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TOWARDS AN INTEGRATED CLEARING AND SETTLEMENT STRUCTURE FOR THE EUROPEAN CAPITAL MARKET

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TOWARDS AN INTEGRATED CLEARING AND SETTLEMENT STRUCTURE FOR THE EUROPEAN CAPITAL MARKET

Th.J.M. van Heese

INTRODUCTION

The risk diversification pursued by investors has resulted in a strong internationalisation of investment flows. As a result, a tendency towards integration of the capital markets at European level in particular was put in motion, even more stimulated by the introduction of the Euro.

The importance and logistics of risk diversification are emphasised even more by the increased importance of institutional savings, lead by pension schemes and insurers, and the requirements for the professionalism of the institutional investor. In addition, investments in equities and/or bonds have taken an important position in the composition of savings of private investors.

This distinguished, trend-related development partly induces a consolidation process of parties providing services to investors (professional intermediaries), a consolidation of exchanges and the reorganisation of the supervision on the different parties operating on the capital market.

The adjustment of a national capital market into an integrated European capital market involves a variety of views on the direction of this adjustment as appears from the constant flow of reports that are usually drawn up from one single viewpoint or part interest.

In this contribution to the discussion, we especially focus on the questions related to clearing, settlement and custody. Questions raised in the event a bargain in equities/bonds is concluded either on-exchange or off-exchange.

We question where we can profit from in the different realised national clearing, settlement and custody systems and how this profit can be used for the integration of the national markets into one European market. When answering these questions, we have chosen the viewpoint of the final party concerned, i.e. the investor. We also acknowledge that the relevant development in information and communication technology offers possibilities that may facilitate the pace of the integration of the clearing and settlement structure of the European capital market.

After a securities bargain has settled, the question is raised how to implement the transfer of ownership. In other words: how does delivery versus payment take place?

In 1977, the Securities Bank Giro Transactions Act was introduced in the Netherlands. This act governing the transfer of ownership is based on the regulations for investors regarding the ownership of securities. Bank giro securities trade functions on the basis of a central securities depository. Dematerialisation of the securities trade is an important breakthrough. While introducing the act, the Netherlands could benefit from the views and regulations that were already realised in the countries surrounding the Netherlands.¹⁾

The layout is therefore in short:

The investor (the owner of the securities) places the securities into custody with an intermediary acting as Admitted Institution at the Central Securities Depository (CSD).

The Admitted Institution is a professional custodian, i.e. a bank. The investor maintains a relationship with the custodian, which is an Admitted Institution at the central institution, and administers securities placed into custody, separated from its other banking activities. The depositor is the owner, and the custodian facilitates the custody at the central institution. The central institution maintains a relationship with the Admitted Institution in terms of securities custody (administration-related) and securities trade for the Admitted Institution to facilitate the depositor (the investor). Clearing and settlement are functions that specifically relate to the logistics of the transfer of ownership of securities resulting from a concluded securities transaction.

Securities are delivered by means of a transfer to a depository with the Central Securities Depository of the Admitted Institution, the bank (custodian) with whom the investor as depositor maintains a relationship. The bank administers the transfer to the investor's securities account in the books of the bank.

The delivery takes place by means of a transfer to the central depository at the central institution. What is the payment method (considering that it concerns delivery versus payment)? The bank debits or credits the cash account the client keeps with the bank. The mirror transaction at the level of the Admitted Institution is a debit/credit entry of the cash account of the Admitted Institution kept with the Central Bank. The central institution executes the securities delivery (transfer) provided that the Central Bank has ascertained that the Admitted Institution has effected the payment for the purpose of the delivery.

The principles that can be derived from the aforementioned description are outlined below:

- The investor (depositor) maintains a relationship with the bank (custodian); this is a commercial relationship. The investor keeps a cash and securities account with the bank.
- The ownership of securities is based on statutory regulations.
- The transfer of ownership is also based on statutory regulations.
- The bank (custodian) facilitates in the capacity of Admitted Institution the custody with the central institution which is in fact a central depository.
- The central institution facilitates the central custody and administration of securities and does not execute any other operations.
- The Admitted Institution keeps a cash account with the Central Bank for the purpose of the delivery of securities at the level of the central depository.

At the level of the Admitted Institution the combination of Central Depository and Central Bank provides security (risk-free), irrevocability, stability, orderliness, low costs (full economies of scale). The admission rules for Admitted Institutions guarantee equal treatment.

This level in the custody and settlement mechanism is described as the infrastructural level.

The investor has access to this infrastructural level via his custodian (the bank).

The commercial level in the custody and settlement process is described as the relationship the investor maintains with the bank.

In the event of an integration of the settlement and custody mechanisms of the different national markets, not all aspects can be realised at the same pace.

The Central Banks co-operate as the European Central Bank. For professional cash payments between banks (also in the capacity of Admitted Institution), a system managed by the European Central Bank is available under the name Target. This pace is not in line with the pace of the realisation of a European Central Securities Depository.

The integration of the ownership legislation and the transfer of ownership against the background of different legal systems proves to be more difficult and time-consuming.²⁾

This does not alter the fact that a logistic structure can be realised that supports the integration into a European structure. In the event that the acknowledged principles are respected, the logistics can be integrated, although several legal systems will still result in even more central depositories.

One special aspect remains to be discussed. In the event a company decides to issue shares or bonds, the bank conducting the issue will register them in the Central Depository. The central administration function does not only support the giro-based transfer of ownership, but also corporate actions resulting from the securities instructions: dividend payments, coupon payments **and** redemptions. The allocation to the Admitted Institution takes place in conjunction with the acquired share of the Admitted Institution into the central depository.

It can implicitly be derived from the argument so far that a study of the settlement and custody infrastructure in the different national markets in Europe would only confirm the set principles and the related economic guarantees.

The question how to realise the transfer of ownership in the event of a securities transaction is preceded by a different question: in which way is a securities transaction realised and in what manner is the instruction for the settlement of a securities transaction initiated?

A securities transaction may be realised via a regulated market (an exchange). The investor appoints an institution admitted to the regulated market, an intermediary (broker, agent or bank in the capacity of broker) which executes the transaction on the exchange.

The exchange may decide to place a central counterparty opposite each buyer and seller (the broker) participating in a transaction. In the event no central counterparty is introduced, the settlement will be executed post by post. Some advantages are attached to the introduction of a central counterparty, for example, it offers the possibility to calculate the obligations arising from securities transactions on a bilateral or multilateral basis. This process is called clearing. The clearing process results in a settlement instruction, which is sent to the infrastructure for settlement. Clearing via a central counterparty may also comprise a guarantee mechanism, which means that the clearing member guarantees the compliance with the obligations resulting from the transaction executed on the exchange by the Admitted Institution (trading party). The central counterparty (also referred to as the clearing house or clearing) is the party organising the guarantee via the admitted clearing members. A clearing member stands surety for the obligations assumed by an admitted trading party on the exchange. To stand surety for a trading party is actually a banking activity.

Partly caused by the usances of the founded derivatives markets, the securities exchanges have changed over to the introduction of a central counterparty with a guarantee mechanism. In addition to the netting of the preparation of transactions for settlement, the main advantage of the guarantee mechanism is in the area of risk management.³⁾

The clearing member/clearing house mechanism contributes to a significant decrease of the counterparty risk in the on-exchange trade and contributes to the anonymity of the exchange trade and as a result to the market liquidity. Trade benefits from this.

A clearing member guarantees the settlement of a transaction entered into by the broker (the admitted trading party). The clearing member therefore maintains a banking relationship with the broker and must therefore, in addition to being a bank, have the capacity of Admitted Institution to the settlement and custody infrastructure.

The responsibility of a clearing house starts with concluding a contract with the exchange, being the central counterparty principle and/or the guarantee mechanism. The clearing organisation organises the clearing method and gives the settlement instructions at infrastructural level for settlement and custody and is also responsible for the supervision on the realisation of settlements at infrastructural level. The clearing organisation is also responsible for the admission of clearing members arising from the optimum guarantee that obligations are complied with.

The clearing method and the supervision on the completion of the settlement at infrastructural level are partly related to the type of settlement model implemented at infrastructural level.⁴⁾

A securities transaction can also be initiated via a non-regulated market (off-exchange). The trading parties accept their mutual creditworthiness with regard to the compliance of the obligation. The advantages of a clearing mechanism are not available as transactions are settled post by post. Both counterparties instruct the custodian appointed by them to realise the securities delivery against payment. In the event both trading parties maintain a different custody relationship, these custodians will deliver/receive the securities via the link each custodian maintains with the Central Securities Depository (CSD) and will execute the payment via the accounts the custodian keeps with the Central Bank.

The principles of securities custody and trade, as referred to in paragraphs 2 and 3, are derived from the different national structures. The described principles can also be derived from the report of the Giovannini Group.⁵⁾ This report draws the conclusion that securities settlement is realised cost-efficiently in the different national markets. The cost aspect in particular related to the cross-border securities custody and trade is an incentive for many judgements how new-style cross-border trade fitting with a more integrated European capital market should be realised. A study has been conducted from the investor's viewpoint into the costs for both domestic and cross-border transactions. Both the broker fees and the custody fees are included in this comparative study. The findings of the study are that the fees for a domestic share transaction for a standard order size amount to 80% of the fees payable for a cross-border transaction. The difference can be explained as the custody fee for cross-border custody and settlement is approximately three times higher than the custody fee for domestic transactions.⁶⁾

A professional custodian entering into a custody relationship with the depositor, offers, especially considering the internationalisation of the depositor's investments, not only services focussed on the domestic market, but has also realised a capacity for the custody of non-domestic securities acquired by the depositor. In such cases, the custodian provides a service that can be referred to as global custody. The custodian organises this service by organising a network of foreign correspondent custodians. The foreign correspondent bank organises the non-domestic custody for the depository bank. In terms of logistics this means that:

- The custodian of the national depositor takes care of the global custody via a network of correspondent banks.
- The custodian maintains a relationship with a correspondent bank.
- The correspondent bank manages the relationship with the custody and settlement infrastructure in the country in question.
- This relationship covers two flows: cash **and** securities.
- The additional link in the relationship comprises the connection of custodian/correspondent correspondent/infrastructure and cash **and** securities.

Resulting from the tendency towards risk diversification and internationalisation, this means that a considerably large correspondent network has to be maintained for global custody. It is rather costly to maintain such a considerable network; aspects of selection, quality and communication about local knowledge play an important role in this respect.

At European level, a party trading on the exchange can become member of the different European exchanges on the basis of the European passport principle. The broker can therefore serve his client on several exchanges. In the event the broker himself is not a member of the relevant exchange, the broker can transfer the order for the investment activity to an associate broker. Of course, the investor himself can also appoint a broker connected to a different exchange.

SEGREGATION OF DUTIES AND INTEGRATION

It can be concluded from the description given so far that four functions are distinguished for the execution and settlement of a securities transaction: trading, clearing, settlement and custody.

The segregation of duties is also served by distinguishing an infrastructural level and a commercial level in terms of settlement and custody. Integration tendencies can be observed at both functional levels. The assessment and/or improvement of the integration and the applicable conditions can be considered on the basis of the logistics to be distinguished for the initiation of a transaction up to the settlement of a transaction.

The acknowledged functions are to be recognised in the different national markets. The connection levels between the functions and/or chosen organisation with regard to the functions diverge. We have acknowledged several principles and relevant criteria to be respected. The development of information and communication technology improves the pace of information, efficiency and supports orderliness and risk management. Admittance conditions should offer an equal level-playing field for the trading participants and the Admitted Institutions.

The infrastructural settlement and custody component in particular offers a facilitating condition for competition as a custodian.

In the event of an integration of the different functions, the investor may expect the supervising authorities to take initiatives or formulate regulations that honour the basic principles.

Securities custody and trading depend on the regulations with regard to ownership and transfer of ownership. In the event it takes time to integrate the legislation, regulations have to be drawn up that determine the order of the code of conduct.⁷⁾

In addition, it is basic that a custodian realises a separate depository for the securities taken into custody thereby indemnifying the investor for commercial risks run by the custodian (the bank). This is not related to the contents of a commercial relationship between the depositor as bank and the investor. Risk management in a clearing organisation should be realised carefully and should exclusively relate to the guarantee function and the clearing method. Any other risks should not be taken.

The function of Central Securities Depository and securities trade should infrastructurally be indemnified for any risk. Delivery versus payment is the guiding settlement norm. The admission regulations for clearing and the central custody/settlement should honour the 'public' duty related to this part of the chain and include the guarantees for equal conditions of the risk-bearing participants.

These basic principles/criteria are endorsed separately⁸⁾. However, there is a great variety of visions and reports as referred to in the introduction (mostly by part interests). The final interest to be served is the interest of the investor. The supervising/legislative authority should in this light design his duty especially in the event of integration tendencies on the European capital market.

The logistics of a securities transaction and the different functions are outlined in the following diagram (page 10).

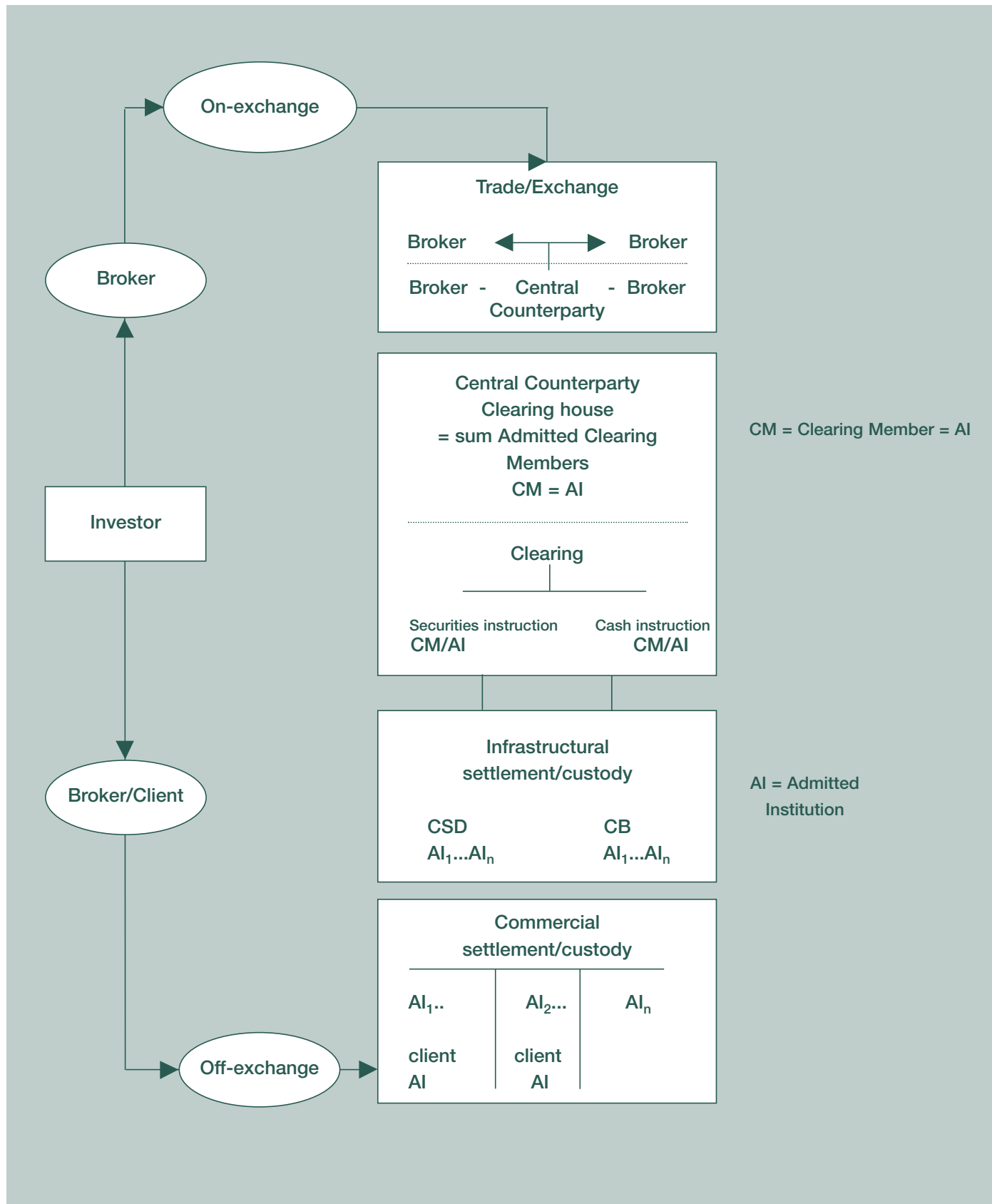
The national structures can be described on the basis of the columns in the diagram.

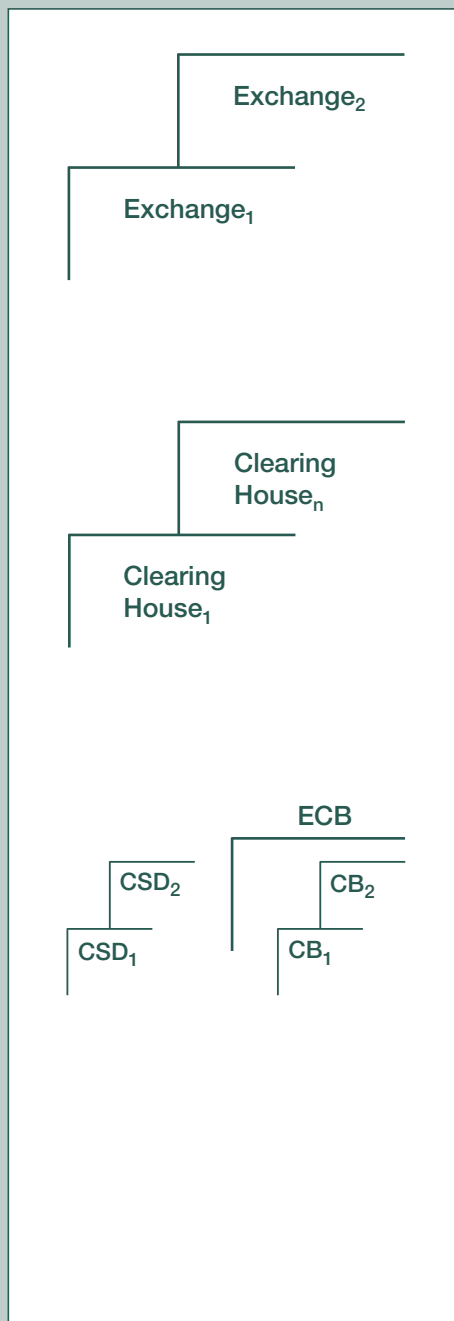
We review both the column and a combination of functions in horizontal terms due to the integration tendencies.

The following can be derived from the diagram:

- It is neither required nor advisable to organise all functions including infrastructural settlement and custody into one single entity.
- The exchange manages the trading regulations and provides a facilities company for trade.
The exchange also includes stocks in the official list, i.e. the exchange includes the underlying issued value as trading object on the exchange.
In the event of integration of trading platforms, the exchange will start the harmonisation of admittance and trading regulations and will start harmonisation regulations for the admittance of trading parties.
The exchange will take the initiative for a central counterparty.
It is advisable to organise the clearing organisation in a separate entity. It is advisable that the clearing members are (part) shareholder of the clearing organisation.
There is a clear relationship between the exchange and the clearing organisation. The clearing house can provide services to more than one exchange.
- The clearing organisation manages the clearing methods, the organisation of the guarantee function and the settlement of instructions at infrastructural level. In addition, it will also persuade itself of the completion of the settlement at infrastructural level.
Clearing organisations may integrate under condition of one uniform risk management.
- An Admitted Institution with the Central Securities Depository is not required to have a Clearing Member capacity.
However, it is advisable for a clearing member to have the capacity of Admitted Institution.
- The admittance to the Central Securities Depository and the Central Bank at infrastructural level involves the following: the requirement of being a professional custodian and being a credit institution.
- The integration of CSDs should partly depend on the harmonisation of the regulations with regard to ownership and transfer of ownership. A logistic structure should honour the current ownership regulations. Operational integration can be realised under this condition. The Central Securities Depository (CSD) is a facilities public organisation to be compared to the function of the (European) Central Bank. The CSD solely serves as a facilities function not involving any commercial risk (zero-risk) as it concerns an ownership administration at central level to facilitate the transfer of ownership for the purpose of the investor. In this context, it should be emphasised that the ownership rights are vested with the investor and that the custodian actually keeps an ownership administration for the purpose of the investor. The importance of a division between the custody of the investor's securities from the other banking activities of the custodian should be emphasised. The fusion of a commercial bank/custody capacity with keeping a central depository should be excluded by definition in the interest of the purity of the Central Securities Depository function and to guarantee the equality of the admittance to the Central Depository/Central Bank level. (This is similar to the view that a commercial bank does not own a Central Bank.)
Advantages of an integration of the different functions are a higher market liquidity, optimum risk management, scale advantages arising from a central depository and clear communication protocols.

The logistics of a securities transaction and the different functions.





The aforementioned description of the diagram, the functions and/or integration aspects are given from the viewpoint that a transaction comes about via the exchange.

In the event of an off-exchange transaction (with or without calling in a broker) the settlement will be initiated post by post by (delivering/receiving) the instruction to/from the custodian of the participants in the transaction.

In the event both participants keep an account with the same custodian, settlement can take place in the books of the custodian. If this is not the case, the custodians respectively will settle the securities transaction by giving instructions at infrastructural level. In the event of off-exchange trade, the trading parties accept the mutual risks of creditworthiness. In comparison with exchange settlement the guarantee effect **and** the clearing effect are lacking in the event of netting in the settlement which is rather considerable.

While recognising the problems that have to be solved, especially in the event of integration of several functions, the logistic diagram, the indexed principles and criteria are univocal.

Nevertheless, there is a flow of reports that indicates different views. Is this reality or pretence?

The only relevant angle to view securities trade, clearing, settlement and custody, is that of the investor's interest and therefore not the view of the trading party, the clearing organisation or the Custody Bank Institution. It should be emphasised that the investor is the only real and underlying user.

The competition between the exchanges and/or the related integration involves the acknowledgement in the large German market that the lack of the central counterparty principle in comparison with Euronext and London Stock Exchange is a shortcoming.

The Deutsche Börse has acquired an international settlement company and has integrated it into its organisation. This results in a discussion on the vertically or horizontally integrated model. The arranged diagram indicates that there is no actual reason for discussion.

The history of development of Euronext (integration of the trading platforms Paris, Brussels and Amsterdam) has resulted in the provision of a preferential position to an international settlement company, Euroclear Bank. This assignment is based on an incorrect view into the logistic settlement structures of an exchange transaction! This error is complicated even more by the fact that Euroclear has acquired shares from the Central Securities Depository organisations in France and the Netherlands and has merged with Crest, the UK organisation supporting the settlement of transactions executed on the London Stock Exchanges.⁹⁾

Not honouring indexed principles and criteria will result in a lot of confusion and discussions, even more accentuated by several raised user interests, while the interest of the only real user, the investor, will be lost sight of.

In connection with the aforementioned and for the sake of completeness, the function of the international settlement institutions Euroclear and Clearstream requires further explanation.

At the end of the sixties, a lively off-exchange trade arose in so-called Eurobonds (dollar bonds traded off-exchange). This product is relatively homogenous. Trade in such products involves a lot of trading activities between brokers themselves prior to a transaction with an investor is realised. To settle such transactions, trading parties in question have founded an institution that acts as a bank specialised in securities settlement which target group is professional traders. This institution takes care of the mutual cost settlement for the settlement of transactions. In the event it concerns keeping a deposit and a transaction with an investor (mostly cross-border), these institutions make use of the tested means of a network of correspondent banks as each custodian does. The added value of these institutions is determined by the services provided to the described group of professional bond traders. On the basis of our diagram, both institutions act as custodian using a correspondent network.

It is particular that they are mostly not directly connected to the infrastructure! A more integrated market faces Euroclear and Clearstream with the question whether to realise a direct connection to this infrastructure or to maintain the current correspondent network. Euronext granting a preference to Euroclear causes friction with the required link by the clearing organisation appointed by Euronext, i.e. Clearnet, with the settlement and custody infrastructure.¹⁰⁾

The preferred route argued by Euronext can therefore be qualified as inefficient and cost- and risk-increasing. The acquisition of shares of the central depositories by Euroclear is even more fascinating in this context, especially because Euroclear Bank itself does not have a direct material connection to the Central Depositories.¹¹⁾ Euroclear now systematically aims to achieve an integration of its bank with the Central Depositories. This is contrary to the importance of the separation of infrastructure from the commercial custody and settlement function and neither guarantees equality of admittance to the infrastructure for the other custodian of Euroclear Bank, which is equal in function.¹²⁾

Finally, it should be stated in this context that the term ICSD, meaning International CSD which is sometimes used to indicate Euroclear/Clearstream, is completely confusing and is incorrect in a functional sense.

Especially global brokers (brokers working with offices all over the world) intervene in the discussion, while in this context losing sight of the importance of the separation between the infrastructural functions from the commercial functions, the difference between on-exchange and off-exchange trade and the importance and the role of commercial custodians that finally serve the investor for which the broker may execute the order. The same global brokers also raise the argument of the fragmentation in Europe with regard to trade, clearing and settlement. The mostly US brokers lose sight of the development in the US clearing and settlement structure and also of the fact that the structure, like it is currently catching on in the USA, actually corresponds with the diagram drawn up by KAS BANK.¹³⁾

The custodian takes care of the administration and the management of the securities placed into administration by the depositor. The guidance and access to the central depository and the making available of the relevant capacity in operational technical terms, is the core of the relationship. However, the depositor sets additional requirements that play a role in the commercial relationship. The product range developed by the custodian and the related services rendered are client-driven.

The commercial gamma extending further than custody including global custody¹⁴⁾ comprises services that the investor experiences as yield increasing or supporting for the tactical and/or strategic investment policy as followed by the investor.

The investor enters into a relationship with the custodian and thus opts for a choice in which the risks run by the custodian are discounted although the risk of ownership/ownership transfer is reduced to a zero-risk by the structure in which it is embedded and the other risks are judged in an assessment of yield and added value.

In the function of integration tendencies on the European capital market and the functions distinguished in the logistic of clearing and settlement of a securities transaction, commercial custodians will develop a competitive policy fitting with the client group they serve.

Given the acknowledged tendency towards risk diversification by the investor, the consolidation of exchanges and the introduction of the Euro, the tendency towards a further integration of the European capital market will continue. Exchanges and brokers anticipate that in their policy formulation and its implementation.

The required adjustments to the current layout of the distinguished clearing and settlement functions can be supported by the available information and communication technology.

While honouring the importance of harmonisation of the ownership rules and the ownership transfer in the long term, several rules of conduct can be drawn up for the short term, which facilitate cross-border co-operation of clearing houses or settlement and custody infrastructures.

The supervising authorities (the supervision on code of conduct and macro-prudential) should guarantee the indexed principles and criteria and the equality of the admission rules.

In terms of development, the described integration tendencies will partly depend on the competition or co-operation of the different trading platforms where investors, assisted by brokers, will initiate their transactions. Integration aspects concern the harmonisation of trading rules, clearing methods and settlement methods, risk management and operational communication/information protocols to enable the improvement of the logistics of the clearing and settlement of the securities transaction. Of chief importance is that the integration processes are embedded in a structure acknowledging and guaranteeing the importance of the infrastructural settlement and custody whereby securing the interests of the investor.

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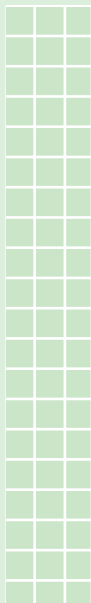
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A report drawn up by order of AFTS.
This research also showed that broker fees dominate over custody fees.
- 7) The applicable law in the event of cross-border trade is determined by the PRIMA reference rule.
PRIMA stands for Place of the Relevant Intermediary. The PRIMA-rule is based on the applicability of the regulations of the most relevant intermediary when the question arises which right applies in the event of cross-border securities settlement. On this basis several recommended regulations have been drawn up, referred to as the 'The Hague Convention'.
- 8) Bank for International Settlements, Committee on payment and settlement system/Technical Committee of the International Organisation of Securities commission, Recommendation for securities settlement systems, November 2001.
- 9) Crest was founded to support an efficient settlement in the UK market. Crest knows two types of Admitted Institutions: participants and users. Participants comprise Admitted Institutions (members) that keep securities of Crest or offer payment services (settlement banks, with regard to the link with the Bank of England) and the registrars (parties registering and administering the securities (and support physical securities)).
The users (or sponsors) comprise the members communicating with Crest for the purpose of participants. In the UK, securities can be kept giro-based via a nominee construction against the registration of the owner with the registrar.

- ¹⁰⁾ Clearnet should be the trigger for settlement at infrastructural level, from where the settlement is forwarded to the commercial level. In the event Clearnet is forced to first divert the settlement to the commercial level of Euroclear Bank and subsequently to the infrastructural level, it means that the wrong route has been selected.
- ¹¹⁾ On occasion, Euroclear Bank has formally acquired the status of Admitted Institution, however the operational management has been transferred to a 'third' Admitted Institution.
- ¹²⁾ Andrea report
Recently, a report was published in the European Parliament, drawn up by Generoso Andrea, dated December 2002, Report on the communication from the Commission to the Council and the European Parliament entitled 'Clearing and settlement in the European Union'. 'The main policy issue and future challenges'. This report supports our views.
- ¹³⁾ In the USA, it took approximately 20 years before the central Securities Depository DTC including clearing functioned from one central basis. The participants of DTC are settled on a netted basis via the DTC-same day fund system, for which participants are required to provide collateral. Strictly speaking, it does not concern DVP. The settlement and custody of government bonds is executed by the Federal Reserve system.
- ¹⁴⁾ Global Custody is provided by a custodian. A global custodian provides custody services world-wide via several offices (client-focussed) and usually uses a network of correspondent banks.

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- Economies of scale in the custody market
Th.J.M. van Heese, E.H.P. van der Star
April 2002
- The need for innovative risk management information in the investment process
Dr T. van der Meer, dr F. Koudjeti and F.P.J.A. de la Chambre
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