

# NON-CASH PAYMENTS ROLE OF THE BANKING SECTOR IN NON-CASH PAYMENTS SETTLEMENT: CASE OF CIBANK

Yancho Dimov

Bachelor's thesis November 2011 Degree Programme in International Business Tampereen ammattikorkeakoulu Tampere University of Applied Sciences

TAMPEREEN AMMATTIKORKEAKOULU Tampere University of Applied Sciences

# ABSTRACT

Tampereen ammattikorkeakoulu Tampere University of Applied Sciences Degree Programme in International Business

Non-cash payments. Role of the banking sector in non-cash payments settlement: Case of CIBANK.

Bachelor's thesis 52 pages, appendixes 3 pages November 2011

The purpose of this paper was to reveal the nature, role, place and importance of noncash payments in the worldwide economic life with an emphasis on the Bulgarian reality. It clarifies the causes and consequences of the changing climate of the national payments system in accordance with the increased modern demands for its performance. All of this was viewed through the prism of the banks as mediators for money and with regard to the ongoing economic crisis. The study also presents the various forms of noncash payments and the current niche for Bulgarian banks in the market for electronic payments. The methodology used was to first clarify the general terms and participants in the cash and non-cash money market, then to narrow those down to the Bulgarian financial subjects and economic circumstances and legal supervision, and in the end focuses on the non-cash services at the point of sale.

The analysis was carried out as part of a project of the Bulgarian bank CIBANK in an attempt to provide valuable information on the areas on which to approach the potential customers of the point-of-sale electronic services.

The study underlined the main benefits of utilizing POS systems from the point of view of businesses and from the point of view of the end-users of the POS as the latter were found to have direct implication on the first. Among key aspects that were found were better supply and demand visibility, gathering of intelligent consumer specific data, faster checkout speed and improved customer satisfaction.

Keywords : Non-cash payments, banking, point of sale, POS terminals

# Contents

1	I	NTRODUCTION	4	
2	Т	HE ROLE OF BANKS IN NON-CASH PAYMENTS SETTLEMENT	5	
	2.1	The banking institutions as intermediaries for money	5	
	2.2	Nature and characteristics of non-cash payments	7	
	2.3	The banking sector in Bulgaria	8	
	2.4	Payment history and tendencies in Bulgaria	9	
	2.5	Management of non-cash payments	11	
	2.6	Types of non-cash payments	16	
3	N	MODERN ASPECTS OF NON-CASH PAYMENTS: CASE OF CIBANK		
	3.1	Background information about CIBANK	26	
	3.2	Non-cash payments at CIBANK	32	
4	Т	HE PAYMENT SYSTEM IN BULGARIA	35	
	4.1	Payment documents and document circulation	37	
	4.2	Supervision of non-cash payments	39	
5	5 ELECTRONIC FUNDS TRANSFER AT THE POINT OF SALE			
6	В	ENEFITS OF POS TERMINAL SERVICES	43	
7	S	UMMARY	49	
R	REFERENCES			
A	APPENDIXES			

#### **1 INTRODUCTION**

The purpose of this paper is to reveal the nature, role, place and importance of non-cash payments in the economic life worldwide, but with an emphasis on the Bulgarian reality. To clarify the causes and consequences of changing climate of the national payment system in accordance with the new increased demands for its performance and to present the various forms of non-cash payments. And all this viewed through the prism of the banks as mediators for money.

The role of banking institutions in the developed market economies is extremely important. This role is not justified by subjective factors and decisions, but by the objective rules of the market interactions. Substantial changes in the Bulgarian banking system began in the early nineties. They are still ongoing and further modifications would be carried out in the upcoming years as well. Improvement of the banking system is a permanent task of those involved in it. Regardless of the modifications during the years, the banking institutions since their origin until today can be defined as intermediaries for money.

The undergoing economic reform and the unfolding global economic crisis lead to significant changes in the payment operations of banks in both domestic and international economic relations. The positions and roles of individuals and businesses considerably changed in payments locally and abroad. Many new small, medium and large companies were founded and subsequently many of them went bankrupt. They hardly earned enough of the banks' confidence that were meant to mediate and assist their business by lending them credits.

Every manufacturer strives to not only close a deal, but to also receive as quickly as possible the outstanding amount of money for the goods delivered to the buyers. The buyers, in turn, seek to receive the respective products as fast as possible in order to use them as intended immediately. Ultimately, the aim of the individual counterparties in the sale process is to carry out realization of the goods and services and obtain their money equivalent in the smallest possible gap between the time of the delivery of goods and the time of movement of money.

# 2 THE ROLE OF BANKS IN NON-CASH PAYMENTS SETTLEMENT

#### 2.1 The banking institutions as intermediaries for money

In the special literature, no consensus on the origin of the term "bank" is present. Some think the word bank is of Italian origin and literally means "desk" or "counter". This explanation of the term "bank" is associated with the implementation of the first banking function - exchange of values between bank customers, which was carried out at huge round tables under the open sky in the streets, intersections and markets (Albuquerque et al. 1855, 431). Because of the bank's part in exchanging valuables between parties that do not belong to the bank its role can be defined as an intermediary. This circumstance gives grounds to believe that even with their first emergence banks began to function as intermediary institutions. The historical development of banks has not changed their mediating role. Today, that role is realized through different organizational forms of banking transactions.

Improvement of banks and banking in the world is directly linked to the development of commodity-money relations. Their further diversification and complexity lead to changes in the banks themselves. Despite the changes in banking, the nature of banks as a perfect creation of the market economy today remains the same and is not likely to be changed in the future.

Banks are businesses, which carry out a kind of commercial activity. However, there is a peculiarity in the banking business which is associated with the nature and type of goods which banks trade with. The majority of goods which banks buy and sell are the commodity "money". In commodity-money relations, the commodity "money" is universal and can be exchanged for any other good.

When analyzing the business of banks we can establish some significant differences with the activity of non-banking enterprises. When a company of a non-banking nature buys a product (commodity material valuables), it becomes the owner. For the acquired property the buyer pays the market price of the goods bought with money. When selling a product the company receives money for the goods supplied to the buyer. Accumulation of others' money resources in banks can be regarded as a commercial transaction - purchase of the goods "money". However, in this case, there is a substantial difference between the commercial banking operation of purchase and the purchase of goods from non-banking businesses. Firstly, the goods purchased by the bank ("money") do not become a possession of the banking entity. The deposited money from the bank customers in their accounts is still owned by the account holder. Secondly, the bank as a buyer does not pay to the account holder (the depositor) the market value of the commodity "money", which is always equal to its nominal value, but an interest, which can be regarded as the price for the drawn up financial resources. The payment of interest to the bank clients for their money deposits can be explained by the reasoning that the banking institution has gained the right and opportunity to use the allocated financial resources, although there is a legal obligation to return it to the actual owner – the holder of the opened bank account.

Offering of bank loans may also be regarded as a kind of trade operation. From the bank's point of view, this credit operation represents the sale of the commodity "money". The transaction has specific characteristics that make it differ significantly from the traditional commercial transactions. The bank sells both its own money (in relatively low volumes) and the borrowed money from its clients-depositors (in a much larger volumes). The essence of this business transaction consists of providing the bank with the financial resources of the bank's customer for temporary use (the period is defined in the credit agreement) with the recipient of the loan taking the obligation to pay interest and repay the loan within specified time. In this case, the recipient of the loan does not acquire possession over the purchased "money". The borrower just buys the right to use the financial resources of the specified amount in a given period in time, during which they will pay interest. The interest on the bank loans as a kind of price for the commodity "money" can not be identified with the market price of that commodity.

Based on the analysis of bank deposit and credit transactions the following conclusions can be drawn:

- a) Deposit and credit transactions are original banking commercial transactions;
- b) Subject of sale in deposit and credit transactions is the commodity "money";

c) In deposit and credit transactions the borrower does not acquire ownership over the commodity "money";

d) Interest as a sort of a price for the commodity "money" is not equal to the market price of that commodity (the nominal value of the financial resource);

e) Interest is being paid to the buyer (the receiver) of the money resources for the acquired right to dispose of (use) their financial resources.

Deposit and loan banking operations are the main business transactions carried out by any modern bank. In their practical realization, the role of the bank is to accept from some of the entities (persons or legal entities) their surplus money and provide it for the use of other bank clients. On that basis, it can be concluded that the bank is an intermediary between some entities which have a temporary surplus money resources, and others who have a temporary need for others' money resources. Therefore, bank deposits and loan activities can be regarded as brokerage.

# 2.2 Nature and characteristics of non-cash payments

Similarly to deposit and credit operations, other bank operations can also be seen as intermediary. E.g. in non-cash payments the intermediary role of the bank is to settle the aroused accounting relation between the two bank clients without any funds at hand. Those operations can also be seen as a type of service that banks do for their clients. Non-cash payments possess undisputed advantages compared to cash payments and should be therefore preferred by bank clients. During processing of non-cash payments the units of the banking system where the payer and the payee have open accounts should get involved. Every non-cash payment operation is being realized through signing out of the payment amount from the account of the payer and signing it in to the account of the loaned capital. This does not mean that the banks functions are limited to intermediation between creditors and debtors. They participate not only in organizing and management of created outside of the bank capital to loan, but also in the "creation" of part of it. From this point of view, the banking institutions take the lead regarding to the overall organization of the loaned capital.

From an accounting point of view the practical realization of the banking intermediary function is achieved through two set of banking activities:

1) Passive operations

2) Active operations

Passive banking operations are all operations related to accumulating own and foreign capital in banks, whereas active operations are those operations related to using (attracting and selling) of banking capital. (Harangus 2007, 379.)

Establishment and functioning of any bank is limited to one purpose – gaining financial interest. This requires that the income which the bank realizes through its activities are greater than the amount of expenses made for attracting external funds and the expenses coming from the operation of the bank itself. And since the interest rate as a kind of a price for the commodity "money" exists not only in forming income but also as part of the expenses, it is required that the proportion between the two is great for the first ones.

From the above, we can draw the conclusion that banks' objectives and those of their clients concerning the interest margin (the difference between the credit interest and the deposit interest rate) are opposite. The bank objectives call for greater amount of the interests on credits and lower amount of those of deposits. Although in reality in the deposit and credit operations in most cases participate different bank clients, the depositors always strive for a higher interest rate while the borrowers prefer lower rates. The opposite goal directions of the participants in the banking contracts, requires constant optimization of the exchange rates. Several external factors should be taken into account: major interest rate; supply and demand of money resources; level of profitability for the bank clients; interbank competition; income from other active operations.

#### 2.3 The banking sector in Bulgaria

The successful accomplishment of banking operations requires the implementation of an up-to-date organisation of banking affairs in Bulgaria, consistent with the free market economic principles. The most essential part of a functional free market economy is a working capital market, in the foundations of which are underlined well-functioning banking organizations.

When adjusting Bulgarian banks in accordance with the principles of the free market economy it was not necessary to look for substantially different organizational models than those already working well in the developed countries. The model of organization of the banking sector in those countries is the two-level banking system (Huszti 1981, 71). At the first level of the banking structure is the Central (National) bank, and on the second are the commercial banks and other specialized banking institutions (savings banks, popular investment and mortgage banks, etc...).

In Bulgaria, some elements of the two-level banking system were already present since the establishment of the Bulgarian National Bank (BNB) in 1879. However, it was in 1987 when the two-level banking system really started functioning when the specialized industrial commercial banks for long-term crediting of the respective industries were formed. In 1989 those banks transformed into universal banks and the branches of the BNB changed into regular commercial banks.

The functions of the BNB and commercial banks are regulated by two separate bills, passed by the legislative body in the country: The Bill for the BNB and The Bill for banks. In correspondence with those two bills the units of the Bulgarian banking system accomplish their activities in their right as separate economic entities in accordance with the principle of the currency board, which was implemented on July 1, 1997.

#### 2.4 Payment history and tendencies in Bulgaria

Until the end of 1989 Bulgaria was a communist country and as such all entities were state-owned. With the economic and banking reform which started in 1990 the number of cash payments significantly increased which was accompanied by several phenomena. First of all, the vast number of newly founded private firms lacked the needed trust for a timely and accurate receipt of the counterparty's payment. The start-ups from this period did not know each other and in order for the delivery of goods and the respective payment to be done they preferred to pay in cash at the moment of delivery.

Secondly, that was dictated by the fact that the majority of the enterprises were in financial difficulties or insolvent and the banks tightened up the criteria for granting credits. The current account credit, which matches the payment operation and ensures the timeliness of the payment, was very rarely granted and only to key bank clients.

Thirdly, the increased use of cash payments was achieved by the artificial reduction of the income of enterprises, thus a reduction of the taxable income and budget taxes. Cash payments were also a successful way to conceal sale of smuggled goods (especially cigarettes and alcohol) in an environment lacking political stability and a well established legal framework.

All in all, the transition from the former economic model of central planning to the free market economic principles has been very painful for the country. In 1996-1997 Bulgaria experienced hyperinflation which reached 550% and lead to the implementation of a currency board. In July 1997 the Bulgarian lev was pegged to the German mark (DM 1 = BGL 1). After the adoption of the Euro in January 1999 it got fixed to the Euro and since the redenomination which took place in July 1997 the new unit BGN emerged with  $\in$  equalling BGN 1.95583.

In the first years of the new century, larger Bulgarian businesses started paying wages directly to the bank accounts of their staff in order to decrease their costs for salary distribution. This sometimes caused queues in front of ATMs on the dates of which employers transferred wages (Bojinov 2002, 4). That was the result of the typical cashoriented payment culture of the Bulgarian population, which used cash in all of its everyday payments and had little trust in Bulgarian banks. On the other hand, the ATM network was still rather underdeveloped and the banks' policies of high fees if withdrawal was made with a card issued by another bank at their ATM.

In recent years, cash payments are still widely used in Bulgaria. In 2005, cash in circulation accounted for 47.15% of the monetary aggregate M1 and represented 13.99% of GDP. Most salaries are still paid in cash, although the number of employers paying salaries into debit card accounts of their employees has increased in recent years (ECB Blue book 2007 vol. 2, 22-23).

Even with the substantial legislative modifications in the Bulgarian banking sector which occurred since 1991, the Bulgarian banking system was still criticized that it lacked the level of development of corresponding economic entities in the developed countries. Additional changes of the wholesome organisation of the banking sector needed to be made, in order to increase the effectiveness of the banking units and their development into key economic drivers of the Bulgarian business environment. That way only, the Bulgarian banks were to be accepted as equal participants in the international money market. (Borish & Co. 2001, 98-99)

Further modifications and improvement of the banking system, will by no means change the intermediary role and functions of its core units in the elaborate economic mechanisms of the country. Those modifications should lead to positive changes in carrying out bank contracts. The central and commercial banks of every country are unbiased mirror of the national economy. Therefore, whatever changes are made in the Bulgarian banking system, if there are no significant alterations in the real sector of the economy, the effectiveness and role of Bulgarian banks will be far from those of the similar institutions in countries with developed market economies.

#### 2.5 Management of non-cash payments

In a nutshell, the banks' main functions are credit and payment intermediary. Payment intermediation, expressed by the banks' take in the payment relationship between legal entities and individuals as their customers, is carried out in compliance with the statutory regulations of the Payments decree and the conditions and basic principles it stipulates on the grounds on which this mediation should be done. Payment intermediation of banks is subject to the following basic principles:

- The payments are processed by the banks. This requires that the accounts stipulated in the document on the grounds of which the payment will be processed have already been opened;
- Payments abroad between Bulgarian and foreign persons are carried out in accordance with the requirements of the Uniform Customs and Practice for Documentary Credits (UCP) of the International Chamber of Commerce, Paris (ICC);
- Non-cash payments are made only at the discretion or with the prior consent of the holder of the bank account. An exception is made in the cases of official collection of funds established by law;
- The forms, procedures and time limits in which payments are made within the country are determined by the BNB's ordinance № 3 from 01.11.2009;

- Non-cash payments are made through the Banking Integrated System for Electronic tRAnsfers (BISERA) set up by the Bulgarian National Bank. Participation in the BISERA is mandatory for all banks. Only the BNB Governing Council may exempt banks from this requirement and define a specific mode of participation of individual banks;
- Non-cash payments within the country are generally made in Bulgarian leva. Payments in foreign currency can also be made, provided that the laws of the country and other regulations governing foreign exchange regime are permitting this;
- Non-cash payments are made only by the request or with the prior consent of the holder of the bank account. An only exception to this rule is when a forced collection of the funds is applied through the official ways established by law;
- Payments shall be made only when the conditions set by the account holder (or the person opening the account for a third party) are observed;
- Payments are carried out with payment documents regulated by the Ordinance for Payments in accordance with the Banking Unified Standard for Payment Documents (BUS2092). Payment documents, for which no standard is established, are formed in a manner chosen by the person issuing the document;
- Payments in cash may be done for the amount of up to 5000 BGN. Cash payments in foreign currency can also be made within the country in an amount not exceeding 5000 BGN on the date of payment, if such payments are permitted by the regulations for foreign exchange;
- Payments can be made not only through a disposal account but also through other accounts if the contract between the bank and the customer includes this service;
- The payment documents shall be granted to the bank by the payer on the day following the day on which the grounds of the payment occur. Banks do not exercise control over the timely submission of documents and do not impose penalties for late submission;
- Banks are not responsible for the grounds on which the non-cash payments are done. The bank only takes liability when the payment is provided through a bank loan and arising from a credit contract. The banks also do not monitor for the legality of the contracts with the exceptions regulated by the law;

- The payment is made on the date of receipt of the payment documents by the banks, but no later than the closing time for transactions under the BISERA. The maximum amount of the payment is the current amount of the assets in the account plus the amount of the contractual overdraft if there is one included. Partial payments according to the payment documents are not carried out;
- Payments are carried out by the banks chronologically, i.e. the payments are carried out in the order the payment documents are received by the banks. (BNB Payments decree.)

The Obligations and Contracts Act provides the following preferred order of payments according to their economic nature:

1. Claims for expenses for securing of debt and legal enforcement, as well as claims under Article 134 and 135 of this Act;

2. Claims of the state for certain property taxes on the value of a property;

3. Claims secured by a pledge or a mortgage on the value of the pledged or mortgaged property;

4. Claims for which the right of retention on a property is exercised. If the claim arises from the costs of maintaining or improving the retained property, it shall be satisfied before claims under article 3;

5. Claims of employees arising from employment relations, and claims for maintenance;

6. Receivables of the state, except for fines;

7. Claims of banks;

8. Claims of the state enterprises and cooperations, with the exception of those transferred to them by individual citizens. Claims under this item are satisfied proportionately. (Obligations and Contracts Act, 22-23).

In addition to accrued interest the right to preferential satisfaction includes outstanding interest before the moment of commencement of the enforcement as well as the interest for the year preceding it.

The shown above sequence of payments is applied only when at least one creditor of the account holder submits a claim to the bank for a forcible execution. Otherwise, payments are made in chronological order.

From the above mentioned, we can draw conclusions about the basic principles of management of non-cash payments. In present times banks do not interfere thoroughly and administratively, as they did in the past in carrying out payments between businesses. In terms of the old methods of management of financial institutions they observed for the proper and lawful undertaking of payments between the business units. Payments were only undertaken with their prior consent. It was not enough for businesses to present the bank with the payment documents, in order for the payment to be done. Payments were made only if the bank agreed to. And the bank did, only in the cases where it found that the payment is accurate and in accordance with the law. Naturally, this control made it very difficult for the smooth functioning of businesses, without leading to any positive results for both the payers and payees as well as the state. The banks as economically and legally separate business entities should not be held responsible to consider whether the financial resources of their clients are rightfully used, as their clients are also legal and economically autonomous units. Therefore, they should only be held responsible only in the case where they are being granted a credit. From this point of view, the banks are in control of the rational and efficient use of their money capital in terms of their own interests, arising from the importance of the timely and accurate payment of amounts due from companies in the form of loan repayments.

The Payment decree gives freedom to businesses in the selection and method of payment. It states that cash payments can be made for up to BGN 5000, but the companies decide for themselves in which cases they are going to be made in cash and in which through a non-cash method (Law on limit of cash payments, article 1). If banks want to reduce their cash payments, and that is usually the case, they must create incentives for the contractors in using non-cash payment methods. The banks can induce companies to settle their payments through them i.e. in non-cash mode of payment, not by administrative ways, but through economic incentives, principally through the interest rate for deposits as well as through faster and more secure payments.

Banks nowadays do not impose control over the timeliness of the payments and do not impose penalties for late payments, as they did in the past. However, an attempt to accelerate the movement of funds has been made in order to reduce the gap between the time required for the transfer of funds and the time of delivery of goods/services. To achieve this, it is mandatory that the invoices be processed within the working day in which they have been received at the bank, and thereafter the payments through the BISERA system to be made within 3 working days of receipt of the payment documents to the bank - one business day for processing documents in both banks and one working day for the operations in BISERA (see appendix 3). If this does not happen, the responsible party is obligated to pay to the other party the legally enforced interest applicable to cases of late non-cash payments. For the payment of this penalty banks are jointly responsible, and the due amount has to be transferred to the payee automatically.

Banks may automatically collect funds from the accounts of their customers in accordance with Article 11 of Payment decree  $N_{2}$  3 in the following cases:

First, based on a written agreement for payments in the specified manner given by the account holder for the transaction under which the obligation arises in favour of the bank.

Second, The Bulgarian National Bank (BNB) may legally collect money from the current accounts of commercial banks the amounts owed to BNB by the laws regulating the banking system and monetary circulation. This is based on the contract for holding such accounts by the Central Bank.

Third, under the current budget laws the banks perform automatically operations on current accounts for payments to the national budget whenever a payment order of higher level is presented.

Fourth, banks can reverse erroneous entries, overcharged amounts and unlawful payments through the official channels and within the deadline periods for such claims. The interest for late payment is charged to the responsible party in the payment operations. In the case of reversal operations (e.g. in the cases of wrong transactions) those are not necessarily handled in the order specified for the order of payments in the Payment Decree.

#### 2.6 Types of non-cash payments

The only institutions authorised to execute cashless transfers are the Bulgarian National Bank, commercial banks and branches of foreign banks. The following payment types are regulated:

- Credit transfer (wire transfer)
- Direct debit
- Letter of credit
- Payment cards
- Cheque
- E-money
- Mobile payments

Banks can utilize a combination of the above mentioned methods, as well as other forms of payment in accordance with the BNB. Companies may also settle their payments without bank mediation and outside of the BISERA. They are allowed to negotiate through one of the following methods of settling of their obligations: through commercial loans, mutual offsetting of counter-claims, barters, payment by government bonds, etc.).

The methods of payment are negotiated between the counterparties in the payment operations. Banks apply the form of payment, which is ordered by the account holder or enquired by the payee on the basis of agreement between him and the payer. The bank has the right to refuse to proceed a payment, but it is necessary to notify in advance the parties of the settlement in written form. The rejection is in effect 30 days after the notification of the client. If the bank rejects the use of one or another form of payment, on the basis of the clauses of the contract for opening and holding of an account, this period does not apply.

# 1. Credit transfer

Credit transfers (also known as wire transfers) are done by initiative of the payer through transfer orders. The structure and contents of the payment order form are in accordance with the unified banking standards. The transfer order should be issued in the number of copies equal to the parties in the payment and it must include:

- The name, place and code of the payer's bank and the bank of the beneficiary;
- The names and the bank accounts of the payer and the payee;
- The date and place of filing of the payment order;
- Signatures of the persons representing the payee;
- The currency type and the amount to be paid also written in words;
- The type of payment;
- Grounds for the payment and other information that might be relevant.

In this means of payment the originator makes a transfer order to his bank to debit funds from his account and the beneficiary's executing institution credits the beneficiary's account with that funds.

Credit transfers are also used in some cases of foreign trade transactions. Because crossborder payments involve higher risk, additional precautions are taken such as using the mediation of a secure corresponding bank, formal and factual verification of the payment documents, advance payments, insurance and others.

One of the key shortcomings of wire transfers (especially in foreign trade payments) is that it cannot guarantee that the seller will receive their payment. Even if the seller has observed strictly the clauses of the contract, there is no guarantee that the buyer will indeed forward the payment at all, or if that it will be done in time. That is why, in many cases the counterparties agree that an advanced payment will be done. That on the other hand, presents risk for the buyer that he will receive his goods. Therefore, credit transfers are far from perfect when used for riskier, or larger foreign trade deals and other payment methods are more suitable.

In order for a firm to agree to a credit transfer as means of payment with a foreign partner the following issues should be considered:

- is the counterparty reasonably trustworthy;
- the stability and status of the bank of the corresponding bank and the correspondent contract with that bank;

- is there a trade embargo against the country or a ban of the specific product's import/export;
- are there law enforcements against advanced payments of foreign trade deals (for the importer and the exporter).

# 2. Direct debit

Another very widely used form of bank mediation in domestic and cross-border payments is the direct debit which is still widely known as incasso in Bulgaria. A direct debit is executed through a transfer order given by the originator, who is also the beneficiary, to debit the account of a third party which has, in advance, granted written consent to his bank to authorise the debiting.

As of 1 November 2009, two types of direct debit are recognized by the Single Euro Payments Area (SEPA): the SEPA core direct debit (see appendix 1) and the SEPA Business-to-Business direct debit (see appendix 2). This was done by initiative of the European Commission to harmonize payment transactions. KBC Group (which as of December 2010 acquired 100% of CIBANK Plc.) participated in the founding of the European Payment Council and the creation of SEPA (European Payments Council, 6).

Although direct debits throughout the EU match the same path, it is still being known by different names in different countries. In Bulgaria, for domestic transfers, the following types of direct debit payments are still distinguished:

- pre-authorized direct debit;
- simple (clean collection) incasso;
- documentary (documentary collection) incasso;

Preauthorized direct debit can be done when the payer gives consent in advance for the payment to be done from his bank account immediately when the beneficiary requests it. A copy of the authorization document is also sent to the beneficiary and the beneficiary's bank. If the payer has included additional clauses in the authorization for the incasso, his bank is obligated to check if all the clauses are observed before proceeding with the execution of the payment.

The following procedures should be followed when an international payment is done through pre-authorized incasso:

1) The beneficiary presents a payment request to his bank;

2) A demand for collection of the payment from the bank of the payer is sent;

3) Collection of the amounts due as stated in the demand for payment collection by charging the account of the payer and transferring it to the bank of the beneficiary;

4) Transferring the funds to the account of the beneficiary.

Peculiarity: In the absence of sufficient funds in the account of the payer, the amount is transferred fully at the moment the required funds become present. During the waiting period, the beneficiary's bank may grant him a debit loan or discount his trade outcome. The waiting period will be signalled to the beneficiary's bank by a message from BISERA type "W" – "Waiting for a settlement".

Direct debit carries significant risks to the payer, and that it is why it should only be used between regular partners and for payments inside the country.

Simple incasso is used mainly in bank intermediary of cross-border payments. It is exercised on the grounds of issued by the payer bill of exchange, cheques and other payment documents. It is called simple incasso because the transfer only requires the financial documents of the trade deal.

Documentary incasso is a form of bank intermediary used exclusively for payments in foreign trade operations. The name implies that the grounds for making the payment are the commercial documents in addition to the financial document. Those documents are presented by the beneficiary together with a request for the payment to his bank.

Although the rules for issuing a direct debit are standardized, the banks are free of any liabilities in relation to the correctness and inventory of the trade documentation, the exporter's bank have to check the conformity of the trade contract with the invoice, the bill of lading, insurance and other documents. If the documents pass the verification, they are sent to the corresponding foreign bank, where they are also checked for compliance with the contract.

The direct debit form of payment puts the payer in a much more favourable position. He can refuse to accept the commodity and the fit documents in order to delay the payment and realize positive change of price or interest rate from this. It puts at risk the beneficiary (the seller) to not receive the agreed. Therefore, the latter should:

a) request a bank guarantee for the payment, issued by a trustworthy bank;

b) negotiate on the inclusion of provisions for heavy penalties and interest on delayed payment;

c) insure the goods at a reputable insurance company.

The risks and the need for the guarantees mentioned for the seller will not exist if the letter of credit payment method is used instead.

# 3. Letter of credit

The letter of credit, as a means of payment can be used for both local and cross-border payments, but have been more widely used for larger payments in international trade for obvious reasons. The most outstanding feature of the letter of credit is that the payer devotes funds from his account to the letter of credit to secure the payment. But in addition, the buyer also determines the conditions according to which his bank will forward the transaction to the seller. In the most common case the letter of credit payment runs in two stages:

First: Contracting the clauses of the letter of credit at the disposal of the supplier.

Second: The supplier demonstrates in written form to the bank that he has fulfilled all the clauses of the letter of credit which gives him the right to receive the amounts due.

There are at least two banks involved in the payment using a letter of credit. The first bank is the bank which issues the LC hence the name issuing bank. The other bank is called advising bank. Usually the issuing bank is the bank of the buyer and the advising bank is the bank of the beneficiary.

The initiative for issuing the LC is of the buyer who authorizes his bank about that. Even though the transaction is done through BISERA the banks send the payment documents by post.

Requisites of the LC include:

- the name of the issuing bank;
- place and date of signing the document;
- signatures of the persons who can manage the account;
- the name of the entity that is going to be the beneficiary of the LC;
- code of the issuing bank;
- code of the advising bank;
- the name of the beneficiary's bank (the advising bank);
- currency type (not filled in if in the local currency BGN)
- the amount of the LC (completed without breaks, with two decimal positions, aligned right, the positions of insignificant zeros are filled with a protective sign);
- when the LC includes different payment amounts depending on the condition of the delivered stock, the maximum amount is filled in the document;
- short description of the grounds for the payment (not mandatory);
- the conditions under which the supplier will receive the funds (in case those conditions are abundant, "additional clauses attached" is written and those additional conditions are attached within a separate document;
- principal the exact name of the entity (legal person, partnership or individual) principal under the open letter;
- bank account number of the principal;
- payment type the appropriate code of the payment type is filled in.

As the LC could be rather costly form of payment, a single LC can be used for more than one shipment of goods. The so called revolving LC is issued which revolves either on a specific time period or at a fixed value which gets replenished when exhausted. The value on the LC can be either cumulative (carried over to the next period) or noncumulative (does not get carried over). The letter of credit can also be irrevocable or revocable. In an irrevocable LC no changes to its terms can be made except if both parties agree to. Therefore, the irrevocable LC is a very good form of payment for the supplier because it guarantees the receipt of his payment when the goods are received according to the agreed terms and conditions. It can also be considered somewhat unfavourable for the buyer because a fixed amount of his assets is being blocked for the period of the LC. A revocable LC however, gives the right to the issuing bank to make modifications without any notification and the prior consent of the beneficiary. This is why it is rarely used in international trade as the exporter (the beneficiary in this case) is not guaranteed to receive his payment.

An irrevocable letter of credit can also serve as collateral for another LC, thus the so called back-to-back letter of credit. This can occur if the LC is issued for the account of a buyer who is also holding an LC in his favour. The two LCs model come in handy for sellers which need financing in order to acquire equipment or production materials from a subcontractor. The back-to-back LC is also used very widely by intermediaries who want to remain the identity of the actual supplier hidden.

Another special type of LC is the transferable letter of credit. In this case an irrevocable LC has two (and two only) successive beneficiaries. In this case the first beneficiary is usually an intermediary (that might represent a manufacturer or supplier) who transfer all or part of the credit to a second beneficiary. The transfer is done through the first beneficiary's advising bank only if the LC is marked as such and this can only be done once.

LC-s can also be usance (simple) or sight credit (documentary). Payment with a simple LC requires no commodity operation, but rather reaching of a deadline or fulfilment of some other condition. Payments with documentary LC however, are done on demand after presenting of the documents "at sight" that prove the shipment of the goods in the set amount, term, quality and other conditions that might have been included in the contract.

In special cases a second bank apart from the issuing bank can also guarantee the payment, hence the name confirmed letter of credit. However, the LC is generally more expensive form of payment as banks collect a fee for the creation of the LC and adding a third bank (in addition to the issuing and advising bank) makes it further expensive and therefore confirmed LC is rarely utilized.

In addition, there are other existing types of LCs which may include straight or negotiation credits, country specific letter of credits (such as the stand-by LC in the USA).

# 4. Cheques

In cheque payments issued by a bank three versions of payment are used:

- payment via a cheque from an unlimited chequebook
- payment via a limited chequebook
- payment via endorsed cheque

Unlimited chequebooks are only issued to perfect payers with permanent and stable income. In order for the cheque to be approved in international payment, the bank issuer of the cheque should have a corresponding contract with the bank that would cash the cheque. The initiative for issue of an unlimited chequebook is of the payer, which states their wish to receive such to their bank. With the issue of the chequebook the client pays its specified price. If a bank issues unlimited chequebooks it should guarantee the payments with them by a commitment to allotted credit line or other line of permanent crediting.

Cheques from a limited chequebook can be issued by the payer to the beneficiaries who can cash them out in the bank of the payer and whichever other bank. Payments with this special type of account can only be made up to the amount of the reserved limit.

When issuing endorsement cheque, the bank takes responsibility to commit the payment. For this purpose it might block funds from the account of the payer or record the payment in an off-balance sheet and when the cheque is claimed, to cash it as an "overdraft" or other short-term credit to the payer.

In conclusion, the limited chequebook and the endorsement cheque are forms of payment with low risk for the beneficiary. On the other hand, the fact that funds are being blocked from the account of the payer makes it somewhat unfavourable for the payer.

Cheques can also be issued with additional conditions:

#### Crossed cheque

In this kind of check, the bank where it is drawn cannot pay it to any other party than a bank.

#### Non-transferable cheque (not-to-order cheque)

If the drawer's cheque includes the words "not to order" the cheque will be paid out only to a specified payee. In other words, it cannot be transferred through endorsement.

#### Check without cover (bounced cheque)

When the party signing the cheque does not possess enough funds in their bank account, the bank has the right to protest and refuse to cash out the cheque. Thus, the use of cheques requires the utmost attention and the credibility of the party signing it should be a concern.

#### Post-dated cheque

A cheque which is written with a date later than the actual date on which it is made and signed is called a post-dated cheque. They are usually used for payment of wages usually using the payday that is going to occur on a future date.

#### Bank check (bank draft, cashier's cheque)

A bank draft is issued by the bank for the amount being deposited directly at the bank and specified on the draft itself. It guarantees payment by the bank where it is presented. Bank drafts are always non-transferable.

#### Traveller's cheque

The traveller's cheque is a means of payment created especially for use in international travel and tourism. It is a special kind of cheque issued by a bank to a traveller who can get payment in local currency at sight, i.e. on presenting it to the issuing banks for the convenience of persons travelling at home or abroad; they are issued for various amounts and can be changed into the currency of the country where the person happens to be. In contrast to regular checks, traveller's checks must be paid in advance by the buyer. They can be cashed at most banks and many enterprises in other sectors (shops,

hotels, etc) subject to verification. Traveller's checks are issued by banks, groups of banks or travel organizations.

Cheques have never been a common means of payment in Bulgaria due to the political regime before 1990, the followed instability and low confidence in the banking institutions. And it seems their peak use might have already passed as cheque payments are declining worldwide. E.g. in Sweden, where in 1990 every seventh transaction was done by cheque and they represented 10% of the value of non-cash payments, in recent years represent less that 1 % in both volume and total transaction amounts (Lars Nyberg, 2008, p. 3)

#### 5. E-money

E-money is monetary value electronically stored on a technical device. The value can be stored on a chip card, a hard disk or other devices like mobile phones, chip in watches or a car body. The monetary value is like traditional cash on hand (usually stored on card or a pc) owned by the owner and not on an account at the disposal of banks. It is a digital bearer instrument and not a deposit. From a legal point of view the basic difference to other means of exchange like cheque, debit or credit card is that the funds can be claimed only from the issuer. The payee of e-money has no claim against the payer. So e-money is a non-personal and not account-based claim of the owner against the issuer or a pool of issuers. The mechanism of the payment process is the same as the POS payments.

#### 6. Mobile payments

A phone's SIM card can also be used as means of payment, provided that the according software application is installed on it. The mobile payment service, also widely known as Mobile wallet is a service offered by mobile operators, which transforms the mobile phone into a universal means for electronic services such as banking, shopping and electronic identification. Mobile wallet uses electronic signature issued to the card holder and a pin code as a means of security. In addition, payments via text messaging will grow in importance (Nyberg 2008, 6).

# **3 MODERN ASPECTS OF NON-CASH PAYMENTS: CASE OF CIBANK**

#### 3.1 Background information about CIBANK

The bank was founded on 19.05.1994 in Sofia at a constituent assembly which came to a decision on the founding of a Bulgarian – Russian Investment Bank Plc., one of the first international financial investment institutions in the country. On 02.07.1999 the bank changed its name to Bribank Plc. On 23.06.2000 Bribank Plc. bought the trade organization of Commercial Bank Plc. which was bankrupt. As a result, the bank doubled the volume of its assets and ranked in the top ten biggest Bulgarian banks by assets.

On 13.11.2001 the bank changed its name to Commercial Investment Bank Plc. (and became popular with the abbreviation CIBank). In the end of 2007 CIBank became part of the KBC Group, the second largest bancassurance group in Belgium, which bought 80% of the shares. The integration within the structure of KBC group together with DZI Insurance PLC which also became part of KBC group allowed excellent collaboration between the two institutions and an innovative approach in offering bancassurance products which were new to the Bulgarian market. In December 2008 Commercial Ivestment Bank Plc was re-registered as CIBANK Plc. In December 2010 KBC group acquired the full 100% of CIBANK's shares and by the end of the month CIBANK was removed from the Public companies register and the Bulgarian stock exchange. (CIBANK's Intra-site.)

CIBANK offers the full scope of banking services for all of its clients – personal and corporate customers. In that regard, the activities of the bank can be seen from two angles – small size banking and corporate banking.

# **Deposits**

The bank offers wide range of products meant to attract deposits, which are aimed to the big corporate customers as well as the small and medium-sized firms and the individual producers and merchants. Special emphasis is given on the depositors – personal customers.

The variety of the banking products offered is achieved by the wide spectrum of fixed term deposits, optimal returns through interest levels which are carefully adjusted to the market conditions or individually negotiated with key bank clients. There is also an increase of the bank products meant to attract capital without a fixed due date. Those products are mostly aimed at personal customers, small and medium-sized companies and sole traders.

The biggest volume of borrowings, in the amount of BGN 1,427,254 thousand, was accrued by deposits of non-banking financial institutions, corporate clients and individuals.

The structure of borrowings annually for the past 3 years in BGN is the following:

at 31.12.2008

- 1. Deposits from financial institutions BGN 393 831 thousand
  - Demand deposits from banks BGN 3 345 thousand
  - Term deposits from banks BGN 140 316 thousand
  - Deposits from other financial institutions BGN 250 170 thousand
- Deposits from non-financial institutions and other clients BGN 1 177 084 thousand
  - Demand deposits- BGN 245 916 thousand
  - Term deposits BGN 864 131 thousand
  - Saving deposits BGN 67 037 thousand
- 3. Payables under security repo agreements BGN 3 300 thousand
- 4. Short-term borrowings BGN 0 thousand
- 5. Long-term borrowings BGN 3 991 thousand
- 6. Subordinated term debt BGN 39 231 thousand

A total of: BGN 1 617 437 thousand (CIBANK AD: Annual management report and annual financial statements as of 31 December 2008, 10)

at 31.12.2009

1. Deposits from financial institutions - BGN 364 094 thousand

- Demand deposits from banks BGN 7 635 thousand
- Term deposits from banks BGN 58 676 thousand
- Deposits from other financial institutions BGN 297 783 thousand
- Deposits from non-financial institutions and other clients BGN 1 212 201 thousand
  - Demand deposits- BGN 232 227 thousand
  - Term deposits BGN 922 439 thousand
  - Saving deposits BGN 67 037 thousand
- 3. Payables under security repo agreements BGN 0 thousand
- 4. Short-term borrowings BGN 0 thousand
- 5. Long-term borrowings BGN 52 280 thousand
- 6. Subordinated term debt BGN 78 344 thousand

A total of: BGN 1 706 919 thousand (CIBANK AD: Annual management report and annual financial statements as of 31 December 2009, 12)

During 2009 borrowings decreased by 2,351 thousand and constituted for 1.83 percent of the total interest income as a result of the economic crisis which started in late 2008.

at 31.12.2010

- 1. Deposits from financial institutions BGN 411 033 thousand
  - Demand deposits from banks BGN 8 253 thousand
  - Term deposits from banks BGN 179 045 thousand
  - Deposits from other financial institutions BGN 223 735 thousand
- Deposits from non-financial institutions and other clients BGN 1 017 152 thousand
  - Demand deposits- BGN 236 419 thousand
  - Term deposits BGN 695 827 thousand

# - Saving deposits – BGN 84 906 thousand

- 3. Payables under security repo agreements BGN 0 thousand
- 4. Short-term borrowings BGN 0 thousand
- 5. Long-term borrowings BGN 52 278 thousand
- 6. Subordinated term debt BGN 97 948 thousand

A total of: BGN 1 578 411 thousand (CIBANK: Annual management report and annual consolidate financial statements of the independent auditor as of 31 December 2010, viii)

# Card payments

The bank card is an electronic payment instrument in the form of a plastic card on which information is stored electronically and used repeatedly to identify the cardholder, also used for remote access to bank accounts and to perform the following operations:

- withdraw of cash through an ATM terminal device
- payment of goods and services and cash receipt through POS terminals
- payments for goods and services via virtual POS terminal devices
- transactions between accounts through ATMs
- payment of services through ATMs
- inquiries about current state and other payment and non-payment operations

The bank card is issued on the basis of a contract and/or a request for a bank card. CI-BANK offers the following card types:

-Debit card Maestro – in Bulgarian leva (BGN) which could be accessed both within and outside of the country; for home or foreign individuals and legal entities.

-Debit card VISA Electron – in BGN, USD, or EUR; for home or foreign individuals and legal entities.

-Debit cards VISA BUSINESS Electron – BGN, USD – for corporate customers

-Credit cards MasterCard STANDARD and MasterCard GOLD –BGN; EUR; USD. For home or foreign individuals

-Credit cards MasterCard BUSINESS - BGN; EUR; USD - for corporate customers.

#### Credits

The credit portfolio of CIBANK is being comprised of properly secured credits, given to the credit receivers after a thorough analysis and investigation.

In addition to corporate loans, CIBANK aims to expand its lending to small and medium sized enterprises and personal customers. The bank is in the process of restructuring its credit portfolio aimed specifically at increasing the number of loans given to the above two client groups (CIBANK's Intra-site).

The structure of loans and debt receipts for the past 3 years is the following:

at 31.12.2008

- 1. Loans to banking financial institutions BGN 0
- 2. Loans to other financial institutions BGN 93 180 thousand
- 3. Loans to the state budget BGN 1 091 thousand
- 4. Trade loans BGN 944 241 thousand
  - including Loans to corporate clients BGN 801 989 thousand
  - including Loans to small and medium-sized enterprises BGN 142 252 thousand
- 5. Consumer loans BGN 243 274 thousand
- 6. Mortgage loans to individuals BGN 166 857 thousand
- 7. Other loans and receivables BGN 93 thousand

A total of: BGN 1 448 736 thousand (CIBANK AD: Annual management report and annual financial statements as of 31 December 2008, 12)

at 31.12.2009

1. Loans to banking financial institutions - BGN 0

- 2. Loans to other financial institutions BGN 78 043 thousand
- 3. Loans to the state budget BGN 5 435 thousand
- 4. Trade loans BGN 919 863 thousand
  - including Loans to corporate clients BGN 560 346 thousand
  - including Loans to small and medium-sized enterprises BGN 359 517 thousand
- 5. Consumer loans BGN 252 129 thousand
- 6. Mortgage loans to individuals BGN 187 277 thousand
- 7. Other loans and receivables BGN 0 thousand

A total of: BGN 1 442 747 thousand CIBANK AD: Annual management report and annual financial statements as of 31 December 2009, 14)

at 31.12.2010

- 1. Loans to banking financial institutions BGN 0
- 2. Loans to other financial institutions BGN 66 758 thousand
- 3. Loans to the state budget BGN 2 424 thousand
- 4. Trade loans BGN 877 073 thousand
  - including Loans to corporate clients BGN 639 633 thousand
  - including Loans to small and medium-sized enterprises BGN 237 440 thousand
- 5. Consumer loans BGN 238 209 thousand
- 6. Mortgage loans to individuals BGN 215 576 thousand
- 7. Other loans and receivables BGN 0 thousand

A total of: BGN 1 400 040 thousand (CIBANK: Annual management report and annual consolidate financial statements of the independent auditor as of 31 December 2010, x) The realised profit (before taxes) for the last three years is respectively: BGN 9 281 thousand, BGN 2 850 thousand and BGN 2 609 thousand. This shows a negative tendency directly related to the global financial and economic crisis.

CIBANK seeks to offer more extensive banking services to its customers through crossselling and sales of combinations of banking products and services according to the needs of the target groups.

During 2009 and 2010 the main driving force for the financial markets was the desire and efforts of the institutions for stabilization and exercising of the implemented measures by the central banks as a way out of the global financial crisis. The main goals of the banks was to increase the collection of already outstanding credits and increased efficiency in attracting funds from companies and individuals, albeit at a slower pace.

# 3.2 Non-cash payments at CIBANK

CIBANK's clients (both individuals and legal entities) can use the Internet banking service, as the only condition is to have an open account at CIBANK. The Internet banking service is accessed through the website of the bank through an encrypted connection (SSL) and an identification certificate issued by the bank which is installed on the user's browser.

Internet banking allows the clients the following services:

- 1. Payments in BGN through the settlement systems BISERA and RINGS.
- 2. Transactions in foreign currency within the country and abroad.
- 3. Currency exchange.
- 4. Checking of the current balance of the client's bank accounts.
- 5. History of transactions.
- 6. Issuing of a statement comprised of all accounts opened at CIBANK.

7. Receiving financial information about interest rates, taxes and bank fees.

8. Viewing currency exchange rates - Central Bank exchange rates as well as buy/sell exchange rates at the bank.

CIBANK uses the services of the operator DATAMAX Plc. for automatic payment of bills called "Electronic utility bills". Although the service is still not widely used it allows the clients convenient automatic payment of their obligations for utilities' use. In order to use the service the client only needs to request its activation a single time in a written form at a CIBANK's branch. Utility bills' payments are initiated as transactions from the bank card through a virtual POS system in the deadline determined by the respective business which is the beneficiary of the payment. Payments get processed only after the automatic verification of the balance on the card and the limits for payment of goods and services. CIBANK is also a representative of the payment operator ePay Plc for notifications to the clients for the authorization and transactions done through bank cards and their amounts.

SMS alerts service is also available once the client stated their wish to use it in written form. The mobile operator provides 24 hour service for notifying customers of the bank. The method of obtaining information is as follows: After the client makes a payment to an ATM, POS terminal or online and authorization in BORICA (the Bank Organisation for Payments Initiated by Cards) is granted, an SMS message is sent to the registered in the system mobile phone number associated with the card. The mobile operator sends a text message which the client receives within 10 minutes after the completion of the transaction.

CIBANK issues the most worldwide accepted debit cards Maestro and VISA Electron. Debit cards are generally considered the most secure bank cards because every operation with them is authorized only after electronic check on its limits, the remaining funds on it and the correct input of the PIN, no matter if they are used for making payments or withdrawal of cash. CIBANK also issues the most popular credit cards MasterCard, MasterCard GOLD, MasterCard BUSINESS. The new cards being issued at CIBANK include both magnetic strip and a chip. The chip offers additional data protection and the strip allows it to be used on all modern ATM-s around the world. The Chip technology also allows additional services and versatility. Concerning non-cash payments, CIBANK operates with a large volume of basic accounting records, which are the grounds for completing the accounting and bookkeeping entries. These are identified in a manner indicated by the accounting legislation, and must be registered in the consistency of their appearance and processing.

As a condition for cashless payments, the bank requires its customers to hold an account in order to store money and make payments. Holders of bank accounts can pay from their account through all the permitted methods by the Banking Integrated System for Electronic tRAnsfers (BISERA) ways, and to deposit or withdraw cash. Currently CI-BANK offers the following instruments for non-cash payments: direct transfer; direct debit; payment by a Letter of credit and electronic payment instruments. (CIBANK's Intra-site.)

# **4 THE PAYMENT SYSTEM IN BULGARIA**

The current legal regulation of the payment mechanisms of non-cash payments and the rights and obligations concerning them are based on the Ordinance  $N_{2}$  3 of the BNB. Through it and through the issued by the BNB Unified Banking Standards, is achieved the regulatory function of the National Bank on the payment mechanisms. Ordinance  $N_{2}$  3 regulates the types of bank accounts, the way they can be opened, in which currencies and how to organize and carry out various forms of settlement within the country and abroad. Provisions of this ordinance also influence the BNB monetary policy. E.g. through changes in the limit on cash payments the central bank can influence the amount of cash in circulation.

In order to earn the trust of customers in the level of service for their payments, many banks undertake a number of duties and responsibilities. For example:

- Payments from the bank account of the client (in BGN and foreign currency) can be processed only at the discretion of the client with a prior written consent for the size and the conditions set by the client in the contract for opening an account (exceptions are made only in the cases of forcible execution);
- Cash receipts or non-cash payments to the client's bank account are reflected in the certification of the account, regardless of who the beneficent is;
- For each transaction to and from the client's account the banks are obliged to inform the account holder about the changes reflecting on the state of the account;
- From their bank account, either in BGN or foreign currency, the bank client can make payments within the country through all eligible ways specified in BISERA and outside the country in accordance with the accepted rules of the respective commercial bank for international banking practice;
- The bank cannot refuse a non-cash payment from the disposal account of its client unless there are legal grounds for that. In case of failure to process the payment within 10 days, the client may request the court to declare the bank insolvent;
- Payments on behalf of a customer are carried out in the order of receipt of payment documents. Exceptions are made only in the presence of legal proceedings for compulsory collection;

Payments through BISERA are provided with a "spot period" of three working days. After this time runs out the banking unit responsible for the late payment owes interest to the beneficiary. (Ordinance № 3 of the BNB.)

Typical for bank payment transactions is that they should answer four basic questions that cover virtually the entire range of conditions for payment:

- In what way should the payment be carried out? (in what currency);
- How to pay? (ways and methods of payment);
- When should the payment be processed? (payment period);
- What is the place of payment?

These questions are related to the fundamental components of non-cash payments: the amount of currency that is the subject of the transaction; the date of payment; the value date (e.g. the day when an interest starts to accrue on an account; payment terms - they answer the latter three questions.

In Bulgaria, an integrated banking system for electronic payments (BISERA) was established in 1992 by a project of the BNB. Its design, programming, implementation, and the continued operation, maintenance and development were carried out by BANK-SERVICE Plc. The BISERA operates on the principle of packet processing of payment documents, with settlement on the next day. A drawback of this system is that it limits the liquidity of financial institutions as a result of the fact that the settlement occurs on the next day. Within the current working day the financial entities do not possess information about the movement of cash flows to and from them.

Through the BISERA are realized the following services:

- Transmission of electronic messages
- Interbank payments, i.e. between customers of banks that participate in the settlement system
- Transmission of electronic messages about interbank payments, i.e. between clients served by different branches of the same commercial bank
- Settlement of interbank transactions

- Periodic collection of economic and statistical data - balance sheets, trial balances, account states and other data for the needs of the BNB and management of commercial banks.

Throughout its organization, the system of cashless payments is a dynamic, organized set of principles and requirements, which is under the continuous impact of emerging social and economic processes.

## 4.1 Payment documents and document circulation

The payment documents are the basis for each cashless operation. Any form of cashless payment has its own separate forms that are completed in accordance with the requirements of the Ordinance  $N_2$  3 and the instructions issued by the BNB in that regard. It should be emphasized that the documents are provided for use in the country are regulated as annexes to the Regulation on non-cash payments in the national payment system.

Standardization of the payment documents is essential. The unification of the payment documents allows them to be processed much faster and optimizes the payment process. Despite the strict requirements the BNB also allows the use of devices for reading optical data (optical readers, scanners, etc...). However, the quality of the paper on which the forms are printed has to comply with the requirements of the device.

In order for non-cash transactions to occur, above all it is necessary that the bank client has an account at a commercial bank. For opening of a payment account by Ordinance  $N_{2}$  3 of the National Bank (valid from 01.11.2009) it is required that the payment service provider indicates if with a unique identifier. The payment account is indicated with an international bank account number (IBAN).

Upon payment by direct deposit are three types of regulated payment orders:

- Payment order used for translation between natural and legal persons, the advance transfer of funds from future transactions and others.
- Budget payment order these are special forms of payment between units of the financial system itself;

- Payment order (deposit slip) for payment to the national budget - in cashless payment of taxes, duties, obligations to the National Social Security Institute, and the National Revenue Agency.

When a Letter of credit is going to serve as a basis for the payment a Request for opening letters of credit is filled in. This payment document is completed by the originator of the opening of the LC and is submitted to the issuing bank, where the originator has a current account with the necessary amount on it. The request for opening a Letter of Credit is a paper for initiating the payment, but in order to complete the process a variety of other documents are required, with which the beneficiary's bank can certify that the provisions of the LC are met. As the latter are not solely payment documents they will not be discussed here.

Paying by a direct debit is associated with the completion of two documents. The first is the Consent for a debit. It is completed in two copies – one which remains in the bank of the payer and the other one is given to the supplier (the beneficiary). The second payment document is called Payment request for immediate collection. It is also completed in two parts. The first is called Request for a debit and the second one - Notification for direct debit. When initiating a payment to their benefit the supplier must submit to the servicing bank the Consent for immediate collection, which is provided by the payer and the Payment request for immediate collection.

In check payments the provider grants the servicing bank their check book. It must meet the requirements and be approved by the BNB. In limited amount checks the amount is indicated on a specified location on the cover of the book. The sum of the individual checks may be different, but the total should not exceed the check book's limit. The beneficiary must verify that the check was issued correctly and truthfully and if the remaining amount on the check book stated on the slip is calculated correctly. If the previous check slip is missing, the recipient is obliged to refuse the payment.

Upon payment by a credit card the prospective cardholder completes the Application for issuance of a bank card in a commercial bank that is willing to open an account from which payments will be made.

All required payment documents must be submitted to initiate non-cash payments in the commercial banks and are completed in two copies, unless the customer requests other-

wise. After debiting or crediting a bank account, the bank is obliged to inform their customers for the change. This happens most often with a daily statement of the account transactions. Standardisation of documents is a positive trend in the banking practice, which provides great convenience in automating and accelerating of the payment progress.

## 4.2 Supervision of non-cash payments

As a central bank the Bulgarian National Bank is tasked to monitor the stability of the national currency and to supervise and control the banking sector. The BNB has the right to issue bank licenses, to conduct inspections (both on banking and non-banking financial institutions in the country) and to collect data from commercial banks and branches of foreign banks in the country. One of the main departments of the BNB is called Banking Supervision. Its tasks are related to the collection, processing, storage and analysis of information provided by commercial banks and branches of foreign banks in the form of financial reports, in accordance with the Law on Banks and regulations.

Payments subject to supervision are:

1. System operators and the other participants in the payment systems;

2. Executing institutions, intermediary institutions, issuers of electronic payment instruments and all other persons for their activities in any means related to the functioning of payment systems.

3. Payment mechanisms of the settlement system in trades of corporate and government securities.

When exercising supervision on a payment the BNB is entitled to demand from persons under paragraph 2 to provide all the necessary documents and information about their activities and carry out spot checks by authorized officials. The data is processed for the purpose of obtaining the necessary regulatory indicators, which monitor the condition of banks and the banking system as a whole. Special emphasis is put on the preservation of the gathered data. Another department called Special Supervision is responsible for collecting, storing and analyzing data related to the share capital of banks.

The major source of information is the Central Depository (and if necessary the banks themselves). The IT infrastructure for gathering information to automate these processes used to be realized by employees of the BNB. However, there was a vast need to upgrade the old platform in order to create a modern informational structure, in which the data is collected and stored using flexible tools corresponding to the dynamics of the banking industry and the respective regulatory frameworks of the European Central Bank. The introduction of the information system aims to provide modern tools to access, review and analyse the banking information and to facilitate the process of decision making when banks practice their main functions.

The data processed and generated by Banking Supervision must be available both within the management and among other units of the BNB. The officials from Banking Supervision are also granted remote access to it during their inspections of banks.

In carrying out banking supervision the established rules of the Bank for International Settlement (BIS) are followed. They consist of two parts: core (Tier 1) capital, consisting primarily of common equity and Tier 2 capital, consisting of reserves and subordinated debt. Tier 1 capital is required to be at least 4%, and total capital - at least 8% of the risk weighted assets (RWAs). (Basel Committee on Banking Supervision 2004, 12.)

The market risk approach covers the general market risk and the risk of open positions on currencies and debt and equity securities. Assets are weighted according to broad categories of notional risks, assigned a risk weight on the amount of capital deemed to be necessary to cover them. Four categories of risk weights are differentiated (0%, 20%, 50% and 100%). Eg. cash and money market instruments have a zero risk weighting which means that they do not require capital to cover those assets. Property and equipment are with risk weight of 100% which means that they must be covered with capital equal to 8% of their size. (Basel Committee on Banking Supervision 2004, 12, 15, 16.)

## 5 ELECTRONIC FUNDS TRANSFER AT THE POINT OF SALE

CIBANK which is now fully owned by the KBC bancassurance group does not intend to limit itself in the scope of services it offers to its clients. The bank strives to constantly add new services and improve its current ones in close collaboration with its financial partners and clients. As previously noted, due to economical and historical reasons the Bulgarian society is still largely dependent on hard cash. Nevertheless, market conditions force employers to always struggle to reduce their costs and one such reduction was seen in the debit card. Costs for payroll distribution of large and mediumsized companies are significantly decreased when done electronically. Furthermore, in recent years the Bulgarian state also started paying the salaries of the employees engaged in the administration, to distribute pensions, and to distribute the majority of social benefits also electronically. This created a large number of debit cards in circulation, even for people that were otherwise unlikely to take the initiative to apply for one.

The next logical step was that the demand for POS terminals would increase as card clients would want to avoid the inconvenience of withdrawing cash from an ATM but rather pay directly at shops and restaurants. Retailers on the other hand, would also want to take advantage of the many benefits EFTPOS terminals have to offer. And as a leading Bulgarian bank CIBANK strives to participate actively in the market for installing and maintenance of POS terminals. However, the current share of clients using the POS terminal installed by CIBANK and related services, was unsatisfactory. For this reason, a study needed to be carried out that would examine all the benefits of using EFTPOS systems from the point of view of retailers and serve as a basis for the marketing materials aimed at Bulgarian retailers as potential clients of the service.

First of all, we will look into the general picture of use of POS terminal services in Bulgaria. The table below is comprised of data straight from the BORICA (Bank Organisation for Payments Initiated by Cards) statistical data. From all the statistical data available most applicable seemed two reciprocal values – the number of cash withdrawals and the number of POS transactions.

Year 2001 2002 2003 2004 2005 2006 2007 2008\* Total of all processed transactions 8959,3 10862.1 (in millions) 1276,7 2236,8 3630.4 5047,9 6293,7 7355,5 Total of all POS transactions via BORICA connected POS terminals 687,9 (in millions) 106,5 214,2 357,3 522 822,8 1142,2 1513,6 As per cent of all transactions 8.34% 9.58% 9.84% 10.36% 10.93% 11.19% 12.75% 13.93% Total of all money withdrawal transactions through ATMs (in 4483,8 5527,9 8529,8 millions) 1158,4 2004,3 3248 6434,3 7137,2 90.73% 89.47% 88.83% 87.83% 87.48% 78.53% As per cent of all transactions 89.60% 79.66%

Table 1. POS transactions versus ATM withdrawals by total amount in Bulgaria (2001-2008) Source: BORICA

\* Data for year 2008 for the number of POS transactions excludes transactions made via Visa, Visa Electron and Mastercard cards which would otherwise constitute for a larger number.

From the above table we can observe that indeed even though the number of ATM withdrawals is on the increase each year, it decreases as a percentage of the total amount of transactions in favour of POS transactions. The data also suggest a clear trend for the growth of usage of POS system in comparison with the use of ATMs.

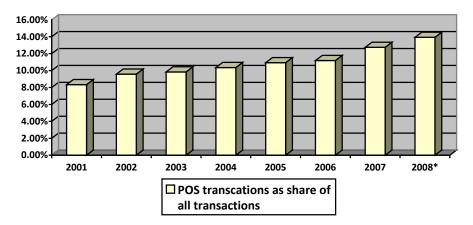


Figure 1. POS transactions as share of all transactions.

## 6 BENEFITS OF POS TERMINAL SERVICES

According to a study done by IDC Retail Insights, POS systems cost to businesses 27% less to operate and manage in comparison with the simple PC cash drawers (Hand 2010, 7). Among the factors that were included of greater importance were transaction speed, customer satisfaction and lower general costs.

## Faster checkout

In large retail stores electronic payment at checkout might significantly decrease the checkout time as it replaces the use of the cash drawer and the associated delays caused by counting and handling of bills and change. All manual data entry is eliminated since the POS system is directly integrated with the billing software. According to IDC's study POS systems process transactions 33% faster than any computer cash drawer (PCCD). This leads to higher amount of checkouts being processed on a daily basis, enhanced customer satisfaction and lower costs for staff.

## Improved customer experience

POS systems provide additional services that clients might take advantage of. And extra services in general lead to improved customer satisfaction and trust. We as customers have all experienced the frustration of having to shop for very few items during busy hours and having to wait in line behind customers with many items to check out. This could very well be taken care of with the integration of self-service kiosks which have been utilized by some Western retailers for some years now such as some of the Tesco stores in the UK. Another very convenient service is the Cashback at the point of sale.

## Centralized reporting

Accounting tasks such as preparation of accounts payable, accounts receivable and payment orders can practically become automated with an integrated POS system. It is one interface that controls all transactions at the back office. There are solutions which can perform more than twenty functionalities.

## Mobile wallets at POS

Modern systems also offer instant electronic mobile payments and other alternative payment methods. Mobile wallets offer the integration of a software application that makes it possible for a phone's SIM card to act as a means of payment. It is a convenient service that comes as an extra to a piece of equipment already carried by any consumer – the mobile phone.

#### Inventory reporting

The POS system is not only a payment processor. It also serves as a great source of data for the retailers that can increase store efficiency. Every item that goes through the barcode scanner would mean that it had been picked up from the shelf and the quantity of that item at the shelf has been decreased by one. In other words, it gives precise information about the current inventory that greatly assists inventory planning and procurement.

## Loyalty programmes – cross-selling and up-selling

Loyalty schemes in the form of store issued cards provide customer specific data to the store management. This data can be used to prepare customer buying patterns and profiles which provide many cross-selling and up-selling opportunities. Cross-selling is referred to the act of providing complimentary goods and services to the already existing goods and services in the consumer basket. Up-selling on the other hand, is the act of offering better items and services than the currently chosen by the customer, or in other words – upgrading of the purchase aimed to achieve larger profit for the retailer. When analyzing client data retailers should not only focus on what customers buy but also how much they spend. One or more spending levels with concentration of large proportion of customers might show that those customers are unlikely to spend more than a certain amount. If the retailers offer some sort of an incentive – a free of charge service (such as free shipment) or some sort of discount on other items the consumer might buy more of a specific item or even pick up a product that he would not normally buy or buy from a competitor. Although, businesses should strive to always improve and upgrade their existing technology, they sometimes fail to realize that the replacing of a whole segment might be more cost-efficient in the long run. The fact that add-ons to their existing modules usually cost less is the reason why store management might be inclined to better this option. When advising clients on their choice, CIBANK's representatives should very carefully examine the client's current system and justify to the client what will be best for their business. There are several factors to be taken in to account. New add-ons might not always be fully compatible with the existing equipment and software, requiring permanent supervision or experiencing of faults and performance slow-downs. This on the other hand, is likely to cause frequent service and maintenance calls which could be costly for both sides. Newer IT equipment also tends to be more power efficient than its predecessors which can also effect negatively the overall client satisfaction.

## Staff training

As with any new technology staff acceptance might appear as a huge barrier to its implementation (Williams 2008, 3). Store staff might initially find it difficult to get used to the new technology and the variety of additional procedures and services that might be added to the simple POS terminal. This might cause frustration within the first few days of employment of the new system if the store employees are not trained beforehand. Personnel unawareness with the system might lead to slower checkout times, lots of unrealised profit and even lasting impact on the store's reputation and dissatisfaction within customers. Several peak periods leading to abnormally bad services might get the system heavily dislike by staff and management and the end of the system's implementation before it has gained significant benefits for their business. For this reason CI-BANK has to emphasize on the importance of staff training and be willing to offer the resources needed for preparing enough store personnel for the use of the system.

#### Consumer experience impact

Frustration of employees when handling a new system is bound to transfer into an unpleasant shopping experience for the consumers. In addition to the inherited disturbances and delays, the interaction between employee and customer suffers additionally from the aggravation of the employee even if it is not caused by the customer. This is especially valid when using handheld POS equipment in restaurant where the connection between the guest and the server is of utmost importance.

#### Security

Although, counterfeiting of paper money is still common, non-cash payment frauds seem to get a wider coverage from the news. Forgery of cash is probably as old as cash itself and the public is already aware of the concepts around this issue. Whereas payment fraud, with all its varieties and displays, is regarded as something relatively new and notorious. This paper does not aim on covering all the payment frauds that occur worldwide. However, it is worth mentioning that together with the cases of stolen electronic data, stolen identity and forgery of payment documents, modern non-cash payments still suffer from additional risks. One recent case was the denial of the services of MasterCard and Visa, allegedly done for non-profit purposes.

On 8 December 2010, supporters of the WikiLeaks organization lead by the Annonymous hactivists group launched coordinated DDoS (distributed denial of service) attacks aimed at the online money processing entities which denied accepting donations to WikiLeaks including Visa, MasterCard, PayPal and the Swiss PostFinance. The attacks caused disruption of the MasterCard's directory server which meant disruptions throughout its global business, temporary loss of the SecureCode service and access to mastercard.com (Addley et. al., 2010). Similar attacks also crashed Visa's website and deemed it completely inaccessible for over an hour (Mackey, 2010) and slowdown of PayPal services (Addley et. al., 2010). The disruptions showed how vulnerable money online processing services might be to exploits even though for a short period of time.

Therefore, it is important for CIBANK and any other financial institution to emphasize on how safer electronic payments are becoming, that plastic cards nowadays include a chip in addition to a magnetic strip, that transaction is not authorized without entering of a PIN, that their funds are insured in cases of theft, but most of all - how much safer and efficient electronic payments are in comparison with cash.

Cash is an efficient form of legal tender and there will always be a need for banknotes and coins, although cash transactions are declining as a share of GDP (Nyberg 2008, 6). According to the European Payments Council the total cost of using cash in Europe in 2008 was EUR 84 billion which accounted for 0.60% of Europe's GDP or EUR 130 per person (EPC 2010). On first sight this might sound as a ridiculously large number but when we have a further look of what it is comprised of thins come at its place.

Production of bills and coins is an expensive task which is borne entirely by the taxpayers. First of all, contrarily to popular belief the material used for the production of banknotes is quite far from ordinary paper but rather closer to the materials used in textile and clothing industries in order to achieve robustness. E.g. the US dollar bills are made of cotton fibre paper and in 2010 the production of a single note cost 9.6 cents to the taxpayer (Kavilanz, 2011). Euro notes also use cotton as a primary raw material. They are made of 100% cotton derived from genetically modified cotton fibres (ECB, 2007). Second, all notes and especially those with high value have to be incorporated with modern security measures to make forgery difficult, such as watermarks which might include complex fluorescent and microprint elements.

Banknotes and coins take up a lot of space and are relatively heavy to carry compared to any cashless solution. Electronic means of storing money make it possible for much larger quantities of money to be carried around safely and cheaply.

#### Increased profitability

Although electronic payments usually offer the customer a convenient way to check all their payments online, clients rarely do that. Instead, paying with a piece of plastic seems to be done more recklessly and without that much regard to the total at the end of the receipt.

# Cash withdrawal at the point of sale

The Cashback service (also known as "cash-up") at the POS has been offered in several EU countries for quite a while and is regulated by the SEPA card specifications. However, in most of them it has been rarely used or not used at all. It is an optional service that extends the amount of the due payment to include delivery of cash. The additional amount is added to the total amount and the client receives cash in addition to the good/services purchased. (SEPA-FAST, 16).

Clearly, this service provides convenience to the customer as they can use the store as an ATM, especially if there are no ATMs nearby or those present are currently not functional (empty of cash, etc.). Many potential clients might walk into the store with the sole intention to quickly withdraw cash and end up fulfilling all their shopping needs in the store which provides the cashback service.

And even if there are ATMs nearby, with cashback the customer does two operations with one transaction and one entering of his/her card and PIN. This means that the re-tailer's customers are likely to also take some cash back at the counter especially if re-minded by visible signs or offered by the shopping assistant which is very often done in ASDA hypermarkets in the UK where the cashback service is well established and used (). Furthermore, in Bulgaria it is common to be charged with a fixed fee between 0.50 and 2 BGN for using an ATM of a bank other than the card issuing bank. In comparison, the bank UBB recently started offering the cashback service at POS for the charge of 0.20 BGN for VISA debit cards (UBB AD 2011, 9). What is more, the assistant at the counter might offer better flexibility of note and coin denominations than the ATM-s.

Nonetheless, the convenience to the customers seems modest compared to the benefits it provides to the stores, especially those which accumulate large amounts of cash on a daily and hourly basis. Offering cashback reduces the amount of cash at hand which is very convenient in countries with traditionally high use of cash. Large amounts of cash are associated with greater exposure to theft during storage and transportation. Retail shops (especially large grocery stores) are forced to count their cash at least once per day and employ a large and secure containers for its storage. Then, once per day several sacks full of banknotes have to be transported by security personnel in the appropriate type of vehicle to the bank where it is again counted and likely a deposit fee being collected. In any case, this process is connected with elevated security costs for the store and/or higher bank lodgement fees.

In case few factors are at hand, the cashback service might even become a source of income for the retailers on its own. Large stores with huge sales volumes might even be enticed by CIBANK with a commission for choosing the bank as a provider of the service. Depending on the services offered at the POS terminal and the charges applied for different services and on different cards/mobile wallets used by the store's customers.

# 7 SUMMARY

The system of cashless payments is not characterized as a closed and static setting, but a dynamic system comprised of a regulated set of principles and requirements, which is under the continuous impact of the rapid growing social and economic processes.

Daily, the Bulgarian National Bank (BNB) works for the preparation of the national payment system for achieving full integration with the EU payment system. The BNB is responsible for organizing, maintaining and developing the national payment system through the implementation and operation of efficient payment mechanisms. The national bank, like many other central banks, is making significant efforts to develop a national payment system, which reduces systematic risk when making payments in Bulgarian leva. The results of these efforts are seen in the implementation of a real operating system – the Real-time Interbank Gross Settlement System (RINGS). The introduction of the new payment system was seen as essential in reducing risks and achieving financial stability.

These and other steps are enough proof that Bulgaria is making serious attempts to align its legislation, and the banking practice with that of the developed countries in the world, especially the countries of the European Union. The fact that Bulgaria, quickly reached close to the technological development of Europe, influenced in recent years the rapid implementation of payments with debit and credit cards.

Application of established norms in non-cash payments is essential for improving the level of the financial activity in companies in strengthening the trading etiquette between them, to protect them from unjustified risks and enhance the effectiveness of their overall business.

As noted in this paper, the Bulgarian market still lacks the implementation of some of the cashless services offered worldwide. The benefits of employing an electronic funds transfer system at the point of sale are indeed many and the Bulgarian businesses should take full advantage of them. As we have seen, those benefits do not only improve the end-customer satisfaction but they can also provide cost cuts and operational advantages especially to the retail sector. Special attention was given to the cash withdrawal at the point of sale as it can strongly help retailers with decreasing the cash amounts at hand and the associated costs for storage, transportation, security and reporting of cash.

## REFERENCES

Addley 2010. Operation Payback cripples MasterCard site in revenge for WikiLeaks ban. The Guardian. Read 01.03.2011.

http://www.guardian.co.uk/media/2010/dec/08/operation-payback-mastercard-websitewikileaks

Albuquerque et al. 1855. Notes and Queries. London: George Bell. http://books.google.bg/books?id=uIrWLegNZxUC&pg=PA431&lpg=PA431&dq=bank +italian+bench&hl=bg#v=onepage&q=bank%20italian%20bench&f=false

Basel Committee on Banking Supervision 2004. International Convergence of Capital Measurement and Capital Standard. http://www.bis.org/publ/bcbs107.pdf

Bojinov, B. 2002. Evolution and Present Status of Bulgarian Card Market. ePSO-Newsletter – No. 15 – June 2002. [online] Read on 26.9.2010. Retrieved from: http://ssrn.com/abstract=458280

Bojinov 2003. What Bulgarian Banks offer via Internet: an Overview. Svishtov, Bulgaria: Finance and Credit Department Tsenov Academy of Economics. Read on 12.02.2011. http://129.3.20.41/eps/fin/papers/0310/0310011.pdf

Borish & Co. 2001. An assessment and rating of the Bulgarian banking system. Ontario: Michael Borish and Company, Inc. Read on 12.04.2011. http://pdf.usaid.gov/pdf\_docs/PNACQ175.pdf

CIBANK AD 2008. Annual management report and annual financial statements as of 31 December 2008. https://www.cibank.bg/media/content\_files/ENGL\_CIBANK\_Management\_Report\_20 08\_ENGL.pdf

CIBANK AD 2009. Annual management report and annual financial statements as of 31 December 2009.

http://www.cibank.bg/media/content\_files/file/investitors/CIBANK%20FS%20122009 %20ver%2030%20March%202010\_eng.pdf CIBANK 2010. Annual management report and annual consolidate financial statements of the independent auditor.

https://www.cibank.bg/media/content\_files/CiBank\_consolidated%20FS.pdf

CIBANK 2010. CIBANK's Intra-site "Info"

European Central Bank (ECB) 2007. ECB Blue Book August 2007: Payment and securities settlement system in the European Union. Volume 2. Non-euro area countries. http://www.ecb.int/pub/pdf/other/ecbbluebookea200708en.pdf

ECB (European Central Bank). 2007. Environmental impact of euro banknotes. Read 22.10.2011. https://www.ecb.europa.eu/euro/html/environment.en.html

European Payments Council (EPC) 2010. SEPA Fixed Amount Direct Debit Scheme Rulebook. Read 22.10.2011.

http://www.europeanpaymentscouncil.eu/documents/EPC003-

10%20Fixed%20Amount%20SDD%20RB%20%20V0.8%20for%20public%20consulta tion.pdf

Hand, L. et al. 2010. Checkout System Cost of Ownership: The Fundamental Advantage of an Advanced POS Platform Remain.

ftp://public.dhe.ibm.com/common/ssi/ecm/en/rtw12517usen/RTW12517USEN.PDF

Harangus 2007. Accoutning information in bank activity. Read on 12.08.2011. http://steconomice.uoradea.ro/anale/volume/2007/v2-finances-accounting-and-banks/83.pdf

Huszti 1981. Main trends in the development of socialist banking systems and organizations. Poland: Akademiai Kiado.

IBM Worldwide Study 2009. Inside the Midmarket: A 2009 Perspective. Read 12.01.2011.http://www-03.ibm.com/press/attachments/ibm\_midmarket\_trend\_study.pdf

Kavilanz 2011. Guess what? Dollar bills are made of cotton. Read 04.09.2011. http://money.cnn.com/2011/03/08/news/economy/dollar\_cotton\_prices/index.htm KBC Group 2009. SEPA Guide 2009

https://multimediafiles.kbcgroup.eu/ng/published/KBC/PDF/INF/SEPA\_guide\_2009.pd f

Law on limit of cash payments 2011. (Original title: Закон за ограничаване на плащанията в брой Обн. ДВ. бр.16 от 22 Февруари 2011г.). http://www.lex.bg/bg/laws/ldoc/2135718725

Mackey 2010. 'Operation Payback' Attacks Fell Visa.com. The New York Times: December 8, 2010, 4:18 PM. Read 02.03.2011 http://thelede.blogs.nytimes.com/2010/12/08/operation-payback-attacks-visa/

Nyberg. 2008. Cash and payments – what lies ahead? Sveriges Riksbank speech. 05/02/2008. Stockholm. Read 11.08.2011.

http://www.riksbank.com/upload/Dokument\_riksbank/Kat\_publicerat/Tal/2008/080205 e.pdf

Obligations and Contracts Act REPUBLIC OF BULGARIA NATIONAL ASSEMBLY Promulgated State Gazette No. 275/22.11.1950 Rectified SG No.2/1950; Amended SG No. 69/1951; 92/1952; 85/1963; 27/1973; 16/1977; 28/1982; 30/1990; 12 & 56/1993; 83/1996

SEPA. 2009. Financial Application Specification for SCF Compliant EMV Terminals..Part 1: Attended POS Environment (Contact & Contactless) Technical SpecificationVersion 0.91 09.10.2009 [online]. Read 26.9.2010

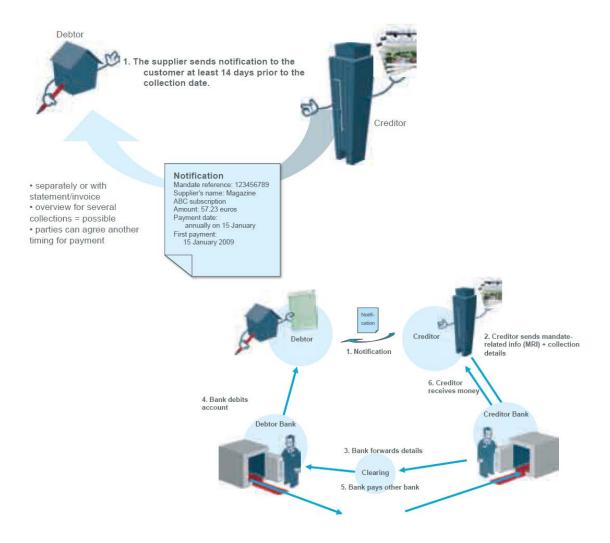
UBB AD 2011. Fees and CommissionsTariff for Individuals - 17/01/2011 http://ubb.bg/ClientFileHandler.ashx?path=~/SiteFiles/File/Fees\_and\_Commisions%20i ndividuals%2026.01..pdf

Williams 2008. Achieving real world benefits with wireless handheld point of sale systems. TriniTEQ, Inc. and Michael Hess - Tech Global Partners, Inc. © 2008. Read 22.08.2011. http://www.triniteq.com/\_content/documents/547.pdf

# **APPENDIXES**

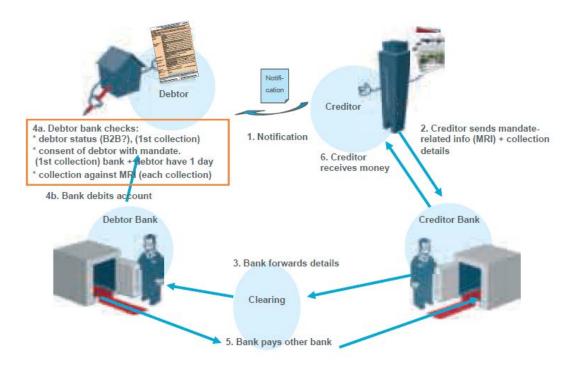
## **APPENDIX 1**

# Core (Basic) Direct debit



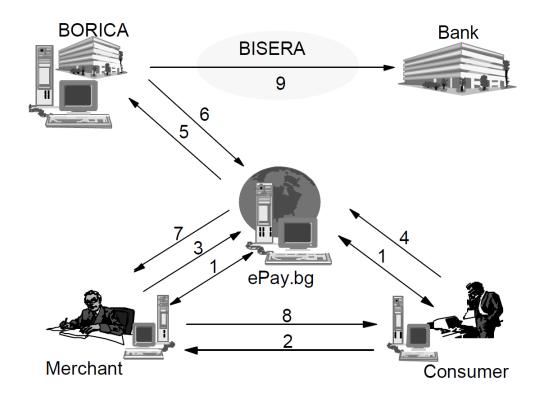
**APPENDIX 2** 

# B2B Direct debit



(KBC Group SEPA Guide 2009, 8-16)

**APPENDIX 3** 



(Bojinov 2003, 9)