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Fact Finding Mission Payment system in Aruba: Results and Recommendations

DeNederlandscheBank

EUROSYSTEEM

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Introduction

The Centrale Bank van Aruba (CBA) developed a strategic plan to ensure its efficient and effective performance in an ever more dynamic and complex environment. The name of the strategic plan is Bela Yen Nos Plan Strategico 2016-2020. The plan envisions broadening the CBA's task in the payment landscape in order to contribute towards modernising the payment system in Aruba. In order to assess the steps that will need to be taken to achieve this, De Nederlandsche Bank (DNB) performed a gap analysis together with the CBA as part of the technical cooperation between the two central banks. To learn more about the Aruban payment market and the stakeholder support for the CBA's plans, a fact finding mission was organised in November 2016 and interviews were conducted with key Aruban stakeholders.

This report presents the main findings of the mission and the recommendations for addressing the gaps identified. Section 1 of this report first explains the strategic objectives and the desired results and section 2 describes the current payment system in Aruba. Section 3 gives a short description of the fact finding mission, and section 4 presents the results of the interviews, broken down by the separate sections of the plan to be executed, and also taking into account the support base. Section 5 presents a list of itemised recommendations for achieving the plans. And last but not least, some additional action points are presented to set the modernisation process in motion.

Summary

The current payment market in Aruba is dominated by cash and cheques. Cooperation and competition between banks is low, which is reflected in inefficiencies, high service fees charged for payments, and low user involvement. The CBA developed a strategy for modernising payments and formulated specific results to be achieved. In order to determine the steps that will need to be taken to achieve these plans, DNB performed a gap analysis together with the CBA as part of the technical cooperation between the two central banks.

In order to analyse the Aruban payment system and assess stakeholder support for modernisation, DNB and the CBA conducted a fact finding mission in November 2016 and interviewed key Aruban payment stakeholders. The interviews revealed that almost all stakeholders would like to see improvements in the payment system and would welcome modernisation and automation efforts, and reduction of the use of traditional means of payment. They were also positive about establishing and taking part in a national payments forum. The greatest need that users expressed was increasing transparency on the payment system about fees charged and about the processing time of non-cash transactions (at home and abroad). The most frequently heard example of more up to date payment behaviour is replacing cheques by electronic payment instruments. Stakeholders recognise that modernisation needs leadership from the CBA with respect to coordination and implementation; they believe that the CBA should take the lead in bringing the stakeholders together.

Within the scope of the technical cooperation the results of the fact finding mission have been translated into recommendations that serve as the building blocks for the master plan to achieve the desired results. We would recommend that the CBA take the initiative for expansion of its legal mandate in order to secure a mandate for modernisation and to establish a dedicated payment systems department with strategic, policy, regulatory and oversight tasks. In addition, we would advise setting up a working group together with the banking sector in order to prepare and implement the necessary infrastructural adjustments. In order to facilitate the necessary cooperation between stakeholders, we recommend to establish a national payments forum, the Forum di Pago Nacional, and to call a constituent meeting to explain the plans and create working groups for implementation of the plans. An example could be a working group focusing on accessibility of the payment system that can support the transition to the use of electronic payment instruments, devoting attention to education and fostering commitment from heavy users of traditional payment instruments. In order to increase competition, we recommend to increase transparency about fees charged and to create a fee structure that is conducive to the desired change in payment behaviour. Stakeholder information campaigns can be set up to promote the use of electronic and other innovative payment instruments, including information on the security aspects related to these payments. Where progress monitoring is concerned, it is essential to perform baseline assessments of the current use of the payment system and to formulate target values for the future. To conclude this report, some additional steps will be presented that the CBA may implement to launch the modernisation process, such as setting up a working group with the banking sector and preparing a position paper.

1 The strategic objectives of the CBA

1.1 Strategy for non-cash payment transfers under Bela Yen¹

Commercial transactions and financial stability in Aruba demand that the payment system is safe, reliable and efficient. Section 4.3 of CBA's Bela Yen plan sets out the strategy for payments in Aruba. For the purpose of financial stability in Aruba, it is necessary to increase the safety, reliability and efficiency of the payment system to a pre-defined level in line with international best practices. More importantly, access to the payment system for the Aruban population needs to be improved while the costs of payments should be reduced. The CBA wants to achieve this strategic objective in non-cash payments by:

- a. introducing a framework for regulating and facilitating an adequately functioning and fraud resilient payment system;
- b. facilitating active use of innovations in payments and cooperating with the relevant stakeholders.

The CBA aims to achieve the following objectives in non-cash payment transfers in Aruba:

1. The clearing & settlement system is outsourced.
2. Relevant rules and regulations pertaining to payments are implemented.
3. A new dedicated "Payment systems" department is established with the objective of concentrating activities in the area of policy and strategy, regulation and oversight on payments.
4. The "National Forum on the Payment System" is established.
5. Access to the payment system is improved relative to the 2017 baseline assessment.
6. The fees charged for payments are significantly reduced relative to the 2017 baseline assessment.

In order to assess what needs to be done to achieve these objectives, we will first describe the current state of the Aruban payment system.

¹ This report does not discuss the strategy that the CBA has formulated with respect to cash payments relating to the issuance, processing, and cash stock management of Aruban florin notes and coins.

2 Characteristics of the Aruban payment system

When analysing the current payment situation in Aruba, we used the CBA's operational annual report, its website, direct information from CBA staff, and the input from market participants and authorities. There is little statistical information available on payments in Aruba.

2.1 Focus on the US dollar

Together with its Status Aparte in 1986, Aruba acquired a new currency unit, the Aruban florin. Aruba is a small, open economy with a high level of international payments, both incoming and outgoing. Its main source of income by far is tourism as the island welcomes over 1.5 million visitors each year – about 15 times the number of its own inhabitants. The vast majority of visitors come from the United States. In addition, the United States is an important trading partner for imports of goods and services. These two factors make the US dollar the main currency for the settlement of (international) transactions. Since 1986, the florin has been pegged to the dollar at a rate of USD = Afl. 1.79000. The US dollar is generally accepted in at the counter payments in shops, bars and restaurants, etc. Most ATMs give foreign users a choice of withdrawals in Aruban florin or U.S. dollar banknotes.

2.2 Little cooperation and low competition between the commercial banks

Five commercial banks are active in Aruba, three of which are affiliated with Canadian banks. The other two are local banks of Aruban/Dutch origin and Curaçao/US origin. Remarkably, there is virtually no cooperation between these banks, which is reflected in differences in standards, products and account number systems. In addition, there are two different EFT POS systems in use, which is evidenced by the presence of several POS terminals on shop counters, and fees charged for non-customer use. Interbank transfers often take several business days, which is partly why the fees charged for business and consumer non-cash payments are high. According to the CBA, these high charges are also due to the lack of competition. Both businesses and consumers are charged fees according to the payment service.

2.3 Payment behaviour: Cash is king

Payments are still largely made in the "classic" way. Cash is predominantly used in shops and to pay invoices (e.g. utility companies). Business payments are dominated by the use of cheques. The banks are working on a plan to phase out cheques. The CBA believes that the use of electronic payment instruments is still below par. Aruban inhabitants and tourists have about 100 ATMs at their disposal to withdraw banknotes with their debit and credit cards. The number of places where card payments can be made is estimated at between 4,000 and 5,000 locations. The number of EFT POS terminals is many times higher. Those terminals are owned by the banks, contrary to the situation in the Netherlands for instance, where retailers buy certified terminals themselves. Some banks have recently installed terminals able to read Near Field Communication chips, but they do not yet offer contactless payments to their customers. Most banks also offer app-based mobile banking services. Local banks do offer their own online payment services, but not at competitive rates, meaning that these services are mostly sourced from foreign suppliers or schemes (MC, VISA, and PayPal). The potential for use of electronic instruments and channels is high as 85% of the Aruban population has access to the internet, more than 95% is in the

possession of a mobile phone, and around 65% owns a computer. Recent market research performed by the CBA indicates that consumers use the following banking channels on a monthly basis: 35% bank branch; 27% online; 21% ATM, and 12% mobile/app. On a weekly basis, ATM and online are the main channels at 50% and 10% respectively. At least 55% of consumers use e-commerce on a monthly basis (e.g. Amazon, eBay).

There are no detailed figures available on the use of payment instruments. The CBA takes care of clearing and settlement of positions in non-cash payments between customers of banks (businesses and consumers), the public sector, and utility companies, but does not differentiate between retail and wholesale transactions. The reason for this is that when clearing was introduced in Aruba, differentiation was not considered necessary, which is why this functionality was not activated in the current system. The current clearing system is a low value/high volume one, which clears non-cash transactions made by means of direct debit (utility companies) and credit transfers, wage and salary payments and pension payments. Payment products like debit and credit cards are not activated in the current clearing system either.

2.4 Virtually no consensus culture

The CBA meets with the banks several times a year, emphasizing policy matters among other subjects. There is no active dialogue between the banks and with other stakeholders, but the CBA wants to change this. There are, however, umbrella organisations. There is a bankers' association and three organisations that represent trading companies and hotels, and there is one (small) consumer organisation. That said, there is a social dialogue in Aruba between the government and employers and employees regarding labor law issues.

2.5 Accessibility of payment systems

There is little information available on accessibility of financial services. The CBA's research shows that at least three quarters of the population has an active payment account. There is little information available on the accessibility of payment services to vulnerable groups like the elderly.

2.6 The CBA's current mandate is insufficient

The CBA's mandate in the area of payments is insufficient to achieve the desired changes. The Central Bank Ordinance awards the CBA the traditional central bank tasks of circulation bank, guardian of the Aruban florin, foreign exchange bank, regulator of international payments, and prudential and integrity supervision. It has no explicit statutory task in non-cash payments, however. In practice, the CBA contributes towards maintaining an efficient non-cash payment system by administering the electronic clearing system for cheques and credit transfers itself, but it wants to separate these activities in order to reduce its operational activities in favour of policy and oversight activities.

3 Fact Finding Mission through interviews

3.1 Qualitative picture based on stakeholder interviews

In order to broaden their perspective of the Aruban payment market and to gauge support for the CBA's plans, DNB and the CBA together interviewed thirty stakeholders in November 2016. Fifteen on the demand side and seven on the supply side of the payment market (banks and money transfer companies), in addition to eight authorities (including Ministries, Parliament, and the CBA itself). Eighty people in total were interviewed. The emphasis on the demand side was on businesses; one consumer organisation was interviewed. Business users can be divided into three groups with different emphasis with respect to the payment situation and/or their use of payment products.

1. Retailers with many incoming payments at the point of sale by means of cash and cards, e.g. shops and restaurants.
2. "Big billers" with many incoming, regularly recurring payments that can also be made remotely with direct debits or transfers, e.g. water and energy providers.
3. Big payers with mainly a large number of outgoing payments, and using primarily transfers (pension funds and insurance companies).

Annex 1 has a list of interviewed stakeholders.

3.2 Payments in Aruba fall just short of the pass mark

The first question to all interviewed stakeholders was to rate the payment system in Aruba on a scale of 1 to 10. On average, participants rated the current payment system just below the pass mark, which may be seen as a first indication that stakeholders are also in favour of improving and modernising payments. Users were asked for the type of payments they make, for their experiences with payment services, and for their desired improvements and innovations. Providers were asked about the characteristics of their payment departments (customers, products and channels) and about their vision on a more modern payment transfer system. Banks were also queried on their viewpoints on more interbank cooperation with respect to infrastructure and standardisation. In addition, the authorities were asked on their vision of the current and future payment system. All stakeholders were asked for their opinion about the plans and a bigger role for the CBA, about cooperation in a national payment forum, and about competition in the Aruban payment landscape.

The interviews were recorded, transcribed and discussed with the stakeholders that were interviewed as much as possible. The information was summarised and integrated according to stakeholder group and the main implications for achieving the CBA's modernisation objectives were analysed. This was done by translating the CBA's desired results for 2020 into seven tangible overall actions that are to form the building blocks for the analysis and the draft implementation plan. For each building block, we reviewed both the expected support and hurdles to be overcome. Conclusions were then drawn and recommendations formulated to achieve the desired objectives.

4 Conclusions and results

In general, the findings of the stakeholder interviews indicate that they all want improvements in the payment system and are positively inclined towards modernisation, digitisation, and phasing out or reducing the use of outdated payment instruments, cash and cheques in particular. Market participants and the authorities are also in favour of establishing and partaking in a national payment forum. The most frequently expressed user need is to improve transparency in the payment market as a whole, with respect to fees charged for services, and in the processing time for non-cash transactions (in Aruba and abroad). The most frequently cited example of more modern payment behaviour is to replace cheques by electronic payment instruments. The majority of the stakeholders recognises that modernisation needs leadership from the CBA with respect to both coordination and implementation: they believe that the CBA should take the lead in bringing stakeholders together.

Below we will present the results of the mission in more detail categorised by the seven elements of the CBA modernisation plan.

1. Expansion of the CBA's legal mandate
2. Changes in the payment infrastructure
3. Improve cooperation between stakeholders (FPN)
4. Establish a dedicated payment systems department
5. Improve accessibility and financial inclusion
6. Increase competition and grip on fees charged
7. Encourage the use of innovative payment instruments.

4.1 Expansion of the CBA's legal mandate

*In order to help achieve the desired modernisation the CBA will "propose changes to the current legal mandate to enable regulation of the payment system."*²

Based on the interviews held, there seems to be broad support for the CBA in the role of initiator and catalyst of modernisation; some parties on the supply side welcome the CBA's role to legitimise the anticipated changes to their customers. Many stakeholders expect that the market will not be able to bring about the necessary modernisation, or at least not sufficiently quickly. They therefore believe that it is important to give the CBA the mandate to take decisions and regulatory action if necessary. There thus seems to be support from stakeholders for expanding the CBA's legal mandate in the area of payments. The CBA would do well to start work on preparing draft legislation in the near future and to coordinate the objectives and content with the stakeholders at an early stage in order to create and maintain sufficient support and momentum.

² This is a quote from a speech held by CBA president Jeanette R. Semeleer on 11 November 2016 at the opening of the "Conference on financial technology and the future of money" organised by the CBA to commemorate its 30th anniversary.

4.2 Changes in the payment infrastructure

The required infrastructural changes consist of outsourcing of the clearing system on the one hand, and the possible establishment of a shared platform for electronic payments and increased cooperation on standardisation on the other.

The interviews held with bank representatives confirm the low rate of cooperation on the collective issues of payments and the lack of standardisation. Banks for instance have their own processing and account standards, mostly based on those of their parent companies. A general overhaul of the payment system requires more cooperation between the banks. Although they seem positively inclined towards cooperation, the extent to which they will be prepared to cooperate partly depends on the anticipated expenses. Users and authorities would welcome quicker processing of interbank non-cash payments and an integrated network for electronic payment services ("fewer EFT POS terminals on the counter").

Support base for outsourcing the clearing system

The interviewed banks are interested in establishing a kind of "Aruban Clearing House", or taking over an institution of this kind and have a preference for settlement in commercial bank money (correspondent accounts). In order to make the appropriate choices, more consultations and investigations are necessary into the technical and economic possibilities, with an eye for the associated risks and reducing processing times. The banks have confirmed that they are willing to intensify interbank consultations, e.g. in a dedicated infrastructure working group.

Support base for shared electronic payment platform

Separating activities seems to be gathering momentum in order to examine to what extent more standardisation would be useful and feasible in order to achieve the CBA's objectives. First of all, the opportunities for creating a shared network for debit card payments need to be examined. This also requires additional analysis and attention to alternatives and business use cases.

Some cautionary notes on infrastructural change

The banks are not all on the same page with respect to the form that infrastructural change should take. It is therefore up to the CBA to induce the banks to show more cooperative behaviour. Especially where the shared platform is concerned (which will mainly entail fixed costs), the small scale of the Aruban banking sector and the possibly disparate strategies of the parent companies are curbing the possibilities.

4.3 Improve cooperation between stakeholders (FPN)

In order to modernise payments, cooperation between and with supply-side market players is necessary. Outmoded payment instruments will have to make room for new ones. That will not happen by itself. Stakeholder consultations in the Forum di Pago Nacional (FPN) could help create a broad support base with stakeholders to help change payment behaviour and address social issues.

Virtually all of the interviewed stakeholders endorse adequate exchange of information. They find it useful and necessary to foster confidence in a change in payment behaviour; this may be done by means of position papers, education and public campaigns. All (categories) stakeholders are positive towards establishing and partaking in an FPN, with a leading role for the CBA. The desired working language is Papiamentu and/or English.

Aruba has only a small number of umbrella organisations, including some organisations representing corporate sector interests. This means that individual users could also be invited to join the consultations.

Some points for consideration when establishing the FPN

During the interviews, time constraints were repeatedly mentioned as a restrictive factor to participation or active participation in the FPN. In order to reduce these time claims, careful preparation of the consultations by CBA staff is especially important. The absence of adequately functioning consumer organisations should also be borne in mind. It is crucially important to engage consumers in some way or other.

4.4 Establish a dedicated Payment systems department

In order to put its strategic plan into effect and to be able to play its role as a catalyst and overseer, the CBA must establish a dedicated Payment systems department to its organisation. It currently plays a role only in non-cash payment transfers, which has been accommodated with the Operations department.

Establishing a separate Payment systems department partly depends on the extension of the CBA's mandate. In order to set the plan in motion, staff should be hired or freed up now to dedicate themselves to developing payment policies full-time or part-time. They must develop and execute a step-by-step plan, including preparation and guidance of the legal trajectory and prepare the FPN and the consultations with the banks. During the preparatory phase, CBA's Payment System Committee will continue to play a crucial role.

4.5 Improve access to payment system and financial inclusion

The CBA wants to improve access to payment services. This includes both access to standard services for all users (financial inclusion) and access to digital payment services in particular, also for vulnerable population groups.

Financial inclusion did not emerge as a crucial point from the interviews held, but we must add that we did not speak to the target group. We spoke to a consumer organisation, but not explicitly to consumers without current accounts, nor to their representatives. We were informed that there are residents who do not have a current account, and that it is virtually impossible for foreign workers (non-residents) to open a current account. The former can often - if really necessary - use a current account of a family member or friend, and the latter are paid out in cash or cheques. The interviewed suggested more than once that non-banks, like money transfer companies, could play a more significant role. We also gathered from the interviews that access for vulnerable groups like the elderly should be considered in the planned modernisation of the payment system. The people we

spoke to anticipate fierce resistance from heavy users of cash and cheques, who do not (know how to) use debit cards or online services. We must prevent these users from being excluded after the modernisation effort.

More data necessary for baseline assessment

Based on the currently available information, it is not easy to measure accessibility and determine the best practice to be achieved. If possible, more data must be collected, perhaps by means of interviews with the relevant target groups. There is insufficient information available on accessibility of digital payment services, the population mix (Aruban residents, young people, pensioners, tourists and illegal immigrants), and about the proportion and distribution of the "unbanked".

4.6 Increase competition and grip on fees charged

The CBA wants to substantially reduce the fees charged to users of payment services relative to the baseline assessment.

Our interviews confirm the impression that local banks have a large amount of freedom. Competition is low, according to those interviewed this being reflected in low mobility (market participants hardly switch banks). Banks are now making substantial profits and are therefore less inclined to change. There is no competition authority (initiative to introduce competition legislation is still at the draft stage). Where innovation is concerned, there does seem to be some competition in the sense that individual banks want to be the first to introduce new applications. It would have been better, however, if banks were more inclined to cooperate in view of the small scale of the local banking market. Most users and the authorities have informed us that they find payment services relatively expensive and fees charged are not transparent. Increasing transparency of fees seems to be the first step towards increasing competition. Financial incentives based on a transparent and leading transaction-based fee structure may also help promote modern payment behaviour. Transparent fees may also be used as the basis for the baseline assessment.

More pressure on market players from the CBA seems to be necessary in order to increase transparency in the payment market, to get more grip on fees charged, and to enhance competition between banks. This is also to compel them to report at regular intervals on the use of payment services, in order for the CBA to start compiling payment statistics.

Some words of caution on lowering fees

Lowering the costs of banking services for users is seen as the primary objective here, but for the financial market and the CBA, total social costs are also important. Increasing the fees charged for processing cheques may also help reduce these costs. Due to the small scale of the banking market in Aruba, banks will have to make relatively high investments to introduce new payment products, which will leave relatively little room for cost reductions for users. A last point of attention is whether government's payments can be the subject of these market developments.

4.7 Encourage the use of innovative payment instruments

The CBA envisions achieving its strategic goal in non-cash payments by encouraging active use of innovations in payments together with the relevant stakeholders.

Stakeholders have been asked for their views on modernised payment systems. Virtually all users and authorities amplified the need for modernisation (digitisation), and payment service providers also recognise that Aruba's payment system is still a bit "primitive" compared to more advanced countries.

The most wanted innovations are

- Reducing the use of cash and cheques (fewer queues, less paper and lower costs) and facilitating electronic payments (also below Afl. 10; contactless payments and mobile phone payments; also for payment of invoices instead of cash);
- Shorter processing times (also for debit card and cross-border payments).
- Specifically for the big billers³ less incoming flows through branch offices (a great deal of cash), but more through direct debits and/or through link-up with own online portal.
- Integration of POS networks at retailers (one terminal on the counter).

The interviewed also frequently voiced the need for developing e-commerce and e-payments, but at the same time doubted whether this would be realistic in view of the small scale of the banking sector in Aruba and the possibly higher risks involved. PayPal was given as an example. PayPal is unwilling to open a physical office in Aruba to support web shop owners in their online incoming payments (PayPal can be used for outgoing payments, however). Users and authorities alike pointed out the importance of guaranteeing safety (including Cybersecurity) and the robustness of online services.

Comments

In order to encourage the use of modern forms of payment and the reduction of legacy products, we need good information, education and support in addition to a guiding fee structure. There is an important role for the FPN here.

³ Large companies with relatively strong flows of incoming payments, e.g. water and energy companies and telco's.

5 Recommendations

Based on the information obtained and conclusions drawn from the interviews, we have listed some recommendations for the CBA to achieve its strategic objectives in non-cash payments. These recommendations are linked to the building blocks mentioned above and serve as input for additional steps to be taken.

1. To pave the way towards expansion of the legal mandate

- Do not hesitate to take the initiative for expansion of the legal mandate.
- Compile a position paper to inform politicians, the government and market participants.
- Ensure the support of the government and politicians and keep the government's role as a wholesale user in mind.

2. To pave the way towards infrastructural changes

- Initiate an infrastructural working group together with the banks to develop scenarios for the desired changes. On the one hand this includes scenarios separating clearing activities and the possible harmonisation of processing standards (e.g. new standards vs a shared exchange standard) and on the other hand developing a shared electronic payment platform and ongoing standardisation.

3. To pave the way towards improving cooperation with stakeholders

- Share the results of the fact finding mission with the relevant stakeholders.
- Distribute a position paper on objectives and the nature of modernisation (also to the media).
- Prepare the design of the Forum di Pago Nacional (FPN), in which both umbrella organizations of market players and representatives of large users can partake.
- Investigate ways of improving consumer representation in the FPN (e.g. by means of structural questionnaires) and promote cooperation between similar stakeholders (e.g. collectors).
- Define and prioritise themes of the desired modernisation for discussion in the working groups with the relevant stakeholders, including possibilities for actively contributing towards achieving the objectives. (e.g. campaign focused on promoting electronic payments)
- Relieve the participating parties in the FPN of time constraints by means of careful preparation, support and detailing of plans by freed-up staff or hired CBA staff.
- Seek to achieve that the FPN is synonymous to the public interest, and the chosen body for guaranteeing a well-balanced approach, so with an eye for solving issues, e.g. late adapters.

4. To pave the way towards establishing a dedicated Payment systems department

- Without delay, appoint staff members who will dedicate themselves to payment policies, either full-time or part-time.
- Appoint a head of payment systems who will set up the department, support bank working groups and manage and instruct staff.
- Ensure expansion of the mandate also with respect to the oversight function.

5. To improve access and financial inclusion

- Prepare examinations into the number and characteristics of the unbanked (also for the baseline assessment), into statutory and legal regulations pertaining to opening bank accounts and the current solution of issues.
- As part of the effort to improve accessibility of (electronic) payments, contact heavy users of cheques and cash, ensure that they are informed, educated and possibly get their commitment; an accessibility working group of the FPN may serve as a means of achieving this.
- Appoint ambassadors to communicate the message of a (careful) transition to a modern payment system.

6. To increase competition and lower fees

- Consider setting up a fee structure working group in order to get an understanding of the market and the fees charged and increase the transparency and the commitment for structural changes including new technologies. This working group could also arrange the baseline assessment of the fee structure.
- Facilitate transparency concerning fee structures for users (by means of publication and education), timelines for processing of payments, opening of accounts and hurdles in switching banks.
- Seek to achieve standardisation (to eliminate hurdles and accelerate fee reductions in the longer term).
- Seek to achieve a fee structure that supports changing payment behaviour including financial incentives to promote electronic payments.
- Explore the possibilities for enhancing competition by giving non-banks access to clearing and settlement.

7. To promote the use of innovative payment instruments

- Initiate further research to improve the understanding of the current payment behaviour (baseline assessment and monitoring of desired changes), impairments in e-commerce and possible opportunities for incentives for the introduction of new technologies (in infrastructure working group).
- Formulate objectives and best practices and prepare public information campaign on modern payments (through FPN), including information on the safety of these payments.
- Create a "payment sandbox" (based on a regulatory sandbox) to promote innovative payment methods by payment service providers.

Follow-up actions

The results of the fact finding mission and the ensuing recommendations serve as input for the step-by-step plan to be developed by the CBA to modernise the payment system in Aruba. The CBA is working on prioritising the recommendations and translating them into tangible actions, including timelines, and to appoint the responsible staff members. The following steps have been taken in 2017.

The CBA:

- has started preparations for defining the outline of the framework for legislation and the process to be followed;
- has installed a working group to discuss with the banks the restructuring of the current clearing system and putting an end to clearing of cheques by the CBA.
- is exploring the possibilities of expanding its organisation with a dedicated Payment systems department;
- is preparing a position paper to start emanating its vision on modernising the payment system in Aruba.
- will explore the technical possibilities for developing an integral payment network in Aruba that is to form the basis for a road map for the implementation of the chosen solution.

Annex 1: List of organisations interviewed

Authorities (8)

1. Department of Finance (Directie Financiën)
2. Department of Economic affairs, Commerce and Industry (Directie Economische Zaken, Handel en Industrie)
3. Department for the Legislation and Legal Affairs (Directie Wetgeving en Juridische Zaken)
4. Bureau of Innovation (Bureau Innovatie)
5. Permanent Committee for Finance, Economic Affairs and Government Organisation of the Parliament (Vaste Commissie Financiën, Economische Zaken en Overheidsorganisatie van de Staten)
6. Aruba Tourism Authority (ATA)
7. Aruba Ports Authority (APA)
8. Centrale Bank van Aruba (CBA)

Payment service providers (7)

Banks

1. Aruba Bank N.V.
2. Banco di Caribe (Aruba) N.V.
3. Caribbean Mercantile Bank N.V.
4. CIBC First Caribbean International Bank (Cayman) Ltd- Aruba branch
5. RBC Royal Bank (Aruba) N.V.

Money transfer companies

6. Mack's Exchange Services V.B.A. (Western Union)
7. Union Caribe N.V.

Payment service users (15)

Big Billers (5)

1. Setar N.V. (telecommunications company)
2. Digicel N.V. (telecommunications company)
3. N.V. Elmar (electricity company)
4. WEB N.V. (water company)
5. Aruban Tax Authority (Departamento di Impuesto Aruba (DIMP))

Big payers (2)

6. General Health Insurance (Algemene Ziektelkosten Verzekering; AZV)
7. Horacio Oduber Hospital

Retailers (4)

8. Ling & Sons Super Center
9. SuperFood
10. Maggy's
11. Linda's Dutch Pancakes & Pizza's

Consumers (1)

12. Department for Rent and Consumer affairs (Dienst Huur- en Consumentenzaken)

Umbrella organisations (3)

13. Aruba Hotel and Tourism Association (AHATA)
14. Aruba Trade and Industry Association (ATIA)
15. Chamber of Commerce and Industry (Kamer van Koophandel en Nijverheid; KvK)

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Amsterdam

De Nederlandsche Bank,

Rein Kieviet

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