

6 Oversight of payment and settlement systems

6.1 Introduction

Oversight is a form of supervision aimed at promoting the security and efficiency of payment and securities clearing and settlement systems. The supervision consists in monitoring these systems and assessing their security and efficiency on the basis of national and international standards and – where necessary – insisting on changes.

Oversight is among a central bank's normal responsibilities. Each central bank has to publish the oversight objectives and working methods in order to promote transparency. This was agreed by the G-10 in 2005 (see BIS report 'Central bank oversight of payment and settlement systems').

Table 6.1 - Oversight subjects involving DNB

System	Lead overseer and/or regulator	Other overseers or regulators
Interbank large-value payments		
TOP	DNB	
TARGET2.NL	DNB	
TARGET2	ECB	ESCB
CLS	Federal Reserve	G10 central banks and other central banks of issue with a currency in CLS
SWIFT	National Bank of Belgium	G10 central banks
Securities clearing and settlement		
ECC	BaFin	Bundesbank, AFM, DNB
EMCF	AFM/DNB	
Euroclear Nederland	AFM/DNB	
Euroclear SA	National Bank of Belgium and CBFA	AFM, DNB and regulators from France and the United Kingdom
LCH.Clearnet Group Ltd	Commission Bancaire	AFM, DNB and regulators from Belgium, France, Portugal and the United Kingdom
LCH.Clearnet SA	Rotating regulator chairmanship Euronext countries	Other regulators from Belgium, France, the Netherlands and Portugal
Retail payments		
Acceptgiro, Chipknip, iDEAL	DNB	
Incasso, PIN		
Equens	DNB	
Telegiro Nieuwe Stijl	DNB	
UPSS	DNB	

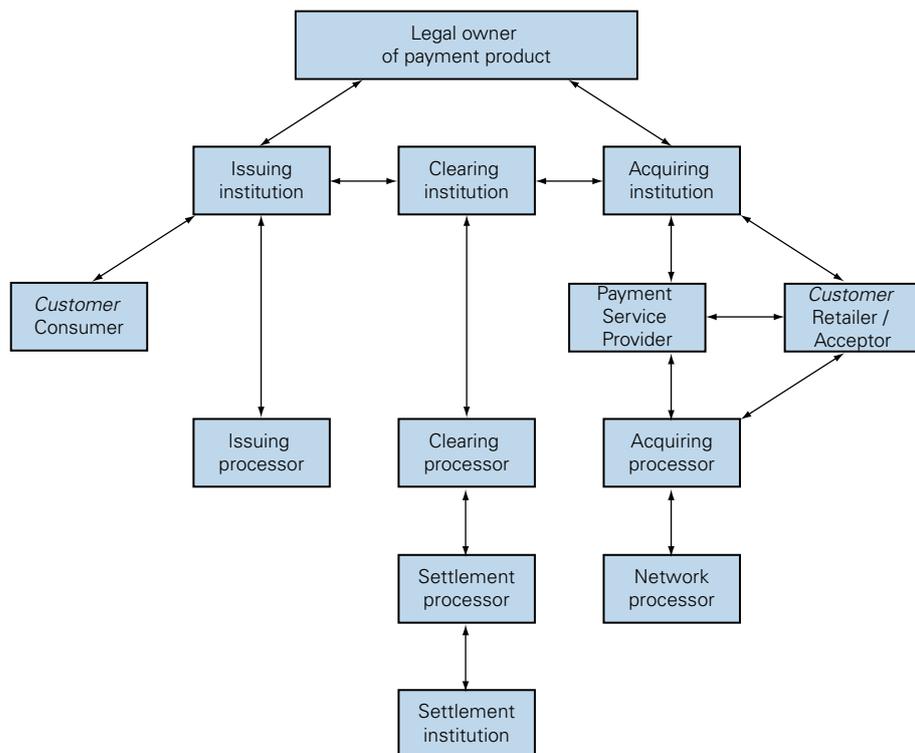
DNB oversees both payment systems and payment products. On the basis of a covenant, DNB supervises securities settlement systems jointly with the AFM. Table 6.1 summarises all the oversight arrangements in which DNB is involved. Settlement systems can be subdivided into systemically important payment and securities settlement systems and other systems/products. If systemically important systems are not well designed, do not operate efficiently or are not properly managed, a systemic risk may arise. This is the risk that if a participant in a settlement system cannot meet his obligations, that could cause other participants or financial institutions outside the settlement system to be unable to meet their obligations. This could trigger a chain reaction causing a succession of financial problems, endangering financial stability. This domino effect may have adverse consequences for the financial markets and for the broader economic situation.

Risks can also arise in the other systems/products category. One example is the fraudulent use of electronic payment instruments, such as the copying of bank cards or cyber attacks on internet banking facilities. In such cases there is no question of systemic risk, but there could be a threat to the smooth operation of payment services as a payment product which does not function well can have serious adverse economic consequences and damage the public's confidence in payment services and the currency in general.

Oversight standards

DNB examines the institutions subject to oversight on the basis of various standards. Payment systems handling large-value payments must satisfy the Core Principles for Systemically Important Payment Systems (CPSI). Systems for clearing securities, including central counterparties, are subject to the Recommendations for Central Counterparties (RCCP). Securities settlement systems are examined on the basis of the Recommendations for Securities Settlement

Figure 6.1 - Scheme roles in retail payments



Systems (RSSS). These standards are internationally agreed and developed by the Committee on Payment and Settlement Systems (CPSS) and the International Organization for Securities Commissions (IOSCO). There are as yet no general international standards and methods for the oversight of payment products. In 2006, DNB therefore drew up its own Recommendations for Payment Products.

Non-banks enter the payments sector

Introduction of scheme roles for the oversight of retail payments

The standards used for the oversight of retail payments are geared almost exclusively to the systems and products themselves, rather than the various parties performing a role within the payment sector. However, the quality and continuity of the service provided by these parties influence the functioning of payment services. At the end of 2006, in view of the recent entry of non-banks into the payment sector, and the associated specialisation of the various functions, DNB decided to include these functions in the oversight. For that purpose, DNB uses scheme roles (see Figure 6.1, showing the principal roles in retail payment services). The combination of the roles and systems geared to a payment product is called a scheme. Within a scheme, the legal owner of the payment product is responsible for its operation. The legal owner focuses on the roles in the scheme, sets the standards which the parties involved must meet, may regulate access to the scheme by licensing, and supervises the scheme's operation. DNB's oversight of payment products therefore concerns the legal owner. However, individual roles can be explicitly included in the oversight if necessary.

Assessment results of payment and securities sector very satisfactory

Results of oversight activities

The main conclusion of the oversight conducted in 2007 is that the degree of compliance is generally satisfactory. Tables 6.3, 6.4 and 6.5 show the situation in 2007 for the three separate areas – large-value payments, securities settlement and retail payments – with scores for compliance based on the system normally used for oversight (see Table 6.2). Compared to 2006, the overall assessment is more favourable on several aspects, and there has been no deterioration on any aspect. Nonetheless, there are some points of concern which are set out below for each payment system, securities clearing or settlement system or product. Most of the points include a brief explanation of why a system or product is not fully compliant with the standards.

Table 6.2 - Scores based on oversight standards

Score	Abbreviation	Meaning of the score
Observed	O	meets all requirements
Broadly observed	BO	minor deficiencies with limited impact on the system's security and efficiency
Partly observed	PO	serious deficiencies on which action is to be taken in the near future
Not observed	NO	serious deficiencies with no plans for action in the near future
Not applicable	NA	the standard in question does not apply

6.2 Assessment results for large-value payments

6.2.1 TOP interbank payment system

Until 18 February 2008 payments between financial institutions in the Netherlands were processed via DNB's TOP payment system. TOP was part of the Trans-European Automated Real-time Gross settlement Express Transfer system (TARGET), the network of payment systems of the European national central banks (NCBS) and the European Central Bank (ECB). Every week, TOP processed payments worth an average of almost EUR 490 billion. Interbank large-value payment systems have to meet stringent requirements in terms of security, efficiency and reliability.

Oversight has revealed that the on-going additional work aimed at further improvements in business continuity management at DNB, mentioned in last year's annual report, has not yet made sufficient progress to modify the 2006 opinion. In 2006 TOP largely observed CP VII (operational reliability). At the end of 2007 TOP was still considered to observe all other Core Principles. CP V (multilateral netting systems) does not apply because TOP settles the payments gross in real time.

TOP observes virtually all the standards

6.2.2 TARGET2

On 19 November 2007 TARGET2 became operational. On that date the first group of countries, including Germany, Austria and Luxembourg, migrated to TARGET2. The Netherlands is in the second group, together with France and Belgium, for example, which made the transition on 18 February 2008. TARGET2 is the successor to TARGET and is technically not a network of national payment systems anymore but a single platform (software/hardware) which all euro area countries will use. Since full European harmonisation of the legislation relating to TARGET2 has not yet been achieved, TARGET2 consists in legal terms of decentralised components, such as TARGET2.NL in the Netherlands.

In the third quarter of 2007, TARGET2 was assessed against the CP as a component of the Eurosystem. Since much of the documentation was not yet final at that time, this assessment led only to the notification of deficiencies. Those deficiencies did not prevent the entry into use of TARGET2 and will be resolved on the basis of an action list, drawn up by the TARGET2 operators in accordance with the

Partial oversight assessment of TARGET2

Table 6.3 - Summary of oversight of interbank large-value payments

	O	BO	PO	NO	NA
	Observed	Broadly observed	Partly observed	Not observed	Not applicable
No.	Core Principle		TOP		
1	Legal basis		O		
2	Transparency of financial risks		O		
3	Control of financial risks		O		
4	Prompt final settlement		O		
5	Multilateral netting systems		NA		
6	Settlement assets		O		
7	Operational reliability		BO		
8	Efficiency		O		
9	Access		O		
10	Governance		O		

Eurosystem's oversight function. A full assessment of TARGET2 will only become possible at the end of 2008, when some operational experience has been gained with the system.

6.3 Securities transactions assessment results

6.3.1 LCH.Cleernet SA

LCH.Cleernet SA (Cleernet) is the central counterparty for transactions on the Euronext securities and derivatives markets. It also acts as the central counterparty for off-exchange transactions in bonds, repo contracts and energy contracts. As the central counterparty, LCH.Cleernet SA guarantees the settlement of a securities transaction for both the buyer and the seller, and calculates the amounts which participants in the settlement system owe to one another (this process is called clearing).

LCH.Cleernet SA was assessed against the 15 RCCP in 2005. The assessment was conducted by some of the regulators, comprising representatives of the Banque de France, the Commission Bancaire, the Comité des Etablissements de Crédit et des Entreprises d'Investissement, DNB and the AFM. In addition, the authorities concerned supplemented the report with findings resulting from their own national activities. LCH.Cleernet SA observes 14 of the 15 recommendations. In 2007, at the regulators' request, LCH.Cleernet SA extended its risk management by introducing an intraday margin call on the derivatives market so that it now also observes RCCP 3. LCH.Cleernet SA partly observes the recommendation on operational reliability. In 2006 and 2007, on the instruc-

LCH.Cleernet observes
practically all
recommendations

Table 6.4 - Summary of oversight of securities clearing and settlement

	O	BO	PO	NO	NA		
	Observed	Broadly observed	Partly observed	Not observed	Not applicable		
No.	CCP Recommendation	Cleernet	EMCF	No.	SSS Recommendation	ENL	
1	Legal basis	O	O	1	Legal basis	O	
2	Participation requirements	O	O	2	Transaction confirmation	O	
3	Calculation of credit risks	O	O	3	Settlement time	O	
4	Margin requirements	O	O	4	CCP	NA	
5	Financial resources	O	BO	5	Securities lending	NA	
6	Default procedures	O	O	6	Dematerialisation	O	
7	Custody and investment risks	O	BO	7	DVP	PO	
8	Operational risk	PO	PO	8	Finality	BO	
9	Settlement assets	O	NO	9	Credit risks	NA	
10	Physical deliveries	O	BO	10	Settlement assets	O	
11	Risks in links between CCPs	O	NA	11	Operational risk	O	
12	Efficiency	O	O	12	Ownership protection	O	
13	Governance	O	NO	13	Governance	O	
14	Transparency	O	O	14	Access	PO	
15	Regulation and oversight	O	O	15	Efficiency	O	
				16	Communication standards	O	
				17	Transparency	O	
				18	Regulation and oversight	BO	
				19	Risks in links between CSDs	O	

tions of the regulators, LCH.Clearnet SA made improvements to its risk management and operational systems. This largely eliminated the deficiencies which the regulators had found in 2005.

6.3.2 *European Multilateral Clearing Facility NV*

European Multilateral Clearing Facility NV (EMCF) is the central counterparty for transactions effected on Chi-x Europe Limited, a Multilateral Trading Facility set up by the British Instinet Europe Limited. EMCF offers the central counterparty function for the clearing of Dutch, British, German, French and Swiss shares. EMCF is a subsidiary of Fortis Bank Nederland (Holding) NV and Fortis Bank Global Clearing NV, and began operating on 30 March 2007.

The number of transactions cleared via EMCF has risen strongly since the launch. In January 2008 the average number of transactions per day exceeded 155,000, worth almost EUR 2 billion. In some major stocks, Chi-X with EMCF regularly has a market share of 10% or more, measured against the total turnover of Chi-X and the home market together.

New initiative by EMCF
observes eight of the
fourteen recommendations

The DNB and AFM systemic supervisors jointly conducted an initial assessment of EMCF against the 15 RCCPs. In view of the many changes made by EMCF during 2007, a second assessment was conducted of EMCF in the first two months of 2008. This showed that EMCF observes eight of the fourteen standards. RCCP II does not apply. EMCF broadly observes the requirements imposed on financial resources (RCCP 5) and the requirements concerning custody activities (RCCP 7) and settlement activities (RCCP 10). EMCF partly observes the operational reliability requirements (RCCP 8). EMCF does not observe the requirements concerning the structure of cash settlements (RCCP 9). Fortis Bank Nederland is the settlement and paying agent for EMCF, with an account in the relevant central banks and CSDs. EMCF is dependent on this service provided by Fortis Bank Nederland, because the lack of a legal framework for CCPs in the Netherlands makes direct access difficult for EMCF. The existing financial infrastructure is not yet sufficiently geared to new market initiatives such as that of EMCF. In addition, EMCF does not observe the governance requirements (RCCP 13). The reason is largely to do with EMCF's dependence on Fortis Bank Nederland (Holding) NV and Fortis Bank Global Clearing NV.

The joint regulators concluded that, despite these scores, there was no reason to require EMCF and/or its shareholders to cease their activities. The volumes handled by the EMCF systems are increasing, but do not represent a threat to financial stability. EMCF is making improvements and is aiming to observe the RCCP. For instance, EMCF has plans for substantial modifications to its settlement structure, the clearing fund and its collateral management in the foreseeable future.

6.3.3 *Euroclear*

Euroclear Nederland (ENL) is the trade name of the Nederlands Centraal Instituut voor Giraal Effectenverkeer BV, the Central Securities Depository in the Netherlands. Euroclear Nederland offers settlement, custody and securities administration services for its members (banks and investment firms). Euroclear Nederland settles the payment and delivery obligations arising from transactions effected on Euronext Amsterdam and over-the-counter transactions. This process is called settlement.

In 2007, DNB took the Euroclear Nederland disclosure framework as the starting point for a marginal assessment of the Euroclear Nederland settlement system

Euroclear Nederland observes the majority of the recommendations

on the basis of the rsss. Euroclear Nederland observes twelve of the nineteen recommendations. Three recommendations do not apply. Euroclear Nederland broadly observes the recommendation concerning finality (rsss 8) and regulation and oversight (rsss 18), and partly observes the standards concerning DVP (rsss 7) and access (rsss 14). A full assessment was not conducted because all major changes to the system are approved in advance by DNB and AFM under the oversight arrangement applicable to Euroclear Nederland, so that the system's status is known more or less continuously.

The second reason is that the current technical platform will be replaced by ESES (Euroclear Settlement for Euronext-zone Securities), a system which will also be used in Belgium and France. The provisional opinion on ESES, established in 2007, will be used by DNB and AFM for the initial assessment of ESES, to be completed in 2008.

6.4 Retail payment assessment results

6.4.1 Equens

Equens processes financial transactions effected with a very wide range of payment products. The service encompasses the whole spectrum of non-cash and card-related transaction processing, clearing and settlement. With an annual volume of 7.3 billion transactions, Equens has a market share of over 15% in the euro area. For the Dutch market, the transactions are processed by the Clearing and Settlement System (css) and for the German market by the zvs system. In 2007, Equens took steps to prepare its infrastructure and systems for processing SEPA transactions. Equens Nederland BV owns and operates the css. Via the css, once all the payments have been processed, the css periodically determines the amounts which the banks owe one another on behalf of the account holders (customers such as consumers or retailers). The totals are notified to DNB, as all banks established in the Netherlands hold an account in its TARGET2 system. DNB has a mandate to debit and credit these accounts, thus settling the payments. After that, the banks inform their own account holders of their bank balance on the basis of the processing data which they receive from Equens.

Table 6.5 - Summary of oversight of retail payments

O	BO	PO	NO	NA		
Observed	Broadly observed	Partly observed	Not observed	Not applicable		
No.	Core Principle	Equens	No.	Recommendation	iDEAL	TNS
1	Legal basis	BO	1	Legal structure	O	BO
2	Transparency of financial risks	O	2	Sound financial position	O	O
3	Control of financial risks	O	3	Outsourcing	O	NA
4	Prompt final settlement	O	4	Legislation and regulations	O	NA
5	Multilateral netting systems	NA	5	Product conditions	BO	BO
6	Settlement assets	O	6	Risk spreading	BO	BO
7	Operational reliability	O	7	Risk analysis	BO	O
8	Efficiency	O	8	Review of risk analysis	BO	NA
9	Access	O	9	Security and continuity	BO	O
10	Governance	O	10	Integrity and governance	BO	BO

Equens observes virtually all standards

In 2007, DNB reassessed the Equens CSS system and stood by its conclusion that the CSS fully observes eight of the ten set standards (CPS). The CSS broadly observes CP I (legal basis), but not entirely since it does not have a 'country opinion' on a number of relatively small foreign participants. A country opinion describes whether – and if so, to what extent – the law in the participant's country of establishment conflicts with Dutch law and the rules of the system. In view of the limited risk, Equens considers that this country opinion offers insufficient added value. CP V (multilateral netting) does not apply since the CSS is a hybrid system owing to the high frequency of settlement. This means that CSS has characteristics of both a real-time gross system and a multilateral netting system.

6.4.2 *iDEAL*

iDEAL is a payment product for making direct payments on the internet via internet banking. Currence *iDEAL* acts as the legal owner of *iDEAL* (see Figure 6.1, scheme roles). Owing to the importance of payment products in Dutch retail payments and the role of Currence as the legal owner of the payment product *iDEAL*, DNB duly exercises oversight. In 2007, the initial assessment was conducted on the basis of the oversight framework agreed with Currence, including information on the procedure for exercising that oversight and the set requirements.

At the end of 2006, *iDEAL* was transferred to Currence by the banks which developed it (ABN AMRO Bank, ING Bank and Rabobank Nederland).

In order to be able to use *iDEAL* to effect payments, the payer has to use an internet banking product of a participating bank. That bank must support the *iDEAL* payment standard, and in that sense *iDEAL* is positioned as one of the interbank payment products. The assessment showed that the degree to which *iDEAL* observes the set standards is generally satisfactory. This can be considered a good outcome, since it is only recently (end of 2006) that Currence was able to begin performing its role as the owner of *iDEAL*. *iDEAL* fully observes four of the agreed standards. These standards concern, for instance, the organisation and how it operates, and the management structure. *iDEAL* broadly observes the other six standards. The deficiencies identified mostly concern the absence of a small number of provisions in the conditions which Currence imposes on its licensees. Although these are already included in the relationship between licensees and their customers, they have not yet been formally specified in the Currence rules. Currence has stated that it will tackle the points for improvement.

iDEAL fully observes four of the recommendations and broadly observes the other six

6.4.3 *Telegiro Nieuwe Stijl (TNS)*

Telegiro Nieuwe Stijl (TNS) came into use in June 2007. *TNS* is based on a standard with agreed rules of conduct and is in fact a specific variant of the ordinary credit transfer order, the main differences being the deadlines for processing and settlement. At interbank level a number of general characteristics have been established; all express orders exchanged between participating banks must conform to those characteristics. This means that participating banks can each define their own express order: so long as they include as a minimum the general characteristics, they are otherwise free to design the order as they wish. In very simple terms, the process is as follows: a customer's request for execution of an express payment is processed by the bank as an express order submitted to a payment system. When *TNS* was launched, it was possible to choose between DNB's *TOP* system or EBA's *EUROI*. Now that *TOP* has been replaced, *TARGET2* is the system used. In the payment system, the payment is

effected between the payer's bank and the payee's bank. The customers are then informed and their accounts are updated. No separate oversight framework has been established for the oversight of TNS. TNS was assessed on the basis of the 'Recommendations for Payment Products' used for all interbank products. Three recommendations from that set of standards were not assessed. Recommendations 3 (outsourcing) and 4 (legislation and regulations) were not assessed because, owing to the product's nature, the scope of the assessment is limited; recommendation 8 (periodic review of risk analysis) was not assessed because this is a new product.

Ownership of TNS unclear

The assessments of the other recommendations revealed that the legal structure, governance and product conditions of TNS were still insufficiently clear at the time of the assessment, since the ownership had not been clearly defined.

