

Gresvik, Olaf; Haare, Harald

Research Report

Costs in the Norwegian Payment System: Questionnaires

Staff Memo, No. 5/2009

Provided in Cooperation with:

Norges Bank, Oslo

Suggested Citation: Gresvik, Olaf; Haare, Harald (2009) : Costs in the Norwegian Payment System: Questionnaires, Staff Memo, No. 5/2009, ISBN 978-82-7553-501-4, Norges Bank, Oslo,
<https://hdl.handle.net/11250/2507917>

This Version is available at:

<https://hdl.handle.net/10419/210197>

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.



<http://creativecommons.org/licenses/by-nc-nd/4.0/deed.no>

No. 5 | 2009

Staff Memo

Costs in the Norwegian payment system: questionnaires

Olaf Gresvik and Harald Haare, Norges Bank Financial Stability, Payment Systems Department

Staff Memos present reports on key issues written by staff members of Norges Bank, the central bank of Norway - and are intended to encourage comments from colleagues and other interested parties. Views and conclusions expressed in Staff Memos can not be taken to represent the views of Norges Bank.

© 2008 Norges Bank

The text may be quoted or referred to, provided that due acknowledgement is given to source.

Staff Memo inneholder utredninger som inngår i bankens arbeid med sentrale problemstillinger. Hensikten er å motta kommentarer fra kolleger og andre interesserte. Synspunkter og konklusjoner i arbeidene representerer ikke nødvendigvis Norges Banks synspunkter.

© 2008 Norges Bank

Det kan siteres fra eller henvises til dette arbeid, gitt at forfatter og Norges Bank oppgis som kilde.

ISSN 1504-2596 (online only)

ISBN 978-82-7553-501-4 (online only)

Costs in the Norwegian Payment System: Questionnaires

Olaf Gresvik and Harald Haare¹
Payment Systems Department, Norges Bank

Staff Memo No. 5/2009

Norges Bank
Oslo, May 14th 2009

In this memo, questionnaires for the study: “Costs in the Norwegian payment system” are shown. The study included three surveys, towards Merchants, Households and Banks.

In addition to the results from the three surveys, public statistics from Norges Banks “Annual Report on Payment Systems 2007” and Statistics Norway were used in the analysis.

For details on the results, see Staff Memo 4/2009: “Costs in the Norwegian Payment System” and Staff Memo 6/2008: “Payment Habits at Point of Sale”, both memos are published at www.norges-bank.no.

Keywords: Cash payments, Card payments, Giro payments, Social costs, Private costs, Unit costs, Banks’ efficiency.

JEL classifications: D 12, D 23, D 24

¹ The views expressed in this memo are ours and does not necessarily reflect those of Norges Bank. All remaining errors are our own.

The Norwegian Financial Services Association (FNH) and The Norwegian Savings Banks Association (Sparebankforeningen) shared information of their cash survey questionnaire, which were embedded in the bank survey. The federation of Norwegian commercial and service enterprises (HSH) and the Norwegian Hospitality Association (NHO Reiseliv) offered help in developing and conducting the merchant survey. The Household survey was conducted by Norges Bank using a market analysis company (Norstat AS).

Contents

Merchant Survey..... 3
Household Survey 6
Bank Survey.....10
Bank Survey 2007 Spreadsheet.xlsx.....27

Merchant Survey

Survey of merchants' costs associated with payments by card and in cash

How to fill in the questionnaire and other practical information:

Confidentiality: Your company was randomly selected from Statistics Norway's Register of Companies and Business Enterprises. All data submitted will be handled in strictest confidence and will not be made available to other persons or institutions. The data will be used exclusively for Norges Bank's analysis work and research projects.

Deficient information, etc.: If a question is not applicable to your company, please note this in the questionnaire. If the response is 0, indicate this with the number 0.

Amounts in NOK: All amounts shall include VAT.

Last month: By "last month" is meant August 2007 or the last month you have information for.

Answers on paper: If you choose to use the enclosed questionnaire form, please return it in the enclosed stamped addressed envelope.

Answers by e-mail: If you wish to answer the questions electronically (in MS Excel), start your browser (Internet Explorer, Opera, Firefox, etc.) and go to the survey's home page at www.norges-bank.no/betaling/. Here you will find an.xls-file that you can download, fill in and send to us at betaling@norges-bank.no (To send the file to us, click on the button at the bottom of the document when you have finished filling it in).

Enquiries: If you have questions or need help, ring 2231 6063 or send an e-mail to betaling@norges-bank.no.

Filling in the questionnaire: Questions in yellow shall be answered by the merchant. Other questions shall be answered by the company.




Information concerning the undertaking	
Name of undertaking	
Address	
Industry code	
e-mail address	

1: The scope of the undertaking	
Number of merchants / enterprises[1]	number
Number of tills[2]	number
Number of automated tills (e.g. "CashGuard") <input type="checkbox"/> N/A	number
Number of card terminals[3] number <input type="checkbox"/> N/A	number
Turnover previous year (2006) <input type="checkbox"/> Operations began in 2007	NOK

[1] By "merchant" is meant an enterprise/shop/hotel/salon/department that constitutes part of or the whole of a legally independent undertaking (corporate group, company or the like).

[2] By "till" is meant the point where the payment is registered. This includes tills that are not used for cash purchases.

[3] A "card terminal" is the unit that registers the payment card – hand-held, stationary or integrated in the till.

2: Payments, overview					
State the number of payments and the total amount for your undertaking during the last month.					
Cash payment 		BankAxept (debit card)[1]  <input type="checkbox"/> Bank-Axept cards not accepted		International payment card[2]: (VISA, MasterCard/Eurocard, Diners Club, American)  <input type="checkbox"/> Does not accept these cards	
Number of payments		Number of payments		Number of payments	
Amount		Amount		Amount	
		Of which: cash withdrawals made in connection with goods purchases (BankAxept) <input type="checkbox"/> Cash withdrawals with goods purchases not			
		Number of withdrawals			
		Amount			

[1] The amount is charged to the customer's bank account. BankAxept is provided by BBS.

[2] Providers are Teller AS, euroConex, Nordea, etc.

A: Cash

3: Internal time consumption in the enterprise on handling cash			Time consumption per day / per 24 hours:	
(NB: The time consumption referred to in question 7 is not to be included in that referred to in question 3.)			Hours	Minutes
Setting up tills	<input type="checkbox"/> N/A	<input type="checkbox"/> Observed <input type="checkbox"/> Estimate		
Settlement and reconciliation of tills	<input type="checkbox"/> N/A	<input type="checkbox"/> Observed <input type="checkbox"/> Estimate		

4: Costs invoiced by suppliers for cash handling services		
Service of the tills by suppliers and the like	<input type="checkbox"/> N/A	NOK last month

5: Average time consumption on payment in cash			Minutes	Seconds
Time is measured from when the customer is informed of the amount until the receipt is issued. Entry of the goods shall not be taken into account.				
Time consumption for one – 1 – cash payment			<input type="checkbox"/> Observed <input type="checkbox"/> Estimate	

6: Average till loss			
(The loss shall be stated even if it is borne by others than the enterprise, e.g. if the employees are responsible for covering shortages):	Till shortages (wrong change, embezzlement, theft from tills, etc.)	Forgery (loss owing to counterfeit banknotes)	
		NOK last month	NOK last month

7: The enterprise's efforts to combat shortages and forgery		
How many working hours did you expend on dealing with shortages and forgery?	<input type="checkbox"/> N/A	hours last month

8: Money transport		
Does your enterprise use an external money transporter?	<input type="radio"/> Yes <input type="radio"/> No	
If yes, what does this cost?		NOK last month
If no, how much time on average do you/your staff use on transporting money to and from the bank?		hours last month

9: Cost of security in connection with handling and storage of cash		
Costs associated with safe hire[1] (NB: Not including the bank's night safe)	<input type="checkbox"/> N/A	NOK last month.
Costs associated with operation of own storage location (depreciation, capital and operating costs)	<input type="checkbox"/> N/A	NOK last month
Other costs associated with securing the undertaking's cash holdings against theft, robbery, forgery (insurance, depreciation of equipment, etc.)	<input type="checkbox"/> N/A	NOK last month
How much cash, on average, do you have stored overnight on your premises?	<input type="checkbox"/> N/A	NOK per night

[1] For example, a shared room for storage of money or the like in shopping centres.

10: Fees for deposit and withdrawal of notes and coins in the bank		
What amount (in cash) was delivered to the bank last month?	<input type="checkbox"/> N/A	NOK last month.
Hvor mye ble How much was paid in fees last month for delivering cash to your bank? (to night safe, etc.)	<input type="checkbox"/> N/A	NOK last month
What amount (in cash) was withdrawn from the bank last month	<input type="checkbox"/> N/A	NOK last month
How much was paid in fees for purchase of coin rolls?	<input type="checkbox"/> N/A	NOK last month
How much was paid in fees for purchase of notes?	<input type="checkbox"/> N/A	NOK last month.

B: Payments by card

11: Internal time consumption in the enterprise on operation, etc. of card terminals		
Setting up, operation and management of card terminals	Time consumption per day/24 hours:	
	Hours	Minutes
Lines and terminals (own maintenance, etc.) <input type="checkbox"/> N/A <input type="checkbox"/> Observed <input type="checkbox"/> Estimate		
Reconciliation of payments made via card terminals (including enquiries from customers) <input type="checkbox"/> N/A <input type="checkbox"/> Observed <input type="checkbox"/> Estimate		

12: Invoiced costs from suppliers for services associated with operation, etc. of card terminals		
Costs associated with setting up, operating and managing card terminals last month (from invoices):		
Hire of lines and terminals <input type="checkbox"/> N/A		NOK last month.
Service of terminals <input type="checkbox"/> N/A		NOK last month.
Reconciliation of deposits via terminals <input type="checkbox"/> N/A		NOK last month.
Other costs to BBS, etc.[1]: <input type="checkbox"/> N/A		NOK last month.

[1] Only costs associated with technical operation of payment terminals is to be taken into account. Costs for the card use itself are to be registered in question 14.

13: Average time consumption payments by card			
Time from when the customer is informed of the amount until the receipt is issued. Entry of the goods shall not be taken into account.	Number of payments	Time consumption for one – 1– payment:	
		Minutes	Seconds
Card transactions with PIN code: <input type="checkbox"/> N/A <input type="checkbox"/> Observed <input type="checkbox"/> Estimate			
Card transactions using contingency solution (when the terminal is offline): <input type="checkbox"/> N/A <input type="checkbox"/> Observed <input type="checkbox"/> Estimate			
Card transactions with a signature on the receipt slip: <input type="checkbox"/> N/A <input type="checkbox"/> Observed <input type="checkbox"/> Estimate			
Card transactions with a form (card imprinting machine) <input type="checkbox"/> N/A <input type="checkbox"/> Observed <input type="checkbox"/> Estimate			

14: Agreed fees in connection with card use					
Club, American Express or JCB. The fee is either stated directly or is deducted from the amount repaid by the acquirer with which you have an agreement. This is normally calculated as a percentage of the amount paid by the customer. In some cases, an amount in NOK is charged per transaction, as part of the payment or instead of a percentage calculated fee. In some agreements, BankAxept and other cards may also charge a fixed monthly subscription fee. What is the average size of these fees[1]?					
Card type	%-calculated fee	Fixed amount in NOK			
	percentage of transaction amount	NOK per payment (in addition to or instead of a percentage-calculated rate)		NOK per month (subscription)	
Visa: <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Mastercard/Eurocard: <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Diners Club: <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
American Express: <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
JCB: <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Bank-Axept <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	
Other: <input type="checkbox"/> N/A		<input type="checkbox"/> N/A		<input type="checkbox"/> N/A	

[1] Dersom avtalen angir gebyr for ulike kort innen samme korttype, forsøk å beregne et gjennomsnitt av disse.

Household Survey

Survey of payment habits in Norwegian households

We are currently conducting a survey on behalf of Norges Bank on how people use cash and payment cards. Can you help us by providing answers to a few questions? (*Yes/No*) Your answers will be kept completely confidential.

1) Do you have debit cards, credit cards or other payment cards? [Read the alternatives to the respondent. Two of these alternatives will normally be on the same physical card.]

BankAxept (debit card for your bank account/ATM card/post bank card)

Petrol card (without an international card function)

American Express

Diners Club

Mastercard/Eurocard

VISA/VISA Electron

Other credit cards (Cresco, etc.)

Several cards? (specify)

Do not hold a card

2) How many current accounts have you? (accounts for receiving salary, paying bills and other payments)

Number: _____

3) Did you deposit cash in your bank yesterday?

(Question 3 shall not be asked on Sundays and Mondays since the bank is closed on Saturdays and Sundays)

Yes/No

4) How much did you deposit?

Amount _____

5) Can you tell me where you acquired cash last time?

From another person

From an ATM

Over the counter in the bank/post office

Cash withdrawals in connection with goods purchases (in a shop or other retail outlet)

Do not remember/No answer

6) What amount did you withdraw/receive?

Amount in NOK_____ (Note: the amounts can vary considerably)

Do not remember/No answer

7) Can you tell me how much cash you have available for making payments? [To the market research company: The question refers to ready cash – i.e. money that people have in the wallets, etc.. It does not refer to capital or savings.]

Amount in NOK_____

8) Did you make any payments by card or in cash yesterday for yourself or someone in your household? (Payments or gifts to persons, in the home or other places are included. Payment of bills – all use of giro and Internet banking are excluded.)

Yes

No (Finish the questionnaire– go to **background variables**)

9) Let us take a look one-by-one at the payments you made yesterday at the various points of sale or to persons.

[To the market research company: question 9) a-d is repeated as often as necessary (perhaps 10–15 times).]

Payment 1:

9) a: Where did you pay?

[The question should be open, and the respondent should be able to answer freely. The market research company sorts the answers into the following categories (see also the Standard Industrial Classification (SIC2007) used by Statistics Norway):

To persons (not business activities)

Sale, maintenance and repair of motor vehicles

Petrol stations

Retail stores – groceries/white goods/brown goods/food/clothes/shoes, etc.

Repair of household goods, electrical appliances, etc.

Hotel and/or restaurants, cafeterias, etc.

Transport by bus, car, train and boat

Transport by air

Travel agencies and goods transport, etc.

Post and telecommunications services

Health and social services

Recreation, culture and sport

Other personal services (legal services, financial services, skilled trades services, etc.)

Other

9) b: How much did you pay?

Amount: _____

9) c: How did you pay? [To the market research company: Read the list of instruments to the respondent. Only one answer allowed]

BankAxept (debit card for your bank account/ATM card/post bank card)

Petrol card (without an international card function)

American Express

Diners Club

Mastercard/Eurocard

VISA/VISA Electron

Other credit card (Cresco, etc.)

Other type of card? (specify)

Cash

Other means of payment (specify)_____

9) d i): Why did you choose to make the payment in cash ? [in question 9) c, use 9) d i) or 9) d ii)]

Cheap

Convenient

Rapid

Gives a better overview of own economy

No other alternatives at merchant

Size of transaction

Other reasons (specify)_____

9) d ii): Why did you choose exactly this card / “Other”? [in question 9) c, use 9) d i) or 9) d ii)]

Cheap

Convenient

Rapid

Gives a better overview of own economy

No other alternatives at merchant

Size of transaction

Other reasons (specify)_____

[To the market research company: Payment 2 (question 9) a-d to be repeated until all payments have been recorded – maximum 20.]

Background variables:

- Municipality
- Sex
- Day and date of interview
- Age
- Education beyond primary school:
 - None
 - 1-3 years
 - 4-6 years
 - more than 6 years
- Number of persons in household:
 - 1
 - 2
 - 3
 - 4 or more
- Children under 16 years of age in the household:
 - 1
 - 2
 - 3
 - 4 or more
- What kind of house do you live in?
 - Block
 - Terraced house
 - Detached house
 - Other

- Occupation:
 - Worker
 - Office worker
 - Self-employed
 - Farmer/Fisherman
 - Pupil/Student
 - Pensioner
 - Domestic work at home
- Total gross income of household:

Some definitions:

BankAxept card: Debit card issued by Norwegian banks and linked to a bank account for use in Norway.

Petrol card: Payment card issued by petrol station chains (Esso/Jet/HydroTexaco/Shell/Statoil, etc.), often combined with a payment card issued through an international card scheme

Payment card issued through an international card scheme: Payment card issued on the basis of a direct licence from an international card company (Visa/Master Card/ Eurocard /American Express/ Diners Club). Often combined with a BankAxept card (same physical card with two functions)

Payment card: Debit card, charge card or credit card.

Credit card (Cresco, etc.): Payment card with a credit line subject to an agreement allowing repayment regardless of when the card is used.

Several cards? JCB or other international payment cards, including cards issued by chain stores such as IKEA, Siba, Lindex, ICA, etc. without an international payment card function

Cash: Notes and/or coins

Bank Survey

Norges Bank
Payment Systems Department
5 February 2007

Survey of costs associated with payment and cash handling services

2007

Guide to spreadsheet: "Bank survey 2007 spreadsheet.xlsx"

Participants in the survey:

Andebu Sparebank
Halden Sparebank 1
Larvikbanken Brunlanes Sparebank
Sparebanken Vest
Sparebanken Øst
Sparebank 1 Midt-Norge
Sparebank 1 Vestfold
DnB NOR Bank ASA
Skandiabanken AB
Sparebanken Pluss
Fokus Bank ASA
Handelsbanken filial Norge
Elavon Merchant Services

Survey of the banks' costs associated with payment and cash handling services.

1. Introduction

Norges Bank has conducted three previous surveys of the banks' costs associated with production of various types of payment services, most recently in 2001.

The cost structure and products/services change over time. We now therefore wish to conduct a new survey. For the first time, the survey includes cash services and international payment cards.

The method employed in the survey is known as *ABC analysis (Activity-Based Costing Analysis)*. By means of this method, we will be able to calculate unit costs and total costs for the payment service products provided by the banks.

2. Objectives:

Norges Bank has a responsibility for promoting efficient payment systems. As a part of this work, it is necessary to survey the cost of producing payment and cash services. This survey must show the unit costs and total costs of producing the most important payment products and services in Norway.

3. ABC analysis

3.1 Some important terms

It is necessary to be familiar with the terms used in ABC analysis. In this survey, and in consistency with ordinary ABC terminology, the terms are defined as follows:

Cost: consumption of input factors normal for an enterprise, measured in NOK. An example is use of employees to serve customers.

Product/service is the good supplied by the bank. Examples are giro and ATM withdrawals.

Direct costs are costs that vary according to the number of units delivered by product/service. An example is interchange fees for ATM withdrawals.

Indirect costs are costs that cannot be directly associated with the product/service but must be distributed according to a distribution key. An example is office supplies.

Activity is an action, i.e. an operation (probably one of a number) necessary for producing the product or service. The activity can be further divided into *auxiliary activities (subsidiary activities)*. The cost associated with an activity is the amount of input factors included in the activity, i.e. a combination of manpower, use of systems, machinery, etc. In traditional banking operations, manpower accounts for a major part of the costs.

Cost drivers are used to distribute the product's/service's consumption of manpower or capital to activities. An example is *the number of times* an activity is performed, *the duration* of the activity or *manpower/capital* used each time an activity is performed. Examples are the number of transactions and the number of accounts.

Summary: The manpower and capital in the enterprise performs activities. The use of resources necessary for performance of the activities generates costs. These costs are distributed between products/services in relation to cost drivers.

3.2 The various stages of the analysis

The analysis is conducted according to the following pattern:

1. The bank identifies the relevant costs. These are distributed between three **areas** of the bank. These three areas are defined in the survey in such a way that they include all of the bank's activities (see ANNEX 5). Payment services and cash services are two of these areas. The costs are distributed as *direct* and *indirect* cost items.
2. It is necessary to have an overview of the use of resources, i.e. how much work is necessary for performance of the tasks in the three areas, i.e. "payment services", "cash services" and "other activities in the bank, (capital & investment management, etc.)".
3. In this survey, five *cost drivers* have been defined, and data for these must be obtained.
4. In this survey a number of *products/services* have been defined.
5. The direct costs are distributed between the various products / services
6. The indirect costs are distributed between activities, possibly via auxiliary activities
7. The indirect costs are distributed from activities between the various products/services in relation to the cost drivers. A given activity may have several cost drivers.
8. Distribution of costs between products/services is based on the products' consumption of cost driver units.

The eight stages are performed in the spreadsheet. Further explanation can be found in ANNEX 1.

4. Cost distribution

4.1 Sources of information

There are three main sources:

- 1) The Financial Accounts with underlying vouchers and individual imputed calculations.
- 2) Recorded time consumption/resource consumption in the bank in terms of FTEs
- 3) Data extraction from data centres, cash centres, etc.

Data from these three sources are necessary in order to answer the questions in the survey.

The bank must itself establish what data are to be obtained monthly, quarterly and annually. It probably involves less work to extract data for cost drivers monthly than for longer periods. The costs are surveyed quarterly or at yearend.

4.2 The bank's financial accounts

The banks' official accounts provide information on total costs. We are of course primarily interested in the part of the accounts that shows the costs associated with payment and cash services.

In order to calculate the costs that are relevant for this survey, we take as our initial basis the total costs in the bank, as shown by the accounts. However, the accounts do not give a complete picture, and it is necessary to obtain more information. This information is found in specific vouchers/invoices. In addition, some accounting items shall be replaced by imputed costs, among other reasons, to show development costs and investments in a consistent manner.

4.3 Adjustment of certain cost items

In the case of certain costs, the figures given in the Financial Accounts are adjusted. This applies to:

- Depreciation in the Financial Accounts is determined in relation to the requirements of the tax authorities. These depreciation figures shall be replaced by figures that as closely as possible express the actual depreciation costs.
- When the bank owns its own building, it is necessary to calculate a "market rent", an alternative cost. By rent, we mean rent + all costs necessary to operate activities in the building. Consumption of electric power, cleaning, tax, etc. shall therefore be included in the rent. Banks often have additional security in their buildings. Costs related to this shall be added to the market rent.
- Costs associated with loss of interest on cash holdings must be calculated and included.

The details of these adjustments are given in ANNEX 2.

4.4 The bank's internal accounts

We take as our basis the Financial Accounts adjusted for the items referred to in ANNEX 2. The survey does not use the banks' internal accounts since these are prepared on the basis of different purposes and methods. Banks that have a basis for analysis that is more detailed than this survey should of course use this, and rather aggregate the information to the survey's format.

4.5 Distribution of the costs: consumption of manpower and activities

Not all costs are directly related to payment products and services. The bank's employees use time (i.e. consumption of manpower) on various matters. We chose to split the bank's operations into three areas. The banks must state the amount of time their employees use on performing the activities and how much time they use in the three areas – this is a central distribution key for the survey

The area Payment Services includes all transactions involving payment cards and giros. The area Cash services covers cash handling and deposits and withdrawals (including ATM). Processes for these two areas are defined in ANNEX 4 and are divided into activities.

Direct costs are distributed between the products according to discretionary assessments or in relation to the cost drivers. Indirect costs are distributed between the various products in relation to activities and cost drivers.

4.6 Cost drivers

The cost of production increases in accordance with the number of units produced. The number of units produced may be a cost driver. In relation to payment services, it is not precisely correct to say that the number of units produced is the driver. For example, more giros may have been issued than are actually paid. The survey therefore focuses on the number of transactions (or deposits/withdrawals/exchanges) in order to take account of the increase in costs according to the number of units produced. The number of accounts is also used as a driver, since the bank's costs increase if there are many customers who can make use of the payment products. An increased number of products will be conducive to increasing costs, just as the cost of cash handling is increased by the amount. Amount is not a cost driver for giros and BankAxept since it is assumed that processing is pays no regard to the size of the amount (but the amount affects the costs associated with international payment card owing to the fee structure, and is therefore a cost driver for these).

4.7 Payment products/services

We distribute the costs between the payment and cash handling products and services provided by the bank. The annex provides descriptions of the products and services that will be examined by this survey. (ANNEX 3)

Not all banks provide all products. If your bank has a narrower product range, the analysis is conducted in the same way, but the costs are distributed between fewer products that are included in the table.

4.8 Activities.

The costs are distributed between the activities involved in producing cash and payment services. ANNEX 4 contains a list of activities usual in payment and cash services. Other activities carried out by the banks are not included in this survey. It is important that you review this list and consider what the bank does. It is possible to make changes, but be aware of the consequences for the mechanics of the spreadsheet.

5 Problem: Capacity versus production

We employ the **full cost ABC method**. This provides the long-term cost of a product (full cost – this is not a survey of marginal costs).

The method assumes that the bank produces everything it has the capacity to produce. We are aware that this is not the case for all payment and cash services. We therefore simplify the analysis – we assume that the number of transactions produced is the same as full capacity utilisation.

For example, there is usually idle capacity in Internet banking. This capacity has cost money to develop. At the same time, the bank probably wishes to utilise the capacity better. It is therefore the “desired capacity utilisation” that we should be looking for. This applies to several products, e.g. ATM and the card system.

Counter staff sometimes have unfilled time. It often proves difficult to utilise this time for other tasks. We therefore assume that the recorded number of transactions and deposits/withdrawals reflects that the capacity at the counter is fully utilised and all relevant

costs can therefore be distributed in relation to the cost drivers Transactions, Deposits and Withdrawals, and Exchanges.

6. Final distribution

When data has been obtained about costs, cost drivers, time consumption, products and activities, the costs are distributed. The direct costs are distributed according to discretion or on the basis of information concerning cost drivers. The indirect costs are distributed in relation to activities and cost drivers.

The result is an overview giving:

- unit cost per product
- total cost per product
- unit/total cost in cash services
- unit/total cost in payment services
- costs distributed between acquirer versus the issuer side of the bank's activities
- costs per activity
- costs per area of the bank

In addition, it is hoped that the process of finding basic data for this survey will help the banks to achieve a deeper understanding of their own operations.

A detailed description of the various items and mechanics of the spreadsheet can be found in the annexes.

Sources

Bjørnenak, Trond: “ABC – hva er D?” [ABC – what is D?] - Article in *Praktisk økonomi og ledelse nr 2/93* [Practical Economy and Management No. 2/93]

Cooper, Robin and Robert S. Kaplan: “*The design of Cost Management Systems. Text and cases*” – Prentice Hall 1999, second edition

Daniel D. Garcia Swartz, Robert W. Hahn, Anne Layne-Farrar: “*The Move Toward a Cashless Society: Calculating the Costs and Benefits*”, AEI Brookings Joint Center for Regulatory Studies, June 2006.

De Nederlandsche Bank: “The costs of payments”, Quarterly Bulletin, March 2004.

Folkestadås, Eli and Børre Grovan: “*En ABC-analyse av utvalgte produkter i dagligbanken av Andebu Sparebank*” [An ABC analysis of selected products of the daily banking of Andebu Sparebank] – Project task at the Norwegian School of Management, May 1999

Gabriela Guiborg, Björn Segendorff: “*Do prices reflect costs? A study of the price- and cost structure of retail payment systems in the Swedish banking sector 2002*”, Sveriges Riksbank, Working Paper Series No. 172, October 2004.

Grovan, Børre and Lennart Richardsen: “*En kundelønnsomhetsanalyse av Andebu Sparebank*” [A customer profitability analysis of Andebu Sparebank] – Project task at the Norwegian School of Management, June 2000

National Bank of Belgium: “*Cost, advantages and drawbacks of the various means of payment*”, Economic Review, June 2006.

Norges Bank: “*Årsrapport om betalingsformidling*” [Annual Report on Payment Systems] – 1987-2005

Ric Simes, Annette Lancy, Ian Harper: “*Costs and Benefits of Alternative Payment Instruments in Australia*”, paper presented for the Payment System Conference 2006, Centre for Business and Public Policy, Melbourne Business School, 14 March 2006

Sti, Arne Dag: “*ABC i servicevirksomhet – tilfellet BI*” [ABC in service activities – the case of the Norwegian School of Management] – Article in *Praktisk økonomi og ledelse nr 2/93* [Practical Economy and Management No. 2/93]

ANNEX 1: FURTHER EXPLANATION OF THE USE OF THE VARIOUS SPREADSHEETS

As a general rule, all green cells shall be filled in by the bank. Some green cells can be left with “0” if the bank has no activities resulting in costs, activities or transactions for the specific cell. Other coloured cells contain formulas. All white cells are empty, and can be filled with comments or calculations with additional information.

Sheet 1 “Costs”

The content of the various items in this sheet are described in ANNEX 2

The amounts shall be distributed between three areas. The distribution key for indirect costs is the number of FTEs performed in the various areas. The number of FTEs is calculated in the sheet “Sheet 3 FTEs and activities”. The distribution key applies primarily to indirect costs, but can be used for direct costs if a relevant distribution cannot be provided by other information. In the case of direct costs, information from vouchers/invoices is usually sufficient to distribute the costs between the three areas.

The collective items “Other direct costs” and “Other indirect costs” shall include all activities in the bank that are not associated with payment and cash services. These items can be expected to be large. In “cash services” and “payment services”, we expect that the items will usually be 0 but, if there are relevant costs that we have not referred to in the worksheet, these should be added to these items. Please explain what the entry involves.

Sheet 2 “Cost drivers”

In this sheet, the figures for the various cost drivers shall be filled in. It is probable that this information will have to be obtained on a monthly basis from the data providers or be extracted monthly from the bank’s computer system. The bank must itself assess the most appropriate way of obtaining these data.

For each product, the bank must indicate whether it provides it by entering a “0” or “1”, so that the costs associated with activities with products as cost drivers are correctly distributed. Furthermore, the correct number of customer accounts providing the various products or services must be indicated (for example, it is possible to use mail giro on 120 000 accounts or ATM on 35 000 accounts in the bank). Not all banks provide all products. Some of the cells will therefore contain zeros.

Sheet 3 “FTEs and activities”

In the green fields in “FTEs distributed between activities” the number of FTEs consumed for each activity are distributed between the three areas payment services, cash services and other activities in the bank. Some activities affect all areas, other activities only affect one or two. That is to say that there are normally some cells with the value “0”. The activities are defined in ANNEX 4.

The bank shall enter the number of FTEs in each area for each activity. The distribution between areas can be envisaged as having two possible points of departure: (1) the bank

distributes persons between the various areas or (2) the bank distributes each employee's time between the three areas. The bank must itself assess what is most appropriate.

All FTEs shall be taken into account, including temporary substitutes, overtime, hired assistance and temporary engagements.

At the right of the spreadsheet, an example is given of how the time consumption of each employee can be set up.

Sheet 4 “Direct costs”

The direct costs are distributed between the products. Not all direct costs are generated by all products. The bank must determine which products generate the various shares of the direct costs. The green fields shall be filled in with values. Some of the fields will probably be left with the value “0”. Red fields contain checksums that test the values entered by the bank in sheet 1 “Costs”. When all the amounts are correctly distributed, the totals shall agree.

The set-up of cost drivers is intended to assist in arriving at a sound distribution of the costs. Some of the items may be general to all products, and should be distributed according to the number of transactions, etc. each product had in 2007. The item “interchange fees (ATM)” only concerns the costs associated with the use of other banks' ATMs by the bank's customers.

Sheet 5 “Indirect costs” (The sheet distributes automatically)

We divide the indirect costs associated with payment services into two categories: costs dependent on input from personnel and costs not dependent on input from personnel.

In this sheet, costs are distributed between activities. The sheet gathers the figures that the bank entered in the previous sheets, and automatically calculates the costs in the sheet “Distribution”. All the cells are red. Nothing shall be filled in by the bank.

Sheet 6 “ Distribution of indirect costs” (The sheet distributes automatically)

This sheet further distributes the product of sheet 5 between the various products.

The sheet generates the calculations automatically. The figures for each product and activity are added together in the sheet.

Sheet 7 “Total figures” (The sheet distributes automatically)

This sheet the distribution of costs for each product. The bank can see how much each product costs the bank in total and per transaction.

ANNEX 2: THE CURRENT ACCOUNT AND THE VARIOUS ACCOUNTING ITEMS

Direct costs

Authorisation and processing of transactions in data processing centres	Figures are retrieved from the relevant accounts in the general ledger / vouchers. The amount shall be equal to the sum of invoices from these service providers. The item includes the transaction costs for cards and giros with the exception of the interchange fees for ATM use. In addition, costs may arise from the bank's own activities.
Authorisation and processing of transactions (international card schemes)	Figures are retrieved from relevant accounts in the general ledger / vouchers. The service providers are Visa, Amex, etc.
Authorisation and processing of transactions (other costs)	If the bank performs this itself (internally) and/or has activities associated with this, the costs for this shall be entered here.
Message and report service Fellesdata / BBS	Figures are retrieved from relevant accounts in the general ledger / vouchers
NOKAS, Securitas and other providers of cash services	Figures are retrieved from relevant accounts in the general ledger / vouchers
Fees notes/coins Norges Bank	Figures are retrieved from relevant accounts in the general ledger / vouchers
Insurance cash holdings and machinery / equipment	Figures are retrieved from relevant accounts in the general ledger / vouchers
Transport of cash by the bank itself	This item consists of relevant personnel costs, depreciation on vehicles and operating costs for vehicles.
Cash differences	Figures are retrieved from relevant accounts in the general ledger / vouchers. One part of this is the loss itself, the other part consists of the work involved in determining the loss. All costs shall be included.
ATM costs i.e. communications costs (land lines, etc.), establishment and abandonment costs, operations and maintenance	Figures are retrieved from several cost accounts in the general ledger.
Interbank fee / interchange fee	The item shall show the costs to the bank associated with the use of other banks' ATMs by the bank's customers and/or the cost to the bank associated with the use of international payment cards in terminals. If the bank has both, please specify what is what. At the bottom of the sheet is an item showing <i>income</i> . The reason we want gross figures is that the distribution of paid and received fees varies from bank to bank.
Purchased card services (Production)	All costs associated with procurement of the physical cards are entered here.
Settlement costs	Figures are retrieved from relevant accounts in the general ledger The costs are invoiced by the settlement bank (Norges Bank / DnBNOR, Sparebanken 1 Midt-Norge).
Clearing costs (BBS/NICS, international card systems)	Figures are retrieved from relevant accounts in the general ledger.
Security for cash services	Costs associated with security systems and service of these systems, invoiced by external companies
Loss owing to fraud/misuse/forgery	Figures are retrieved from relevant accounts in the general ledger
Credit cost	Imputed cost for use of international credit/charge cards: A period of approximately 6-8 weeks elapses from the date the card holder uses the card until he pays the outstanding amount to the card issuer. This outstanding amount entails a loss of interest for the card issuer, and shall be calculated as follows: In order to determine a directly comparable yield between the banks we use NIBOR statistics, which can be found at http://www.norges-bank.no . It is the tomorrow/next rate that shall be used. <i>Example: Average outstanding amount * NIBOR for the period = the alternative value: i.e. the alternative value is the credit cost.</i> The calculation shall cover the whole year. If the bank does not keep a daily record, the closest time interval shall be used; week, month or year, and the associated interest 1 week, 1month or 12 months.
Postage	Figures for postage are retrieved from the accounts or are calculated on the basis of the total use of postage for example dispatch of forms, etc..
Forms	Figures are retrieved from relevant accounts in the general ledger. Here too, it may be appropriate to calculate forms directly if forms are entered in a collective account in the bank.

Direct costs

Development costs	The item is intended to cover the development costs of new products, for example Internet banking or telephone banking. We calculate these costs by determining the length of the economic life. <i>Example: If an Internet banking solution cost NOK 900 000 to develop and it is calculated to last three years before it must be replaced, the annual cost will be NOK 900 000/3=NOK 300 000. New costs that accrue after three years as a result of upgrading/replacement are calculated in the same way.</i> Some of the costs that accrue may be a result of work that did not lead to the finished product. This is a cost that may consist partly of own use of manpower, partly of hired consultancy services, partly of purchase or hire of software. If such services are purchased, the invoiced amounts shall be used, see "IT" below.
Other direct costs	Direct costs in the bank from activities other than payment and cash services are gathered here. The item will therefore include costs from several accounts, and will probably be relatively large.

Indirect costs

Personnel costs	Personnel costs is a collective term for a number of different types of cost associated with the use of personnel. It is important that all costs are included (salary, social costs, fees, etc.).
Training	Figures are retrieved from the training account. These are often costs from several subaccounts, pure course costs, travel to courses, etc.
Travel expenses	Travel expenses for all purposes except training are included here, e.g. external meetings.
IT	This includes all IT costs except those included under processing, etc., above. Licences and costs associated with software shall be included here. Own systems and display screen workstations are included here. Costs associated with operation of internal computer systems and communications are distributed according to the number of PC workstations associated with the various work areas or another appropriate distribution key.
Property (rent)	Rental costs shall be entered here. When premises are rented with all additional services included, the amount can be found on an invoice. Operating costs for owned buildings shall be replaced by alternative costs, i.e. the average rental cost per square metre for the area where the premises are situated plus necessary additional costs (cleaning, electric power, internal maintenance, etc.). Banks often have considerable security arrangements in the building itself (vaults, security walls, etc.). A reasonable amount must be added to cover these costs in addition to the market rent. The costs are distributed according to the number of square metres disposed of by each area.
External audit	Figures are retrieved from relevant accounts in the general ledger.
Marketing	Figures are retrieved from relevant accounts in the general ledger. When own personnel are used in marketing, these shall be included. The item consists otherwise of advertising material, newspaper advertisements and assistance from advertising agencies. The costs are distributed between the areas according to the proportion of the marketing budget allocated to the various campaigns during the course of the year. <i>For example: Cost of marketing: NOK 25 000. Campaign for payment cards: NOK 10 000. Allocated to payment services. Campaign for sale of trust fund units: NOK 2 900. Allocated to capital & investment management. Campaign for sale of automobile loans: NOK 12 100. Allocated to advisory services.</i>
Machinery/fixtures/banking technology	Depreciation and write-downs of machinery and fixtures is replaced by an alternative calculation in order to determine the alternative cost. This shall be based on the actual lifetime of the fixed asset concerned. The costs are distributed according to the various areas' use of the units. <i>Example: a vehicle may have an economic life for the enterprise of 10 years. One-tenth of the purchase price is the natural cost that is charged to the current account for each of the 10 years. If the vehicle is used in capital & investment management and administration, the costs must be divided according to the amount of use in each area.</i>
Capital & investment management costs	Capital & investment management costs such as fees to guarantee funds, fees to BBS and other fees also dependent on the size of the total assets shall be distributed according to the proportion of contributed capital in the areas payment services (transaction accounts) and advisory services (savings accounts). For administration and capital & investment management, it is natural to use the value of the securities.

Indirect costs

Capital tied to cash holdings	The item "Capital tied to cash holdings" consists of interest income lost by holding cash instead of depositing the money in accounts. In order to determine a directly comparable yield between the banks, we use NIBOR statistics which can be found at http://www.norges-bank.no . If a record is kept of daily cash holdings, it is the tomorrow/next rate that shall be used, and the calculation will be as follows: <i>Example: Cash holdings 23.11.2006: NOK 1 250 000. NIBOR rate 23.11.2006: 3.57 %. Yield: $NOK\ 1\ 250\ 000 \cdot 3.57 / 365 = NOK\ 122.26$. NOK 122.26 is the alternative value of the cash holdings, and this amount is thus the cost of retaining a cash holding on this day.</i> The calculation shall include all the days of the year. If the bank does not keep a daily record the closest time interval shall be used; week, month or year, and the associated interest 1 week, 1 month or 12 months.
Security	This concerns security costs for own activities, which may consist partly of manpower and partly of equipment.
Office supplies	Costs are retrieved from relevant accounts in the general ledger.
Telephone	Costs are retrieved from relevant accounts in the general ledger. This applies to the ordinary telephone use in the bank, not line hire for ATMs, etc.
Postage	Costs are retrieved from relevant accounts in the general ledger. This is postage not directly associated with the products or services.
Other operating costs	Other relevant costs
Other indirect costs	Indirect costs from activities in the bank other than payment and cash services are gathered here. The item will therefore include costs from several accounts, and will probably be relatively large.

ANNEX 3: PRODUCTS AND SERVICES

Electronic giros	Paper-based giros	Card issuer	Card acquirer	Other	Cash in	Cash out	Other cash services
Telephone giros	Giros sent by mail	BAX	BAX	Transfer	Over-the-counter deposits	Over-the-counter withdrawals	Over-the-counter exchange (coins / notes)
Internet banking retail customers	Giros over the counter, (manual registering)	International debit cards	Internat. debit cards		Night safe / 24-hour safe	Own ATMs, own customers	Coin packaging machines
Internet banking, corporate customers	Giros paid in cash	International credit cards	Internat. credit cards		Deposits via cash centre	Own ATMs, other banks' customers	
Direct debits	Remittance / Company terminal giros sent as money orders				Coins in (bag, bulk)	Own ATMs, international payment card	
Electronic Remittance / Company terminal giros (CID and with or without message)	Optical character recognition (OCR) files				Deposit machines	Other banks' ATMs, own customers	
Optical character recognition (OCR) Return	Internet banking payments sent as money orders				CRS machines (banknotes)	CRS machines (banknotes)	
					Coin-counting machines	Coins out (rolls)	

The survey includes products in use on 1 January 2007. Services put into operation in 2007 are therefore not included. This applies for example to BankAxess.

The costs associated with the production of the service BankID shall be distributed between the relevant products in the above table, for example Internet banking and payment cards. BankID is regarded as an identity tool, an electronic signature. This is a tool that can be used to gain access to a number of the bank's payment services. We do not regard BankID as a separate payment instrument (product) for this survey, and it is therefore not included in the above table.

e-Faktura (e-Invoicing) is an information service, not a payment instrument. It is therefore not included in the above table. As far as possible, the costs associated with this service shall be removed from the basis for this survey and be placed in the area "other activity in the bank (...)"

ANNEX 4: ACTIVITIES AND AUXILIARY ACTIVITIES

Process	Main activity	Auxiliary activities	Cost driver	Comments
Counter services	Deposits	Receiving deposits, counting deposits, retrieving customer information, registering deposits, printing vouchers, sorting received cash, etc.	Number of deposits, amount	An increased number of transactions results in increased personnel needs, which is the most costly resource
	Withdrawals	Checking the balance on accounts, checking proof of identity, paying withdrawals, recording withdrawals Receiving exchange, recording exchange received, paying out exchange, recording exchange paid out	Number of withdrawals, amount	An increased number of withdrawals results in higher costs
	Exchange of notes and coins (NOK)	Exchange of notes to coins and vice versa	Number of exchanges, amount	An increased number of exchanges results in higher costs
	Payment of bills over the counter (giros paid in cash, etc.)	Receiving giros for clearing, checking accounts and proof of identity, transferring between accounts, In connection with payment in cash, activities as listed under "deposits" come in addition	Number of transactions, amount	An increased number of transactions results in higher costs
	Other activities over the counter	Opening and closing tills, etc.,	Number of transactions, deposits and withdrawals, exchanges	
	Service	Maintenance of payment products	Registering and amending agreements, direct debits and other sporadic amendments	Products
Maintenance of accounts		Creating, modifying and deleting accounts in the bank and in the Norwegian Registry of Securities	Accounts	An increased number of accounts results in a higher level of activity
Maintenance of payment cards		Suspending and activating cards, creating and renewing agreements, ordering cards	Transactions, deposits and withdrawals,	The number of transactions is related to the number of card agreements.
Maintenance of investments		Purchasing and redeeming trust fund units and activities related to the size of the deposits. Capital & investment management costs are allocated here	Accounts	
Account enquiries		Dealing with enquiries and orders on behalf of customers	Transactions, deposits and withdrawals	An increased number of transactions results in more enquiries
Invoice enquiries		Dealing with enquiries concerning previous payment orders	Transactions, deposits and withdrawals	An increased number of transactions results in more enquiries
Postage		Distributing mail, franking, postage, etc.	Transactions, deposits and withdrawals	An increased number of transactions results in higher costs. Applies only to paper-based services
Switchboard		Switchboard functions	Transactions, deposits and withdrawals	Distributed between all transactions. An increased number of transactions probably results in more enquiries

Process	Main activity	Auxiliary activities	Cost driver	Comments
Cash handling	Emptying night safe	Counting and entry of incoming night safe deposits	Transaction, deposits	An increased number of transactions results in increased personnel needs.
	Counting, weighing, sorting, packing and bundling cash		Amounts	If the amounts increase, the costs of these activities will increase
	Transporting cash		Amounts, deposits and withdrawals,	Increased transport results in higher costs
	Storing cash		Amounts	Increased storage results in higher costs
	Filling up cash in ATMs and other machines	Filling up ATMs and cash depots on the bank's premises, security transport, contact with NOKAS and Norges Bank	Amounts, number of withdrawals	An increased number of transactions results in increased personnel needs. The basis is exclusively cash transactions. See the sheet "Cost drivers" in the Excel book
	Maintenance of machines and ATMs	Invoices from the supplier of the machine for periodical maintenance and ad hoc maintenance and repairs at the request of the bank	Number of deposits and withdrawals	An increased number of machines results in more withdrawals and more service
	Security for cash	Security guards, alarms, surveillance	Amounts	Increased storage results in higher costs
	Routines concerning dye-stained banknotes and forgeries	Reporting / handling/ delivering dye-stained banknotes and counterfeit banknotes	Amounts	An increased number of dye-stained banknotes /counterfeit banknotes (higher denominations) results in more handling
Sales	Campaign/ sales	Initiating, preparing and carrying out campaigns, preparing and carrying out advertising, sponsorship, active further sales to existing customers, review of customers' product portfolios, general marketing, etc.	Number of products	An increased number of products results in a greater need for marketing
	Sales and activity records	Recording of sales promotion, campaigns, etc.	Number of products	An increased number of products results in a greater need for marketing

Process	Main activity	Auxiliary activities	Cost driver	Comments
Banking operations	Personnel management	Salary and personnel management	Transactions	An increased number of transactions over the counter results in a need for more personnel and personnel management
	Reconciliation		Transactions, deposits/withdrawals, exchange	
	Accounts	Bookkeeping	Transactions, deposits and withdrawals,	An increased number of transactions results in more entries
	Reporting	Internal and external reporting	Transactions, deposits and withdrawals,	An increased number of transactions results in more reporting
	Audit	Internal and external audit, contact with auditors	Transactions, deposits and withdrawals,	An increased number of transactions results in more to audit
	Security	Assessment, evaluation or existing security routines	Number of products	An increased number of products results in more security systems to deal with
	Board work		Products	An increased number of products requires more strategic planning
IT	Support and operation of systems	Support of office support systems, contact with EDB and other suppliers of systems and applications, operation of own systems and computer networks, upgrading of existing applications and assessment of new systems	Transactions, deposits and withdrawals,	Distributed between all products according to their importance to the bank measured in the number of transactions
Other	Training, meetings, etc.	Planning and holding internal courses, attendance of internal and external courses	Number of products	An increased number of products results in a greater need for training
Clearing and settlement	Settlement	Account management in Norges Bank and other settlement banks	Transactions, amounts	An increased number of transactions results in more processing time
	Settlement of (gross) transactions		Transactions	An increased number of transactions results in more processing time
	Clearing	Clearing in NICS and EDB	Transactions, deposits and withdrawals,	An increased number of transactions results in more processing time
Overheads (NB: When distributing FTEs, it is necessary to assess how much of the overheads shall be allocated to payment and cash services compared with the remainder of the bank's activities)	Advisory services		Number of products	The bank advises customers on investments, loans and payments/cash services.
	Administration		Number of products	Administration, i.e. the bank's management, managerial staff, secretarial staff, etc.
All other processes	All other activities	Everything else		

ANNEX 5: The bank's three areas

In this survey, the bank's activities are divided into three areas:

- **Payment services**
- **Cash services**
- **Other activities in the bank, (capital & investment management, etc.)**

The area **Payment services** shall include all activity and all costs associated with *producing* payment services, with *advising* customers on payment services and with *managing* the payment services (responsibility of the administration).

The area **Cash services** shall include all activity and all costs associated with *producing* cash services, *advising* customers on the use and management of cash and *managing* the cash services (responsibility of the administration).

The area **Other activities in the bank (capital & investment management, etc.)** includes all other activities in the bank, e.g. management of the customers' capital, loan activities, securities trading and brokerage.

When responding to the survey, it is necessary to establish how the volume of work and costs are distributed between these three areas. We assume that the distribution will vary from bank to bank but, when data are recorded in the spreadsheets, most of the bank's activities (costs and FTEs) will usually lie in the area "other activities (...)"

Bank Survey 2007 Spreadsheet.xlsx

Survey of costs associated with payment and cash handling services 2007: Fill in the green cells. Cells of other colours are filled in automatically with data from the green cells. The white fields are empty, and can be used for comments or calculations.

Sheet 1: COSTS

(see ANNEX 2 of the User Guide)

Figures in NOK	Figures from the accounts (checksum)	Total	Payment services	Cash services	Other activity in the bank (capital management etc)	Comments:
Direct costs						Shaded cells are normally equal to 0
Authorisation and processing of transactions (Data processing centres, e.g. BBS and	0	0,0				
Authorisation and processing of transactions (international card scheme)	0	0,0				
Authorisation and processing of transactions (other costs)	0	0,0				
Message and report service Data processing centres e.g. BBS and EDB	0	0,0				
NOKAS, Securitas and other providers of cash services	0	0,0				
Fees relating to notes/coins, Norges Bank	0	0,0				
Insurance cash holdings and machinery and equipment	0	0,0				
Transport of cash by the bank itself	0	0,0				
Cash differences	0	0,0				
ATM costs i.e. Communications costs (land lines, etc.), establishment and abandonment costs, operation and maintenance	0	0,0				
Interbank fee / interchange fee	0	0,0				
Purchased card services (Production)	0	0,0				
Settlement costs	0	0,0				
Clearing costs (BBS/NICS, international card schemes and others)	0	0,0				
Security for cash services	0	0,0				
Loss owing to fraud/misuse/forgery	0	0,0				
Credit cost	0	0,0				
Postage	0	0,0				
Forms	0	0,0				
Development costs	0	0,0				
Other direct costs	0	0,0				
Total direct costs	0	0,0	0,0	0,0	0,0	
Indirect costs						
Personnel costs	0	0,0				
Training	0	0,0				
Travel expenses	0	0,0				
IT	0	0,0				
Property	0	0,0				
External audit	0	0,0				
Marketing	0	0,0				
Machinery/fixtures/banking technology	0	0,0				
Capital & investment management costs	0	0,0				
Capital tied to cash holdings	0	0,0				
Security	0	0,0				
Office supplies	0	0,0				
Telephone	0	0,0				
Postage	0	0,0				
Other operating costs	0	0,0				
Other indirect costs	0	0,0				
Total indirect costs	0	0,0	0,0	0,0	0,0	
Total costs	0	0,0	0,0	0,0	0,0	
Interbank fee / interchange fee Income	0	0,0	0,0	0,0	0,0	

If the form has been filled in correctly, the figures in columns C and D will be the same!

Sheet 2: COST DRIVERS

This sheet is filled in at regular intervals (probably monthly) for 2007.

				Cost drivers						
				Number of transactions	Number of deposits or withdrawals	Number of exchanges	Number of products Indicator: 1=Yes, 0=No	Number of accounts	Amount	Comments
										Filling in information in the shaded cells is voluntary
Deposit money	Giro	<i>Electronic giro services</i>	Telephone giros							
			Internet banking retail customers							
			Internet banking corporate customers							
			Direct debit							
			Electronic Remittance / Company terminal giro (CID and with or without message)							
			Optical character recognition (OCR) - File							
		<i>Paper-based giro services</i>	Mail giro							
			Giro over the counter							
			Giro cash payment							
			Remittance/ Company terminal giro sent as money order							
	Internet banking payment sent as money order									
	Payment card	Acquirer	BankAxept							
			International debit cards							
			International credit/charge cards							
		Issuer	BankAxept							
			International debit cards							
			International credit/charge cards							
Other		Transfer								
Cash	Cash in	Over-the-counter deposits								
		Night safe / 24-hour safe								
		Deposit via cash centre								
		Coins in (bag, bulk)								
		Cash deposit machines								
		CRS machines (banknotes)								
		Coin counting machines								
		Cash out	Over-the-counter withdrawals							
			Own ATMs, own customers							
	Own ATMs, other banks' customers									
	Own ATMs, international payment cards									
	Other banks' ATMs, own customers									
	Coins out (rolls)									
	Other cash services	Over-the-counter exchange (coins/notes)								
		Coin-packaging machines								

Sheet 3: FTEs and activities		(see ANNEX 4 of the User Guide)			
FTEs distributed between activities					
		Payment services	Cash services	Other activity in the bank (capital management etc)	Note:
Process	Activity				
	Total FTEs	0,00	0,00	0,00	0,00
	Total entered in the green fields:	0,00			
Counter services	Deposits	0,00			
	Withdrawals	0,00			
	Exchange (NOK)	0,00			
	Payment of bills over the counter (giros in cash)	0,00			
	Other activities over the counter	0,00			
Service	Maintenance of payment products	0,00			
	Maintenance of accounts	0,00			
	Maintenance of payment cards	0,00			
	Maintenance of investments	0,00			
	Account enquiries	0,00			
	Invoice enquiries	0,00			
	Postage	0,00			
	Switchboard	0,00			
Cash handling	Emptying night safe	0,00			
	Counting, weighing, sorting, packing, and bundling	0,00			
	Transporting cash	0,00			
	Storing cash	0,00			
	Filling up cash in machines / ATMs	0,00			
	Maintenance of machines / ATMs	0,00			
	Security for cash	0,00			
	Routines of dyed notes and forgery	0,00			
Sales	Campaign / active sales	0,00			
	Sales and activity registration	0,00			
Bank operations	Personnel management	0,00			
	Reconciliation	0,00			
	Accounts	0,00			
	Reporting	0,00			
	Audit	0,00			
	Security	0,00			
	Board work	0,00			
IT	Support, operations, systems	0,00			
Other	Training, meetings	0,00			
Clearing and settlement	Settlement	0,00			
	Settlement of (gross) transactions	0,00			
	Clearing	0,00			
Overhead	Advisory services payment and cash services	0,00			
	Administration of payment and cash services	0,00			
All other processes	All other activities	0,00			
	TOTAL - ACTIVITIES FTEs	0,00	0,00	0,00	0,00

Example of calculation of the time spent by an employee on each		
	Employee No. 002	
	FTEs	Salary
	1,00	450 000,00
Deposits	0,00	0,00
Withdrawals	0,00	0,00
Exchange (NOK)	0,00	0,00
Payment of bills over the counter	0,00	0,00
Other activities over the counter	0,00	0,00
Maintenance of payment products	0,00	0,00
Maintenance of accounts	0,00	0,00
Maintenance of payment cards	0,00	0,00
Maintenance of investments	0,00	0,00
Account enquiries	1,00	450 000,00
Invoice enquiries	0,00	0,00
Postage	0,00	0,00
Switchboard	0,00	0,00
Emptying night safe	0,00	0,00
Counting, weighing, sorting, packing, and bundling	0,00	0,00
Transporting cash	0,00	0,00
Storing cash	0,00	0,00
Filling up cash in machines / ATMs	0,00	0,00
Maintenance of machines / ATMs	0,00	0,00
Security for cash	0,00	0,00
Routines of dyed notes and forgery	0,00	0,00
Campaign / active sales	0,00	0,00
Sales and activity registration	0,00	0,00
Personnel management	0,00	0,00
Reconciliation	0,00	0,00
Accounts	0,00	0,00
Reporting	0,00	0,00
Audit	0,00	0,00
Security	0,00	0,00
Board work	0,00	0,00
Support, operations, systems	0,00	0,00
Training, meetings	0,00	0,00
Settlement	0,00	0,00
Settlement of (gross) transactions	0,00	0,00
Clearing	0,00	0,00
Advisory services payment and cash services	0,00	0,00
Administration of payment and cash services	0,00	0,00
All other activities	0,00	0,00
Kontrollsum	1,00	450 000,00

Sheet 4: Direct costs

Direct costs distributed between products				Deposit money					
				Giro					
				Electronic giro services					
				Telephone giros	Internet banking retail customers	Internet banking corporate customers	Direct debit	Electronic Remittance / Company terminal giro (CID and with or without message)	Optical character recognition (OCR) - File
Cost drivers									
Number of transactions	0	0	0	0	0	0	0	0	
Number of deposit or withdrawals	0								
Number of exchanges	0								
Amount	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	
Direct Cost									
Payment Services	Cash Services	Checksum							
Authorisation and processing of transactions (Data processing centres, e.g. BBS and EDB)	0,00	0,00	0,00						
Authorisation and processing of transactions (international card scheme)	0,00	0,00	0,00						
Authorisation and processing of transactions (other costs)	0,00	0,00	0,00						
Message and report service Data processing centres e.g. BBS and EDB	0,00	0,00	0,00						
NOKAS, Securitas and other providers of cash services	0,00	0,00	0,00						
Fees relating to notes/coins, Norges Bank	0,00	0,00	0,00						
Insurance cash holdings and machinery and equipment	0,00	0,00	0,00						
Transport of cash by the bank itself	0,00	0,00	0,00						
Cash differences	0,00	0,00	0,00						
ATM costs i.e. Communications costs (land lines, etc.), establishment and abandonment costs, operation and maintenance	0,00	0,00	0,00						
Interbank fee / interchange fee	0,00	0,00	0,00						
Kjøpte korttjenester (Produksjon)	0,00	0,00	0,00						
Settlement costs	0,00	0,00	0,00						
Clearing costs (BBS/NICS, international card schemes and others)	0,00	0,00	0,00						
Security for cash services	0,00	0,00	0,00						
Loss owing to fraud/misuse/forgery	0,00	0,00	0,00						
Credit cost	0,00	0,00	0,00						
Postage	0,00	0,00	0,00						
Forms	0,00	0,00	0,00						
Development costs	0,00	0,00	0,00						
Sum direkte kostnader	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	

Deposit Money													
Giro							Payment card						
	Paper-based giro services						Acquirer			Issuer			Other
	Mail giro	Giro over the counter	Giro cash payment	Remittance/ Company terminal giro sent as money order	Internet banking payment sent as money order	Optical character recognition (OCR) - Return	BankAxept	International debit cards	International credit/charge cards	BankAxept	International debit cards	International credit/charge cards	Transfer
Cost drivers													
Number of transactions	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of deposit or withdrawals													
Number of exchanges													
Amount	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Direct Cost													
Authorisation and processing of transactions (Data processing centres, e.g. BBS and EDB)													
Authorisation and processing of transactions (international card scheme)													
Authorisation and processing of transactions (other costs)													
Message and report service Data processing centres e.g. BBS and EDB													
NOKAS, Securitas and other providers of cash services													
Fees relating to notes/coins, Norges Bank													
Insurance cash holdings and machinery and equipment													
Transport of cash by the bank itself													
Cash differences													
ATM costs i.e. Communications costs (land lines, etc.), establishment and abandonment costs, operation and maintenance													
Interbank fee / interchange fee													
Kjøpte korttjenester (Produksjon)													
Settlement costs													
Clearing costs (BBS/NICS, international card schemes and others)													
Security for cash services													
Loss owing to fraud/misuse/forgery													
Credit cost													
Postage													
Forms													
Development costs													
Sum direkte kostnader	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

		Cash															
		Cash in							Cash out							Other cash services	
		Over-the-counter deposits	Night safe / 24-hour safe	Deposit via cash centre	Coins in (bag, bulk)	Cash deposit machines	CRS machines (banknotes)	Coin counting machines	Over-the-counter withdrawals	Own ATMs, own customers	Own ATMs, other banks' customers	Own ATMs, international payment cards	Other banks' ATMs, own customers	Coins out (rolls)	CRS machines (banknotes)	Over-the-counter exchange (coins/notes)	Coin-packaging machines
Cost drivers																	
Number of transactions																	
Number of deposit or withdrawals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of exchanges								0								0	0
Amount		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Direct Cost		0,00															
Authorisation and processing of transactions (Data processing centres, e.g. BBS and EDB)																	
Authorisation and processing of transactions (international card scheme)																	
Authorisation and processing of transactions (other costs)																	
Message and report service Data processing centres e.g. BBS and EDB																	
NOKAS, Securitas and other providers of cash services																	
Fees relating to notes/coins, Norges Bank																	
Insurance cash holdings and machinery and equipment																	
Transport of cash by the bank itself																	
Cash differences																	
ATM costs i.e. Communications costs (land lines, etc.), establishment and abandonment costs, operation and maintenance																	
Interbank fee / interchange fee																	
Kjøpte kortjenester (Produksjon)																	
Settlement costs																	
Clearing costs (BBS/NICS, international card schemes and others)																	
Security for cash services																	
Loss owing to fraud/misuse/forgery																	
Credit cost																	
Postage																	
Forms																	
Development costs																	
Sum direkte kostnader		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Sheet 5: Indirect costs

(The sheet uses data from Sheets 1 and 3. Distribution is carried out automatically)

Personnel-dependent indirect costs distributed between activities							
		Payment services		Cash services		Costs distributed between activities	
			FTEs	Relevant?	FTEs	Payment services	Cash services
Costs for distribution						0,00	0,00
Process	Activity						
Counter services	Deposits	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Withdrawals	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Exchange (NOK)	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Payment of bills over the counter (giros in cas	Yes	0,00	No	Not relevant	#DIV/0!	0,00
	Other activities over the counter	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
Service	Maintenance of payment products	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Maintenance of accounts	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Maintenance of payment cards	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Maintenance of investments	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Account enquiries	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Invoice enquiries	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Postage	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Switchboard	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
Cash handling	Emptying night safe	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Counting, weighing, sorting, packing, and bun	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Transporting cash	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Storing cash	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Filling up cash in machines / ATMs	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Maintenance of machines / ATMs	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Security for cash	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Routines of dyed notes and forgery	No	Not relevant	Yes	0,00	0,00	#DIV/0!
Sales	Campaign / active sales	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Sales and activity registration	No	Not relevant	Yes	0,00	0,00	#DIV/0!
Bank operations	Personnel management	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Reconciliation	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Accounts	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Reporting	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Audit	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Security	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Board work	No	Not relevant	Yes	0,00	0,00	#DIV/0!
IT	Support, operations, systems	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
Other	Training, meetings	No	Not relevant	Yes	0,00	0,00	#DIV/0!
Clearing and settler	Settlement	No	Not relevant	Yes	0,00	0,00	#DIV/0!
	Settlement of (gross) transactions	No	Not relevant	No	Not relevant	0,00	0,00
	Clearing	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
Overhead	Advisory services payment and cash services	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
	Administration of payment and cash services	Yes	0,00	Yes	0,00	#DIV/0!	#DIV/0!
All other processes	All other activities	No	Not relevant	No	Not relevant	0,00	0,00
Sum			0,00		0,00	#DIV/0!	#DIV/0!

Non personnel-dependent costs distributed between activities				
	Relevant?	Item in the current account	Costs distributed between activities	
			Payment services	Cash services
Costs for distribution			0,00	0,00
Activity				
Deposits	No			
Withdrawals	No			
Exchange (NOK)	No			
Payment of bills over the counter (giros in cash)	No			
Other activities over the counter	No			
Maintenance of payment products	No			
Maintenance of accounts	No			
Maintenance of payment cards	No			
		Capital & investment management		
Maintenance of investments	Yes		0,00	0,00
Account enquiries	No			
Invoice enquiries	No			
Postage	No			
Switchboard	No			
Emptying night safe	No			
Counting, weighing, sorting, packing, and bundling	No			
Transporting cash	No			
Storing cash	Yes	Capital tied to cash holdings		0,00
Filling up cash in machines / ATMs	No			
Maintenance of machines / ATMs	No			
Security for cash	No			
Routines of dyed notes and forgery	No			
Campaign / active sales	Yes	Marketing	0,00	0,00
Sales and activity registration	No			
Personnel management	No			
Reconciliation	No			
Accounts	No			
Reporting	No			
Audit	No			
Security	No			
Board work	Yes	External audit	0,00	0,00
Support, operations, systems	No			
Training, meetings	No			
Settlement	No			
Settlement of (gross) transactions	No			
Clearing	No			
Advisory services payment and cash services	No			
Administration of payment and cash services	No			
All other activities	No			
Sum			0,00	0,00

Total indirect costs distributed between activities		
	Costs distributed between activities	
	Payment services	Cash services
Costs for distribution	0,00	0,00
Activity		
Deposits	0,00	#DIV/0!
Withdrawals	0,00	#DIV/0!
Exchange (NOK)	0,00	#DIV/0!
Payment of bills over the counter (giros in cash)	#DIV/0!	0,00
Other activities over the counter	#DIV/0!	#DIV/0!
Maintenance of payment products	#DIV/0!	#DIV/0!
Maintenance of accounts	#DIV/0!	#DIV/0!
Maintenance of payment cards	#DIV/0!	#DIV/0!
Maintenance of investments	#DIV/0!	#DIV/0!
Account enquiries	#DIV/0!	#DIV/0!
Invoice enquiries	#DIV/0!	#DIV/0!
Postage	#DIV/0!	#DIV/0!
Switchboard	#DIV/0!	#DIV/0!
Emptying night safe	#DIV/0!	#DIV/0!
Counting, weighing, sorting, packing, and bundling	0,00	#DIV/0!
Transporting cash	0,00	#DIV/0!
Storing cash	0,00	#DIV/0!
Filling up cash in machines / ATMs	0,00	#DIV/0!
Maintenance of machines / ATMs	0,00	#DIV/0!
Security for cash	0,00	#DIV/0!
Routines of dyed notes and forgery	0,00	#DIV/0!
Campaign / active sales	#DIV/0!	#DIV/0!
Sales and activity registration	0,00	#DIV/0!
Personnel management	0,00	#DIV/0!
Reconciliation	#DIV/0!	#DIV/0!
Accounts	#DIV/0!	#DIV/0!
Reporting	#DIV/0!	#DIV/0!
Audit	#DIV/0!	#DIV/0!
Security	#DIV/0!	#DIV/0!
Board work	0,00	#DIV/0!
Support, operations, systems	#DIV/0!	#DIV/0!
Training, meetings	0,00	#DIV/0!
Settlement	0,00	#DIV/0!
Settlement of (gross) transactions	0,00	0,00
Clearing	#DIV/0!	#DIV/0!
Advisory services payment and cash services	#DIV/0!	#DIV/0!
Administration of payment and cash services	#DIV/0!	#DIV/0!
All other activities	0,00	0,00
Sum	#DIV/0!	#DIV/0!

Sheet 6: Distribution of indirect costs			(The sheet uses data from Sheets 2-5. Distribution is carried					
			Deposit money					
			Giro					
			Electronic giro services					
			Telephone giros	Internet banking retail customers	Internet banking corporate customers	Direct debit	Electronic Remittance / Company terminal giro (CID and with or without)	Optical character recognition (OCR) - File
Cost drivers								
Number of transactions	0		0	0	0	0	0	0
Number of deposits or withdrawals	0							
Number of exchanges	0							
Number of products	0		0	0	0	0	0	0
Number of accounts	0		0	0	0	0	0	0
Amount	0,00		0,00	0,00	0,00	0,00	0,00	0,00
	Costs from Payment Services	Costs from Cash Services						
Deposits	0,00	#DIV/0!						
Withdrawals	0,00	#DIV/0!						
Exchange (NOK) (giros in cash, etc.)	0,00	#DIV/0!	0,00					
Other activities over the counter	#DIV/0!	#DIV/0!						
Maintenance of payment products	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of accounts	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of payment cards	#DIV/0!	#DIV/0!						
Maintenance of investments	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Account enquiries	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Invoice enquiries	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Postage	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Switchboard	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Emptying night safe	#DIV/0!	#DIV/0!						
Counting, weighing, sorting, packing, and bundling cash	0,00	#DIV/0!						
Transporting cash	0,00	#DIV/0!						
Storing cash	0,00	#DIV/0!						
Filling up cash in machines / ATMs	0,00	#DIV/0!						
Maintenance of machines / ATMs	0,00	#DIV/0!						
Security for cash	0,00	#DIV/0!						
Routines of dyed notes and forgery	0,00	#DIV/0!						
Campaign / active sales	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Sales and activity registration	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Personnel management	0,00	#DIV/0!						
Reconciliation	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Accounts	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Reporting	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Audit	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Security	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Board work	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Support, operations, systems	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Training, meetings	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Settlement	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Settlement of (gross) transactions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Clearing	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Advisory services payment and cash services	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Administration of payment and cash services	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00
Sum	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00

out automatically)

Deposit Money													
Giro							Payment card						
Paper-based giro services							Acquirer			Issuer			Other
	Mail giro	Giro over the counter	Giro cash payment	Remittance/ Company terminal giro sent as money order	Internet banking payment sent as money order	Optical character recognition (OCR) - Return	BankAcept	International debit cards	International credit/charge cards	BankAcept	International debit cards	International credit/charge cards	Transfer
Cost drivers													
Number of transactions	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of deposits or withdrawals													
Number of exchanges													
Number of products	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of accounts	0	0	0	0	0	0	0	0	0	0	0	0	0
Amount	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Deposits													
Withdrawals													
Exchange (NOK cash, etc.)		0,00	0,00										
Other activities over the counter		0,00	0,00										0,00
Maintenance of payment products	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of accounts	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of payment cards							0,00	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of investments	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Account enquiries	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Invoice enquiries	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Postage	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Switchboard	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Emptying night safe													
Counting, weighing, sorting, packing, and bundling cash			0,00										
Transporting cash			0,00										
Storing cash			0,00										
Filling up cash in machines / ATMs													
Maintenance of machines / ATMs			0,00										
Security for cash													
Routines of dyed notes and forgery			0,00										
Campaign / active sales	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Sales and activity registration	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Personnel management		0,00	0,00										0,00
Reconciliation	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Accounts	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Reporting	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Audit	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Security	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Board work	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Support, operations, systems	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Training, meetings	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Settlement	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Settlement of (gross) transactions	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Clearing	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Advisory services payment and cash services	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Administration of payment and cash services	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Sum	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

		Cash															
		Cash in						Cash out						Other cash services			
		Over-the-counter deposits	Night safe / 24-hour safe	Deposit via cash centre	Coins in (bag, bulk)	Cash deposit machines	CRS machines (banknotes)	Coin counting machines	Over-the-counter withdrawals	Own ATMs, own customers	Own ATMs, other banks' customers	Own ATMs, international payment cards	Other banks' ATMs, own customers	Coins out (rolls)	CRS machines (banknotes)	Over-the-counter exchange (coins/notes)	Coin-packaging machines
Cost drivers																	
Number of transactions		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of deposits or withdrawals		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of exchanges		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of products		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of accounts		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amount		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Deposits		#DIV/0!						#DIV/0!									
Withdrawals									0,00							0,00	0,00
Exchange (NOK cash, etc.)								0,00									
Other activities over the counter		0,00	0,00					0,00									0,00
Maintenance of payment products									0,00				0,00				
Maintenance of accounts		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of payment cards									0,00				0,00				
Maintenance of investments		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Account enquiries		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Invoice enquiries		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Postage		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Switchboard		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Emptying night safe		0,00															
Counting, weighing, sorting, packing, and bundling cash		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Transporting cash		0,00			0,00	0,00	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Storing cash		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Filling up cash in machines / ATMs						0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Maintenance of machines / ATMs		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Security for cash		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Routines of dyed notes and forgery		0,00	0,00	0,00		0,00	0,00								0,00	0,00	
Campaign / active sales			0,00		0,00	0,00	0,00		0,00				0,00	0,00	0,00	0,00	
Sales and activity registration			0,00		0,00	0,00	0,00						0,00	0,00	0,00	0,00	
Personnel management		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Reconciliation		0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Accounts		0,00	0,00		0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Reporting		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Audit		0,00	0,00		0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Security		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Board work		0,00	0,00		0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Support, operations, systems		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Training, meetings		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Settlement		0,00	0,00		0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Settlement of (gross) transactions																	
Clearing		0,00	0,00		0,00	0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Advisory services payment and cash services		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Administration of payment and cash services		0,00	0,00		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Sum		#DIV/0!	0,00	0,00	0,00	0,00	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Sheet 7: Total figures

The sheet calculates the values automatically.

Deposit money

Giro

Electronic giro services

	Telephone giros	Internet banking retail customers	Internet banking corporate customers	Direct debit	Electronic Remittance / Company terminal giro (CID and with or without)	Optical character recognition (OCR) - File
Number of transactions	0	0	0	0	0	0
Number of deposits or Number of exchanges						
Number of products	0	0	0	0	0	0
Number of accounts	0	0	0	0	0	0
Amount	0,00	0,00	0,00	0,00	0,00	0,00
Total direct costs	0,00	0,00	0,00	0,00	0,00	0,00
Total direct unit costs	0,00	0,00	0,00	0,00	0,00	0,00
Total indirect costs	0,00	0,00	0,00	0,00	0,00	0,00
Total indirect unit costs	0,00	0,00	0,00	0,00	0,00	0,00
Total costs	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0,00
Total unit costs	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0,00

Costs related to payment services #DIV/0! 0 Transactions payment services

Unit costs related to payment services #DIV/0!

Costs related to cash services #DIV/0! 0 Deposits withdrawals and exchanges

Unit costs related to cash services #DIV/0!

Costs related to cash services except exchange #DIV/0! 0 Deposits and withdrawals

Unit costs related to cash services except exchange #DIV/0!

Deposit money

	Giro						Payment card						Other
	Paper-based giro services						Acquirer			Issuer			
	Mail giro	Giro over the counter	Giro cash payment	Remittance/ Company terminal giro sent as money order	Internet banking payment sent as money order	Optical character recognition (OCR) - Return	BankAx ept	International debit cards	International credit/charge cards	BankAx ept	International debit cards	International credit/charge cards	
Number of transactions	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of deposits or Number of exchanges													
Number of products	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of accounts	0	0	0	0	0	0	0	0	0	0	0	0	0
Amount	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total direct costs	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total direct unit costs	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total indirect costs	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total indirect unit costs	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total costs	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total unit costs	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Cash																
	Cash in							Cash out							Other cash services	
	Over-the-counter deposits	Night safe / 24-hour safe	Deposit via cash centre	Coins in (bag, bulk)	Cash deposit machines	CRS machines (banknotes)	Coin counting machines	Over-the-counter withdrawals	Own ATMs, own customers	Own ATMs, other banks' customers	Own ATMs, international payment cards	Other banks' ATMs, own customers	Coins out (rolls)	CRS machines (banknotes)	Over-the-counter exchange (coins/notes)	Coin-packaging machines
Number of transactions																
Number of deposits or	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
Number of exchanges								0							0	0
Number of products	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of accounts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Amount	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total direct costs	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total direct unit costs	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total indirect costs	#DIV/0!	0,00	0,00	0,00	0,00	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total indirect unit costs	#DIV/0!	0,00	0,00	0,00	0,00	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total costs	#DIV/0!	0,00	0,00	0,00	0,00	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total unit costs	#DIV/0!	0,00	0,00	0,00	0,00	0,00	#DIV/0!	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00