

INNOVATION, INVESTMENT AND INTERNATIONAL TRADE PERFORMANCE OF THE RUSSIAN  
ENTERPRISES. A STUDY OF THE ST. PETERSBURG BASED COMPANIES

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Vadim Kapustkin  
ST. PETERSBURG STATE UNIVERSITY  
FACULTY OF ECONOMICS  
DEPARTMENT OF INTERNATIONAL ECONOMICS

***Tchaikovskogo street 62***  
191194 St. Petersburg  
Russia

Phone:

Fax:

Email: [meo@winmail.econ.pu.ru](mailto:meo@winmail.econ.pu.ru)

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## **Abstract**

The study investigates the innovation, investment and international trade performance of the Russian firms, based on the questionnaire survey data. The data were collected from 150 enterprises of the St. Petersburg area (northwest Russia). Half of the firms represented in the survey are de novo and another half consists of state-owned and privatized firms. The study's hypothesis is that the firms with different ownership should have different economic performance. According to hypothesis testing, innovation, investment and international trade performance indicators of one group of firms were compared with ones of other groups. As a result of that comparative analysis some interesting facts were found. De novo companies have shown better performance in the introduction of new products. The same group of enterprises plan to introduce new products in the future more often than other groups. De novo firms also have the highest share of firms' staff members involved in research and development. Newly established private firms also performed better in development of investment activity. De novo companies have the highest ratio of investment volume increase in used terms among the groups. Together with the privatized firms, de novo enterprises have shown the highest rate of increase of reinvested sales volume share. The rate of companies with more than 50% reinvested sales volume is higher also among de novo companies. This group of firms has shown a higher rate of involvement into international trade. De novo firms have the highest rate of import dependency and a wider range of supplying countries than any other group.

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# **INNOVATION, INVESTMENT AND INTERNATIONAL TRADE PERFORMANCE OF THE RUSSIAN ENTERPRISES: A STUDY OF THE ST. PETERSBURG BASED COMPANIES**

## **1. Introduction**

The main goal of the study is to investigate the innovation, investment and international trade performance of different firms in the St. Petersburg area of Northwest Russia. This study was sponsored by the TACIS-ACE program T95-4095-R and based on the survey of the questionnaire, which was distributed among 150 enterprises in the St. Petersburg area. The studied enterprises were divided in two equal parts according to the ownership. One half of the firms are newly established private (de novo) firms, and another half consists of state-owned firms and privatized ones. The methodology is empirical. The survey data were collected at the firm level. The innovation, investment and international trade performance indicators of one group the firms were compared with the same indicators of the firms with different ownership background. The basic hypothesis is that de novo, privatized and state-owned enterprises should have different economic performance, including the areas of innovation, investment and international trade performance.

During the 1990-s a number of studies were done in the field of companies' performance in Russia. See, for example, Lawrence P., Vlachoutsicos C. (1990); Webster L., Franz J., Artemiev I., and Wackman H. (1995); de Boissieu C., Cohen D., and de Pontbriand G. (1995); Opanasenko J., Yli-Olli P. (1995); Richter A., Schaffer M. (1996). These papers investigate some aspects of economic and business performance in companies of different ownership during the reforms period in Russia. Also, many studies were devoted to companies' performance in other transitional economies, see e.g. Kornai J. (1990); Murrell P. (1990); Belka M., Estrin S., Schaffer M., and Singh I. J.(1995), Lipowski A. (1998). In those, as well as in a number of other studies, the development of newly established private

firms is considered as one of the major conditions for market economy development. Richter A., and Schaffer M. (1996) indicates that recent evidence from other transition economies indeed suggests that the newly-established private sector can play a leading role in the recovery of countries' economies.

Richter A., and Schaffer M. (1996) found that in terms of most performance indicators, de novo firms fare significantly better than their state-owned and privatized counterparts. De novo companies grow faster, operate at higher levels of capacity utilization, and invest more. The authors mention also that de novo firms have a more positive outlook on future performance, with higher expectation for growth of output and employment, and more planned investments.

At the same time, some studies do not prove that de novo firms in transition economies always have better performance indicators than state-owned and privatized ones. Lipowski A. (1998) found out that in Poland during the first half of the 1990's state-owned firms have shown better performance in products innovation than private, including de novo, companies.

All studies mentioned above have different topics and approaches. Some of the studies analyze more general aspects of companies' performance (Kornai J. (1990); Murrell P. (1990)), some stress on particular problems such as unemployment and payments (de Boissieu C., Cohen D., and Pontbriand G. (1995)), or restructuring of the national economy (Lipowsky A. (1998)), or managers' decision making (Lawrence P., Vlachoutsicos C. (1990)), some consider only the problems at a particular group of companies (Webster L., Franz J., Artemiev I., and Wackman H. (1995)), etc.

The idea of comparing innovation, investment and international trade performance of different types of Russian firms is based on the individual importance of each sides of companies' economic performance mentioned above and at the same time on the links

between them. In the conditions of the modern global economy, international trade performance becomes vital for an increasing number of firms. Competition on the international market is usually tougher compared to the domestic market, but at the same time opportunities when 'going' international are usually much wider. One of the most important feature of today's international market is the large variety of different products. In many cases success on the international market hardly depends on a company's ability to surprise the market with a new product, new design, new technology or other innovation. At the same time, enterprise innovation activity is quite heavily dependent on investment policy. Investment into product innovation, research and development, new equipment, and other innovations, usually makes an enterprise more competitive, especially at the international market. That is why the idea of a closer look at the companies' innovation, investment and international trade performance in one particular study seems logical.

The time period of the study covers the big portion of the reform period in Russia (from 1990 to 1997). 1998, which is not covered by the study, became the year when Russia suffered the hardest problems of the transition period from the time of communism. Now Russia is passing the deepest financial and economic crisis in modern history. After the bankruptcies of some major Russian banks and companies, devaluation of the Russian national currency (rouble), the crash of the national stock market and so on, some economists and politicians (such as former Russian prime-minister Gaidar or former deputy prime-minister Shokhin), said that the real liberal-democratic reforms did not take place in the Russian economy and there is almost no hope for recovery of the national economic system. One of the study's goals is to prove that reforms did take place in Russia and private sector companies' performance in terms of innovation, investment, and international trade was quite remarkable. However, at the same time the study provides some evidence of problems in the Russian economy, which probably led to the crisis on 17<sup>th</sup> of August 1998. For instance, the much higher involvement of private firms into imports

compared to exports one could be considered as a warning sign for overvaluation of the rouble before the crisis.

In the modern economy, innovations or the introduction of new goods and services are among the major evidences of progress. There is no future for the company, which is 'out' of innovations. The scientific and technical revolution makes the life cycle of any product much shorter and because of that a company without innovations does not have any chance to compete with other companies with new products. Today, to stay out of innovations means to stay out of the global market.

The same thing happens with investment. A company can not make any progress without investment. Investment is usually the main source of goods and services' quality improvement, and production growth. Therefore, investment is among the major sources for increasing a company's ability to compete with others and to expand its market share. Increase of investment means that a company has a future and the company's managers are thinking about the future.

St. Petersburg was founded as the Russian gateway to the International market and the World economy, and always was considered as the city, in which international economic activity had the greatest influence on the city's life. In the 1990's St. Petersburg's port became the biggest Russian seaport in terms of its share in the country's international trade volume (19% in 1996). Openness towards the international markets of goods, services, capital, etc. should accelerate the reforms of the city's economy and helps to make the transition period shorter and more efficient. In the majority of cases, companies with developed international activity have, in general, a successful economic performance.

In the following study the ability of a company to develop innovation, investment, and international trade will be considered as the important

evidence of the company's opportunities of developing general economic activity.

The main idea of the study was to compare the results in the fields mentioned above in companies with different types of ownership in the St. Petersburg area. The study deals with the state-owned, privatized, and de novo enterprises based in the city area. We try to find out if there is any difference in the innovations, investment or trade policy used by the companies under different ownership forms and how different types of these companies performed.

The questionnaire which was the base of the study has 80 different questions concerning a number of possible directions of enterprise business activity and background. For more detailed information about the questionnaire see Bilsen V., and Mitina E. (1998). The structure of the questionnaire has questions towards the company's position during the 1990s. Reforms in Russia as well as in all other former USSR republics started in the second half of the 1980s, when M. Gorbachev came to power in the Soviet Union. He was the first and only Soviet President who tried to reform the country's economy and political life, but keep it as a socialist country under the leadership of the Communist party of the USSR. Therefore Gorbachev's reforms were not radical enough and could not really improve the economic situation in the country, or solve the problems of deficit, low productivity, and other problems of ineffectiveness of the Soviet economy. The most important and crucial economic reforms started in Russia after the dissolution of the USSR, when Russia became a separate country at the beginning of 1992. After this year many drastic changes took place in the country's economy (privatization, price liberalization, currency exchange rate floatation, etc.). Finding what happened during the 1990's gives a very good chance to estimate the extent of the transition of the Russian economy.

As mentioned above, the study is based on the questionnaire that was distributed among 150 enterprises in the St.-Petersburg area. Half of those 150 were de novo companies (companies which were founded as private enterprises from the beginning). Another half consists of privatized companies, which were formerly state-owned, and state-owned companies. The author of the study would like to thank the colleagues from the faculty of Economics of St.Petersburg State University, especially Professor Soutyrin S. And Professor Ivanov V., and also students and post-graduate students of the Department of World Economy of the same University, who contributed greatly to the distribution of the questionnaire and interviewing of the firms' managers and owners.

## **2. Innovations**

Company policies on innovations have not been among the most in contemporary Russia. According to the Report of the Government Commission of the Scientific-Technical Policy of Russia «About the Formation of the Government Innovation Policy and the Legal Base of the Innovation's Activity Stimulation», presented by First Deputy Minister of the Economy of the Russian Federation A.A Svinarenko, the coefficient of renovation (the share of equipment, which was changed after depreciation) of Russian industry's equipment went down from 7% in 1991 to 2% in 1996. The average age of national industry equipment became old, close to the end of its life cycle.

Innovation activity of the Russian industrial enterprises was quite low during the 1990's, especially, if we compare its level to previous years. At the end of the 1980's, for example, the ratio of the innovation-active enterprises in Russian industry was about 60-70%. But in 1996, according to the Center of Research and at the Ministry of Science, research and development of technological innovations has carried out only by 5.2% of the Russian enterprises.



The number of introductions of new types of machinery, equipment, tools, etc., in the different branches of Russian industry continued to decline during 1996. This was equivalent to 84% of the 1995 level. In 1997 only 5% of Russian industrial enterprises introduced technological innovations (see Kaganov V. (1998)). Other kinds of innovation indicators have also gone down during the 1990's in Russia. There is a decline of the number of new licensed products, and of the share of new products among goods and services of the Russian exports. Invention activities in Russia have also become weaker during the last few years. In 1995 the number of patents issued and registered by the National Patent Agency was 20,800. But in the following year (1996), this number went down to 16,500. One of the main reasons of that decline is that the majority of Russian companies do not have enough money to pay patent registration of inventions (Svinarenko A. (1997)).

The questionnaire that was the basis of the study also has shown that there is the problem of innovation development in Russia. The questions about the new products of an enterprise (no.17 "Did the company produce or sell new products or services in 1990-1993 or 1994-1997?", no.18 "Are you going to produce new products or services next year?" and no.19 "If you produce new products or services in your firm, do similar ones already exist on the market or are similar ones non-existent?") were usually among the questions which were answered by the respondents quite easily, especially compared to the questions which deal with the companies' financial issues. Managers were not afraid to answer this type of questions, and it was not difficult to get a clear picture of the innovations' policy of St. Petersburg-based companies.

27.3% of all the respondents mentioned that their companies did not introduce any kind of new products during the period of 1990 -1993. The result for the period of 1994 -1997 was slightly lower - 25.2%. This data looks good enough. About 3/4 of the enterprises reported that they have introduced new products. Compared to the average

situation in Russia, the innovations situation in St. Petersburg region seems to be “not bad”, at least. St. Petersburg was always famous among other Russian cities because of its openness towards innovations. The majority of inventions and innovations of the national importance took place in the city or in the city region (radio, telegraph, railway, motor-car, electricity, TV, etc.). So, today St. Petersburg area’s enterprises are trying to continue the good traditions of the city. The activity of introduction of new products should help to the city’s enterprises to make better their economic performance. And in the case of the studied enterprises this is proved by results on sales, for example. In 100% of cases the companies that have introduced new products have had their revenues increased during the mentioned time periods.

The situation looks more interesting when we observe the differences in innovation activity by companies under different ownership forms. There is a big difference between the de novo firms and the companies under state ownership, or privatized ones. Only 13.8% of de novo firms have reported that they did not introduce any kind of new products during 1990 -1993. For the period of 1994 -1997 only 16.2% among this type of companies were without new products. The state-owned firms did not introduce new products in 38.5% of cases during 1990 -1993 and in 23% of cases in 1994 -1997. The privatized enterprises have the lowest rate of new products’ introduction among all groups. 45.1% of the privatized firms have reported that they spent the period of 1990 -1993 without new products, and the same group of companies did not introduce any new products during 1994 -1997 in 41.2% of cases. If we try to compare the results mentioned above we can easily see that de novo companies are much more oriented towards introduction of new products than the companies with state ownership or with a state ownership background. This result is different from the one in A. Lipowsky (1998). According to that research, in Poland state-owned firms had a significant lead in the introduction of new products.

On the one hand, the leading position of de novo firms in Russia can be explained by the higher flexibility of the new companies, as they do not usually have long time traditions in the production of the same kind of goods and services. The new companies' managers are usually more prepared to make changes and have a higher level of understanding of market demand. The staff members of new private companies as well as the labour force are usually able to accept the necessity and importance of changes of the firm's production direction. At the same time the managers, staff and labor of the state-owned or privatized enterprises are used to making the same types of products for years, and usually accept the necessity and importance of changes a little harder than in the case of the de novo firms. A. Lipowsky explains the different situation in Poland partly by specific features of statistics in Poland: "the formal classification of a product has been beneficial for state-owned enterprises in one way to another".

Another difference between de novo and others can be found if we have a look the different companies' revenue performance in terms of freely convertible currency (USD, for example). The explanation of the usage of the USD valued indicators in this study is based on the goal of avoiding the influence of inflation. The author understands that the use of USD can not avoid the inflation factor totally, but inflation in USD terms was significantly lower. So, USD-valued indicators can be considered as much less affected by inflation, and can usually provide a more clear picture. After recount into USD, the state-owned firms experienced revenues growth only in 54% of cases where new products were introduced, but de novo companies had revenue growth in more than 90% of cases of introduced new products.

The expectation of new products introduction possibility in the future by the firms' managers and owners are also interesting. 71.3% of all the firms featuring in the questionnaire have a "good prospects" deal with the introduction of the new products. Therefore, they are sure

that the firms will introduce new kinds of goods and services to the market in the nearest future. This is again quite a promising indicator for the St. Petersburg area in terms of better choice for the customers and better prospects for the regional economy development. The devaluation of national currency should push St. Petersburg-based, as well as other Russian, companies to introduce more new products to the domestic and also international market.

In the case of the future introduction of the new products, the picture for firms with different ownership varies again. Only 18.8% of de novo firms noted that they are not planning to introduce new goods and services in future. For the state-owned enterprises the same indicator is 23.1%. Among managers of the privatized firms 43.1% are not seeing prospects of new products in the nearest future.

That means the existence of a more optimistic approach to new products introduction among the managers of firms organized as private from the beginning, compared to ones with a state ownership background.

Question no.19 was included in the questionnaire to find out the ability of companies to introduce goods and services, which did not appear on the market before. The results have shown quite a low ratio of really new products for the market among the companies' production. Only 3.9% of privatized companies reported that they sold on the market absolutely new products. 19.6% of this kind of company mentioned that they introduced partly new products.

In the case of the state-owned firms, none of the managers mentioned that they "surprised" the market with absolutely new goods and services. But 30.8% of this group of firms reported that sometimes similar products have appeared on the market before, and sometimes not. De novo companies according to the questionnaire have the highest rate among all groups of introduction to the market of absolutely new products - 6.3%, and 20% in this group of companies

consider their own new products as partly new (sometimes absolutely new to the market, sometimes not).

Another side of innovation policy appeared in questions no.15 and no.16. Those two questions deal with the research and development (R&D) performance. Only 20.3% of all companies did not report that they have special staff for R&D. This number means that an absolute majority of all firms were involved in R&D activity. Compared to the average situation in Russia mentioned above, the majority of St. Petersburg-based companies continue to develop R&D as one of the most important parts of innovation policy.

Among different types of enterprises we can see slightly different rates of firms with special staff for R&D. For the state-owned firms this rate is highest (82.3% of this type of enterprises reported that they have special staff for R&D). Privatized companies have R&D units or special staff members involved in R&D activity in 74.5% of cases. At the same time, de novo firms mentioned R&D staff members in 81.2% of the cases.

The explanation of the leading position of the state-owned firms is based on the traditions, which those types of companies have in R&D development. During Soviet times almost all of the state enterprises were obliged by the Central government to have research units, and to have a certain number of their staff members involved in R&D activity.

The share of staff involved in the R&D activity can be considered as an indicator of the importance of R&D for the firm. According to the survey data de novo enterprises have the highest ratio of staff involvement into R&D activity among all groups of studied firms. On average, 15.7% of the total number of de novo firms' employees are involved in R&D, compared to 13.2% of state-owned firms, and only 3.05% of privatized ones. If we exclude firms, which do not have special R&D staff, and we measure the share of R&D staff in the

different groups of firms, we find an even more impressive performance of de novo enterprises. The share of R&D staff in this case is 21% for de novo, 14.3% for state-owned, and 3.55% for privatized enterprises.

Question no.16 deals with the company's demand for the results of R&D done by other companies. In this case state-owned firms also have shown a higher rate of activity on the R&D market.

The majority of the state-owned firms used the results of R&D carried out by the state research institutions and other state organizations. A much lower proportion of the state enterprises bought R&D results from the private institutions and organizations. Privatized and de novo companies are less dependent on R&D done by state institutions and more eager to buy the results of R&D prepared by the private institutions.

The difference in preferences at the different types of firms is in many cases based on the traditional links between state scientific research institutions and state-owned firms. The state enterprises used to order R&D from the certain state research organizations for many years, and they usually have well established relations in this field with particular state research institutions. De novo enterprises usually are less dependent on traditional links with particular research institutions, and do not have a long history of networks in research cooperation. At the same time, the private firms' managers are usually more curious when buying research from other organizations, and prefer to have a wider choice than to keep to traditional links.

### **3. Investments**

The drastic drop in investment activity is one of the most painful features of today's Russian economy. According to official statistics (Goskomstat of Russian Federation) in 1992-1995 investments into the Russian economy fell by 65%, in 1996- by 18%, and in 1997- by

another 5%. According to studies provided by independent experts in mid –1996, investments into the national economy measured in real prices decreased to only 17.4% of the level of 1989 level (see Mitin S. (1998)). Lack of investments is one of the main obstacles to national economy growth. All Russian governments during the 1990's declared the priority and vital importance of investment activity development. But reality is, unfortunately, far away from the declarations. Russian industry is still suffering the decline of investment inflow measured in real prices.

Situation in the St. Petersburg region is not totally different from the one in the country. In Russia now it is difficult to find the capital for investment purposes. The main source of investment into the Russian economy is enterprise finance. In 1996 enterprises provided 66.3% of all national investment volume, and all other sources including local and federal government funds, banks and other financial institutions financed the rest (Yakovetz Y. (1997)). Another problem linked with investment capital of the Russian enterprise is how to use it properly, and how to save the most of it for investment purposes because of the toughness and complexity of taxation. Also, instability of the political and economic situation in the country reduces investment activity.

Questions dealing with investment issues were among the hardest in terms of the openness of companies' managers and owners. Many of the enterprise leaders were afraid to give answers to the questions, which deal with investments. Many of them asked the interviewers to swear that they will never disclose any of the information to anybody. Many times managers or owners stopped answering the questions immediately after they were asked about investments. Some of the managers and owners suspected the interviewers to be tax police officers or members of the Mafia. Investment amount together with some other financial issues can be easily interpreted as an indicator of the enterprise cash flow channels and directions. To keep secrecy (from competitors, authorities, and the Mafia) about cash flow channels is very important for the typical Russian enterprise leader.

But nevertheless, after many unsuccessful attempts it was possible to get a picture of the companies' investment policy.

32.9% of companies' leaders, who finally filled out the questionnaire, refused to give information about the amount of investment they made. This is the average case. The managers of the privatized companies were most open. Only 19.6% of them did not respond to question no.13. Among de novo firms were 38.8% of those, which did not disclose information about investment. The managers of the state-owned enterprises kept the highest rate of secrecy in this case (46%). That can be explained by the threat of potential privatization in the future and the strong will of state firms' managers not to share some of the most strategic information they have. Many of the state enterprise managers are afraid of losing their own position and in the firm during privatization. That is why they were usually more suspicious about questions concerning the amount of investment. It should also be mentioned that the appearance of the question no.13 was pointed out as the reason not to respond to the questionnaire at all by more than 120 different companies' managers.

Among the firms, which gave information about the volume of investment, the absolute majority (89.1%) has shown growth of investment volumes in roubles during the periods under consideration. That was true in the case of 85.7% of state-owned, 75% of privatized and 82.2% of de novo firms. Due to the high rate of the rouble exchange-rate devaluation during the 1990's, however, the investments made in the Russian national currency do not give a clear picture of the trend. As already mentioned, calculation in USD terms can help to reduce the influence of the inflation factor. If we present the volumes of investment in USD, we see a more realistic picture of the problem. In USD terms, only 65.3% of companies have shown a stable increase of their investment volumes. Among state-owned firms only 14.3% were able to raise the amount of investment in the US currency. 42.9% of under state ownership firms had the declines as well as times of growth of investment in USD during several periods



in the 1990's. 28.6% of the state enterprises decreased their investment volumes from the beginning to the end of the decade.

Privatized firms have shown a much more stable investment increase even in US currency. 62.5% of the privatized companies have had growth of investment in US\$ terms during the mentioned period. 25% of this group of enterprises have shown both an increase and a decrease of investment volume from year to year. Finally, 12.5% of privatized companies reduced investment in dollar terms.

De novo companies exhibited the most stable investment growth among all types of firms. 71.1% of new private enterprises have had an increase of investment in US currency. 13.4% of this type of company have sometimes shown growth and sometimes a decline in USD terms. 15.5% of them reduced the investment volume in dollars during the 1990's.

The trend of investment activity in USD performed by the different types of companies, can be used as an important indicator of enterprise development orientation. According to the survey data, new private companies are much more eager to develop their investment activity than, for example, the state-owned ones. Increasing the investment volume in dollars makes the majority of private companies able to increase production and volume of sales on a larger scale than others. More than 90% of de novo companies had a growth of revenue, and as it was mentioned above, their ability to introduce new products to the market increased. The investment increase means that de novo enterprises in Russia are oriented towards better economic performance and economic growth. Also that means that there is a hope for the country's economic recovery.

On the other hand privatized companies have shown the lowest ratio of stable decline of investment volumes in USD. That is also a good sign, because this sector of enterprises is very important for the Russian industry. About 2/3 of privatized firms had a stable increase

in the dollar investment volume. That means the economic growth orientation became important for the majority of companies of this type.

Another interesting feature is found if we compare the volume of a company's investment to the company's volume of sales. The share of reinvested revenues is a very important indicator of the company's orientation towards growth.

Among the state-owned firms more than a quarter have shown a decrease of investment volume as a percentage of the volume of sales revenues. And only 14.3% of state enterprises experienced a steady growth of that percentage.

Privatized companies have an equal distribution among the group in terms of stable growth, decline or sometimes growth, sometimes decline, of the share of reinvested revenue to sales revenues. Each part has one third of the total number in this group of firms.

The results of de novo firms are relatively the same. There are 37.8%, which have had a decrease of the percentage of reinvested revenues. The rest of this group can be divided in two equal parts (31.1%) each. The first represents the companies with stable growth of the reinvested share, and the second consists of the companies with temporary growth and temporary decline of that share.

Some companies reported very high rates of reinvested revenues. Also, there are big differences between firms with various ownership backgrounds in this case. For example there is no state-owned company with a reinvestment share of more than 50% of at least one year's volume of revenues. Among privatized companies there are 15% with that high level of reinvestment share for at least one year, and 5% for more than one year. In the case of de novo firms there are 20% with a higher than 50% reinvestment share for at least one year, and 15% for more than one year. This fact can be explained, on the

one hand, by the average size of the studied firms. De novo firms in the survey are relatively smaller than state-owned or privatized ones. In this case if the firm is small, and has a volume of revenues, which is not too big, it is easier to reinvest the larger portion of it. On the other hand, de novo firms have the least access to bank long-term credits among all groups of firms in the survey. Private Russian companies' orientation towards financing of the investment programs from their own resources can be found in some other studies. L. Webster, J. Franz, I. Artemiev, and H. Wackman (1995) pointed out that the majority of interviewed managers said that they would use business profits to finance future investments.

At the same time, the ability to reinvest more than a half of the firm's revenues is another proof of the higher investment growth orientation of private Russian companies (especially de novo ones). "The fact that most managers assumed they would be able to finance investment costs from business profits reflected their doubts about accessing external finance and an optimism about the future of the Russian economy and of their enterprises" (L. Webster, J. Franz, I. Artemiev, and H. Wackman (1995)).

The importance of foreign direct and portfolio investments among the studied companies was not high, but some evidence of foreign capital appeared in the study. Only 7.7% of the state-owned firms have shown evidence of foreign capital (the portfolio investment case). For the private companies this ratio is even lower (5.9% of privatized companies, and 6.3% of the new private ones). However, one third of privatized firms have FDI with 50% or more of shares belonging to a foreigner. 80% of the de novo firms with foreign investments have FDI with the foreign investor's share of more than 50%.

#### **4. International Trade**

International trade performance is the ability of a company to sell goods and services abroad. According to J. Sachs, economic success

of any country in the world is based on international trade performance. And there is no one country in the world, which could build up a healthy economy being isolated from the international market (J. Sachs (1994)). Russia's integration into the World Economy started with the fast development of the country's international trade. St. Petersburg enterprises are usually quite involved in the export-import operations. Many of them are heavily dependent on international trade activity.

The companies presented in the study have not shown a high level of export orientation. Among the studied private firms, the importance of exports was quite low. Only 13.7% of privatized companies and 12.5% of the new private firms have shown evidence of export activity. As the most important market, the foreign one was mentioned by only 2% of privatized and only 1.3% of de novo companies. However, for the state-owned firms export plays a more important role. 30.8% of the state enterprises have shown evidence of export activity, and for 15.4% of state-owned firms the international market is the major one. This can be explained by the fact that many state-owned firms are related to military production. Arms and related military items have always been an important part of production as well as export of the state-owned enterprises in the St. Petersburg area.

The case for imports is totally different. Only 7.7% of the state-owned firms have shown an import dependency. In the case of privatized companies, the ratio of import dependency is 18.4%. But for the new private companies this ratio is high (51.3%). Major suppliers for the state companies are CIS members and China. In the case of the privatized companies, it is Finland (55.6% of cases), Germany(44.4%) and CIS (44.4%). For the de novo companies, major suppliers are Germany (53.7%), Finland (46.3%), and Sweden (22.4%).

The low level of export -oriented companies among the ones studied can be explained by the specific position of exports in today's Russian

economy and business. For many Russian companies, exporting is now very important. However, because of some “specific” features of Russian regulation on companies’ international economic activity (customs, tax, etc.), a large portion of export activity belongs to the shadow economy. In many cases export-oriented companies’ managers are afraid to supply the information to anybody. The author has had some experience in interviewing a few managers of St. Petersburg-based firms, which are involved in exports of forestry products (timber, lumber, pulp & paper, etc.) and fuel (oil products). These managers were very close to the point of filling out the questionnaire, but even after serious negotiations and my promises to keep secrecy, they finally refused to give me the information.

The higher rate of import-oriented companies among the ones presented here can be explained by the regional peculiarities of St. Petersburg-based firms. The sea-port of St. Petersburg does not have adequate facilities (oil terminals, for example) for export of some major Russian natural resources, but it is equipped well enough to receive most import items (special terminals for containers, refrigerators, etc.). It makes the city’s haven more oriented to serve imports. Before August 1998, international trade traffic through the seaport of St. Petersburg consisted of 80% imports and only 20% exports. So, quite logically, many of the local companies are involved in the business deals with imports. Before the crisis of 17<sup>th</sup> August 1998, the exchange rate of the rouble also was in favor of imports. Some studies dealing with international trade performance of the city’s firms (see J. Opanasenko, and P. Yli-Olli (1995)) have found higher rates of St. Petersburg based companies involved in export activity. In this case, however, export-oriented firms were specially chosen among others for the study.

De novo firms, according to the study, have the highest ratio of import dependency. State-owned enterprises have usually connections only with China, India and CIS members. Privatized companies mention almost 20 different countries (mostly from Western Europe) as major

trading partners. De novo firms have shown the most diversified structure of international trading contacts. This group of firms listed more than 40 different countries of the world.

## **5. Conclusion**

To make a conclusion, it is necessary to mention that not all results of the study are equally obvious. In some cases it was difficult to get responses from interviewed managers on some important questions concerning investment or export issues. Some of the survey results were influenced by geographical location of the studied area, and can not be considered as an average Russian case. Some accounting and calculation problems (calculation in roubles and in USD) also appeared in the study. But nevertheless it is possible, after all, to draw conclusions. Some results of the study can be considered as major.

1. The large portion of studied enterprises has shown relatively good performance in the mentioned fields. The average level of investment, innovation and import performance of the studied firms is higher than the average national level. This is not the case for export performance, however.
2. Despite some similarities, enterprises of the different types of ownership have shown differences in innovation, investment and international trade performance.
3. In terms of most performance indicators, de novo firms face better than the other groups (state-owned and privatized) in the sample. The same result can be found in the study of A. Richter and M. Schaffer (1996)
4. De novo companies have the highest existing level of production renewal.
5. The same group of firms has the highest expectation for the introduction of new products in the nearest future.
6. De novo firms have the highest share of their staff members involved in research activity among the total number of employees.
7. This group has the highest rate of investment increase in terms of USD.

8. De novo firms have the highest share of enterprises with more than a 50% reinvested part of a firm's revenues.
9. Among enterprises with FDI, de novo firms have the highest ratio with more than 50% of assets controlled by the foreign owner.
10. De novo firms have shown the highest rate of involvement into import activity and the longest list of foreign trading partners.

The results of the study can be used to prove that development of the new private enterprises should promise a better future for the country. At the same time, the survey data is based on the period from 1990 to 1997. It does not include 1998, when after the August crisis the situation changed drastically. The warning signs for the overvaluation of the rouble are found in the study (the very high level of import dependency in private enterprises and their relatively small export orientation). Because of significant changes of the economic situation in the St.Petersburg region, as well as in the whole of Russia, more empirical research is needed to analyze the new realities.

**Table 1. Consumption of the research provided to the studied firms by other institutions.**

Type of the firm	% of cases where research for the firm was done by the state institutions	% of cases where research for the firm was done by the private institutions
State-owned	84.6	38.5
Privatized	27.5	47.0
De novo	11.3	13.8

**Table 2. Trends of reinvested share of firms' revenues (% of total)**

Type of the firm	Increase of reinvested share of revenues	Decrease of reinvested share of revenues	Both (increase and decrease from time to time)
State-owned	14.3	28.6	57.1
Privatized	3.3	33.3	33.3
De novo	31.1	37.8	31.1



## BIBLIOGRAPHY

- Belka, M., Estrin, S., Schaffer, M. E. and Singh, I. J. (1995) Enterprise Adjustment in Poland: Evidence from a Survey of 200 Private, Privatized, and State-Owned Firms, *Center for Economic Performance Discussion Paper*, No. 233, London School of Economics, April.
- Bilsen, V. and Mitina, E. (1998) *Growth and Entrepreneurship in De Novo, Privatized, and State-Owned Enterprises: Evidence from a Panel Survey for the CIS Countries. Questionnaire, Variables, Data Entry and Coding of the Answers.*, working paper of the Tacis-Ace network T95-4095-R.
- de Boissieu, C., Cohen, D. and de Pontbriand, G. (1995) Russian Enterprise in Transition, *Center for Economic Policy Research Discussion Paper*, No. 1174, London, April.
- Kaganov, V. (1998) Innovacii v Promyshlennosti Rossii, *Promyshlennost Rossii*, No 5 (13), May.
- Kornai, J. (1990) *The Road to a Free Economy*, Norton, New York.
- Lawrence, P. and Vlachoutsicos, C. (1990) *Behind the Factory Walls*, Boston, Mass.
- Lipowski, A. (1998) *Towards Normality: Overcoming the Heritage of Central Planning Economy in Poland in 1990-1994*, Warsaw.
- Mitin, S., *Gosudarstvennoe Regulirovanie Ekonomiki (Rossia 90-h Godov)*, Moscow.
- Opanasenko, J. and Yli-Olli, P. (1995) *Industrial Enterprises in the St.Petersburg Area and Finland*, Vaasa.

Richter, A. and Schaffer, M.E. (1996) The Performance of De Novo Private Firms in Russian Manufacturing, March.

Sachs, J. (1994) *Rynoch'naya Ekonomika i Rossia*, Moscow.

Svinarenko, A. (1997) *O Formirovanii Gosudarstvennoi Innovacionnoi Politiki*, Innovacii, No 2/3.

Webster, L., Franz, J., Artemiev, I. and Wackman, H. (1995) Newly-Privatized Enterprises: A Survey, in *Russia: Creating Private Enterprises and Efficient Markets*.

Yakovetz, Y. (1997) *Finansirovanie Innovacionnyh Proektov*, Innovacii, No 2/3.