

Scholten, Bram

**Conference Paper**

## Decline management: the case of cash. Policy response in the Netherlands and the Nordic countries

International Cash Conference 2017 - War on Cash: Is there a Future for Cash? 25 - 27 April 2017, Island of Mainau, Germany

**Provided in Cooperation with:**

Deutsche Bundesbank

*Suggested Citation:* Scholten, Bram (2017) : Decline management: the case of cash. Policy response in the Netherlands and the Nordic countries, International Cash Conference 2017 - War on Cash: Is there a Future for Cash? 25 - 27 April 2017, Island of Mainau, Germany, Deutsche Bundesbank, Frankfurt a. M.

This Version is available at:

<https://hdl.handle.net/10419/162915>

**Standard-Nutzungsbedingungen:**

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

**Terms of use:**

*Documents in EconStor may be saved and copied for your personal and scholarly purposes.*

*You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.*

*If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.*

**Decline management: the case of cash**  
**Policy response in the Netherlands and the Nordic countries**

Deutsche Bundesbank International Cash Conference  
Mainau Island, 25 – 27 April 2017

Bram Scholten\*

\* The author is senior policy advisor at De Nederlandsche Bank and can be reached at (mail) Postbus 98. 1000 AB Amsterdam or (email) [aascholten@dnb.nl](mailto:aascholten@dnb.nl)

### ***Abstract***

The Netherlands and the Nordic countries are faced with a rapid decline in the use of cash. Sooner or later, they will be confronted with the question whether cash remains necessary as well-functioning means of payment for POS transactions. This paper focuses on how this issue is addressed in the Netherlands and the Nordics, based on answers to a detailed questionnaire submitted to the central banks of these countries, covering the three main elements of the well-functioning of cash: paying in cash, drawing cash from, and lodging cash in one's bank account.

All central banks seem to believe that at least for the foreseeable future, cash remains needed as well-functioning means of payment. Leaving legal issues aside, main arguments are that for part of the population, use of electronic payment instruments is not, or not always, possible or desirable. In addition, cash functions as fall back in case of temporary breakdowns in the functioning of, or trust in, the electronic payment system. In Norway and the Netherlands, this view seems shared by the government and society at large. As far as Denmark, Finland and Sweden are concerned, a broad consensus and a general policy to 'manage' the decline of cash have not or not yet materialized.

Once authorities and society at large are convinced that cash remains needed as well-functioning means of payment, it has to be determined whether, and if so which, specific action is required to keep cash well-functioning as means of payment. In this respect, unlike the market approach (at least so far) favored in Sweden, Norway and the Netherlands adopted a pro-active approach, with the idea that it is easier to prevent unwelcome developments than to correct them once they have occurred. In the Netherlands, agreement has been reached on a cooperative approach.

Keywords: cash, cashless society, legal tender

## **Introduction and acknowledgement**

In parallel with the increasing use of electronic payment instruments in point of sale (POS) payments, cash usage in the Netherlands is declining. The number of ATM locations is also declining. Against this background, the Netherlands National Forum on the Payment System set up a taskforce to consider and advise on the future role of cash as means of payment in POS payments (see attachment for a summary of the taskforce report).

This taskforce was aware of the fact that the shift from cash to electronic payments in the Nordic countries has advanced further than in the Netherlands. The taskforce was therefore interested in knowing how these countries (in particular Denmark, Finland, Norway and Sweden) have addressed this development so far. Accordingly, the taskforce drew up a detailed questionnaire, with questions grouped around three themes: the use of cash as means of payment in POS transactions, the withdrawal of cash from payment accounts and the depositing of cash in payment accounts.

This paper draws on the answers to the questionnaire that have been received from the central banks of Denmark, Finland, Norway, Sweden and the Netherlands (hereafter: 'the central banks'). The author would like to thank his colleagues in the cash departments of these central banks, without whose generous support this paper could not have been written. However, the author does of course bear full responsibility for any omissions or errors.

The focus of this paper is on the functioning of cash as means of payment for POS transactions in Denmark, Finland, the Netherlands, Norway and Sweden. The scope of this paper does not cover the use of cash for hoarding purposes, nor the use of cash as means of payment for the settlement of transactions that are not POS transactions. The functioning of cash as means of payment for POS payments can be considered to comprise the following three elements:

- a. The payment itself, from consumer to business/retailer.
- b. For consumers: the withdrawal of cash from their own payment account.
- c. For businesses: the deposit of cash in their own payment account.

Accordingly, this paper is organized around these three constituent elements of the functioning of cash as means of payment.

## 1. Cash use and cash acceptance in point of sale payments

### - Data on cash use

Table 1 shows some comparative figures on the use of cash. In terms of value, the use of cash seems to have declined the most in Norway, where the value of cash withdrawals (at ATMs and via cash back transactions at POS terminals) declined between 2010 and 2015 from 22 % to only 14 % of the combined value of cash withdrawals and card payments at POS terminals (taken together as proxy for the total value of POS payments). This is (less than) half the share of cash withdrawals in Denmark, Finland and the Netherlands, at 32 % 28 % and 31 % respectively. Contrary to data on values (based on banks' accounting records), data on the number of cash transactions are estimates. Such estimates are only available for the Netherlands and Sweden, but the data for these countries cannot be compared, due to differences in estimation procedures. Unfortunately, data on

**Table 1 Payment indicators (2015)**

	Denmark	Finland	Netherlands	Norway	Sweden
<b>Number of POS card payments per inhabitant</b>	275	209	192	335	242
<b>Share of cash (in %) in combined value of ATM cash withdrawals and card payments at POS terminals 2010/2015</b>	32/20*	31/28	37/31	22/14**	29/18
<b>Share of cash (in %) in total number of POS payments 2010/2016***</b>	.	.	65/45	.	40/16

Data: ECB, Statistical Data Warehouse and Norges Bank, 'Developments in retail payment services – 2015' *Norges Bank Papers* No. 1, 2016

\* Danish Payments Council, Report on the role of cash in society, 2016

\*\* Including cash withdrawals via cash back.

\*\*\* Estimation procedures not comparable between countries. Source: De Nederlandsche Bank /Betaalvereniging Nederland, 'Factsheet point of sale payments 2016', April 2016 and Riksbank, 'The payment behavior of the Swedish population', 2016

the number of cash transactions are very sensitive to the estimation procedures used.<sup>1</sup> Nevertheless, for both the Netherlands and Sweden, the 2016 data are based

<sup>1</sup> Jonker, N. and Kosse, A. (2013) 'Estimating cash usage: the impact of survey design on research outcomes', *De Economist* 161, page 19-44.

on broadly the same methodology as the 2010 data, and therefore, on a country-by-country basis, the 2016 data can be compared to the 2010 data. From these data, it is clear that in both countries, the use of cash in terms of the number of transactions has also been declining quite rapidly, particularly in Sweden.

- *Legal situation regarding refusal of cash payments*

In Denmark and Norway, national legislation prescribes the mandatory acceptance of cash in POS transactions with consumers in most cases.<sup>2</sup> In Denmark, the government has proposed relaxing this obligation by providing that it does not apply from 10 p.m. to 6 a.m.

In Finland, the Netherlands and Sweden, contractual freedom is generally considered to prevail. Accordingly, the exclusion of cash can be part of contracts involving the sale of goods and services. In general, when a 'cards only' clause is used, it is not individually negotiated with the customer, but included in the general conditions used by the seller of the goods or the provider of the service (often indicated at the entrance to the premises of the seller or service provider). However, in the case of contracts between businesses and consumers, as in other EU member states, such a clause is unfair and not binding if, contrary to the requirement of good faith, it causes a significant imbalance in the parties' rights and obligations arising under the contract, to the detriment of the consumer (articles 3 and 6 of Council Directive 93/13/EEC of 5 April 1993 on unfair terms in consumer contracts). Therefore, if a 'cards only' clause were to cause such significant imbalance, it would not be binding. This could for instance be the case when a consumer who needs to pay in cash cannot find a nearby alternative supplier for the same service or goods that does accept cash.<sup>3</sup>

In addition, in the case of Finland and the Netherlands, EU legislation prescribing that euro banknotes and coins have legal tender status in these countries, may have as yet uncertain consequences. Among euro area member states, views differ on the implications of legal tender status for the acceptance of cash (obligatory or not), and the European Court of Justice has not yet been called upon to provide a preliminary ruling on the interpretation of the notion of legal tender. It may be inclined to follow

---

<sup>2</sup> Denmark: Section 56 of the Payment Services Act. The Danish cash rule does not apply to sales in unstaffed self-service environments. Norway: Section 38 of the Act on Financial Contracts and Financial Assignments.

<sup>3</sup> See Scholten, A.A. (Bram) (2015) 'Paying in cash, favor or right?', *Nederlands Juristenblad*, 27 November 2015, nr. 41, page 2870 – 2876. In Dutch, English translation available upon request to the author.

the view of the European Commission that the acceptance of cash in retail transactions should be the rule and a refusal only possible for reasons related to the 'good faith principle' (for example that the retailer has no change available).<sup>4</sup> Furthermore, some questions remain regarding the extent to which national legislation may restrict the use of cash to settle POS transactions. According to preamble 19 of EU Regulation 974/98, limitations on payments in notes and coins, established by euro area member states for public reasons, are not incompatible with the legal tender status of euro banknotes and coins as long as other lawful means for the settlement of monetary debts are available. This provision is quite generous, but, as noted by the ECB in a number of legal opinions, such limitations should be proportionate to the objective pursued and should not go beyond what is necessary to achieve this objective.<sup>5</sup> Also in this respect, ultimately the European Court of Justice is the competent authority to determine how this provision should be interpreted.

In this respect, it is worth noting that in Sweden, some courts have restricted the possibility for excluding cash as means of payment for certain public services.<sup>6</sup>

- *Refusal of cash as means of payment for POS transactions still rare*

The answers received from the national central banks indicate that the acceptance of cash in POS transactions is still the rule in all countries. However, in most countries, cash payments are often not possible at parking meters and some petrol stations, as well as in parts of the public transport system. Refusal of cash in face-to-face situations seems to remain quite rare. In a survey commissioned by the Riksbank, 70% of respondents indicated having never encountered a situation where they could not pay with cash in a shop.<sup>7</sup> And in a survey commissioned by DNB for the Netherlands National Payment Forum, 82% of the respondents indicated never having encountered a face-to-face situation where it was not possible to pay in cash.<sup>8</sup>

---

<sup>4</sup> Article 3 of Commission Recommendation of 22 March 2010 on the scope and effects of legal tender of euro banknotes and coins (2010/191/EU), *PbEU* L 83, 30 March 2010.

<sup>5</sup> See e.g. ECB Opinion of 10 May 2012 on limitations on cash payments (CON/2012/37) and ECB Opinion of 18 March 2013 on the limitation of cash payments (CON/2013/18).

<sup>6</sup> Svea Court of Appeal's decision on 11 March 2011 in case OA 1269-11, the Administrative Court of Appeal in Sundsvall's judgment on 5 June 2013 in case no. 852-12 and the Administrative Court of Appeal in Jönköping's judgment on 23 April 2014 in case no. 3636-13.

<sup>7</sup> See Riksbank, 'The payment behaviour of the Swedish population', 2014 version.

<sup>8</sup> Maatschappelijk Overleg Betalingsverkeer, *Bereikbaarheidsmonitor 2016*, page 46 (see <http://www.dnb.nl/betalingsverkeer/maatschappelijk-overleg-betalingsverkeer/publicaties-mob/index.jsp>)

- *Legal provisions that limit the use of cash for certain amounts*

Both Denmark and the Netherlands have legislation banning the use of cash in certain cases. But so far, only Denmark has a legal ceiling for the amount that can be paid in cash (as do countries such as Belgium, France, Italy and Spain).<sup>9</sup> However, this would change if the EU decides to introduce such a ceiling, as currently contemplated by the European Commission.<sup>10</sup>

- *Motives for refusing cash payments*

As far as motives for the refusal of cash are concerned, security concerns are mentioned, in particular the limitation of vandalism in unmanned situations. But also efficiency (cost savings) is mentioned as a motive for banning the use of cash.

- *Reaction of the public*

Because the refusal of cash in POS payments is still so rare, it is difficult to generalize about public attitudes to the refusal of cash. Mostly, people seem to take it in their stride when they cannot use cash in a situation where they would like to do so. However, occasionally, complaints have been heard. In Sweden, in a recent survey commissioned by the Riksbank, 31 % of the respondents reported a negative attitude about the declining use of cash.<sup>11</sup> In the Netherlands, in a recent survey, 71% of the respondents indicated that they felt that cash should always be accepted for POS payments, while only 14% of those who had encountered a situation where cash was refused, had no problem with that.<sup>12</sup>

- *Attitude of the authorities*

Official views on the future role of cash and the refusal of cash in POS payments differ. In Norway, the proper functioning of cash as means of payment for POS transactions is underpinned by legislation. On the one hand, as noted above, the

---

<sup>9</sup> In Denmark, Section 2 of the Money Laundering Act provides that business operators may not receive cash payments of DKK 50,000 (EUR 6,700) or more.

<sup>10</sup> European Commission, 'Proposal for an EU initiative on restrictions on payments in cash. Inception impact assessment', January 2017.

[http://ec.europa.eu/smart-regulation/roadmaps/docs/plan\\_2016\\_028\\_cash\\_restrictions\\_en.pdf](http://ec.europa.eu/smart-regulation/roadmaps/docs/plan_2016_028_cash_restrictions_en.pdf)  
See also Consultation EU initiative on restrictions on payments in cash:

[https://ec.europa.eu/info/content/eu-initiative-restrictions-payments-cash\\_en](https://ec.europa.eu/info/content/eu-initiative-restrictions-payments-cash_en)

<sup>11</sup> See Riksbank, 'The payment behaviour of the Swedish population', 2016 version.

<sup>12</sup> Maatschappelijk Overleg Betalingsverkeer, *Bereikbaarheidsmonitor 2016*, page 46 (see <http://www.dnb.nl/betalingsverkeer/maatschappelijk-overleg-betalingsverkeer/publicaties-mob/index.jsp>)



acceptance of cash in POS transactions is mandatory in Norway (with a special regime for exceptions), while on the other hand, as from 2016, to the extent expected and needed by their customers, credit institutions are legally obliged to offer facilities to withdraw cash from payment accounts and to deposit cash in payments accounts. In the Netherlands, the same objectives are pursued in a cooperative approach by the main stakeholders (i.e. consumers, retailers and credit institutions), as agreed in the National Payment Forum. It believes that it is essential that cash continues to function well as a means of payment, in the sense that cash is almost universally accepted as means of payment for POS transactions, that it is generally easy to withdraw cash from one's own payment account and that for retailers, it is relatively easy and affordable to deposit cash in their own payment account. This is considered particularly important for people who do not have a debit card or who are temporarily or permanently unable to use one, people with a visual impairment, as well as for people who live on a cash budget in order to have a better overview of and control on their expenditures. Furthermore, the Forum recalls the needs of young people (aged under 14) and of those who have a justified wish to pay anonymously. Last but not least, the National Payment Forum considers it imperative for the stability and shock-resistance of the point-of-sale payment system that cash continues to be a fully functioning means of payment, because cash is the alternative of last resort if the electronic payment system should be temporarily out of action for any reason.<sup>13</sup>

In the other three countries, the desirability of the continued proper functioning of cash is generally recognized by the central banks concerned. In Finland, the central bank has confirmed this position in a press release, but so far, further measures have not been deemed necessary. In Sweden, the role of cash is currently a matter of public and parliamentary debate, but the Riksbank has advised the government to provide for legislation that obliges banks to offer cash withdrawal and cash depositing facilities in accordance with their needs.<sup>14</sup> In Denmark, however, the central bank has made it known that it would prefer lifting the cash rule rather than relaxing it as presently proposed by the government (lifting the cash rule between 10 p.m. and 6 a.m. the following day).<sup>15</sup>

---

<sup>13</sup> See the attached summary of the National Payments Forum's report.

<sup>14</sup> See Riksbank, 'Introduce a legal requirement for the banks' cash service', press release, 16 March 2016.

<sup>15</sup> Danmarks Nationalbank, letter to the Ministry of Finance, 3 February 2017 (only in Danish).

- *Mobile alternative for use of cash in P2P payments*

Commercial banks are gradually introducing apps that allow direct mobile and often real time person-to-person (P2P) payments that can function as substitute for cash also in P2P payments. In Denmark, two mobile payment solutions are available. They both offer P2P payments. One is MobilePay, which is a mobile app from the largest bank in Denmark, Danske Bank, but also available to customers outside the bank. MobilePay was launched in 2013 and is used regularly by about half of the population (2015 data). Technically, the solution consists of a card payment from the payer to Danske Bank and a subsequent credit transfer from Danske Bank to the payee. The credit transfer is cleared within seconds in the Danish system, Instant Payments. The other solution is called Swipp and is a joint solution offered by almost all other Danish commercial banks. It is based on a credit transfer cleared via Instant Payments.

In Norway, in 2015 the person-to-person payment solution VIPPS was introduced by Den Norske Bank, Norway's largest bank. In 2017 VIPPS will be spun off as an autonomous company, in which more than 100 other Norwegian banks will hold 48% of the shares.<sup>16</sup> So far, VIPPS has been downloaded by approximately 40% of the population.

In Sweden the ten largest banks jointly launched 'Swish', which provides for real time payments. Swish, launched in 2012, has gained general acceptance very quickly, making it a real substitute for cash in P2P transactions. In a recent Riksbank survey, 52 % of the respondents answered having made payments using Swish in the past month.<sup>17</sup>

The major banks in the Netherlands cooperate in the construction of a new infrastructure that will allow mobile instant payments across all banks by May 2019.

## **2. Withdrawal of cash from own payment account**

- *Availability of ATMs*

The number of ATMs per 10,000 inhabitants varies between 2.8 and 4.7 (table 2, 2015 figures). Finland and Sweden are at the low end of this range, with 2.8 and 3.3

---

<sup>16</sup> Press release Den Norske Bank 13 February 2017.

<sup>17</sup> See Riksbank, 'The payment behaviour of the Swedish population', 2016.

ATMs per 10,000 inhabitants. In the case of Finland, this relatively low number is the result of the gradual integration of the ATM networks of the three major banks into one common single network, after the establishment of their joint venture Automatia. More recently, the five largest banks in Sweden also integrated their ATM networks into a single network, owned by their joint venture Bankomat.

In all countries surveyed, some of the ATMs are operated by non-banks. In all countries, ATMs are located in or near the branch offices of banks, but also at so called 'off premises' locations. In Finland and the Netherlands, most ATMs are at such off premises locations.

Most countries also report that the number of ATMs is declining. In terms of the number and the value of cash withdrawals, Sweden stands out as having the lowest number and value of ATM withdrawals on a per capita basis.

**Table 2 Data on ATM (2015)**

	<b>Denmark</b>	<b>Finland</b>	<b>Netherlands</b>	<b>Norway</b>	<b>Sweden</b>
<b>Number of bank/non-bank ATMs</b>	2,540/14	1,474/72	7,004/900	2,033/300	2.285/550
<b>of which 'off premise' ATMs (in %, 2014 data)</b>	.	70/100	64/100	.	45/100
<b>Change in the number of bank ATMs 2010 – 2015</b>	- 12%	- 11%	- 12%	- 11%	.
<b>Number of ATMs per 10.000 inhabitants</b>	4.5	2.8	4.7	4.5	3.3
<b>Number of ATM/ cash back withdrawals per inhabitant</b>	.	25.0	20.7	10.5/8.0	15.3
<b>Value of ATM/cash back withdrawals per inhabitant (EUR)</b>	.	2,482	2,761	1,896/408	1,627

Data: ECB Statistical Data Warehouse and Norges Bank, 'Developments in retail payment services – 2014, rev.' *Norges Bank Papers* No. 1, 2015

Finland: number of ATMs provided in the response to questionnaire.

#### *- The role of cash back transactions*

Cash back transactions (using a card payment at a POS terminal to pay a higher amount than required in order to receive the difference in cash) are a widely used and important method to withdraw cash from one's own bank account in Denmark and Norway, and to a somewhat lesser extent in Sweden.

In Finland and the Netherlands, although increasing, cash back transactions are still at a low level. Nevertheless, in the Netherlands, in a recent survey among retailers, over 58% of the respondents indicated to be prepared to allow cash back transactions on request.<sup>18</sup>

In Finland, the central bank would welcome cash back transactions becoming more popular, as an alternative distribution channel and as a way to lower the societal costs of the use of cash.

- *Minimum number of ATMs needed for smooth cash cycle*

None of the interviewed central banks was able to indicate the minimum number of ATMs that would be required to allow cash to remain a generally used means of payment. In principle, as long as the distance between most people's homes, or where they do their shopping, to the nearest ATM is not by itself a deterrent to their use of cash, this seems assured. However, it proved difficult to say when the distance to the nearest ATM by itself becomes a deterrent to using cash in payments. The popularity of cash back as an alternative method to withdrawing cash from one's bank account is also a relevant factor in this context: the more popular cash back, the longer the acceptable distance to the nearest ATM.

- *ATM withdrawals: free of charge or not?*

In all countries, for private clients withdrawals from ATMs of their own bank are free of charge. However, in Denmark and Norway, in general a fee is required for withdrawals from other ATMs. In Finland, the Netherlands and Sweden, ATM withdrawals are always free of charge for clients of the major banks.<sup>19</sup> In the Netherlands, this is the result of market forces. In Sweden, the competition authority requires that the banks that participate in Bankomat also do not charge their clients for withdrawals from other ATMs. Interestingly, in more or less similar circumstances, until 2015 the banks that participate in Automatia were allowed to charge their clients for withdrawals from non-bank ATMs, although their withdrawals from Automatia's ATMs were (and still are) free of charge. However, in December 2014, the Finnish Financial Services Authority determined that this was no longer accepted.

---

<sup>18</sup> DNB, Factsheet '*Cash - retailers' behaviour and perception*', April 2015.

<sup>19</sup> Recently, Finnish banks have started to limit the number of free of charge withdrawals.

- *Merchant filled ATMs*

ATMs operated by banks are practically always stocked by CIT companies.

In the Netherlands, non-bank ATMs account for about 10% of all ATMs in the country. They are almost always located in shops and usually, these ATMs are stocked by the retailer with cash from its tills. In Sweden, around 20% of the ATMs are merchant-filled.

- *Has the closure of ATMs (e.g. in rural areas) ever been an issue in parliament or in the media?*

Apart from Denmark, all central banks report that the closure of ATMs has sometimes been an issue in the media and in parliament. In the Netherlands, already a number of years ago, parliament discussed a draft law that would make it mandatory for the banking system as a whole to pay for keeping service points in remote areas. The banks reacted to this pressure (see below) and the draft has remained pending. In Norway, partly as a result of discussions around the closure of bank branches and ATMs, banks' responsibilities have been clarified in a law that came into effect at the start of 2016 (as described above).

- *Do banks use an explicit or implicit norm for the location of their ATMs?*

Little is known about whether, and if so how, individual banks use norms for the location of their ATMs. However, Automatia does not close an ATM if the nearest ATM is more than 20 km away. In the Netherlands, as approved by the competition authorities, the major banks have agreed to prevent closure of the last ATM in a village if the next ATM is over 5 km away. In addition, in a case where the next ATM was over 5 km away, banks installed an ATM on a cooperative basis. In both countries, these location policies are the result of public and/or political pressure.

- *Are banks or other ATM deployers usually or sometimes paid for operating an ATM at a location that would otherwise not have an ATM?*

In Finland, if an ATM doesn't meet Automatia's profitability requirements, it provides a local sponsor (a bank, retailer or in some rare cases even the community) with the opportunity to support the ATM in order to retain it. However, this concerns under 10% of all Automatia's ATMs. In Sweden, Bankomat receives payment for the

operation of 1-2% of its ATMs, In the Netherlands, just a few ATMs are 'subsidized' in this way.

### **3. Depositing cash in own payment account**

#### *- Banks' facilities to deposit cash in own payment account*

In Denmark, Finland and Sweden, banks' branch offices still offer their account holders the possibility to deposit cash over the counter. However, this is generally no longer the case in the Netherlands and Norway, where it is only possible at a small number of branch offices.

The regular channel for depositing cash in one's own payment account, especially for retailers, is via night vaults and cash in machines (CIMs), sometimes also operating as ATM and then referred to as cash recycling machines (CRMs). Most of these CIMs and CRMs are inside or outside branch offices (not off premises). In most instances, clients can only deposit cash with their own bank. Contrary to what is customary for ATMs, banks in all countries have been very reluctant to open up their cash depositing facilities to clients from other banks. However, in the two countries where the banks have gained experience with the integration of their ATM networks into one common network of jointly owned ATMs, banks, as a second step, have become more willing to share depositing facilities. In Finland, where most night vaults and CIMs are still operated by the banks themselves, the over 100 night vaults and over 150 CRMs operated by Automatia can be used by clients from all Automatia's customer banks. As Automatia is steadily increasing the number of CRMs, a gradual shift is taking place towards depositing facilities that can be used by clients from all major Finnish banks. In Sweden, a similar development has started. Bankomat now operates more than 250 CIMs/CRMs, which can be used by clients from three of the five major banks. In addition, it should be noted that in Sweden, some of the night vaults operated by CITs are in practice open to customers of different banks.

#### *- Do banks use an explicit or implicit norm for the location of their depositing facilities*

In all countries, banks have their own policies regarding the location of their deposit facilities. The closure of such facilities is hardly ever a matter for media or political attention.

- *Fees charged to retailers for depositing cash*

Data on desposit fees are hard to come by. In the Netherlands, fees are dependent on the value or the number of the notes. Typically, the lowest fee for a deposit of EUR 1,000 (34 notes) is around EUR 4, and EUR 8 for a deposit of EUR 5,000 (170 notes). In Sweden, banks or CIT companies may charge EUR 9 to EUR 12 for a deposit in a night vault.

- *Retailers' use of CIT companies for transportation of cash*

In all countries, many retailers use the services of a CIT company to transport their cash. In general, this cash is transported by the CIT company to a cash sorting center. The following configurations exist:

- a. The cash sorting center is owned by the commercial bank where the retailer has its payment account: the CIT company only acts as transport company. In this case, retailers mostly separately pay the CIT company for transport, and their bank for depositing the cash.  
This may be called the traditional model. It continues to have a role in the Netherlands.
- b. The cash sorting center is owned by a CIT company, but their handling and sorting takes place on behalf of the commercial bank where the retailer has its payment account: in its relation with the retailer, the CIT company only acts as transport and counting company. In this case as well, retailers mostly pay separately for the transport services of the CIT company, and for the services of the bank for depositing the cash.  
This model is dominant in Denmark and also in Finland and Norway. In Finland and Norway, cash is first counted and sorted in the cash center on behalf of the commercial bank where the retailer has its account, and thereafter, ownership of all cash is transferred to the depot owned by (in Finland) Automatia viz. (in Norway) the commercial bank that 'sponsors' the cash center.
- c. The cash sorting center is owned by the CIT company that transports the cash, and the handling and sorting takes place on behalf of a commercial 'sponsor' bank that has a special relation with the CIT company (but not with the retailers that deposit the cash): in its relation with the retailer, the CIT company acts as transport company and also as agent of the sponsor bank .

In this case, retailers tend to pay one all-in fee to their CIT company, for transportation, sorting and crediting.

Nowadays, this model is dominant in Sweden and it also has an important role in the Netherlands.

- d. The cash sorting center is owned by the CIT company, and during and after handling, cash is temporarily owned by the CIT company; the retailer's payment account is credited from a payment account of the CIT company. In this model, the CIT company would need a license as payment institution (in accordance with the EU Payment Services Directive). Probably because of the costs of having such a license and the risk of this model to retailers, this model is no longer in use in the countries surveyed.

- *Which share of the retailers uses the services of a CIT-company?*

Generally, the central banks do not have data on the share of retailers that use CIT transport nor on the share of retail turnover for which use of CIT transportation is made. In the Netherlands, in terms of numbers, most of the retailers do not make use of a CIT company. However, in terms of turnover, more than 50% of retailers' cash proceeds is transported by CIT companies.

- *Typical fees (transportation + sorting/crediting) for lodging cash using the services of a CIT company.*

As mentioned before, data on fees or fee structures are hard to come by. In the Netherlands, a typical minimum all-in fee for the transportation and lodging of an amount of up to EUR 5,000 is EUR 16. In Sweden, one company has an all-in tariff of EUR 145 per month.

#### **4. Other issues**

- *Cooperative structures in the cash area*

In all countries, cooperative structures play an important role in the functioning of the cash cycle.

In Denmark, Bankernes Kontant Service (BKS) was established in 2010 as joint venture between the central bank and a number of important commercial banks.



BKS operates two cash centers. These cash centers provide cash processing and storage functions to both the central bank and the commercial banks. The main reason for the establishment of BKS was to implement the new and higher security standard (DS3999) agreed between the central bank, CIT companies and other participants (banks), and to distribute cash in areas where it was needed. As a result, the central bank closed most of its cash deposit locations and centralized its cash handling at two cash-centers in the biggest cities of the country, owned by Danske Bank viz. Nordea and both operated by BKS. BKS handles the commercial banks activities in the cash market (in addition to cash processing also the management of the replenishment and maintenance of the ATMs). Transportation was outsourced by BKS to the traditional CIT providers in Denmark, Nokas and Loomis, who at the same time were competing with BKS in cash processing. In 2016, BKS has been sold to Loomis.

In the Netherlands, the three major banks have combined their cash processing and the organization of the servicing (filling and maintenance) of their ATMs/CIMs/CRMs and night vaults to a joint venture called Geld Service Netherlands (GSN), also established in 2010. The reason for the establishment of GSN has been that the realization of efficiency gains, as a means of allowing the major banks to continue providing the cash services demanded by the public and the retail sector at a reasonable cost.

In Finland, for the same reasons and as noted above, banks' cooperation has gone further, in the sense that the major Finnish banks have not only pooled their cash processing and the management of their ATM networks, but they also transferred the ownership of their ATMs to Automatia (established in 1994), allowing Automatia to create one efficient single ATM network with nationwide coverage. However, in contrast to the Netherlands, cash processing itself has been outsourced by Automatia to the international CIT companies that are active in Finland (Loomis and G4S).

In Sweden, as noted above, the five major commercial banks have transferred their ATMs to their joint venture Bankomat. Like Automatia, Bankomat outsources operational activities like transportation, sorting and ATM servicing to the traditional CIT companies, like Loomis. In addition, it should be noted that the same five commercial banks also cooperated in their joint venture Bankernas Depo AB (BDB), which in 2016 has been merged with Bankomat. BDB sells and buys cash to and from the central bank. In order to minimize the cash transactions with the central bank's cash center near Stockholm, BDB also keeps cash depots, at 16 locations all over

Sweden. Operation of the cash depots is outsourced to the traditional CIT companies. BDB receives interest compensation from the central bank for its banknote stocks. In Norway, Nokas was founded in 2001 as a cooperative structure of the central bank and a number of commercial and savings banks. However, after a few years, the central bank sold its share and later, all the other banks also sold their shares. Gradually, Nokas has developed into a full-fledged cash management and CIT company, active in several countries in Northern Europe. In Norway, Nokas fulfills

**Table 3 Cooperative arrangements**

	<b>Denmark BKS (until 2016)</b>	<b>Finland Automatia</b>	<b>Netherlands GSN</b>	<b>Norway Nokas</b>	<b>Sweden Bankomat + BDB</b>
<b>Cash processing management</b>	X	X	X	X	X
<b>Cash transport and ATM servicing management</b>	X	X	X	-	X
<b>Cash processing operations</b>	X	-	X	X	-
<b>Cash transport and ATM servicing Operations</b>	-	-	-	X	-
<b>ATM ownership</b>	-	X	-	X (in competition with banks)	X
<b>Central bank participation</b>	X	-	-	-	-
<b>Central bank stocks</b>	X	X	X	X	X
<b>Central bank destruction</b>	X	-	-	X	-

several functions: transportation and processing of cash on behalf of commercial banks and retailers and management of private depots on behalf of commercial banks (like Loomis). In addition, Nokas has the management and custody of 4 (out of 5) cash depots of the central bank, and this function includes destruction of unfit banknotes. Finally, Nokas owns and operates 300 non-bank ATMs in Norway as well as over 500 in Sweden (in both countries through its subsidiary Kontanten). These cooperative structures show a number of similarities, but also remarkable differences, as summarized in the table above. One similarity is that in all countries,

banks have at some point integrated the management of their cash processing and ATM servicing in a joint venture (although usually, every bank kept its own service level agreement with the joint venture). However, to a large extent, these joint ventures outsource the actual operational activities to traditional, independent, internationally active CIT companies like G4S and Loomis. Apparently, the banks feel that by cooperating in the outsourcing of these operational activities (rather than outsourcing them on their own), they can increase their cost savings. It is only in the Netherlands that actual cash processing activities are not outsourced by the joint venture and kept under direct control of the banks. In Norway, Nokas is a special case, as it has developed from a joint venture of the banks into an independent CIT and cash management company that carries out all these operational activities itself and even competes with the banks in the area of ATMs, through its subsidiary Kontanten.

It is also noteworthy that in all countries, notes held to order systems have been introduced or systems with a similar financial effect, allowing the central bank to reduce its number of cash centers and its own operational activities. In this context it should also be noted that in all countries, the central bank encouraged the cooperative approach, in Denmark and Norway in the most formal sense as co-founder and initial shareholder of a joint venture that also takes care of the destruction of unfit banknotes, which is typically a central bank responsibility. So far, only in Finland and Sweden have banks transferred their ATMs to a joint venture.

It is likely that many of the differences in the cooperative approaches can be explained by special national circumstances. For instance, the creation of common integrated networks of ATMs in Finland and Sweden was probably facilitated by the fact that for consumers, withdrawals from ATMs owned by other banks were already free or charge, while the market was dominated by a few major banks, with more or less comparable market shares. Seen from this angle, the Netherlands may be the next candidate for the establishment of one integrated ATM network.

- *Attitude of the competition authorities*

In the case of Nokas, BKS, GSN and Bankomat, the competition authorities were already consulted at the time of their establishment, and care was taken for the banks not to infringe on competition law. This was also the case for the recent initiative of

the major banks in the Netherlands to cooperate in respect of a pilot project that aims to place an ATM in rural areas that do not have an ATM nearby.

In the case of GSN, the position of the competition authorities was challenged in court by Brink's Company, but without success.

In the case of Automatia, the competition authorities were not involved at the time of its establishment (many years before the establishment of Nokas, BKS, GSN and Bankomat). However, nowadays, Automatia is scrutinized by the competition and the financial markets authorities, and on three occasions, in 2004, 2008 and 2014, Automatia had to adjust its policies as directed by them.

In general, it can be concluded that (EU) competition law offers enough room to allow cooperative arrangements that contribute to the continued provision of cash services that society demands, at reasonable costs and with sufficient security.

- *Exchange of views among the major stakeholders*

Denmark, Finland, the Netherlands and Sweden all have a formal forum for the exchange of views among the major stakeholders in the cash cycle, i.e. consumers, retailers and banks (Norway has a cash forum with more limited participation). However, it is only in the Netherlands that this forum has agreed on a clear policy vis-à-vis the future role of cash (see Annex). In Denmark, the Danish Payments Council did issue a report on the role of cash in society, but it was unable to come to a consensus view on the future of the Danish cash rule.<sup>20</sup>

- *View of the major stakeholders*

All central banks report that to date, consumers and retailers are mostly satisfied with the functioning of the cash cycle, with some concern about cash service levels in rural areas. However, in several if not most countries, the banks would like to further reduce the use of cash as due to competitive reasons, they are not able to recover their costs in the cash area.

## **5. Concluding observations**

In all countries that are the subject of this survey, the use of cash as means of payment for POS transactions is in decline. Nevertheless cash has by and large remained a well-functioning means of payment, in the sense that it is almost

---

<sup>20</sup> Danish Payments Council, Report on the role of cash in society, August 2016.

universally accepted in POS transactions, is relatively easy to withdraw from one's payment account, and for retailers is relatively easy and at a reasonable cost to deposit on their payment accounts. However, gradually the first signs have emerged that the proper functioning of cash cannot be taken for granted. In some instances, problems emerged when cash was refused as means of payment for POS transactions, and in particular in rural areas, the availability of facilities to withdraw or deposit cash from or to one's own payment account is no longer assured. The main question facing the authorities is: does this development require any intervention from their side, or can it be left to market forces?

Finding an answer to this question requires, as a first step, an answer to the question whether from the perspective of society as a whole, it is important that cash continues to be a well-functioning means of payment for POS transactions. If the answer is no, then there is no need for any public intervention. However, all central banks seem to believe that at least for the foreseeable future, the answer must be yes, in the sense that it is important that cash remains a well-functioning means of payment while there is demand for it. The main arguments supporting this view seem to be that for part of the population, the use of electronic payment instruments is not, or not always, possible or desirable. In addition, cash functions as a fallback solution in case of temporary breakdowns in the technical functioning of, or trust in, the electronic payment system. In Norway and the Netherlands, this view seems to be shared by the government and society at large. As far as Denmark, Finland and Sweden are concerned, a broad consensus and a general policy to 'manage' the decline of cash has not or not yet materialized. This may be partly explained by the fact that until now, cash continues to function well in these countries. But, in particular in Sweden, there may also be reluctance on the side of the authorities to interfere with market forces, although it should be noted that in 2016, the Governor of the Riksbank came out strongly in favor of the continued availability of cash services.

Once a broad consensus has emerged that the answer to the first question is yes, the next step is to determine whether, and if so what, specific action is required to ensure that cash continues to remain a well-functioning means of payment.

In this respect, unlike the market approach favored in Sweden, Norway and the Netherlands have adopted a pro-active approach, with the idea that it is easier to prevent unwelcome developments than to correct them once they have occurred. In Norway, a legislative approach has been followed, as laws have been adopted that

ensure both the acceptance of cash in POS transactions, as well as the continued availability of facilities for the withdrawal and depositing of cash from/on payment accounts according to customer demand. In the Netherlands, agreement has been reached on a cooperative approach. The major stakeholders in the cash cycle (retailers, consumers and banks) have agreed on the same objectives as pursued in Norway, and they have agreed to continue monitoring whether any specific measures are required in this respect. So far, the National Payments Forum has adopted general guidelines on the continued acceptance of cash and the major banks have developed a cooperative solution ensuring the continued presence of ATMs in rural areas.

## Report of the Netherlands Payments Forum task force on the future role of cash

November 2015

### Summary and recommendations

The migration from cash to electronic payments is continuing steadily. In 2014, 53% of point-of-sale (POS) payments were settled in cash, compared with 65% in 2010. This trend is set to continue solidly as card payments become ever easier and faster and consumers become increasingly accustomed to using cards, encouraged by retailers and banks. In the years ahead, some cash payments may also be replaced by new payment methods.

This is gradually raising questions about the long-term role of cash. In response to these questions, the Dutch National Forum on the Payment System (Payments Forum) considers it desirable to formulate a clear vision for the future which is supported by and provides guidance to all parties represented in the Payments Forum. At its meeting of 26 November 2014, the Payments Forum appointed a task force with the remit of developing such a vision, taking into account both the needs of consumers and the needs of SMEs.<sup>21</sup> This 'Vision on the role of cash in point-of-sale payments' is the task force's final report.

The first question that has to be addressed in developing a vision on the role of cash is how important it is that cash continues to function well as a means of payment for POS payments. **In the task force's view, even in an environment where more and more electronic payments are being made, it is important in our society that cash continues to function well as a means of payment at points of sale, in the sense that retailers continue to accept cash payments, consumers can continue to withdraw cash easily from their bank accounts and retailers are able to deposit the cash they receive into their accounts with ease and at reasonable charges.**

---

<sup>21</sup> Payments Forum press release dated 28 November 2014.

The task force believes it is essential that cash continues to function well as a means of payment in the first place because – and for as long as – some consumers still experience difficulty if they are unable to pay in cash. This is particularly important for people who do not have a debit card or who are temporarily or permanently unable to use it, people with a visual impairment, people who budget or whose budgets are set in cash and young people aged under 14, as well as in situations where people wish to pay anonymously. The task force also considers it imperative for the stability and shock-resistance of the point-of-sale payment system that cash continues to be a fully functioning means of payment, because cash is the alternative of last resort if the electronic payment system should be temporarily out of action for any reason. Although a great deal has been done in recent years to avoid disruptions in the electronic payment infrastructure and deal with them adequately when they do occur, calamities can never be totally avoided. It also has to be borne in mind that a breakdown in the physical point-of-sale payment system on a larger scale can have disruptive societal effects.

The task force also points out that for many people in our society, cash is still the only form of ‘real’ money.

The importance of the above aspects is difficult to quantify, but taken together they do in any event appear to give sufficient cause for caution in abandoning cash as a universal means of payment. This is all the more relevant since other countries have not yet gained any experience with this. Reference can be made to developments in Scandinavia in this regard. Although the transition from cash to electronic payment is considerably further advanced there than in the Netherlands, Scandinavian society still attaches value to being able to use cash. The authorities in Norway took legal measures in response to this at a relatively early stage, while the need for adjustment in Sweden only became apparent when a number of problems began to appear in practice. Both countries have shown that, with a limited adjustment, cash can continue to function well as a means of payment even where it accounts for a substantially smaller proportion of point-of-sale payments.

The task force believes that the Payments Forum’s vision on the future of cash in point-of-sale payments should therefore make clear how cash can continue to



function well as a means of payment in the light of the continuing shift from cash to electronic payments. **The task force advises the Payments Forum to leave it essentially to market forces to ensure that cash functions properly but to enforce adjustments whenever and wherever such proper functioning is at risk.**

Viewed from the perspective of the three pillars on which the functioning of cash is based, the task force offers the following points for consideration.

#### *Paying in cash*

In general, point-of-sale payments can be made using cash. However, the investigation carried out by the task force suggests that a trend could emerge in which more and more retailers stop accepting cash payments. The task force believes that such a trend carries risks. If it should gather momentum, this could severely undermine the functioning of cash as a means of payment and engender social resistance.

**The task force therefore advises the Payments Forum to give guidance at an early stage on how retailers should deal with the acceptance of cash in point-of-sale payments and the expectations that consumers may have in this regard.** In principle, this could be achieved through supplementary Dutch legislation. However, legislation is relatively inflexible and does not sit easily with the tradition of the Payments Forum, which is based on working together to guide developments in the payment system.

Without intending to impose immediate policy changes on individual retailers with regard to accepting cash, **the task force advises the Payments Forum to establish recommendations concerning the approach of retailers to the acceptance of cash in point-of-sale payments, whereby the Forum's stakeholders commit to promoting these recommendations among their own members. The task force advises the Payments Forum to adopt the following position:**

- The Payments Forum considers it desirable that people have a choice between using cash and debit cards, unless retailers have specific reasons for not accepting cash, such as security reasons.
- Nevertheless, it supports joint initiatives by banks and retailers taken within the context of the Covenant on the Payment System aimed at

promoting debit card payments without exerting coercion, in order to enhance the efficiency and safety of retail payments.

- The Payments Forum considers it unreasonably onerous for consumers if cash payments were refused in situations in which no other cash-accepting provider of a similar product or service is unavailable in practice.
- Furthermore, the Payments Forum understands that, in a legal sense, retailers are at liberty to choose which means of payment they accept, provided they clearly announce this in advance. Case law on this point is scarce, and ultimately it falls to the European Court of Justice to interpret the provision that cash is "legal tender".

Consumers and interested organisations can go to court if they believe that a retailer's refusal to accept cash payments is unlawful. In other words, it is not just retailers but also consumers and interested organisations that can influence the impact of these guidelines in practice. The legislature also reserves the right to consider further, more mandatory legislative measures.

**In addition to the foregoing, it is advisable to periodically monitor trends in the acceptance of cash as a means of payment and public reactions to these trends.** This will help prevent passing a point of no return unnoticed.

#### *Facilities for withdrawing cash from one's own bank account*

Given the undertakings made by the large banks concerning the installing of ATMs in areas where the public is unable or likely to become unable to withdraw cash from their own accounts within a radius of 5 km, the task force does not anticipate any problems in the foreseeable future concerning the accessibility and availability of cash for members of the public.

**The task force does, however, advise the Payments Forum to continue monitoring the trend in the accessibility of ATMs on an annual basis,** based on the percentage of the population living within 5 km of an ATM, possibly – depending on developments – supplemented with information on accessibility in urban settings, where people are more likely to have to walk to an ATM. Based on experiences in Finland and Sweden with the amalgamation of individual bank ATM networks to create a single integrated network, the task

force considered the potential implications of a similar form of partnership for the Netherlands. A key advantage of this form of partnership is that it could save costs without affecting accessibility, because it would still be possible for individual banks to have good national coverage with fewer ATMs. As experiences in Finland have shown, however, for the proper functioning of such a partnership it is still necessary to have one or more clear standards for the ATM placement policy, which are acceptable both to the partner banks and to the public.

Naturally, the banks concerned will decide whether they wish to cooperate in this area, and if they do wish to do so, this must also be acceptable for the competition authority, the Netherlands Authority for Consumers and Markets (ACM). In Finland, and more recently in Sweden, both EU Member States whose competition laws are based – as they are in the Netherlands – on EU competition law, the competition authority has accepted this restriction of competition under certain conditions, in view of the efficiency gains to be achieved through the collaboration, which are considered to be essential in enabling cash to continue functioning adequately as a means of payment. It remains an open question whether and under what conditions this might also apply for the ACM.

The task force also considered whether the Payments Forum ought to develop initiatives to promote the use of cash-back services, because with these services it is not necessary to use expensive ATMs to deposit and withdraw cash. Since individual retailers take very different views on the desirability of cash-back, however, it was decided not to do this. Nonetheless, cash-back services are already available at many retailers and could in practice play a larger role if the number of ATMs should decline further.

#### *Facilities for paying cash into one's own account and withdrawing small change*

The task force currently sees no generic issues regarding the facilities available to retailers to pay cash into their own accounts and withdraw cash for use as small change.

Nonetheless, some retailers (usually smaller ones) who use bank cash deposit machines are concerned about the costs of doing so as well as about the security and accessibility of the locations. This also applies to a lesser extent to the facilities for purchasing coins.

**The task force advises the Payments Forum to continue monitoring developments annually in this area, too, on the basis of the following parameters:**

- the percentage of retailers located within a radius of 5 or 10 km from a cash deposit facility (for users of these facilities, distance is just one of the relevant accessibility aspects; they are also concerned particularly about security and parking facilities);
- the commercial rates charged for depositing standard packs of banknotes (in values of EUR 1,000, EUR 5,000 and EUR 10,000), as published by the banks that offer this service;
- the number of bank branches where coins can be deposited and the fees charged by the banks for depositing and purchasing coins (the cash payment system cannot function properly without a good supply of coinage).

An important difference between ATMs and cash deposit machines concerns non-customer use. Non-customer use is not possible with cash deposit machines, whereas it is with ATMs and dispensers. In practice, therefore, maintaining national coverage of cash deposit machines means that the three largest banks in the Netherlands each maintain a national network of these machines. That is relatively expensive. Especially as the use of cash continues to decline, therefore, the number of locations where these machines are installed is likely to reduce further, and/or the fees for using them may be expected to rise sharply. If the development of the aforementioned parameters suggests that this is occurring, the task force believes this would call for measures.

In the first place, these measures might include facilitating non-customer use of these machines, a long-held wish of retailers. If non-customer use were to be facilitated, good national coverage could be achieved with substantially fewer machines. However, this would require far-reaching coordination of the banks' policy at an early stage, and the proposals would have to be submitted to the ACM. It may be that under these circumstances and on certain conditions the ACM would approve the merging of the banks' networks to create a single, joint network, which would then be configured as efficiently as possible. Machines would then be available for use by account holders of any bank. The individual banks would continue to set the fees to be charged for deposits by their account

holders. Clear standards would also need to be applied in the placement policy if this form of collaboration was to be accepted.

The task force currently sees no problems for retailers having their cash collected by a cash-in-transit company, now that the danger of monopolisation in this market appears to have passed. The two nationally active CIT companies in the Netherlands have assured the task force that they intend to continue operating nationwide and offering cash services to their customers. The task force has the impression that the fees currently payable for this service are relatively low on an international scale. The task force does not expect any increases in fees of such an order that they could cause problems that call for measures.

### *Conclusion*

The task force believes that, with the combination of market forces and partnership described above, the Netherlands is on the right track towards enabling cash to continue functioning well as a means of payment in the decade ahead, even in the light of a continuing shift away from cash payments to PIN-based and other forms of electronic payment.