

**THE EMERGENCE OF eBANKING IN RUSSIA**

**Rachel Doern**

Stockholm School of Economics in Saint Petersburg  
Shvedsky Per. 2  
191186 St. Petersburg  
Russia  
Tel. (7-812)-320-4806  
Fax. (7-812)-320-4809  
Rachel.Doern@sseru.org

and

**Carl F. Fey<sup>1</sup>**

Stockholm School of Economics in Saint Petersburg  
Shvedsky Per. 1  
Tel. (7-812)-320-4806

and

Institute of International Business  
Stockholm School of Economics  
P.O. Box 6501  
S-11383 Stockholm  
Sweden  
Tel. (46-8)-736-9450  
Fax. (1-419)-831-2073  
E-mail: Carl.Fey@hhs.se

1. Please address all correspondence to the second author Dr. Carl F. Fey.

This paper is a draft. Please do not quote without written permission of the authors. An earlier version of this paper appears in the conference proceedings from the Conference “Ten Years of Economic Transformation” held in Lappeenranta, Finland in August 31, 2001.

This paper is part of the “Baltic Rim Regional Agenda project” which is a collaborative project between Harvard, The Institute of International Business at Stockholm School of Economics, Stockholm School of Economics in Saint Petersburg, BICEPS, and Oxford Research. The authors gratefully acknowledge the contribution of other key project participants: Professor Michael Porter, Professor Örjan Sölvell, Dr. Christian Ketels, and Dr. Kim Moller.

## **INTRODUCTION**

The development of electronic banking (eBanking) in Russia as a new value-added sector of the financial services industry (and an environment supportive of such) will improve the overall efficiency and competitiveness of the industry. With this in mind, the purpose of this project has been to explore the current status of the eBanking sector in Russia and to describe and analyze the strategies of industry players with a focus on eReadiness.

## **PROJECT DESIGN**

Over the Spring of 2001, the top Russian banks based in St. Petersburg or Moscow (according to assets and capital), and those banks utilizing net-based banking systems in Moscow or St. Petersburg, were asked to participate in our project. Interviews were held with 10 credit institutions (i.e. banks) based in Moscow and Saint Petersburg -- Vneshtorgbank, Promstroybank, Baltonexim Bank, The International Bank of Saint Petersburg, Baltisky Bank, Menatep Bank, Avtobank, Alfa Bank, Guta Bank, and Sudostroytelnyybank. An interview was also held with the Association of Commercial Banks in Saint Petersburg and Diasoft, an electronic banking software provider. The Central Bank of Russia and Sberbank declined repeated invitations to participate. Multiple investigators and mini case studies were used to create a replication logic (Yin, 1989). Semi-structured in-depth interviews of approximately one hour in length were conducted in either English or Russian (with the assistance of a translator) with at least one senior manager from each bank. The following research questions were raised in this exploratory research project during interviews: What is the state of eBanking in Russia? What are the main challenges to eBanking in Russia? Is there much collaboration within the industry? Are electronic banking applications used actively and how so? What will drive eBanking in Russia? How entrepreneurial is the banking industry? What impact has technology had on market structure?

Findings revealed that after reducing expenses over 1998, many banks began to invest, albeit conservatively, in electronic banking applications mainly for the purpose of improving efficiency. Both software-based and net-based online systems dramatically

expanded the potential customer base of those banks utilizing such systems. Very few banks provide a full range of universal banking services (i.e. deposit-taking, lending, funds transfer, and investment banking activities). Instead, most banks focus on conservative and basic transaction services. Most banks focus on corporate client services; including those with Internet banking systems. Findings also revealed that banking institutions could be divided into three industry clusters (traditional cluster, semi-traditional, and non-traditional) depending on ownership, structure, and of course services (see Table 1 for a description of the characteristics of each cluster). Most eBanking activity in Russia occurs within the non-traditional banking cluster. Estimates of between 50 and 60 Russian banks now use online applications. However, fewer than ten banks offer net-based applications for their clients (true eBanking) and actively compete in the eBanking retail market. Capital requirements and significant investments in technology (hardware and software) limit market entry.

**Table 1: Cluster Characteristics\***

<p><b>A. Traditional Banking Cluster (characterizes most Russian banking institutions)</b>  State-owned (&gt;50%) or prior state owned; focused on corporate banking; offers basic transaction services; has many branches; is conservative, centralized, and closed. Sample banks: Vneshtorgbank, assets=143.2 Billion Rubles, second largest bank in Russia); Promstroybank, 17.2 Bil. Rubles, #13.</p> <p><b>B. Semi-traditional Banking Cluster (characterizes between 2-3% of all banks in Russia)</b>  State-owned (&lt;50%) or prior state-owned; focused on corporate banking; provides basic transaction services and some value added services (software-based); has made conservative investments in technology; is less conservative than the former cluster; remains centralized and closed. Sample banks: Baltisky Bank, 4.6 Bil Rubles, #52; International Bank of Saint Petersburg, 4.2 Bil. Rubles, #58; and Baltonexim Bank 3.7 Bil. Rubles, #73.</p> <p><b>C. EMERGING Non-traditional Banking Cluster (characterizes less than 1% of all banks in Russia)</b>  Commercially owned; focused corporate banking and retail banking; provides most universal products/services and value-added services; have made substantial investments in technology and is Internet-focused. Sample banks: Menatep Bank, 21.4 Bil Rubles, #17; Avtobank, 17.0 Bil Rubles, #19; Guta Bank, 13.7 Bil. Rubles, #26; Alfa Bank, 92.1 Bil. Rubles, #4; and Sudostroytelnybank, 1.2 Bil. Rubles, #200.</p> <p>Note: The banks are listed by name, total assets in Billions of Rubles on July 1, 2001, size ranking among Russian banks with regard to total assets. The approximate exchange rate at the time of the ranking was 29 Rubles = 1 US\$. The ranking and asset size come from the Central Bank of Russia (Central Bank of Russia, 2001d).</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

\* Banks will have most, but perhaps not all, characteristics described in the cluster.

Findings revealed that while eBanking has certainly not developed to the same extent in Russia as it has in Western Europe and USA, probably the most surprising finding of this study for many readers will be that in fact a fair number of banks in Russia do offer eBanking services and some of them offer some fairly advanced services. Table 2 describes some of the various electronic banking applications banks are using.

**Table 2. Electronic Banking Systems and Exchanges in Russia**

**Inter-bank Payment Systems** transfer large-value funds between banks on their own account or on behalf of their customers.

**Bank-client Payment Systems** refer to signed payment orders that replace traditional visits to the bank. Payment instructions may be received 24 hours a day over the telephone or the Internet. (Prior to the development of this system, buyers were required to visit their bank in person to fulfill the order. The bank would then issue documentation to a regional accounting centre that would then issue a document to a regional CBR accounting centre near the seller's bank).

**Wire Transfers** (e.g. SWIFT International Payment Systems) move funds electronically from a Russian bank account to an overseas correspondent bank and vice versa. Individuals/corporations transferring money do not have to have an account set up within the receiver bank.

**Direct Deposits** transfer money directly and electronically from a corporate or state account to a personal account. (Salaries and pensions are commonly paid in this manner).

**Plastic card issue and acquiring services** refer primarily to the issue of local debit cards and the acquisition of international debit cards. (The incidence of credit cards within the country is very limited and amounts to about 7% of all plastic cards issued).

**Online Banking Systems** come in two forms: 1. Software-based systems (e.g. bank-client system), and 2. net-based systems - exist without the physical presence of offices.

**Internet Exchanges** refer to marketplaces wherein digital money, held in smart cards, hard drives or on accounts, can be exchanged for online goods and services. Because payments are made across open banking channels, transaction costs are low and clients are able to make micro-payments.

**Electronic Trade Range** involves business to business payments made electronically between buyers and sellers.

**Telebanking** refers to the practice of accepting payments over the telephone or the Internet. Passwords and digital signature are used as security measures.

**Foreign Exchange Operations/Trading Systems** (e.g. Forex) involve real-time electronic lot trading of foreign currency in centralized exchanges; the effect of which was to reduce price fixing. (Prior to the implementation of this system foreign currency operations were conducted in the inter-bank market).

**Broker-client systems** automate the collection of the dealer's client applications and lead to the entry of the trade depository system of the Moscow inter-bank currency exchange automatically.

**In general however, few banks seem to provide a full range of eBanking services, choosing instead to focus on basic transaction services. Most eBanking activities in Russia revolve around corporate or large account client services. Table 3 provides a summary of the eBanking activities which banks in our sample engaged in.**

**Table 3. Summary of Internet eBanking Activities of Sample Banks**

**Menatep Bank** (non-traditional sector) is a leader in eBanking in Russia. The bank provides its clients with a full range of eBanking services including bill payments, account balances, and fund transfers. It has initiated a number of projects related to internet technologies including an internet exchange, a home banking system, bank client systems, and an electronic trading range. The bank has launched its own smart card system for electronic cash and is building an internet portal. eBanking has helped Menatep Bank to grow by 600% and will be the bank's #1 priority until at least 2003.

**Guta Bank** (non-traditional sector) is a leader in eBanking in Russia. The bank offers clients a full range of eBanking services (via the internet and WAP) including bill payments, account transfers, credit card and standard account balances, actions related to time deposits, fund transfers (both domestically and internationally).

**Avtobank** (non-traditional sector) is a leader in eBanking in Russia. Through its Internet Banking System the bank offers a full range of eBanking services and has one of the largest eBanking operations in Russia with over 1500 clients.

**Alfa Bank** (non-traditional sector) is also a leader in eBanking in Russia. Over 2000, the bank launched a smart-card for online shopping.

**Sudostroytelnyy Bank** (non-traditional sector) has used its Internet Banking System (S-Bank) to expand from a small bank to a medium-sized bank. S-Bank users include 600 corporate clients and 30 private clients. Sudostroytelnyy Bank was one of the first banks in Russia to start using eBanking.

**Baltisky Bank** (semi-traditional sector) clients (8%) have begun to use basic eBanking services like bill payments and account balances.

**International Bank of St. Petersburg** (semi-traditional sector) provides basic eBanking services. The adoption rate of eBanking services by clients has increased 10-fold since their introduction. The bank has also implemented an online electronic currency exchange system.

**Baltonexim Bank** (semi-traditional sector) is beginning to implement basic eBanking services.

**Promstroybank** (traditional sector) does not provide eBanking services at this time.

**Vnshehtorgbank** (traditional sector) does not provide eBanking services at this time.

## **The Non-traditional Banking Cluster**

Because most eBanking in Russia occurs within the non-traditional banking sector, we now describe this sector in more detail. We begin by presenting a min case study of Menatep Bank, one of the banks in this sector.

### **Sample Case: Menatep Bank**

Menatep Bank Saint Petersburg was spun-off Menatep Bank Moscow in 1995. (The latter of which closed following the Russian Financial Crisis). Today the bank has 49 affiliates in 42 regions of Russia and work across 8 time zones. The bank provides corporate and private clients with retail banking services. Services like electronic payment systems have helped to increase the number of the bank's clients 6-fold. The bank has developed a number of projects dependent upon internet technologies including an Internet Exchange (facilitating on-line currency exchange), a bank-client payment system (facilitating on-line payment orders), an electronic trading range (facilitating on-line business to business payments), and of course home banking (offering traditional banking services like checking account balances, transferring funds to another account, bill payment, etc. over the internet). It was the first Russian Bank to offer customers the opportunity to open accounts through the internet. In January 2000 it developed its own smart card for electronic cash. The implementation of an internet-portal is one of the bank's present and most important projects. According to management, Internet technologies will receive first priority in Menatep's strategy until 2003, after which time the bank hopes to be the clear leader in eBanking in Russia.

### **Cluster Summary**

Most non-traditional banks utilize the services of one or two local software firms, and eBanking applications constitute a small, but important, share of the software market today. Also, innovation in this sector tends to be driven by the wishes of the banks themselves rather than customer needs. Table 4 provides a description of the strengths, weakness, opportunities, and threats facing the non-traditional eBanking sector in Russia. eBanking will be fueled by the following market drivers: Global trends in eCommerce and banking, spread of internet providers to the regions, competition, growth in the

middle class, developments in the retail sector, distances and regional disparity, a positive investment climate, the development of telecommunications, and a growing demand by customers for convenience. Government support, in particular, will be crucial to its continued development.

**Table 4. Analysis of the Non-traditional Banking Cluster**

<p><b>Strengths of the cluster:</b></p> <ul style="list-style-type: none"> <li>* Operates through loosely structured networks of regional affiliates and branches.</li> <li>* Communicates to affiliates through corporate networks and net-based systems.</li> <li>* Active in retail banking and the development of electronic payment systems for both B2B and B2B transactions.</li> <li>* More focused on value added services and more client focused than traditional counterparts.</li> </ul> <p><b>Opportunities for the development of the cluster:</b></p> <ul style="list-style-type: none"> <li>* Overcomes regional and national banking barriers.</li> <li>* Contributes towards economic development.</li> <li>* Involves sophisticated factors of production.</li> <li>* Encourages foreign partnerships and ties.</li> <li>* Encourages competition and indirect government support.</li> <li>* Represents a dynamic, developing economic sphere.</li> <li>* Improves the efficiency of banking operations.</li> <li>* Maintains a client focus.</li> <li>* Improves efficiency.</li> </ul>	<p><b>Weaknesses of the cluster:</b></p> <ul style="list-style-type: none"> <li>* Still too conservative.</li> <li>* Not transparent enough to the client.</li> <li>* Provides limited account management services.</li> <li>* Not active enough in terms of forecasting client needs.</li> </ul> <p><b>Threats to the development of the cluster:</b></p> <ul style="list-style-type: none"> <li>* Limited Internet access, usage, and penetration.</li> <li>* High cost of transaction protection systems.</li> <li>* A monopoly within the private banking sector.</li> <li>* Very conservative banking policies and attitudes; lack of infrastructure for plastic cards &amp; post-payment terminals.</li> <li>* Low client trust in the banking system, especially following the crisis.</li> <li>* Strict regulation over foreign competition.</li> <li>* Unpredictable events in the currency market.</li> <li>* Absence of regulation over electronic signatures.</li> <li>* Lack of government promotion for the Internet.</li> </ul>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

### **Government Involvement/Support for the Cluster**

Unfortunately, government policies in Russia are still somewhat predatory of profitable ventures and protectionist of traditional industries and thus fail to provide incentives for supportive value added sectors (Pricewaterhousecoopers, 1997) like eBanking to be efficient and competitive. It is therefore interesting to note that the development of electronic commerce in the country, unlike traditional industries, has enjoyed little to no government involvement. A positive outcome of this is that companies competing in this industry have been forced to innovate, to plan ahead, and to be more client-oriented than companies competing in traditional industries to survive. Although these things have had some positive effects, the further development of electronic commerce and electronic banking will depend upon the corresponding

development of sophisticated factors of production, including technical, marketing, and management know-how. Because this know-how does not come naturally to participants within the Russian financial services industry, education is needed and the government could play an important role in supporting this. It is worth noting that Russia has an abundance of excellent universities which provide excellent theoretical knowledge in many fields. However, more practically-oriented programs, perhaps including internships, are badly needed. Therefore, our study revealed that the eBanking in Russia is likely to develop further provided that the Russian government takes the following steps:

1. Provide conditions for efficient activity for foreign banks and allow them to expand their access.
2. Liberalize the currency market.
3. Create conditions which support industry as opposed to trade and create a positive environment in which the banks can collect and invest money.
4. Better regulate taxes to make economic processes more predictable.
5. Develop electronic business by passing laws on electronic signature regulation.
6. Encourage state enterprises to develop contracts with western partners.
7. Invest in developing sophisticated factor conditions (especially education and infrastructure) which will help the IT industry.
8. Educate the public and the banks themselves to the benefits of online banking and provide management and practical technical training.

### **Others Challenges Facing the Russian Banking System Today (2001)**

Our project also suggests that eBanking activities in Russia have been limited not only by the eBusiness environment, but also by the structure of the banking system, lack of industry competition and lack of deposits. Today the Russian banking system consists of the Central Bank of Russia and Sberbank working in tandem, and networks of major banks and branches. Sberbank, the largest and only bank in the country to guarantee deposits, enjoys a monopoly position in the Russian banking system. Foreign banking activity, in contrast to domestic activity, is quite limited at this time (see Table 5). One reason for the limited interest is a 12% ceiling on the total allowed share of foreign

charter capital in the Russian banking system which was imposed by the Central Bank (BISNIS, 2000a). Speculation has it that the Russian government and the Central Bank are ready to raise this limit to 20-25%, although no steps have yet been taken to do so. Recently, some foreign institutions have been granted licenses to conduct retail banking in conjunction to regular commercial banking services, however these banks are often limited in their processing capabilities and therefore prefer to focus on large corporate accounts (BISNIS, 1999). The structure of the industry limits the expansion of electronic banking services.

**Table 5. Credit Institutions in Russia**

Licensed credit institutions (CIs)	1322
- Banks	1281
- Non-banks	41
Branches	3605
Branches owned by Sberbank today (2001)	40%
CIs with general licenses	225
Licenses that have been revoked	775
CIs with some foreign authorized capital	133
CIs wholly-owned by foreigners	23
CIs > 50% foreign ownership	10
Branches of non-resident banks	3
Rep. offices of non-resident banks in Russia	1
Russian owned CIs operating abroad	8
Russian rep. offices operating in non-CIS countries	35
Russian representative offices operating in CIS countries	14

Source: The Central Bank of Russia (2001b)

Banking deposits account for about one third of all private savings in Russia (BISNIS, 2000a). Deposits were substantially reduced between 1998 and 1999, following the Russian Financial Crisis. It has been estimated that \$40-60 billion dollars is kept under the mattresses (BISNIS, 2000b). A lack of deposits limits the number of possible eBanking transactions and industry growth. Nevertheless, between 1999 and the year 2000 the amount of personal deposits in Russian banks went from \$5.3B USD

(148B RUR) to \$11.25B USD (315B RUR). During the year 2000, Sberbank held 73.5% of all private savings in Russian banks; pension deposits accounted for 50% of the bank's total deposits. (Retail deposits accounted for less than 20% of total deposits).

### **The Rise of eBanking in Russia**

The rise of eBanking in Russia can be tied to a need for stability, efficiency, and competition within the Russian banking system, areas which have been compromised historically. Prior to the collapse of the Soviet Union, the Russian banking system consisted of the State Bank of the USSR and specialized state-owned, sector specific institutions. Over the early 1990s, commercial banks were spun-off local branches of both and expanded to include credit institutions initiated by industrial enterprises (e.g. Avtobank was created by the automobile industry) and entrepreneurs (Central Bank of Russia, 2001a). Growth within the commercial banking sector corresponded to growth in the private sector over the next decade. For instance, between 1991 and 1992, 137 commercial banks were formed within the country (Association of Russian Banks, 2000). Commercial banking was considered much more attractive than the private banking sector at this time and as a result, with the exception of Sberbank, most banks paid little attention to individual and small business account holders (Sberbank, 2001).

The number of Russian credit institutions increased significantly over the first half of the decade, peaking in 1994 at about 3000. This number would later be reduced, however, by licensing requirements and the insolvency of many institutions following the financial crisis of 1998. Thus, by early 2001 there were about 1300 credit institutions in Russia (Central Bank of Russia, 2001b). Only then would it become evident that many banks were set up initially by some industrial groups to facilitate the transfer of hard currency abroad (American Chamber of Commerce, 1998).

The first foreign credit institutions appeared on the scene in the early 1990s. (Bank Austria was the first to receive a license to operate in Russia in 1992). These institutions were fully capitalized by their western parent companies and typically offered limited corporate banking services to subsidiaries of multinational companies they had previously established relations with in other parts of the world. (They had neither the desire nor the access to serve local banking needs at the time).

In 1995 the Central Bank of Russia created a government securities (GKO) market and during 1997-1998 most large banks held over 50% of their assets in these securities (American Chamber of Commerce, 1998). Returns in this market were considered to be more attractive and less risky than commercial lending. In the summer of 1998 however, the Asian oil crisis would offset a negative chain of effects that would cause many to regret such large GKO portfolios.

The oil crisis in Asia over 1997 caused a dramatic drop in oil and commodity prices worldwide. In Russia, this event in conjunction with rising inflation rates and the fact that few companies in Russia paid taxes meant that the government was unable to collect significant revenues. As a result, the Government was forced to finance a rapidly increasing deficit. To accomplish this, the Russian government responded to the situation by rolling over \$1 billion of GKO's a week. However, by August of 1998 the government could no longer continue to spend the foreign currency required to defend the ruble and when it devalued significantly, GKO restructuring was imposed unilaterally, beginning with a temporary moratorium placed on private debt payments. The Central Bank of Russia stopped payment on the \$40 billion debt it had in Ruble bonds, canceling all agreed upon and future sales of dollars to banks and other institutions. Large Moscow banks with extensive GKO portfolios were forced to freeze assets temporarily (e.g. ATMs stopped dispensing money), breaking the chain of payments and failing to meet obligations with clients. Many branches around the country were closed. Nevertheless, significantly smaller Saint Petersburg banks continued to operate, often even sending payments to Moscow, the financial center of Russia. The reliability of these banks was tied to insignificant exposure to the GKO market and a focus instead on commercial lending and payment services as primary sources of revenue.

Over 1998, the asset value of all Russian banks combined decreased from \$88.7B to \$32.2B, and capital was reduced from \$16.1B to \$3.1B. The industry consolidated and moved away from financial-industrial groups to those centered around the oil and gas industry and the Government of Moscow (BISNIS, 1999). Commercial banks switched to low risk banking services. The corporate banking sector would remain the largest financial services sector in the country for the next few years (for historical and financial reasons mainly), followed by private banking, retail banking, and investment banking.

## **Restructuring the Russian Banking System (1999-2000)**

Restructuring within the banking system following the crisis occurred at both the industry level and firm-specific level. Industry-level restructuring aimed to improve the situation for commercial banking activities and expand the presence of foreign capital. This was accomplished in part, through better regulation and the promotion of electronic settlements that served to even out document turnover, accelerate cash turnover, and improve liquidity management (CENTRAL BANK OF RUSSIA, 2001a). Nevertheless, higher capital requirements would also serve to limit commercial activity and competition.

### **Banking Regulation**

To ensure the financial solvency of Russian credit institutions, stricter regulations concerning ownership, authorized capital, and licensing were imposed over 1999. For instance, founding parties of credit institutions, since the summer of 1998, were required to be stable legal entities in operation for no less than three years, with proven records of meeting obligations (CENTRAL BANK OF RUSSIA, 2001b). The minimum authorized capital requirements, although varied according to activity, were raised. Today the minimum authorized capital requirement to register a domestic bank is one million euros (25,150,000 rubles), as compared to 100,000 euros (2,615,000 rubles) for a non-banking institution. The minimum authorized capital for a foreign bank on the contrary is significantly higher -- 10 million euros (261,500,000 rubles).

### **Payment Systems**

The participants of the Russian payments system include Bank of Russia institutions, credit institutions, and branches of credit institutions. Since the crisis, the Bank of Russia has aimed to develop and introduce electronic settlements to scale down the use of cash and decrease settlement times (CENTRAL BANK OF RUSSIA, 2001c). To encourage customers to use advanced means of communications and electronic payments, the Bank of Russia set the lowest prices for electronic payments and the highest prices for payments on paper-based payments. By the end of 1999, 1,115 Bank of Russia

institutions had taken part in intra-regional electronic settlements and 794 Bank of Russia institutions participated in inter-regional electronic settlements (CENTRAL BANK OF RUSSIA, 2001c). Electronic paper-less payments made through the Bank of Russia in 1999 accounted for 26% of all settlements.

The payment card market has been considered another means to facilitate electronic payments and reduce paper-based activities. The payment card market is represented by both Russian and international payment systems. To minimize financial risk, most banks offer debit cards primarily. For example, our interviews revealed that 93% of the plastic cards issued by Baltisky Bank are debit cards. As of January 1, 2000, 333 credit institutions issued bank cards in Russia (CENTRAL BANK OF RUSSIA, 2001c).

#### **Firm-Specific Restructuring Initiatives: Online Banking Initiatives**

Although the initial response of the banking sector following the Russian Financial Crisis in 1998 was to demand better regulatory and cost cutting measures, by 1999 many commercial banks saw technology as the key to improving efficiency, repairing client trust and thereby increasing client numbers. Examples of electronic systems and exchanges adopted by those banks participating in our project can be seen in Table 1.

Generally speaking, online banking services include either the replication of existing banking services through electronic means such as the telephone and the Internet, or the creation of new services in a virtual form (Grosse 2000). Such activities add value to basic transaction services by improving convenience, reducing fees, and passing on better interest rates. For example, in the United States, transaction costs through the Internet amount to \$0.01 versus \$1.03 for those conducted in-person (Grosse, 2000). Nevertheless, the incidence of net-based banking services in a country depends on the level of Internet penetration, among other things.

## The Operating Environment

Low levels of internet access, low incomes, communications infrastructure and shallow business relationships, all serve to limit the development of electronic banking in Russia. It has been estimated that only 2.5 % of the population has access to the Internet (3.5 million people) (see Table 6) and access is concentrated in commercial centers like Saint Petersburg and Moscow wherein fixed line density is the highest (Telephone density per 100 residents in cities and towns is 21.%, and 9.6% in rural areas - RBC, 2001).

**Table 6. Statistical Indicators for the Russian Telecommunications Industry**

Telecommunications Indicators	2000	2005 est.	2010 est.
Number of Phone Lines (million)	31.2	36.9	47.7
Number of Mobile Phones (million)	2.9	9.24	22.2
Number of Internet Users (million)	2.5	6	26.1

Source: BISNIS (2001a)

Internet access has in turn been limited by a low national GDP per capita of 4200 USD (Central Intelligence Agency 2000) and low incomes, among other things. A third of all internet service providers (approximately 350 in total) provide dial-up access (the most common route to the internet) in Moscow alone. Access costs average \$120 dollars/month for unlimited use (eMarketer, 2001) and about \$20/month for a typical limited-use package. Access via scratch cards or through Internet cafes averages \$1/hour. As of March 2001, the “average nominal month wage per capita” in Russia was around \$100 (2867 rubles), as compared to approximately \$60 (1575 rubles) in January 2000. Real incomes grew 3.2% over the same period. (Real wages and real disposable income dropped 30% between 1997 and 1999 during the financial crisis). Despite increases, 30% of the population still lives below the poverty line. In July 2001, the minimum wage, of about \$10 (300 rubles) was below the monthly minimum subsistence level of \$40 USD (R1234). In addition, the average pension by the end of 2000 was almost \$30 (820

rubles) (BISNIS, 2001b)]. Future growth in eBanking is likely to be strongly influenced by improving the earning power of the Russian people

The development of eBanking in relation to electronic commerce has been limited generally by the poor state of national communications infrastructure. Overall, telecommunications equipment needs to be upgraded and access extended; the pace of which has been limited by an industry monopoly. Although network operators were privatized in 1993, each region received one telecommunications provider. Regional companies were then united under the Svyazinvest holding and Rostelecom became the single national network operator which has limited competition. There are, however, some exceptions as some private stand-alone firms have entered the market. Although the former was to be further privatized over time, privatization was halted after the crisis (BISNIS, 1999). Mobile services have proven to be more competitive and have expanded into the regions, however penetration for the most part, is limited to the major commercial centres.

Finally, economic and legal instability in Russia has created shallow business relationships, inspiring Russians in turn to save American dollars and conduct most transactions in cash. This lack of trust between economic agents severely limits the development of eBanking which require systems integration and forecasting.

In short, it has been suggested that until Internet penetration in Russia achieves 10% (estimated to occur by 2003), activities related to electronic commerce will be limited (U.S. Commercial Service Moscow, 2000). However, despite the obstacles, eBanking continues to develop within Russia and this finding can be the result of two things, apart from the reasons driving the development of eBanking world-wide. First, Russia has a very highly-educated and technically skilled population that is typical in many ways of those who have embraced new technologies like the Internet across the world. Second, traditional institutions in the country are often are very inefficient and thus eBanking has greater possibilities to increase efficiency here even more than in many other countries. Limitations serve to explain why eBanking is most prominent in the commercial banking sector where the capital, hardware, communications, and trust between banks and clients is most readily available.

## **eBanking in Other Parts of the World**

By the end of 1999, 900 institutions in the United States offered Internet-based banking options to clients (compared to less than 10 in Russia in the middle of 2001). Non-banking financial institutions, credit institutions, and large banks have been leaders in attracting “Internet-savvy” customers in the US (Hall, Whitmire & Knight, 1999). However, net-only banking households constituted only 2.5% of the online banking households in 1999 (eMarketer 2000). Scandinavian banks have gone even further than their US counterparts at implementing eBanking with many other countries in Europe lagging somewhat behind the US at implementing on-line banking applications (Grosse, 2000). A perceived lack of demand, high costs, and security involved, are considered the biggest deterrents to net-based activities.

## **Discussion**

It is unlikely that an internationally competitive banking cluster will develop in Russia for some time as most banks, even those in the non-traditional sector, lack key requirements of transparency, financial integrity, technical security, and independence from criminal activity (Shuman 2001). Nevertheless, the development of electronic banking is important since it can help bring Russia’s banking system closer to world best practice. Among other things, eBanking will improve the efficiency of the banking system and strengthen the client’s position in the bank-client equation. This in turn will have the effect of increasing client trust and increasing the number of transactions by expanding services and raising the level of economic activity in the country significantly. (Further steps should be taken to guarantee client deposits in all banks). Central and Northwest Russia are the most prospective regions for the development of eBanking due to their higher internet penetration rates and the greater concentration of capital in these areas. Internet banking is particularly attractive to corporate clients who make many transactions each day. However, even individual clients can benefit by increased attention, convenience, and reliability. (Many Russians already enjoy the benefits of debit cards).

Our project has revealed that Russian banks use electronic banking applications mainly to complement existing traditional banking activities rather than replace them. Retail-focused commercial banks, in particular, have made significant investments in new technology to reach new customers and retain old ones. Following the crisis, electronic applications, including net-based applications, assisted in restructuring and improving the efficiency of the Russian banking system--specifically, the delivery of banking services and the effectiveness of payment systems. Finally, it is interesting to note that whereas in the US eBanking initiatives have been led by non-banking financial institutions, credit institutions, and large banks, in Russia the electronic banking sector is dominated by much smaller, more flexible commercially owned credit institutions. In the former case, US banks have relied on strong brands and reputations to engender client enthusiasm and participation.

Our study indicates that the development of electronic banking in Russia at present appears to be limited by the following factors: 1. Low levels of client funds and private deposits; 2. limited amounts of capital in comparison to western banks; 3. conservative, transaction-based client strategies; 4. limited Internet access; 5. lack of state promotion; 6. state monopolies in both the financial services industry and in telecommunications which limit competition. To ensure eBanking is successful, banks must work closely with clients and support institutions to improve the deliverability and transparency of banking services. In short, not only will the development of electronic banking in Russia increase the competitiveness of the financial services industry in Russia, it will also improve the mobility of the Russian people and companies and help bring banking services which today are only available in Moscow and St. Petersburg to the regions.

**Rachel Doern is a Research Associate at the Stockholm School of Economics in Saint Petersburg. Dr. Carl F. Fey an Assistant Professor at the Institute of International Business at Stockholm School of Economics and Associate Dean of Research at Stockholm School of Economics in Saint Petersburg.**

## **References**

American Chamber of Commerce Moscow (1998) <http://www.amcham.ru/amcham/news26/9.htm>, Banking in Post-Crisis Russia.

Association of Russian Banks (2000) <http://www.arb.ru>.

BISNIS, (1999) <http://www.bisnis.doc.gov/bisnis/isa/990526bank.htm>, Finding a Banking Solution.

BISNIS (2000a) <http://www.bisnis.doc.gov>, Banking and Finance in Russia.

BISNIS (2000b) <http://www.bisnis.doc.gov>, Overview of Electronic Commerce in Russia.

BISNIS (2001) <http://www.bisnis.doc.gov>, Economic Profile of Russia.

Central Bank of Russia (2001a) Banking History, <http://www.cbr.ru>.

Central Bank of Russia (2001b) [http://www.cbr.ru/eng/analytics/bank\\_system/print.asp?file=registr\\_licensing\\_e.htm](http://www.cbr.ru/eng/analytics/bank_system/print.asp?file=registr_licensing_e.htm), Registration and Licensing of Banking Activities.

Central Bank of Russia (2001c) [http://www.cbr.ru/eng/analytics/standart\\_system/print.asp?file=payment\\_sys\\_e.html](http://www.cbr.ru/eng/analytics/standart_system/print.asp?file=payment_sys_e.html), Payment System.

Central Bank of Russia (2001d) Ranking of Russian Banks. <http://www.cbr.ru>.

eMarketer (2000) <http://www.emarketer.com>, The eBanking Report.

eMarketer (2001) <http://www.emarketer.com>, Russian Internet Landscape Still Bleak.

Grosse, Robert (2000) Virtual Banking and the Future of Global Financial Services, Working Paper (submitted to the *Journal of International Business Studies*), Thunderbird, The American Graduate School of International Management.

Hall, Steven D., Ray E. Whitmire, and E. Leon Knight (1999), Using Internet for Retail Access: Banks Found Lagging, *Journal of Retail Banking Services*, 21 (1), 51-55.

Price Waterhouse Coopers (1997) *Information Guide: Doing Business in the Russian Federation*, USA.

Ross Business Consulting (2001) <http://www.rbc.ru>, Telephone Density in Russia .

Sberbank (2001) <http://www.sbrf.ru>, Russian Banking History.

Shuman, John, (2001) Banking Services: Harness Technology and Come Up with a Winning Business Strategy Which Continues to Serve Public Interests, U.S. Department of Commerce, found in [www.iatp.unibel.by](http://www.iatp.unibel.by).

U.S. Commercial Service Moscow (2000) in <http://www.bisnis.doc.gov>, Overview of Electronic Commerce in Russia.