Education system in Ukraine: financing, ranking and reform directions

Ukraine's education system requires an overhaul since it does not meet the needs of society, socio-economic development and global trends. Although the vast majority of Ukrainian population has higher education, the quality of education in Ukraine is inferior. Inadequate implementation of educational programmes impedes and discourages education reform, which results in low ratings of Ukraine compared with other countries.

The quality of education in Ukraine and international rankings

According to the Global Competitiveness Report by the World Economic Forum, Ukraine ranks 31^{st} out of 144 countries with regard to primary school enrolment, 41^{st} in secondary education, and 13^{th} in higher professional education.

By their nature, these indicators are quantitative and demonstrate that Ukrainians are highly educated compared with other countries. However, the international rankings that assess the qualitative aspects of education and labour, including productivity, indicate a low position of Ukraine in comparison with other developed countries.

In the global human capital index, which measures the countries annually on their standard of living, literacy, education and longevity, Ukraine ranked 84 among 187 countries in 2014, 83 among 187 countries in 2013, and was among the countries with high human capital endowment (50 – 102 places). In 2013, the Human Development Index in Ukraine reached 0.733. It should be noted that in comparison with 2012 Ukraine held steady in the ranking but it lost seven notches compared to 2011, also as many in 2011 compared to 2010 (when it was 69th).

The ineffectiveness of Ukrainian educational policy is confirmed by international world competitiveness ranking, which is calculated by the International Institute for Management Development (IMD). The competitiveness of each country is calculated by combining four factors and 312 criteria. One of them takes into account the development of education system on the basis of the share of education expenditure in GDP, expenditure on education per capita, percentage of adult illiteracy and others. According to the IMD, in 2014 Ukraine took the 49th place among 60 countries. Interestingly, its ranking has not changed compared to 2013. The highest competitiveness level is in the US, Switzerland and Singapore while the lowest one is in Croatia and Venezuela.

In Ukraine, an average salary is meagre and currently stands at about UAH 4000 per month (less than US \$200), which claims Ukraine as a country with the lowest salary in Europe. Other indirect productivity indicators are also low. According to the World Bank assessment, Ukraine's GDP per capita is about US \$3000 and the gross national income of Ukraine is about US \$3500. This level of GDP per capita allows the World Bank to classify Ukraine as "a country with lower-middle income", equating it to countries such as Mauritania, Bolivia and Mongolia.

Despite the aforementioned high Ukraine's positions in international education rankings, the quality of education and its impact on productivity are marginal.

The reasons that negatively affect the development of Ukrainian education system and its quality are:

- Political instability in the country
- High level of corruption
- Reduction of GDP
- Inadequate funding for the education sector (protected items are mainly funded)
- Inefficient use of available resources and leverage
- Imperfect legal framework
- Outdated material and technical base
- High cost of credit
- Unfavourable investment climate
- Ineffective functioning of social and legal institutions
- 'brain drain abroad' and others

Rating system of educational institutions

At present, there is no uniform system of rating educational institutions in Ukraine enshrined in law.

However, until February 2015, there had been "Regulations on the national rating system of secondary education" for two years. Rating evaluation results provided by the regulation were made public in the media. Under this provision, the rating system included two levels:

- Ranking of general educational institutions according to the results of external evaluation of
 their performance was not funded by state or local budgets and was conducted on a purely
 voluntary basis. It applied criteria formed in terms of secondary school participation in
 nationwide systematic monitoring research of secondary education quality, external testing
 of graduates' knowledge as well as other expert opinions.
- Ranking of secondary schools according to the results of internal monitoring of their activities, which was based on the official data of secondary school activities introduced by the Unified State electronic database on education and implemented by a special automated information system.

Currently, there are several unofficial rankings of universities in Ukraine. The consolidated rating of Ukrainian universities complied by the informational educational resource "Osvita.ua" is among them, as well as national rating "Top-200 Ukraine", international rankings "Scopus" and "Vebometryks", each of which uses different criteria for evaluating higher education institutions.

The consolidated rating of higher education institutions of Ukraine has used the most authoritative among experts and media national and international rankings of Ukrainian universities as the initial data: "Top-200 Ukraine", "Scopus" and "Vebometyiks", each of which applies different assessment criteria. The consolidated rating summarizes universities' ranking on the version of "Top-200 Ukraine", "Scopus" and "Vebometryks".

"Top-200 Ukraine" uses aggregate indicator (integral index) to assess higher education institutions. The index is based on indicators of direct measurement (80%), expert evaluation of the

quality of graduates' training by employers and academic community (15%), and international scientometric and web metric data (5%).

There are a number of information resources ranking secondary schools in Ukraine (edumeter.com.ua, osvita.ua, etc.). However, all these ratings are based on the results of the external independent testing (hereinafter - EIT), which are published by the Ukrainian Centre for Educational Quality Assessment (http://testportal.gov.ua/).

EIT aims to determine the level of academic performance of secondary school graduates during their admission to higher education. The results of external independent testing are counted as the results of the state final attestation and examinations for admission to higher education institutions. EIT system has been actively promoted in Ukraine since 2004. In 2015, tests included the following subjects: Ukrainian language and literature, French, German, Spanish, English, mathematics, Russian, biology, history of Ukraine, physics, geography, and chemistry.

Therefore, the EIT results allow school ranking by regions as well as in the context of individual disciplines.

The system of secondary school funding

Over the last two decades, Ukrainian system of secondary education has profoundly lacked financing. Under such circumstances all other issues, including updating educational content, quality of education, and teachers' professional development, inevitably recede into the background. All these problems are generally thought to stem from insufficient funding.

Given the formal ratios, the level of education funding in Ukraine is one of the highest in the world. However, in spite of the fact that Art.61 of the Law of Ukraine "On education" defines budget allocations for education in the amount not less than 10% of the national income, it has never been applied in twenty-four years of independence. Ukraine follows traditional in crisis practice of limited use — meeting standards of education legislation to the extent that available funds allow. It is primarily due to rather inflated level of the indicator since there are few countries which spend so much on education and mostly these are island states in the Pacific Ocean: Cuba - 12.9%, Lesotho - 13.1 % of GDP).

In Europe, the highest level of education funding accounts for Scandinavian countries: Denmark -8.7% of GDP, Sweden -7.0% of GDP, Norway -6.9% of GDP, Finland -6.8% of GDP. Compared to European countries, the level of financing in Ukraine is significantly lower than in the Scandinavian countries but is about the same level as in Poland and Germany, even though the level of education funding in these countries is much higher in absolute terms.

Given absolute indicators, schooling costs to taxpayers an average €80-85 thousand in Western Europe (USD 104.7 thousand in the USA) per child. In Ukraine, where annual cost of education per pupil is about UAH 7-8 thousand, in 11 years the number amounts to UAH 77-90 thousand (given the recent devaluation of the hryvnia, this is \$4 thousand).

Thus, despite the high level of expenditure on education expressed as a percentage of GDP, the cost of education per pupil in Ukraine is more than 20 times less than in Europe.

It should also be noted that there are imbalances in financing various stages of education in Ukraine, which historically originated in Soviet times. It is specifically related to relatively low share of costs of secondary education. For example, in 2014 the share of the budget for secondary education in Ukraine was 41.5% of the budget allocation for education, for higher education -30.9%, for pre-school education -11.7% and for vocational education -6.2%. The remainder (9.7%) was spent on funding postgraduate education, adult education and other activities in education.

International experience suggests that secondary education is a priority object of funding in most leading countries of the world. Share of the costs of schooling there is twice as much as in Ukraine and is approximately 70-80% of the total expenditure on education.

Another problem related to secondary education financing is imbalance in funding within the system of secondary education, which leads to inefficient use of relatively small funds available. Specifically, chronically underfunded large urban schools are short-changed as proportionally much money is spent on smaller rural schools.

The significant factor causing this discrepancy is a small class size in rural areas. Existing stereotypes (like "no school – no village") and politicians' unwillingness to lose the rural electorate retain a highly inefficient network of rural schools.

Let us closely examine how expenditure on secondary education is set. According to Ukrainian legislation, the costs of secondary education are made up of current and capital ones. Current expenditures include salaries of employees, payroll taxes, purchase supplies and materials, etc. Capital expenditures involve acquisition of fixed assets, capital transfers, acquisition of land and intangible assets, etc. Two indicators define financing of educational institutions: the number of pupils and the number of classes. These indicators are reflected in the estimates for the two dates – January 1 and September 1. The number of pupils on January 1 is considered a contingent on September 1 of the current year. Number of students scheduled for September 1 of the planned year is based on the admission plan (pupil census in the area), grade progression and school completion.

Teaching staff salaries are based on approved payroll lists for each educational institution. Teachers' workload, experience, professional status etc. are taken into consideration. Salaries undergo revision twice a year with quarterly indexation considering inflation. Approval of payroll lists for the new academic year is carried out until September 5 and the changes for the second half of a school year are made and improved before January 10.

Financing expenditure on secondary education is as follows. Secondary schools are municipal property and accountable to the local council. The local council approves its local budget and projects education expenditure. Then the local government budget is allocated to the treasury account of district state administration, which is subject to this local council. The budget money is sent to the district financial management through the treasury system. District department of education, which is subordinate to the district administration, receives budgetary funds from district financial management through the treasury system, which are distributed to schools in the future. District department of education is the main manager of budgetary funds for educational institutions. All educational institutions are served in the district department of education. It means that they do not have their own accounts in the treasury system. Schools have both budgetary and

extra-budgetary accounts in the district department of education. So, it means that a process of school management and financing is centralized, as well as accounting schools. District department of education funds all schools that are subordinate to the department. Extra-budgetary activities of educational institutions are practically non-existent.

After Ukrainian revolution of dignity, along with other reforms, education reform accelerated. The change in the system of secondary school system is one of its outcomes. Consequently, in 2015, financial support for Ukrainian schools is based on the principle of providing **education subvention**. The need to ensure equitable funding for all schools, regardless of region, has caused changes in the system of school funding.

Previously, schools were funded from local budgets. By and large, local budgets allocated available funds and they obtained additional funds as a subvention to finance what they lacked. The situation varied in different regions as some of them could fully fund schools and some received grants at 80% or even 90%. At the same time, providing school education is the state's responsibility. School funding and a child's right to quality education cannot depend on whether they live in a rich or poor region.

School funding will now be provided through an education subvention. Specifically, all school funds will be channelled from the Ministry of Education and Science directly to regions and districts, where they will be distributed under the proper formula. The same principle of state subvention applies to personnel training.

The changes in the education reform also influenced the following financial aspects of secondary education:

- School closures. The local council will be able to close rural schools without the consent of general meeting of territorial community or referendum as it was before. Also, at least five pupils are necessary to form a class in rural schools. However, the Budget Law allows for this provision and group size in kindergartens, given the available funds.
- Salary. The sequence of bonuses and additional payments is cancelled.
- *Pension*. The pension of scientific and teaching staff drops from 80% to 60% of the relevant income, which is calculated in accordance with pension legislation.
- School meals. School meal provision is the responsibility of local budgets or, in fact, pupils' parents. Parents will pay more for children's meals in kindergartens: at least 60% in urban areas and 40% in villages. Previously, these indicators constituted less than 50% and not more than 30% respectively. In primary and vocational schools, school meals are free only for orphans, disabled children, children deprived of parental care and children from poor families.
- Reduced fares. Since June 1, 2015, free travel for preschool children, pupils and teachers in
 rural areas has been cancelled. Instead, local authorities may provide reduced fares for
 pupils, students and teachers to their places of study. Cutting reduced fares does not apply
 to disabled children, orphans, children deprived of parental care, pupils from low-income
 families and those who accompany them.

- Purchasing textbooks. Complimentary provision of textbooks at school is guaranteed only for orphans, disabled children, children deprived of parental care and children from low-income families.
- Bureaucracy. The ministry of Education and Science, like other central executive authorities, have to fire 20% of their employees and take other austerity measures.
- Reallocation of expenditures between budgets of different levels. Since 2016, village and town budgets will not provide finding for primary education (for pre-school education since 2015). Alternatively, they will be referred to a higher level district budgets, budgets of regional significance and budgets of united local communities. Funding for methodological and logistical support of educational institutions has been cut by more than a half.

Future directions of reforming the school system

The central issue in the context of school reform is enhancement of cost efficiency. Above all, it is necessary to begin to count return (profitability) of expenditure on education otherwise economic efficiency of schooling is unlikely to be achieved. The most common indicators of internal economic efficiency of schooling are set out below:

- Overall costs and share of spending on a particular level of education
- Spending per pupil
- Average cost per class and average class size
- Ratio of students and teachers

The chosen indicators are seen as the centrepiece in the course of school education reform in order to achieve European level. In general, financing education in Ukraine does not meet the purpose of its existence due to only line-item budgeting and lack of budgeting aimed at the result. The introduction of programme budgeting will enable educational institutions to submit their draft budgets as draft business plans.

The major directions in school reform are the following:

- Transition to direct school funding per capita "money follows a child". The ratio of
 financing per pupil determined by the average of last year and adjusted to inflation is only a
 method of calculating the overall city or district budget. Financing system based on the total
 subsidization of city or district is ongoing in Ukraine, so the "channelled" money does not go
 to school. Private schools do not receive budget money in accordance with the number of
 children, although the funds are allocated to all school age citizens of Ukraine by the
 regulation.
- 2. The changes in the system of remuneration of teachers and school heads and the growth of stimulating factor. As long as an archaic "lesson" system to calculate the amount of salaries (wage rates) operates, there is virtually no difference in principal and teacher's payment.
- 3. Promotion of school autonomy in financial and economic sphere and decentralization of education systems.

- 4. Encouraging public participation in school management and transition to a socially-state model of education management. In Ukraine, formally existing public bodies still play a purely decorative role.
- 5. Consolidation of school network. So far, optimization of the network in Ukraine implies closing schools, which is rapid enough. The school system continues to irrationally use financial resources (half-empty rooms, payment to too many teachers, etc.).