

PART 5. FLOWS AND NON-EU EUROPE

Ukraine



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Ukraine¹

1. Introduction

Ukraine is a country with an interesting history of emigration and immigration. At the beginning of the XX century millions of Ukrainians moved to North America and Eastern Russia to find new land for agriculture. Later, Bolshevik revolution forced hundred thousands of Ukrainian inhabitants to emigrate, millions of ordinary peasants and educated people were moved to Siberia during so-called ‘collectivization’ in 1930s. In 1940s, almost two million Ukrainians had to leave Eastern Polish territories (such regions with the ethnic Ukrainian population as Holmschina, Lemkivschina, Pidliashshya and some others) under the pressure of Polish authorities, while the Polish population of the Western Ukraine was pulled out to Poland by the Soviet Communist regime. After the Second World War, millions of Ukrainians have worked in Russia and other Soviet republics, while representatives of these republics worked in Ukraine. As a result, almost all former Soviet republics have substantial groups of Ukrainian population. According to estimates, almost seven million Ukrainians live in Russia only. Approximately three million people of Ukrainian origin live in Canada and the United States. Traditional Ukrainian communities exist in neighbouring Eastern European countries. After the WWII about one hundred thousand Ukrainians left in England, Germany and some other Western European countries. Existence of such diasporas creates an important precondition for migration processes.

In the Soviet times movement of population within the Soviet Union was not considered as ‘emigration-immigration’ process. Borders between former Soviet republics are more or less transparent, and people are moving between them quite actively. Migration to foreign countries is relatively new phenomena that emerged in early 1990s, but this process exerts growing influence on population dynamics and economic development of the country in present time. Immigration processes have no comparable impact on the situation in Ukraine, except the ‘return’ of Crimean Tartars, deported to Central Asia by Stalin in 1944.

In this paper, statistical analysis of the recent developments in the area of migration will be done. This will not be easy, while some movements of population are not well documented and the real reasons for migration are not studied systematically. That is why this analysis will be based on both official sources and the results of surveys and indirect estimates. It is impossible to understand the dynamics if the migration processes without consideration of the general social and economic situation in the country in 1990s. The first part (introduction and two first paragraphs) of the report will be devoted to the analysis of the context of migration processes. In the second part, information sources will be discussed (the third paragraph). The third part will represent data on migration (the fourth, fifth and sixth paragraphs), and the fourth part will be focused on possible scenarios of further developments of migration processes (conclusion).

¹ This paper was prepared by *Igor Egorov Centre for S&T Potential Studies National Academy of Sciences of Ukraine* and co-ordinated by IKU for the project *The Brain Drain — Emigration Flows for Qualified Scientists*.

2. Demographic and Social-economic Developments in Ukraine in 1990s.

Since gaining the independence in December 1991, Ukraine has lost about three million people². Every year Ukrainian population declines by 300-400 thousand. Ukrainian population was less than 48 million persons in 2002, that is much lower than its peak of 51,7 million in late Soviet period. The process of population decline is mainly related to the negative changes in the demographic structure of the population, sharp fall in birth rate and the growth of death rate but the emigration has also contributed to this process.

For the whole 1990s Ukrainian economy had a single year with modest positive figures for GDP changes. According to official data and the expert estimates of EU experts, total decline in GDP was more than 60% in 1990-1999 (Table 1).

Year	Real GDP Index (1990=100)
1992	92.6
1993	76.0
1994	46.9
1995	42.5
1996	40.9
1997	41.3
1998	40.0
1999	39.3
2000	40.7
2001	47.0

Level of personal income in Ukraine is one of the lowest in the region⁴. Average salary is less than 75 USD per month, if the official exchange rate is used, and about 300 USD per month, if calculated on PPP basis. Corresponding figures for some neighbouring countries are much higher, that creates reasons for emigration.

Real unemployment has reached 20-25% of the workforce according to the ILO statistics⁵, while official figures are four –five times lower. Enterprises keep the level of employment stable, as they have no money to meet formal requirements of the Labour Law to pay compensation for fired workers. As a result, a number of people have intention to emigrate to find better jobs and living conditions. Opinion surveys showed that about 35% of Ukrainians had plans to emigrate from the country in late 1990s⁶, most of them could not find relevant jobs in their country. On the other hand, bearing in mind existing situation with employment and the level of wages, very few foreigners choose Ukraine as a place for their permanent residence.

State officials, including the president of the country often express their concerns about outflow of specialists to foreign countries⁷ but in fact they could not do a lot to reverse existing trends.

² Statistika Ukrainy, N4, 2002, p.84.

³ Ukrainian Economic Trends, -UEPLAC, EU-Tacis Program, Kiev, March 2002, p.4.

⁴ EBRD Annual Report for 1999, London, 2000

⁵ Kvartalni Peredbachennya, April 2001, p. 73

⁶ Zerkalo Nedely, August 19, 2000

⁷ Golos Ukrayni, March 22, 2001

Since the second half of 1999, economic growth has started, but the economy still has not reached 60% level of the 1991⁸. There are also strong evidences that the state statistics underestimates the rate of inflation in Ukraine. This leads to the artificially high figures for real GDP growth and the increase of average personal income.

3. Situation in R&D and Higher Education.

Decline in many sectors of the national economy was really dramatic in 1990s. Some industries, such as electronics, disappeared almost completely. A lot of qualified specialists have lost their jobs in these sectors and had to search for new carriers. In R&D the number of employees has dropped by more than 50%. It is important to note that the decline in financing R&D was more substantial than decline in the number of researchers and engineers. This means that resources devoted to R&D are much smaller now than at the beginning of 1990s. In contrast, in some CEE countries in 1990s decline in R&D personnel was faster than decline of R&D budget.⁹ Instead of reducing the number of employees, R&D organisations reduced their material costs to minimum but tried to save their "human capital". This step cannot be explained in terms of an apparent intention to preserve the best and the most experienced researchers. Scientific organisations in Ukraine must pay considerable social benefits to dismissed persons¹⁰. In fact, the system of financing S&T organisations proportionally to the number of their employees is still in operation. So, if directors of research institutes were to have fewer employees, they would receive less money from the state budget. The problem is that some branch ministries have no money for support of subordinating organisations, and the budget injections are in a sharp decline. During the period of transformation, all industries have seen significant reductions in their research and development systems, both in terms of expenditure and personnel. From the formal point of view, Ukraine still has the highest number of people with the highest education diploma in engineering per head but majority of these people are not working according to their university specializations.

At the same time, the number of students grew steadily in 1990s. Almost 30% of all young people of student's age are studying at the universities and Higher Education Institutes. Number of new universities and Higher Education Institutes has been doubled since early 1990s. Absolute majority of them were founded in such areas as management, economics, accounting, legal sciences. Number of post-graduate students grew by almost three times since the beginning of 1990s till 22,500. It would be difficult to say that the growing number of graduates could compensate loses from emigration and moving to knowledge-extensive sectors of the national economy, as the general level of education in technical and natural sciences is declining, and the share of graduates in these sciences is shrinking in Ukraine.

Thousands of Ukrainian students are studying abroad, but it is very difficult to make even rough evaluation of that number. The number of foreign students in Ukrainian universities

⁸ Uryadovy Kurier, July 17, 2001

⁹ See, for instance, Filacek A., Provaznik S. The Intellectual, Social and Human Dimensions of Science and Research Assessment: Transformation Experience of the Czech Republic. - Science, Technology, Society, N.1, 2000, pp. 53-65

¹⁰ For example, Ukrainian research institutes usually have to pay equivalent of the salary for six months to any dismissed person.

has tendency to fall in recent years. It varied between three and thousand in 1990s. Absolute majority of such students left the country after the graduation.

4. Sources of Data on Migration.

In Ukraine, State Committee of Statistics (SCS) collects data about those who emigrate from the country and those who immigrated to the country, including persons with higher education, although the distribution of emigrants in accordance with their specialties are not available in output statistical forms. It is also possible to collect data on age structure of emigrants, but official statistics make distinction only between children, persons of working age and pensioners. Level of education is represented relatively well. All emigrants and immigrants are divided into several groups depending on their education. Persons with higher education diplomas, as well as specialists with scientific degrees of candidate or doctor of sciences constitute separate groups. Along with collecting this information, SCS has special databases on Doctors of Sciences (since 1989) and Candidates of Sciences (since 1998). They reflect changes in professional occupation, areas of scientific interests, and the place of work of these categories of specialists, including data on emigration.

Main source of data about emigration and immigration is the special statistical form M-14DB (in accordance with Ukrainian statistical classification). The form contains data about official emigration and immigration, including distribution of emigrants and immigrants among all 27 main Ukrainian regions. State Committee of Statistics of Ukraine has special department that is responsible for demographic statistics.

Initial data are received from the special local departments of the Ministry of Interior Affairs that collects individual forms from all immigrants and emigrants. This form also contains data on those foreigners who have been registered in Ukraine not permanently, but for the period of 3-12 months. Every immigrant or emigrant has to fill special form by himself (or herself), than this form has to be checked by the official. It is also important to mention that the Ministry of Justice and the State Border Guarding Service supply data on refugees. In accordance with Ukrainian laws, all immigrants and emigrants have to be registered in local offices of the Ministry of Interior Affairs. There are different types of registration for those who emigrate or immigrate on temporary and permanent basis. Usually (as the data from the second part of 1990s show) the number of temporary emigrants reaches 5%-6% of permanent emigrants.

Unfortunately, important information about the age, specialties of migrants and so on is not processed by the SCS, although it is possible to find initial data from the Interior Ministry. The problem is that the Ministry does not want to share this information with outsiders, nor to process input data.

National Academy of Sciences of Ukraine collects data about emigration on the regular basis about all its employees. These data are not representative as only about quarter of all R&D personnel are working in the Academy. Other ministries, state agencies and universities are also trying to collect statistics on emigration from the country, but their information is incomplete because of two reasons. First, not all companies and universities collect information about emigration. The second, in many cases people first quit from the job and then emigrate. Very often periods between actual emigration and leaving the job comprise several months,

and in their forms people have to mention the last (often temporary) place of work that changes real picture of emigration.

Sometimes, Ukrainian sociologists conduct surveys on emigration from the country. But even in special surveys, estimates, not exact figures, have been used (see Klochko, 1993, 1994). So, according to some surveys, about 30% of emigrants from Ukrainian cities have higher education degrees. This means that every year in 1990s more than 10 thousand persons with higher (University) degrees have left the country. Distribution of emigrants to different countries is changing from year to year. So, in 1989-1991, about three quarters of all emigrants were emigrants to Israel. Now this share is much lower (see below).

Permission to work can be given to all immigrants and refugees if they can pass registration procedure. Foreign specialists who are working in Ukraine have to receive a permission to work from the Ministry of Labor and Social Protection. Usually the Ministry gives such permissions for up to three years and it can be prolonged if the person has to stay longer in the country.

Ukrainian laws have special exemptions for refugees from the some regions of the former Soviet Union (Nagorno-Kharabakh, Abkhazia) that arrived to Ukraine in late 1980s- beginning of 1990s. Procedure for registration of these refugees is relatively simple, and they have received access to public funds from the very beginning of their staying in Ukraine.

As to permission to work abroad, there is no need for Ukrainian citizen to ask special approval from the state authorities, if she or he has not been involved in the military- related activities during the last five years. If the person knows some state secrets, emigration could be even prohibited.

The problem with validity of data on flows of migrants has several aspects. As to immigrants, picture is more or less clear. The only group that requires special attention consists from Crimean tartars (approximately 300,000 persons), who are still coming back from the Central Asia after the deportation by Stalin regime in 1944. They are not registered as immigrants and only about 60% of them have already received Ukrainian citizenship.

Problems with emigration are much serious. First of all, Ukraine still has transparent borders with Russia and many Ukrainians are working in this country officially or non-officially. In accordance with estimates of Russian experts, 1-1.5 million are working in this country, mainly in construction, gas industry and communal services¹¹. Substantial number of Ukrainian citizens is working in the West on temporary basis or illegally. Ukraine has a special agreement with Portugal about legalization of such workers with Portugal. No other EU countries have similar agreements with Ukraine. According to estimates, about 60,000 Ukrainians are working in Portugal, mainly in services and construction sector. There is no information about their level of education and qualification¹². We will consider these phenomena below on the base of figures and examples from the scientific area.

¹¹ Delovaya Ukraina, May 24, 2001

¹² Zerkalo Nedely, May 18, 2002

5. Current Situation with Emigration from Ukraine.

The analysis can be started from official data, supplied by SCS. The latest available data for emigration are from the year 2000 (Table 2). Data for the previous years are very similar, as the tendency to emigration had no serious changes in 1990s.

Country of destination	Number of emigrants with university degrees		Doctors of Sciences		Candidates of Sciences	
	1999	2000	1999	2000	1999	2000
Total number	15,574	15,132	31	24	102	82
Europe	8,906	9,248	15	10	44	42
Including:						
Russia	4,983	5,010	6	2	24	17
Germany	3,015	3,354	5	5	17	22
Belarus	302	302	0	0	1	2
Moldova	195	111	0	0	0	0
USA	1,346	1,332	4	6	15	13
Israel	4,490	3,817	10	7	30	11

Source: State Committee of Statistics of Ukraine database, 2000, 2001

The table shows that total number of emigrants with higher education from Ukraine is more or less stable during the last two years. Only five European countries had more than 100 Ukrainian emigrants in 2000. Last year Czech republic entered this group of key recipients of Ukrainian specialists with higher education with 121 immigrants. Among other regions Canada became an important destination with 534 emigrants with higher education from Ukraine in 2000.

It is evident that Russia and Israel are responsible for more than half of emigration from the country. It is also worth to mention that Israel became less attractive country for Ukrainian emigrants in 2000. This fact has two key reasons. First, the number of emigrants from Ukraine is already significant in this country. This means that pool of potential migrants in Ukraine is much smaller than even few years ago, when mass emigration to Israel has started. Second reason is connected with political instability in the Middle East that hinders some people from moving to Israel at the moment. At the same time, it is worth to mention that the ‘quality’ of emigration to Israel was higher in 2000 than in 1999, bearing in mind substantial growth of numbers of doctors and candidates of sciences among those who entered Israel from Ukraine. At the same time, it is worth to mention that during the late 1980s and 1990s hundred thousand ethnic Jews left Ukraine for Israel. Usually, level of their qualifications was higher than average in the country.

The “quality” of emigrants to different countries could be measured by the shares of persons with higher education degrees to total emigrants (Table 3).

Table 3. Shares of persons with higher education among emigrants from Ukraine, 2000 (For countries with more than 100 emigrants from Ukraine).		
Country	Total number of emigrants from Ukraine	Share of persons with higher education degrees %
Total number	80,512	18.8
European countries	51,528	17.9
Including:		
Belarus	3069	9.8
Moldova	856	12.7
Germany	11,114	30.2
Russia	34,231	14.6
Poland	211	24.6
Italy	114	16.6
Hungary	490	19.4
Czech republic	615	19.7
Canada	1,307	40.9
USA	9,398	14.2
Israel	17,020	22.4
Kazakhstan	348	10.0

It is evident from the table 2 that Canada became a leader in professional emigration from Ukraine with more than 40% of emigrants with higher education among total number of emigrants. Germany possesses the second place. It is interesting that emigration to Germany has an important ethnic component. Privileges for emigration have not only people of German origin but also Jewish people who use this channel of emigration very actively. In fact, during several years participants of emigration program of Jewish origin could preserve some type of ‘dual citizenship’, which is not allowed in Ukraine. This status opens important opportunities for business and education and gives the opportunity for free movement through other European countries.

Poland has become an attractive place for educated Ukrainians in recent years, especially those of Polish origin from the western regions of the country. Emigration to Israel has mainly ethnic nature, but Jewish people had traditionally higher level of education in the Ukrainian society. Much lower shares of persons with higher education than average are common for Belarus and Kazakhstan. This is a reflection of migration of mainly unskilled population to these countries from Ukraine.

Emigrants to Russia form the largest group of emigrants. This is the result of ‘traditional’ movement of population between two states but in 1990s emigration to Russia outnumbered immigration from Russia to Ukraine. Key reason of this situation is a better possibility to find job in Russian Federation, especially for people from the Eastern (neighbouring) regions of Ukraine. Usually, ethnic reasons are not important in making decisions on emigration to Russia but it is worth to mention that for some groups of population ‘national question’ has its meaning. So, as the latest Ukrainian census (2001) showed, the number of ethnic Russians declined by more than 50% in Western Ukrainian regions since 1989¹³. As activists of Russian community note¹⁴, substantial number of ethnic Russians were forced to leave the region because they were discriminated on the national basis by local activists of the

¹³ Statistika Ukraini, N. 4, 2002, p. 96

¹⁴ Russkoe slovo, N.2, 2002

nationalistically oriented parties. Decline the number of ethnic Russians in the region could be also explained by the withdrawal of the Soviet Army and 'voluntary changes' of ethnicity in passports¹⁵. But even in the heyday of nationalistic parties in early 1990s, relations between two main ethnic groups were generally peaceful with very few open conflicts¹⁶.

We do not consider temporary emigrants here. Total number of such persons from the country was only 832 in 1999 and slightly higher in 2000. Not more than one fifth of them had diploma on higher education.

Losses from emigration are already significant for Ukraine, especially for its intellectual potential. The estimates are based on the assumption of Klochko (1994), that 9-11% of all emigrants were former employees of the R&D sector in early 1990s. About 1% of all emigrants were specialists with scientific degrees.

Officially, about five thousand scientists emigrated from the country in 1990s. These figures do not appear to be very high. But in some sectors they are much higher than average. As sociological surveys show, share of specialists in mathematics, physics and biology among emigrants from the institutes of the National Academy of Sciences of Ukraine are extremely high. It reaches 40%-50% in some institutes (Savelyev, at. al., 2000). This means that for some specific areas losses were critical. Scientific schools in some priority areas, once productive and growing, tend to deteriorate irreversibly when their key talented individuals leave the country.

Very often emigrants from Ukraine, and indeed from the rest of the former Soviet Union, could not find work in accordance with their qualifications in recipient countries just after emigration. This was especially true in the case of Israel in early 1990s. This comparatively small country simply could not properly absorb a flow of highly - qualified emigrants in 1989-1991, although Israel has a long-standing and successful record of human capital utilisation. With the passage of time, the knowledge and skill of R&D specialists from Ukraine and other post-Soviet states have been used more and more efficiently.

Real size of emigration of specialists with higher education from Ukraine is much higher than it is demonstrated by official data of SCS. This suggestion could be proved by an example of the National Academy of Sciences of Ukraine. Academy has its own forms for calculations of inflow and outflow of specialists from research institutions. Presidium of the Academy collects information not only about the 'pure' emigration, but also about other forms of migration of scientists and engineers. So, according to official information, approximately seven hundred specialists left the Academy of Sciences only in 1989- 1992 for long-term business visits and participation in training programs. More than one third of them have not returned to Ukraine, although they are still considered as members of the Ukrainian research institutes. More of them are likely to stay abroad permanently.

More recent data show that in 1997, 530 scientists (among them - 100 Doctors of Sciences and 320 Candidates of Sciences) from the National Academy of Sciences left the country to work abroad in accordance with long-term contracts, while only 8 Doctors and 25 Candidates of Sciences emigrated³.

As to emigration from the National Academy of Sciences in 1999, only 35 persons (7 doctors of

¹⁵ During the last census (2001) about four million people have reported the changes of their ethnicity. Ukrainian sociologists explain this phenomenon by the wish to overcome results of Russification of the Soviet times.

¹⁶ Bremmer J. The Politics of Ethnicity: Russians in the new Ukraine. - Europe-Asia Studies, Vol.46, N.2, 1994, pp. 261-283

sciences and 23 candidates of sciences among them) left Ukraine for permanent staying in other countries. At the same time, 377 specialists, including 95 doctors of sciences and 255 candidates of sciences have received long-term contracts for working abroad. A lot of them do not cut ties with their research institutes and even keep Ukrainian passports, but they are spending almost all their time outside the country. These persons prefer to preserve their Ukrainian citizenship thanks to a number of reasons, namely tax regulation, inability to find work for relatives in the foreign country and so on.

Examples of such situations are numerous. The most prominent Ukrainian biologist and the member of the National Academy of Sciences Yuri Gleba is spending the lion part of his time in the Princeton University, USA. He uses his Institute for Cell Biology and Genome Engineering as a partner in joint projects. Gleba has founded a couple of commercial companies in the USA that attract Ukrainian specialists for development of new biological products for the American market¹⁷. Famous Ukrainian mathematician A. Skorokhod is working in Michigan University since 1993, but officially he is considered as a principal fellow in his former institute¹⁸.

Some experts suggest that the number of 'administrators from science' and the number of 'real scientists' among those who emigrated from the country are equal. The most radical of them also assume that those scientists who have not left Ukraine are 'simply more patriotic persons than those who emigrated and they have plans to work in their own country despite all hardships' (Solovyov, 1999). This position is close to the position of many top Ukrainian officials. Unfortunately, for Ukraine this is not true.

In the second half of 1990s three new tendencies appeared in the patterns of emigration.

First, emigration became not 'ethnic', but 'professional'. There was a strong evidence of outflow of specialists irrespective of nationality in Ukraine in 1995-2000. For the first time Ukrainians began to receive permissions to emigrate going to as specialists to developed countries, not as refugees or family members. Canadian example is, probably, the most vivid in this respect. This country 'selects' specialists on the base of their professional qualities. At the same time 'ethnic motives' are important in emigration patterns of some ethnic groups in Ukraine, mainly people of German, Jewish and Hungarian origin.

Second, the determination to emigrate grew stronger among young specialists. In our earlier survey we have predicted this event (Egorov, Herman, 1991), when almost 30% of young scientists from the institutes of the Academy had expressed their intentions to go abroad for a job. Unfortunately, we have had no opportunity to conduct another comprehensive and scientifically rigor study of preferences of youth from research institutes in the second half of 1990s. But another sign of this process is that a lot of young people are trying to pass exams to enter western Universities, mainly business or legal departments.

Third, there has been change of direction of emigration. In mid- 1990s, a remarkable number of specialists left Ukraine for Russia - mainly from the military-industrial complex and the nuclear energy industry. The difference in salary between specialists in Russia and Ukraine doing the same job in the nuclear stations exceeded 10 times in mid-1990s. Ukrainian nuclear stations were consequently suffering from a critical lack of personnel this time. Now situation has changed a little, but specialists in nuclear energy still could find better jobs in Russia than in Ukraine.

In the military -industrial complex emigration is not on such a massive scale, but Ukraine is losing

¹⁷ Zerkalo Nedely, October 28, 1998

¹⁸ Visnyk NANU, N.7, 2001, p. 78

its best specialists in the most important areas of R&D, possessing knowledge urgently needed now for the Russian military-industrial complex. A vivid example is Professor V. Utkin, predecessor of S. Korolev and the heir of M.Yangel in the position of Director of "Yuzhny mashinostroitelny zavod" (Southern Machine- Building Factory) - the biggest missile-building complex of the former USSR. It is known that a number of other prominent Ukrainian specialists have received the same propositions from the Russian authorities.

The process of emigration to Russia is not primarily a result of ethnic problems. But the introduction in Ukraine of the Ukrainian language as the one and the only state official language has met with a negative reaction from the part of researchers, especially in the eastern regions of the country and at the Universities, where Ukrainian language became the only permitted language for giving lectures and seminars¹⁹.

But it is important to stress that the problem of internal relocation of educated persons is more serious than the problem of emigration. Low wages and lack of orders for intellectual products have led to an outflow of millions of educated people to other sectors of the national economy, and primarily to private businesses²⁰. This process could not be considered as purely negative, because the effectiveness of the whole economy could rise as a result. The pressure on state budget is eased and preconditions for old colleagues from R&D institutions are usually maintained. The diffusion of former researchers from R&D sector and engineers from the military –industrial complex into other sectors of the economy could bring positive results at the present stage of economic recovery. Unfortunately, the absolute majority of former scientists and engineers have undertaken relatively simple work that does not require the scientific qualifications they have.

An important threat to the intellectual potential of Ukraine comes from hidden emigration. This type of emigration is based on a combination of formal maintenance of workplace in a scientific institute or design bureau while pursuing other work that is not connected with R&D. This is a widespread practice in modern Ukraine. Many specialists formally associated with R&D institutions or former military-industrial complex enterprises spend the bulk of their time on outside activities and mainly in retail trade. The main reason for this situation is the above-mentioned lack of demand from the side of industry. But actually, the state supports this kind of activity indirectly by compelling people to take long unpaid leaves or by delays in salary payments.

¹⁹ It is a pity but in the largest Ukrainian Taras Shevchenko National University in Kiev you have the right to defend diploma paper in Ukrainian or English, but not in Russian, despite almost all students and professors understand it easily and even prefer to use it in their communications outside the University.

²⁰ Zerkalo Nedely, October 24,199

6. Factors That Will Affect the Trends of Emigration in the Near Future

Several controversial factors will affect emigration patterns in the near future. First of all, the differences in salaries of educated persons in Ukraine and developed countries, and even differences between Ukraine and neighbouring Eastern European countries will remain significant. Now it exceeds 10-50 times for the same (or similar) job. This is an important incentive for emigration. The difference between Ukraine and new EU members has also tended to grow. These countries have become more and more attractive for emigrants from Ukraine. Relative stability and economic growth make ethnic or political reasons are not so significant in decision-making process on emigration.

The second factor, as it was mentioned above, is that some industries, such as electronics do not exist more in Ukraine. Specialists of these industries could not find adequate jobs in the country. The same is true for scientists who have no modern equipment and, sometimes, even electricity and heating for their researches. It is evident that economic reasons will dominate patterns of emigration in the near future. Ethnic similarities with Russian, Polish, Slovak and some other neighbouring nations will make the processes of adaptation easier in the new countries. Ukrainians could substitute workers in some Central and Eastern European countries, as the citizens of these countries would try to find better jobs in Western Europe or in the North America. Ukrainians could also try to work in Western European countries, but the visa regime with EU creates some problems for 'economic' emigration. Till now, only Portugal has special agreement with Ukraine on legalization of illegal Ukrainian workers in this country.

Every year thousands Ukrainians, usually from the western and central parts of the country, are working at least several weeks in Poland, Hungary, Slovakia and Czech Republic. In the EU member countries the number of Ukrainian employees is lower, but several hundred thousands are working in these countries too, most of them – illegally. Enlargement will make life of these people harder.

Poland and Hungary have plans introduce visas for Ukrainians in the first half of 2003 as a result of their accession to the European Union. Both countries have postponed this step, despite they have already established visa regime with other countries of the former Soviet Union.

Majority of Ukrainian experts thinks that new regulations will have no significant impact on official trade between Ukraine and these countries, but will be much more important for individual traders and hundreds thousands Ukrainians who are trying to find jobs in Central and Western Europe. After introduction of visa regimes with Slovakia and Czech Republic in 2001, Poland has become the main destination for Ukrainian workers, while the number of visits to Slovakia and Czech Republic dropped by more than three times during only one year. According to the estimations of experts from the Council for Productive Forces Studies of the National Academy of Sciences of Ukraine, every year not less than 600,000 Ukrainians are working in Poland temporarily or permanently, most of them illegally. Estimations for Hungary are much lower, but emigration to this country contains important "ethnic" component. Members of 200,000-strong Hungarian community from Ukrainian Transcarpathia region have relatively easy access to labour market in neighbouring Hungary, especially after the introduction of so-called 'Law about Hungarians' by Hungarian Parliament in 2001. It is difficult to say, how effective new barriers will be, as important details of visa regime

introduction are not clear enough at the moment.

At the same time, the sociological surveys of economic activities show that Ukrainians are more optimistic about prospects of their country²¹. This creates preconditions for staying in Ukraine for some specialists, although a lot of the most active professionals have already left the country.

The reason for possible decline of emigration from Ukraine is connected with the fact that the quality of education in technical and natural sciences is not so high in Ukraine, as it was in the Soviet times. Stock of qualified people, who have good chances to make carrier in the West in these disciplines is not so large now. Carrier of an entrepreneur or a banker attracts much more than the poorly paid and non-prestigious positions of scientists or engineers. Professions of economists or legal advisers are more 'country –oriented' than professions of engineers, and young Ukrainians have to sustain fierce competition in already crowded markets for these professions. On the other hand, Ukrainian universities still prepare a number of specialists in software, and these graduates could be potentially the most dynamic group of educated emigrants from the country.

So, prospects for changes in the pattern of emigration for Ukraine are controversial, and a lot will depend on the policies of the Ukrainian government and the policies of potential recipient countries.

7. Immigration of Educated Specialists to Ukraine.

Problem of immigration is not among the most important problems in Ukraine. Ukrainian authorities are much more aware on transit migrants from Asian countries, namely India, Pakistan, Vietnam, China and so on, who are trying to use Ukrainian territory for going to the Western Europe²².

As to immigration of specialists with higher education, it is not even discussed in Ukrainian society. Number of such immigrants is insignificant (Table 4). Ukraine is not an attractive place for foreigners with higher education degrees, and the reasons why have been discussed in earlier paragraphs. In 1990s, number of immigrants was insignificant, if exclude the process of return of Crimean Tartars to their historical motherland and migration flows between Ukraine and Russia. Both countries have corresponding national minorities of 4-7 millions people that makes these flows inevitable.

²¹Ekonomichna situatsia v Ukraini, N.119, p.2. – Tsentr Perspektivnyh Doslidzhen', Kiev, August 3, 2001

²²Uryadovy Kurier, March 22, 2002

Table 4. Immigration of specialists with higher education degrees to Ukraine in 1999 and 2000.						
Country of origin	Number of emigrants with university degrees		Doctors of Sciences		Candidates of Sciences	
	1999	2000	1999	2000	1999	2000
Total number	5,534	4,225	20	10	18	26
Europe	4,815	3,591	15	8	16	20
Including:						
Russia	4,164	2,940	10	6	14	17
Germany	62	57	0	0	0	1
Belarus	138	129	2	0	2	0
Moldova	346	371	2	2	0	1
Asia	518	-	3	-	2	-
Including:						
Kazakhstan	119	100	0	0	0	1
Uzbekistan	119	-	0	-	0	-
Israel	186	186	2	2	2	1

Source: State Committee of Statistics of Ukraine database 2000, 2001

Total emigration from Ukraine surpasses the immigration to the country by almost 3 times. The balance of migration was negative for Ukraine. Total number of immigrants to Ukraine declined by almost one quarter in 2000 if compare with 1999. Their share is less than 0.2% of the population. The bulk of immigrants are from CIS states. Only 2,2 thousand immigrants were outside CIS states (0,005% of the total population), share of persons with higher education degrees was 14,46 %. This figure is lower than the corresponding figure for emigrants from the country. Thus, it is possible to say that migration contributes to worsening of Ukraine's intellectual potential.

Ukraine has about 3000 officially registered refugees, 1739 of them are from Afghanistan. These people are united in their communities that help them to solve social and cultural problems. They are not challenging Ukrainians in the market for educated workforce.

Very few foreigners are working in Ukrainian companies or joint ventures. Usually, they have no problems with registration and work permissions. In 1998, representatives of eighteen foreign companies in Kiev (Sanofi, Shell, Boch and some others) were interviewed about the problems they have in Ukraine²³. No company mentioned 'problems with local workforce', despite this question has been asked. To some extent, it could be explained by the limited operations these companies have in the country at the moment. In any case, almost all of them rely primarily on local specialists. As to Ukrainian firms, the question about immigrants was a surprise for the most of local managers during mini –survey that has been conducted had in two large cities of Ukraine (Kiev and Odessa). In both cities local companies do not attract foreigners, as their salaries are much higher than those of Ukrainian specialists. Foreigners (mainly from Moldova) are used sometimes in construction sector, but not in managerial positions, which require specialists with higher education.

²³ Yegorov I. Foreign Direct Investment in Ukraine: First Results, Tendencies and Prospects. - in Dyker D., ed.- FDI and Technology Transfer in the Former Soviet Union. - Edward Elgar, Cheltenham, 1999, pp. 155-188

8. Conclusion

Ukrainian people were actively involved in migration flows in 1990s. The country was mainly a 'donor' in this process. 'Brain drain' itself is just an indicator of much important, but rarely explored issue of allocation of talents between different spheres of activities in the economy in transition. The traditional notion of brain drain addresses the problem of the depletion of existing stock of human capital, while the notion of allocation of talents focuses on the accumulation of human capital. For Ukraine, the problem lies not in emigration itself, but in de-intellectualisation of work, and primary orientation on development of traditional sectors, such as ferrous metallurgy and coal mining. This drives young talented people and already experienced specialists out of the country. Although magnitude of brain drain from Ukraine is relatively modest if you use official statistical data. A lot of specialists are working abroad on temporary contracts for years, and the perspectives of their return are minimal. Prospects of retaining a large number of qualified specialists in the most dynamic sectors of the economy are also bleak. There are few dynamic innovative companies in Ukraine, and innovative activities of the enterprises are much lower than in neighbouring Central and Eastern European countries. It is possible to expect the Ukraine will remain a donor for other European and North American countries in the near future. This assumption is based on the patterns of allocation of talents in the Ukrainian society and tendencies of shrinking the area for application of modern knowledge in the Ukrainian economy. Parameters of the emigration are unknown, they will depend on a number of factors that were discussed above. Situation in Russia will also exert serious influence on migration flows from and into Ukraine. If Russian economy will demonstrate more dynamism, it is possible to expect substantial outflow of Ukrainian specialists to the East. Psychological and linguistic barriers are low for such emigration. On the other hand, if situation in Russia will deteriorate, some ethnic Ukrainians would decide to come back to Ukraine.

9. References

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