## WHAT BULGARIAN BANKS OFFER VIA INTERNET: AN OVERVIEW

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Banks, Internet, Online services, Online banking, E-commerce, Bulgaria

#### Introduction

The new information technologies adoption and e-commerce emergence change the role of financial intermediaries in new E-conomy. According to ECB (ECB 1999), new IT developments affect banking in two ways – they contribute to the reduction of the cost by replacing paper-based and labour-insentive methods with automated processes, and **they modify the ways in which consumers have access to banks' services and products.** During the last years, the bank started an expansion to the web – they offer broad range of traditional bank products and services via Internet. The remote banking become one of the main channels for bank services distribution. The first pure Internet banks emerged.

## What do Bulgarian banks offer via Internet?

The Internet expansion of the Bulgarian banks is at its beginning. The showed results are based on the Internet research, which has aimed to

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describe actual picture of Bulgarian banks present in Internet. The banks' web sites are estimated in accordance with the following criteria:

- web site availability;
- used languages;
- information for bank products and services;
- ♦ documents for download;
- online application forms;
- online (Internet and GSM) banking application;
- other services.

At start points are used web sites of the Bulgarian National Bank (www.bnb.bg) and the Deposit Insurance Fund (www.dif.bg). The both sites present information for full bank name, contact information (address, phone, e-mail), as well as link to web site of the bank.

From 35 licensed banks, 31 banks have their own web site - 29 are fully functional and 2 are under construction. The available information mainly is in Bulgarian (65%) and English (58%), but other languages are also presented – Greek (9%), French (6%), German (3%) and Turkish (3%).

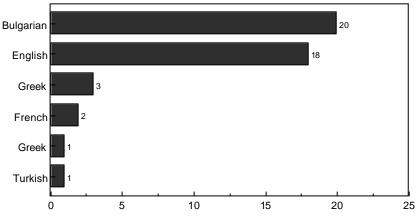


Fig. 1. Languages used in Bulgarian banks' sites.

In 60% of the web sites information is presented in two languages (Bulgarian and English primary), 20% use one language, and 2,9% - three languages.

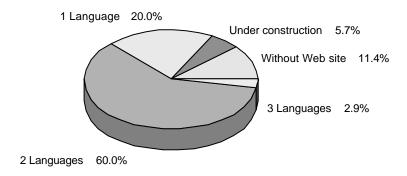


Fig. 2. Number of languages used in Bulgarian banks' sites.

The presented information describes mainly offered products and services (61%) and their prices (45%). Available are documents for download (22%), information for exchange rates (25%), online application forms for domestic debit card issue (16%), loans (3%) and jobs (3%). The Internet banking services are offered only by 3 Bulgarian banks (9%)—United Bulgarian Bank, ING Bank, Sofia Branch, and First Investment Bank – the UBB and ING Bank offer web-based applications for online banking, FIB maintain the first virtual bank branch in Bulgaria. Detailed description of the Bulgarian banks' web sites and accessible information and online services is given in Appendix 1.

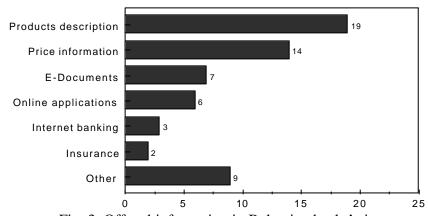


Fig. 3. Offered information in Bulgarian banks' sites

### The leading bank players in Bulgarian Web

## ING Bank, Sofia Branch

ING Group is the third largest financial group in Europe and eighth largest in the world and it has three main lines of business: banking, insurance and asset management. ING started its banking operation in 1994 and offer a full banking service both to the corporate and retail sectors. The web site offers information for retail banking, wholesale banking and pension insurance, as well as a direct link to web-based application for Internet banking.

The retail banking include information for savings, leading, cards, "personal package service" and phone banking. Personal Package Service is a combination of banking and pension insurance products and services offered to the staff of ING corporate clients and to individuals on a labour contract, whose salary is paid to an account with the Bank. It includes: Current accounts (in BGN, USD, EUR). Debit card, FLEX overdraft, Term deposits (in BGN, USD, EUR), Standing orders, Payments (domestic and international), Foreign Exchange deals, International VISA (Electron, Classic) debit cards, Mortgage loans, Voluntary and Mandatory Pension insurance. The individuals have possibilities for VISA card issuance and mortgage loans online application, and online banking (Internet and WAP).

The wholesale banking section includes information about short-term lending (working capital, export and import finance), long-term lending, electronic banking (PC, phone), secondary and financial market operations, researches, documents, etc. There are some documents for download: Bank Card Application Form, Purchase/Sale of FX confirmation form, Irrevocable order currency form, Deposit confirmation form, Call deposit event confirmation form, Communication password, Corporate Account Questionnaire Form.

The web-based application for Internet banking offers possibilities for making inquiries about ING Bank's interest rates and current exchange rates, monitor current accounts, deposits and loans, track transactions, payment orders, term deposits and FX deals. The system required registration in a bank branch, where the consumer obtains user name and password, and set daily limits. For security reasons the application use SSL protocol and VeriSign digital signature. The bank offers the same services via mobile phone, too.

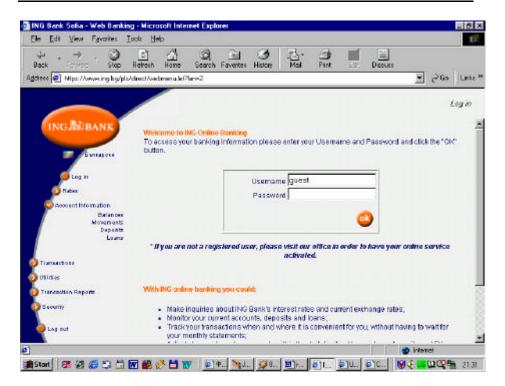


Fig. 4. Online banking application, offered by ING Bank

### **United Bulgarian Bank**

The bank is established in 1992 through the merger of 22 Bulgarian regional commercial banks, the first and most comprehensive consolidation project in the Bulgarian banking sector, and it is privatized in 1997. It has full banking licence for domestic and overseas banking and financial operations. The main shareholders are National Bank of Greece (89,9%) and EBRD (10,0%)

Retail banking services, offered by UBB are:

♦ Savings/Investments (time and demand deposits, saving deposits in favor of children, opening of donation accounts, bank references, share and securities dealing services, allocation of dividents to shareholders in Joint-Stock Companies, allocation of depositary receipts to shareholders, registration of changes to data and circumstances concerning depositary receipts, special savings account under condition)

- ◆ Payment facilities (current accounts/bill payments, domestic and international transfers, Western Union payments)
- ♦ Borrowings (Consumer Loans, Domestic Debit Card Overdrafts, Mortgages with Personal Mortgage Calculator)
- ♦ Foreign Exchange transactions
- ♦ Bank cards and cheques (domestic and international debit cards (Maestro-Cirrus, VISA Electron), international credit cards (Eurocard/MasterCard, VISA), travellers cheques)
- Dividend Payments
- **♦** Consulting
- ♦ Safe Deposit Boxes
- ♦ Telephone Banking

The wholesale banking offers possibilities for:

- ◆ Payment facilities (current account, ordinary and express domestic payments, documentary letters of credit, international payments, documentary collections, Western Union payments)
- ♦ Investments/Savings (debt instrument transactions, share dealing services, money market operations, allocation of dividends and depositary receipts to shareholders, time deposits, special fund-raising accounts)
- ♦ Electronic business banking
- ◆ Cash collection and saves (cash collection with cash-boxes and UBB transport, 24-hour accessible safe, safe deposit boxes)
- ♦ Foreign Exchange transactions
- ♦ Bank cards (international credit card (Eurocard/MasterCard, VISA), domestic debit card Maestro/Cirrus, salary payment by bank cards, acceptance of payment with bank cards)

The UBB offer broad range of remote banking services – phone banking, PC banking, WAP-banking, Internet banking, online application for domestic debit card issue, as well as demo version for Internet and WAP banking.

The web-based online application for Internet banking requires registration in a bank branch, where the consumer obtains unique user name and password, and digital certificate for identification. The system offers a number of interactive services:

◆ Account statements (Balances of all consumer accounts, ordered payments and due amounts)

- Money transfers (Transfers between consumer owned accounts with UBB, payments to other accounts, direct debit operations and process of direct debit requests received; standing orders, utility payments electricity, water supply, telephone bills, etc.)
- ◆ Other services and information (BNB and UBB exchange rates, list of BISERA member banks, etc.)

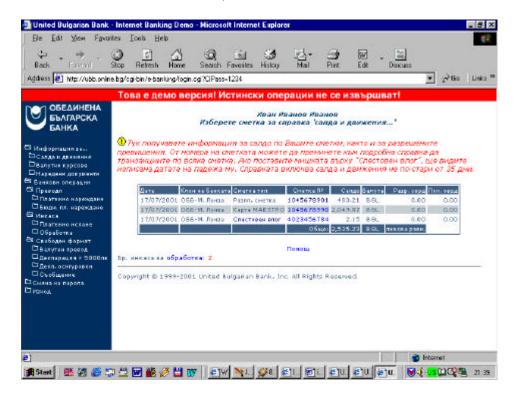


Fig. 5. Online bank application, offered by United Bulgarian Bank

#### First Investme nt Bank

First Investment Bank was established on the 8th of October 1993 in Sofia, under the Bulgarian Law for Banks with a full banking license for domestic and international operations. The main shareholders are European Bank for Reconstruction and Development, London (20%) and the European Privatization and Investment Corporation, Vienna (39%). First

Investment Bank is the first bank in Bulgaria, which issues debit cards with local and international access. It is one of the leaders in bank card market.

The bank's web site includes information about offered bank services, as well as online application for domestic debit card issue. The bank maintains the first Virtual bank branch in Bulgaria. Unfortunately, there is not a demo version and is not possible to try its services. The security is guaranteed though digital certificate usage.

#### ePay.bg (DATAMAX Ltd.)

The ePay.bg is an Internet payment system for e-commerce, based on domestic bank cards and it is developed by DATAMAX Ltd - a nonbank institution. The participants are merchants, who have web-based stores, bank card owners (consumers), banks, which issue bank cards and accept payments with them, the system operator (DATAMAX) and domestic card operator (BORICA). All participants must have registration in the systems and a signed contract with system operator. The mechanism of the payment process is the same as the POS payments.

The system offers three variants for information exchange between merchants and system operator:

- ♦ If the merchant has his own web site and it has possible to make connection with ePay.bg, then on the merchant server is installed specific software, which send payment details to the system operator, checks payments status, and receives information for payments made.
- ♦ If the merchant doesn't have his own web server and it uses a static web page, then is possible intermediation of the Internet provider or site owner, which to ensure security connection with the system operator. If it is not possible, when needed payment information may be statically placed in the web page.
- ♦ Otherwise, the merchant may use the tools of the system.

The merchants and consumers are required to make registration in the system and to provide information, which is necessary for bill issue, as well as a user name and password. For firms required information includes firms' name, business activity, tax number, BULSTAT number, contact person, address, phone number, e-mail, etc. The consumers provide information for their names, civil number, address, phone, e-mail and bank card(s) details. After registration, the system generates unique identification

numbers – CIN (Consumer Identification Number) and MIN (Merchant Identification Number), which are used for participants' identification. The transactions are secured through SLL and digital signature usage.

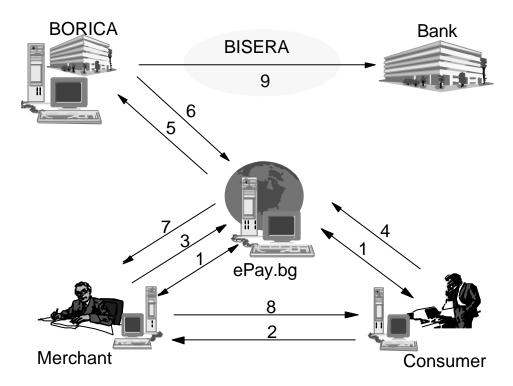


Fig. 6. Information flows in ePay.bg transactions.

The payments via ePay.bg include several steps (fig. 6): the merchants and consumers, who wish to use the system, are required to make registration in ePay.bg (1). During this registration, they receive a private user name and password for system identification, and public CIN/MIN for identification in the payment process.

When the consumer visits an e-store, he selects some items, makes an order (2) and gives to merchant only the own CIN. The merchant sends to ePay.bg own MIN, received CIN and order details (3). The ePay.bg sends all received information to consumers' account for confirmation, i.e. the payment is not finished before the consumer's confirmation. These system features enable to prevent merchants' frauds.

For payment finality, the consumer must login in ePay.bg, identify himself by user name and password usage, and to confirm or reject the payment (4). If it confirms order, the system sends payment information to BORICA (5), where are verified bank card details, funds availability, etc. and it confirms or rejects the transaction (6). If the transaction is confirmed, BORICA transfers a specified fund to the merchant's account, debit consumer's account, and send information for transaction made to consumer and merchant's banks (9).

The ePay.bg system sends received information (accept/reject payment) to the merchant (7) and if transaction is confirmed, it dispatches ordered items to consumer (8), otherwise – it cancels the consumer's order.

ePay.bg allows data exchange with home banking and accounting systems, as well as online application for domestic debit card issue, standing orders, bill payments, domestic transfer (payment orders), digital certificate issue, ePay Voice (phone banking)

#### **Conclusion**

In spite of the small number Bulgarian banks, which offer their products and services via Internet, the research shows that Bulgarian banks as a whole are presented in the Internet. The existing web sites indicate that banks estimate the potential and competitive advantages of the new medium. The offer of new online bank product and services is relevantly delayed, because the legal framework in this area does not exist. The new Electronic Document and Electronic Signature Law will contribute to electronic commerce development, as well as online delivery of the bank products and services. The emergence and successful functioning of the private non-banks Internet payment system (ePay.bg) showed that the status of Bulgarian banks as financial intermediaries is not guarantee, too. They must change themselves, if they want to keep their positions in the new Economy.

**Appendix 1.** Bulgarian banks - web sites, offered information and online services.

Bank (web site / languages)	Offered Information (in Bulgarian)	Online Services	Online banking	Other services
Alpha Bank, Sofia Branch www.alpha.gr (EN, GR)	No	-	-	-
BNP – Paribas (Bulgaria) www.bnp.fr (FR)	No	-	-	-
Bulbank www.bulbank.bg (EN)	Under construction Selected economic data and analisys Financial statements	No	No	Job positions
Bulgaria Invest Commercial Bank www.allianz.bg (BG)	Integrated with Alianz BG (insurance company) Description of the offered bank and insurance services. Price of bank services	No	No	Insurance services
Bulgarian Post Bank www.postbank.bg (BG, EN)	Offered services – description, condition, prices, etc. Description of specific bank services (deposits and credits)	No	No	Job positions
Bulgarian-American Credit Bank www.baefinvest.com (BG, EN)	Short description of available credit programs (without information for conditions, prices, etc.)	No	No	No
CB Biochim www.biochim.com (BG, EN)	Description of the offered services. Financial statement and Auditor's report Bank tariff	No	No	No
Central Cooperative Bank www.cchank.hg (BG, EN)	Description of the offered services. Bank tariff	No	No	No
Citibank N. A. Sofia Branch www.citibank.com (EN)	No	-	-	-
Commercial Bank of Greece (Bulgaria) None	-	-	-	-
Corporate Commercial Bank	Under construction	-	-	-

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www.corpbank.bg				
Demirbank (Bulgaria) www.demirbank.bg (EN)	No	-	-	-
DSK Bank www.dskbank.bg (BG, EN)	Offered services – description, condition, prices, Documents for download Exchange information Financial statements	No	No	Job positions
Economic and Investment Bank www.eibank.bg (BG, EN)	Description of the offered services. Financial statements and auditor's report Documents for download Information for offered online services (phone, fax, PC, e-mail, Remote banking) Bank tariff	No	No	No
Encouragement Bank www.nasbank.bg (BG, EN)	Offered services – description, condition, prices, etc. Financial statements (2000)	No	No	No
Eurobank www.eurobank.bg (BG, EN)	Offered services – description, condition, prices, etc Description of specific bank services (deposits and credits) Financial statements, KPMG Report	Exchange information (GSM)	No	Sponsor policy
First East International Bank www.feibbank.com (BG, EN)	Description of the offered services. Documents for download Part of the site is under construction	No	No	No
First Investment Bank www.fibank.bg (BG, EN)	Description of the offered services. Financial statements and auditor's report Documents for download Information for remote banking (phone)	Online application for debit card issue	First Bulgarian virtual bank branch	-

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Hebros Bank www.hebros.hg (BG, EN)	Description of the offered services - condition, prices, etc.			Job positions and online application
HypoVereinsbank Bulgaria, Sofia Branch www.hypovereinsbank.de (DE)	-	-	1	-
ING Bank Sofia Branch www.ing.hg (BG, EN)	Description of the offered services for individual clients, firms, and pension fund services. Personal bank services package for individuals—description, conditions, prices, etc. Information for remote banking (phone, PC, GSM, Internet) Documents for download	- GSM banking (with description of supported models) - Online application for debit card issue - online application for mortgage credit	Yes (with demo version)	-
International Bank for Trade and Development None	-	-	-	-
Municipal Bank None	-	-	1	-
National Bank of Greece, Sofia Branch www.nbg.gr (EN, GR)	-	-	-	-
Neftinvestbank www.nib.bg (BG, EN)	Description of the offered services. Price information	Online application for debit card Issue	No	No
Piraeus Bank, Sofia Branch www.piraeusbank.gr (EN, GR)	-	-	-	-
ProCredit Bank www.procreditbank.com (BG, EN)	Description of the offered services. Documents for download	No	No	Job positions
Raiffeisenbank (Bulgaria) www.rbb.bg (EN ) www.raiffeisen.bg www.raiffeisenbank.bg	No	-	-	-
Roseximbank www.roseximbank.bg (BG, EN)	Description of the offered services.	Online application for debit card Issue	No	No
SG Expressbank www.sgexpressbank.bg (BG, EN, FR)	Description of the offered services – conditions prices	Loan simulations	Under construction	Dictionary of used bank terms

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T. C. Ziraat Bank Sofia Branch	specific product and services Links Exchange information Some sections are under construction No	-	-	-
www.ziraatbank.com.tr (EN, TR)				
Texim Private Entrepreneurial Bank None	-	-	-	-
Tokuda Credit Express Bank www.tcebank.com (BG)	Static page without information	No	No	No
Unionbank www.unionbank.bg (BG, EN)	Description of the offered services without its prices Financial statements Links	No	No	No
United Bulgarian Bank www.ubb.bg (BG, EN)	Description of the offered services – conditions, prices, etc. Information for specific bank products and services. Financial statements, selected indicators, researches Information for remote banking services (phone, PC, GSM, Internet) Documents for download	Online application for debit card issue	Yes (with demo version)	Sponsor program

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- 5. Bulgarian National Bank www.bnb.bg
- 6. Bulgarian Post Bank www.postbank.bg
- 7. Bulgarian-American Credit Bank www.baefinvest.com
- 8. CB Biochim www.biochim.com
- 9. Central Cooperative Bank www.ccbank.bg
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- 11. Corporate Commercial Bank www.corpbank.bg
- 12. Demirbank (Bulgaria) www.demirbank.bg
- 13. Deposit Insurance Fund www.dif.bg
- 14. DSK Bank www.dskbank.bg
- 15. Economic and Investment Bank www.eibank.bg
- 16. Encouragement Bank www.nasbank.bg
- 17. ePay.bg www.epay.bg
- 18. Eurobank www.eurobank.bg
- 19. First East International Bank www.feibbank.com
- 20. First Investment Bank www.fibank.bg
- 21. Hebros Bank www.hebros.bg
- 22. HypoVereinsbank Bulgaria, Sofia Branch www.hypovereinsbank.de
- 23. ING Bank Sofia Branch www.ing.bg
- 24. National Bank of Greece, Sofia Branchwww.nbg.gr
- 25. Neftinvestbank www.nib.bg
- 26. Piraeus Bank, Sofia Branch www.piraeusbank.gr
- 27. ProCredit Bank www.procreditbank.com
- 28. Raiffeisenbank (Bulgaria) <u>www.rbb.bg</u> , <u>www.raiffeisen.bg</u> <u>www.raiffeisenbank.bg</u>
- 29. Roseximbank www.roseximbank.bg
- 30. SG Expressbank <u>www.sgexpressbank.bg</u>
- 31. T. C. Ziraat Bank Sofia Branch www.ziraatbank.com.tr
- 32. Tokuda Credit Express Bank www.tcebank.com
- 33. Unionbank www.unionbank.bg
- 34. United Bulgarian Bank www.ubb.bg