, from simple records or based on teller experience, the level of cash they need to meet customer requirements. Branches also typically work to set insurance limits, which often determine whether or not surplus cash is dispatched from the branch.

It is usual for the branch Head Teller to report the branch's cash position together with any order or deposit requirements to the Head Office Teller. At Head Office the individual branch reports are aggregated and an overall bank position is established.

Where practicable, cash is redistributed – via Head Office – from 'cash rich' to 'cash poor' branches. Accordingly, only bankwide surpluses are deposited at the Central Bank. With a few exceptions, banks typically make only one deposit or withdrawal from the Central Bank to satisfy their entire branch and ATM needs.

While bankwide recirculation is significant, there is no automated sorting of banknotes, and so banks will often turn to the Central Bank for supplies of fit notes to meet their ATM replenishment needs.

Branch to Central Bank depositing timescales are usually three days. It is typical for branches to report their cash position at the close of business on day one, transportation to or from their Head Office takes place on day two, and, because of early morning scheduling at the Central Bank, the bank's consolidated deposits are received on day three. A similar timescale applies to withdrawals from the Central Bank.

Participants reported that, growth in business excepted, branch and ATM cash levels have been reduced. This is in part due to security concerns, but also as a result of concerted effort to manage cash more efficiently.

Participants believed that they held levels of cash close to their true operating needs and that there was only limited scope for further cash reduction initiatives.

ATM Cash Operations

ATMs form an important distribution channel for cash on the island.

Most banks dispense AFL 25, AFL 50 and AFL 100 denominations. Three of the five bank networks also allow international Cirrus and Maestro cardholders to withdraw cash in U.S. Dollars – usually in USD20 bills. Due to exchange control restrictions Aruban cardholders cannot withdraw U.S. Dollars through ATMs, but may do so at their bank branch.

The replenishment of ATMs fall into two distinct categories: in-branch ATMs and remote site ATMs.

In-branch ATMs are usually replenished by the branch staff, invariably using the cassette exchange or canister swap method of replenishment. This method requires the removal of all ATM cassettes, be they empty or partially full, and replacement with new previously filled canisters. While this method requires additional cassettes, and often results in higher stocks of cash being held, it is a more secure method of replenishment and is an effective means of balancing and ensuring accounting control.

Remote site ATMs are also usually replenished using the cassette exchange method. With the exception of one bank, which outsources its entire remote site ATM replenishment to an armored carrier company, all other banks simply use armored carriers for secure transportation of cash between their branches and ATMs.

It is usual for a bank representative to undertake the actual ATM replenishment at the remote site under the secure protection of an armored carrier guard.

ATM replenishment frequencies vary depending greatly on machine usage. Most machines are replenished on average once a week, while some of the busiest ATMs are serviced every 1 or 2 days.

The majority of full service ATMs also offer deposit facilities.

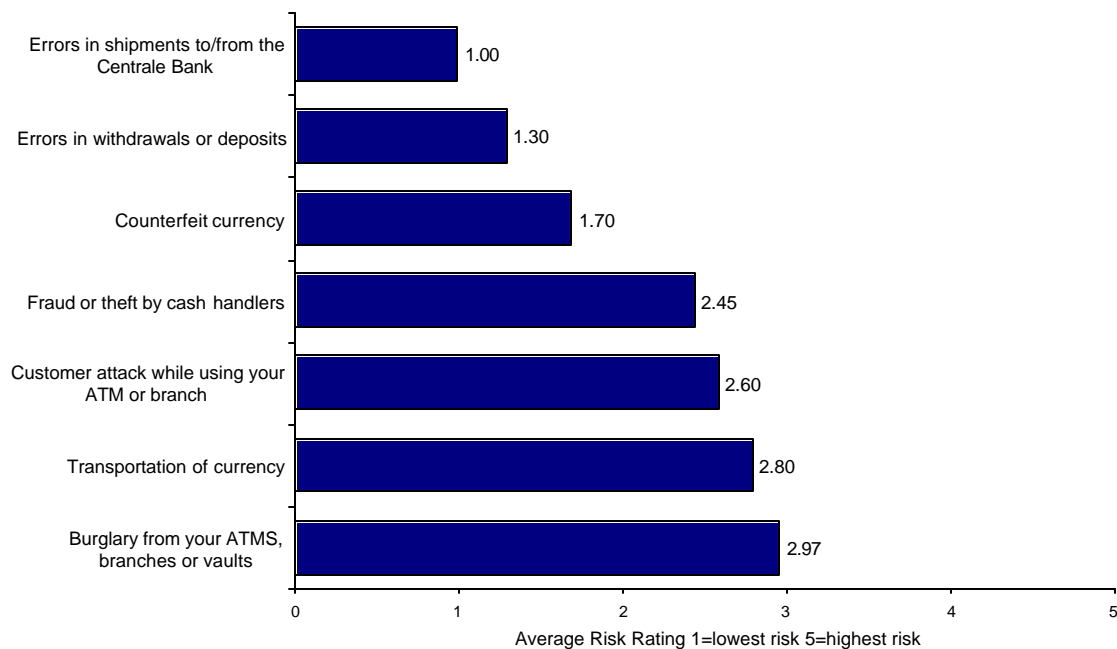
Several participants indicated that the deposit facilities were not widely used. Deposits are emptied on a daily basis, and, if deposited at a remote site ATM, are taken to a nearby controlling branch for processing.

Participants described their ATM monitoring systems and monitoring policies. Most participants reported occasional ATM cash run outs, particularly after exceptionally high withdrawal demand such as over long holiday weekends, but all endeavored to keep run outs to an absolute minimum.

Risk Management

Participants were asked to evaluate and rate potential risks associated with cash handling, as well as comment on the steps taken by their organizations to minimize these risks. Figure 4 details the risk ratings put forward by the participants.

Figure 4: Potential Risks in Cash Handling



Crime levels on Aruba are fortunately very low. One notable exception was a bank robbery in March 2001, resulting in the death of a bank teller during the attack.

Participants described the significant investments that they had made in improving the security of their branches and ATMs. Participants stated that safety of their customers and employees is of prime importance. Among many security enhancements are improved Close Circuit Television coverage and deployment of in-branch security guards.

To ensure the integrity of cash handling, and minimize the risk of transaction errors or fraud, participants described how they employed a range of comprehensive operational procedures, maintained dual control requirements and regularly conducted independent audits checks.

The Armored Carrier Industry

Participants were asked to describe their armored carrier arrangement, and the relationship they have with the companies that they use.

Most participants shared their armored carrier arrangements between two or three companies. Typically one of the two largest carriers is responsible for transportation to and from the Central Bank and possibly between bank branches. Another carrier is often used for inter-branch and branch-to-remote site ATM transportation. With one exception, the armored carriers only provide ATM cassette transportation services and leave physical ATM replenishment to a bank representative.

Secure transportation is usually charged on a per trip basis and typically varies in cost from between AFL 30 and AFL 70 (USD17 to USD39). Total armored carrier charges for the five participant banks are estimated as AFL 800,000 (USD 447,000) per annum.

Central Bank Operating Practices

The Central Bank issues and receives Aruban Florin banknotes and coin without charge.

The Central Bank requires commercial banks to arrange an appointment to visit the Bank in order to deposit or withdraw cash. Appointments may be arranged by no later than 8.15am for same day attendance. The Bank prefers appointments be arranged a day in advance.

Appointments at the Central Bank are scheduled from 8.30am, with the aim of ensuring all visits are completed as early in the day as is practicable. The remainder of the day is set aside for banknote and coin processing. Provided deposits are received by early morning, same day value is provided.

Commercial banks are required to present banknotes to set standards. These include presentation of the notes face side upwards.

The participants expressed general satisfaction with the services provided by the Central Bank, but did convey the desire that the Bank extend the hours during which it accepts visits to deposit or withdraw. Participants stated that it was generally not possible for them to aggregate individual branch deposits into single deposits for the Central Bank within the same business day. The facility to make late morning or afternoon deposits – with same day value given – would substantially improve their operating efficiencies.

Counterfeits

Participants all reported very low levels of counterfeit Aruban Florin. In aggregate the participants reported identifying no more than a few hundred Florin a month set against a total of more than AFL 140 million in circulation. Some of the participants recalled a spate of forged AFL 5 coins. Participants also recounted how the Central Bank was quick to respond to the counterfeit threat, and was able to offer simple, practical advice to the public in order to identify suspect coins.

Participants were also asked for their experiences in receiving counterfeit U.S. Dollar bills. While the banks all indicated that U.S. Dollar counterfeits were more prevalent, they did not consider the levels to be significant.

In order to minimize counterfeit losses, participants cited a variety of detection methods. Among the most common practices is extensive and regular teller training – several banks cited experienced tellers as their best line of defense. Additionally, Ultra Violet Lamps, special detection pens and specialist authentication devices are all used to verify banknote authenticity.

Foreign Currency Handling

All of the survey participants provide a range of foreign currency exchange services. In addition to the universal acceptance of the U.S. Dollar, most banks will also buy and sell British Pounds, Canadian Dollars, European Single Currency Zone Euro (from January 2002 replacing a number of European national currencies such as the Dutch Guilder that were previously accepted), and Netherlands Antilles Guilders.

With the exception of the U.S. Dollar, which makes up by far the greatest proportion of foreign currency handled, the Centrale Bank van Aruba offers deposit and withdrawal – subject to availability – services for these foreign currencies. The service is free, with currency being exchanged at rates set by the Central Bank.

The Aruban commercial banks are substantial net receivers of U.S. Dollars. A limited number of U.S. Dollars – usually USD 20 bills - are manually outsourced from customer deposits in order to supply bank ATMs. In 2001, from statutory reporting records, the five participants surveyed deposited a net total of USD 115 million. In most cases, surplus U.S. Dollars are remitted to one of the main U.S. based correspondent banks.

Shipments are typically made on a weekly to bi-monthly basis. It is usual for the remitting bank to pay a set all-inclusive fee that covers the door-to-door secure shipment of the cash.

Participants expressed a desire for the Central Bank to offer U.S. Dollar processing facilities alongside its other foreign currency handling activities. Such an undertaking would significantly increase the volume of banknotes currently processed by the Central Bank. Accordingly, the Central Bank is carefully evaluating how it might offer and charge for such services.

A number of participants hoped that the Central Bank would also ensure greater year round availability of Euro banknotes. While the Central Bank made special arrangements to support the introduction of the new currency in January 2002, current availability of Euro – as with other foreign currency stock – is on a best endeavors basis.

4. Cash and its Alternatives

Cash Usage Compared With Other Payment Instruments

Participants were asked to compare cash against a number of alternative payment mechanisms.

Of particular interest is a comparison of the responses to a study completed in the second half of 2000 for the United States Federal Reserve System.¹⁾ In common with the U.S. research, the Aruban participants reported cash as the most popular form of payment for consumers. Cash, closely followed by checks, are the preferred low-transaction value payment methods.

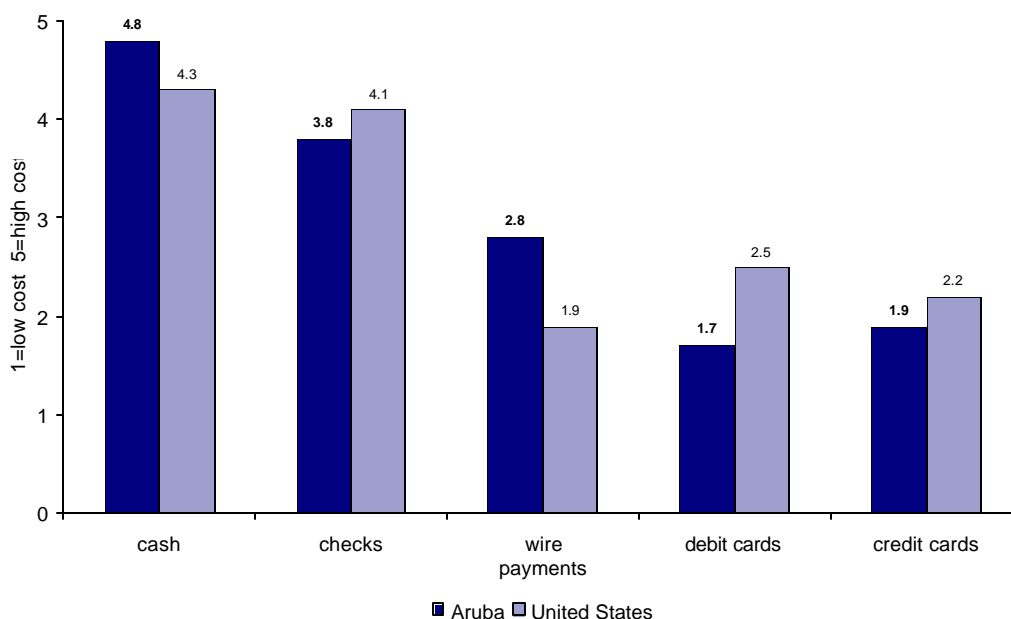
Participants cited cash as the most costly and least profitable payment instrument, a finding echoed in the U.S. Figure 5 shows a full comparison of the various payment mechanisms. Aruba and the U.S. compare closely, with two notable exceptions. The cost of offering wire payments in Aruba is reported as significantly more expensive than in the U.S., whereas the opposite holds true for debit cards. This can in part be explained by the level of penetration of each payment mechanism at the time the two surveys were completed. Aruban banks are still in an early phase of gaining widespread acceptance of

¹⁾ Cash Handling and Management in the New Millennium – A Review of Private Sector Cash Handling and Management Practices in the United States. Published by Federal Reserve Bank of San Francisco on behalf of the Federal Reserve System

electronic wire payments. The U.S. has seen substantial uptake in the debit card since their survey was completed in Fall 2000, and if resurveyed today it is predicted that debit card costs would have fallen.

Figure 5: How Participants Ranked Payment Instrument Costs

(Aruba = 5 participants sampled June 2002, United States = 31 participants sampled August to November 2000)



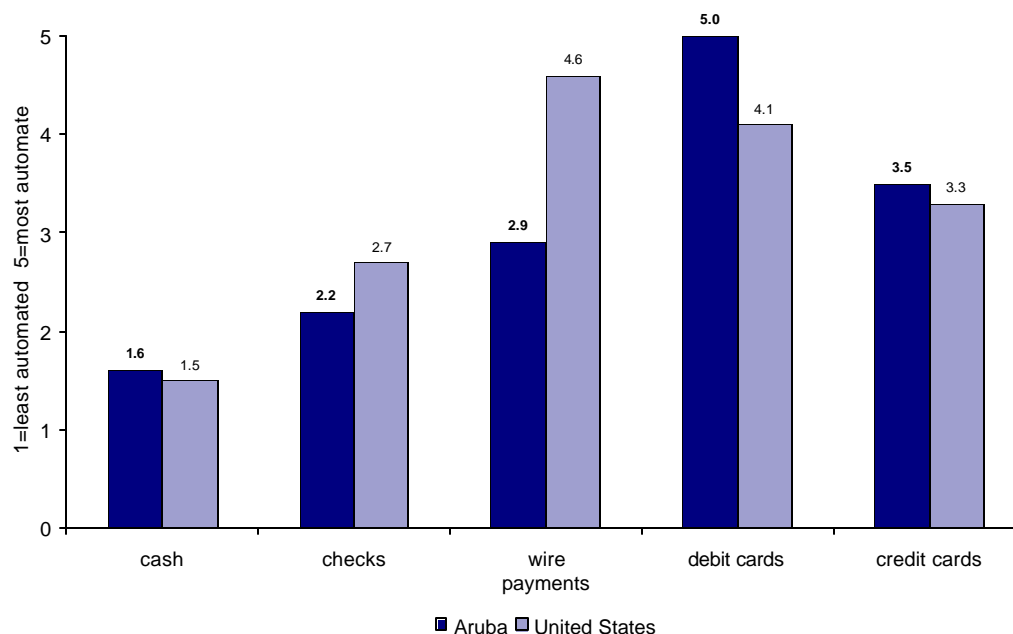
Again, closely following U.S. observations, participants reported cash as the least automated payment instrument when compared with other methods of settlement.

Aruban and U.S. differences are exposed when comparing wire payments and debit cards. This is consistent with the stage of usage of the different payment instruments, in each country, at the time the surveys were completed. The low level of automation in Aruban wire payments supports the high costs attributed to this payment method.

Universally, the Aruban banks pointed to the high level of automation underpinning their debit card offerings, making this an attractive low cost payment instrument.

Figure 6: How Participants Ranked Payment Instrument Automation

(Aruba = 5 participants sampled June 2002, United States = 33 participants sampled August to November 2000)



Alternative Payment Instruments

Participants were asked to provide their views on the usage of alternative payment instruments to cash.

A number of participants reported that they are now actively encouraging their customers to use more automated means of payment. One participant described how they had significantly increased the cost of providing checks in a concerted effort to influence customers towards lower cost alternatives. Given that most ATM and branch withdrawals are free, it was conceded that there was not yet a financial incentive for customers to change their cash usage habits.

Turning to electronic cash substitutes, several participants believe that the significant infrastructure costs needed to establish a new payment mechanism would be a barrier to the development of a smartcard solution on the island. The absence of a local transaction switch or common debit card standards in Aruba was also seen as a potential obstacle to the otherwise rapid expansion of debit card use.

The Future of Cash

Several participants reported a strong and continuing demand for cash. One participant commented that, particularly for older customers, visits to the bank, to draw pension payments or possibly pay utility bills, are often considered social events. It was reported that a line forming outside bank branches half an hour before opening was not uncommon.

The popularity of cash is also reinforced through high levels of foreign workers informally employed in Aruba's Tourism Industry and without access to Aruban bank accounts.

While the cashless society is still considered a very long way off, with greater acceptance of alternative payment mechanisms – particularly the debit card – a number of participants believe that the popularity of cash based transactions in Aruba will start to decline modestly in the next 5 to 10 years.

The Centrale Bank van Aruba and Currency Consulting International are grateful to all the organizations and participants who contributed to this survey of cash handling and management practices in Aruba.

The views expressed in this report are not necessarily those of the Centrale Bank van Aruba or Currency Consulting International Limited.

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