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Public Expenditures on Education and Health in Ukraine before and during the Global Crisis

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Abbreviations

ARC	Autonomous Republic of Crimea
CPI	Consumer Price Index
EU	European Union
EERC	Economic and Education Research Consortium
EPT	Enterprise profit tax
GDP	Gross Domestic Product
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
ILO	International Labour Organization
IMF	International Monetary Fund
ISCED	International Standard Classification of Education
LGE	Local government entities
MoH	Ministry of Health
MTEF	Medium-term expenditure framework
NBU	National Bank of Ukraine
OECD	Organization for Economic Co-operation and Development
PAYG	Pay-as-you-go pension system
PIT	Personal income tax
R&D	Research and Development
SDR	Special Drawing Rights
SIDA	Swedish International Development Cooperation Agency
TIMSS	Trends in International Mathematics and Science Study
UAH	Hryvnia, Ukrainian currency
UNDP	United Nations Development Programme
USD	U.S. dollar
UTG	Unified Tariff Grid for employees working in public sectors
VAT	Value-Added Tax
WHO	World Health Organization
WTO	World Trade Organization

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Abstract

The report analyzes the impact of the global financial crisis on public services delivery in education and healthcare. The analysis has been undertaken from the macro-perspective. Pre-crisis and crisis economic developments are outlined and fiscal accounts developments are presented. The performance of the education and healthcare sectors are described in the macro-context.

Executive Summary

During the pre-crisis period of 2000-2008, the Ukrainian economy benefited from high metals prices which kept real sector performance at an average 6.9%. Since economic performance was impressive, relatively few fiscal reforms were undertaken. The Budget Code was approved and provided the framework for the major principles of fiscal policies. In addition, the tax system was somewhat streamlined. Social security also underwent some reform. At the same time, the biggest problems of fiscal policy remained: namely, low fiscal decentralization, complex and expensive tax compliance, and accumulated VAT refund arrears. Moreover, the government ignored many regulations aimed at increasing the efficiency of fiscal spending, including regulating state aid, targeting the provision of social assistance, introducing a medium-term expenditures framework and improving capital budgeting planning.

In line with positive real sector dynamics, fiscal collections were also in good shape until the recent crisis. Since 2000, the general government revenues increased by 2.5 percentage points up to 31.4% of GDP in 2008. Naturally, spending also substantially increased up to 32.6% in 2008 in the background of the positive economic environment and good access to financial markets. Although the fiscal situation looked alright from the macro-level, the structure of public spending remained disappointing. First of all, the key troublemaker – social spending – continued to increase its share. The authorities continuously increased social standards, including a minimum pension and minimum wage which was inevitably reflected both in the pension fund balance and the consolidated budget balance. As a consequence, the share of current expenditures in the consolidated spending remained at nearly 86% of total expenditures (or 25.6% of GDP) on average during these years. On the other hand, the so called national economy outlays were predominantly concentrated on two major sectors: coal mining and agriculture. Capital expenditures remained low; throughout 2000-2008, general government capital expenditures accounted for 4.4% of GDP on average. Meanwhile during the growth years, the consolidated fiscal deficit remained at a safe level according to international standards. Only in 2004 did the deficit reach a surprisingly high 3.4% of GDP. The deficits were primarily financed at the expense of borrowings except for in 2004 and 2005, when the government succeeded in attracting substantial financing from privatization. At the same time, the level of public debt has been declining from 45.3% of GDP in 2000 to the lowest historical level of 12.3% in 2007.

The high level of centralization has been among the key problems of fiscal management. Local governments have been made responsible for a large part of spending while they have not been supported with the relevant revenues base. Personal income taxes are the only solid source of revenues for local budgets. At the same time, local outlays accounted for, on average, 42.9% of consolidated fiscal expenditures throughout 2000-2008. Nearly 70% of total local spending goes to education, health care, culture and social protection. Naturally, under such an arrangement, local governments are heavily dependent on transfers from the central budget (more than 40% of local budget revenues).

The global liquidity crunch changed the economic environment of the country. In 2008, the drop in the main Ukrainian exporting industries translated into a deep crisis for the entire economy. The harsh economic situation was further hampered by a confrontation between and within all power branches. As a consequence, fiscal revenues already started to deteriorate at the end of 2008. In 2009, the decline in fiscal collections was even sharper, which resulted in high fiscal pressure on the government. Despite its poor financial stance, the government continued its rather populist policy by increasing minimum wages, pensions and other sensitive items. As a consequence of unbalanced fiscal policy during the crisis period, the government tripled the level of public debt from 12.3% of GDP in 2007 to 34.9% by the end of 2009.

In 2010, the economy already started recovering, however, the fiscal sector situation remained far from brilliant. The budget was approved only in April at the record-high deficit of 5.3% GDP. On top of that, the authorities widely practiced advance tax payments and VAT arrears accumulated to record high levels. The planned tax collection targets have been achieved mainly due to reinforced administrative pressure and continued manipulation of the VAT refund.

Pension issues remained the key problem of the system. Demographic problems created an imbalance in the Pension Fund and the populist policy of subsequent governments only deepened the problem. The situation worsened during the crisis period. The authorities were reluctant to cut or even fix pensions due to their social role while the Fund's collections were shallow. As a consequence, the Pension Fund's expenditures increased from 15.1% of GDP in 2008 to 18.1% of GDP. The Fund's deficit increased to 6.0% in 2009. In 2010, under pressure from the IMF, the Cabinet committed to implementing pension reforms (including increasing the pension age); however, so far the government has been hesitant to implement any radical changes.

During the crisis, the Ukrainian authorities actively tried to implement anti-crisis measures. Major efforts were directed at increasing potential fiscal revenues (e.g. an increase in excise rates) and restricting fiscal expenditures (e.g. a limited increase in social standards, reduced wages, etc.). At the same time, subsidies to the Pension Fund as well as to Naftogaz increased substantially due to inherited problems. Stimulus packages, similar to those introduced in other European countries, were not approved in Ukraine due to the lack of adequate financing. High recurrent expenditures resulted in the absence of possibilities to finance large infrastructural projects, which could have somewhat stimulated economic activity in the country.

Healthcare and education are among the largest spending items. In 2009, public healthcare and education were 11.9% and 21.7% of budget spending, respectively. Though the level of spending on these two items is compatible with that of new EU members, outcomes are poor. For instance, in 2005, 20% of companies reported inadequate worker skills as a major obstacle to firm operation and growth. Poor performance can primarily be explained by deficiencies of financing principles, which resulted in the inefficient structure of sectors and inefficient services provision.

Education in Ukraine is predominantly provided by the state at all levels. Private provision of education is negligible. The education system is in a constant transition process. The authorities continue changing the number of years of schooling for secondary education (they recently reverted to an 11-year system). For higher education, the new Bologna model was defined as the target. Enrollments in Ukraine have fallen at all levels of education except for pre-school and tertiary education. The country enjoys an extensive network of education facilities; however, the number of all facilities (except pre-school) has been decreasing in recent years. Within public higher education, there is a system of "contract" education. About half of students in public higher education institutions are "contract students," meaning they pay tuition fees.

The quality of domestic education is rather low. According to the Trends in International Mathematics and Science Study independent student assessments, the knowledge of fourth- and eighth-grade students in Ukraine is lower than the international average.

The overall education system has seen limited reform. Minor reforms were mainly related to the partial commercialization of universities which were allowed to provide "contract" higher education and request that students purchase books or other equipment. Education institutions are also now authorized to earn and retain money from the rental of their facilities. At the same time, the real problem of the education system, the so-called "norms approach" which regulates the inputs to the education process (staff, materials etc.), remains unchanged.

Public expenditures on education are high and have been growing over the last few years. In 2009, expenditures were 7.3% of GDP. This level is higher than in most other transition countries as well as OECD countries. However spending on education did decrease slightly during the crisis period (by 2.5% in 2009 compared to 2008). At the same time, the distribution of the budget among different levels of education remained relatively stable. Local governments spend about 65% of the public education budget. This system works through subventions/transfers provided to the local budgets by the central government. Local governments typically bargain with the central government for this type of allocation, creating a serious transparency problem. Central budget resources directly finance higher education institutions and some vocational schools. Spending on public education has been rising over time despite negative demographic trends. A normative approach to spending planning was the key reason for such an imbalance. As a result, the Ukrainian education system suffers from overstaffing. In addition, the high level of recurrent spending in the education budget (about 95%) leaves few funds for other education-enhancing inputs such as textbooks and other goods and services, as well as for capital inputs such as laboratories, computers, internet connection and the like. As a consequence, the increase in educational expenditures has not been translated into increases in their capital components or in quality-enhancing recurrent expenditures.

The future prospects for the education system are not clear. The authorities are not addressing the most troublesome issues like the norms approach and the highly centralized management system. As a consequence, the teaching personnel is poorly paid and the quality of education is quite low. Without properly addressing of the main problems, Ukrainian education is doomed to remain stagnant.

In terms of health, Ukraine is behind most economically developed nations. Life expectancy in Ukraine declined sharply early in the transition period. The country is experiencing a rise in mortality rates, especially for adult males. Deaths among young and middle-aged men are caused mainly by "unnatural" or "external causes". Deaths for older men are mainly caused by non-communicable diseases, with cardiovascular diseases ranking first. Among infectious diseases, the major problem faced today is the spread of HIV/AIDS and tuberculosis.

Healthcare services are provided mainly through public healthcare facilities. However, private healthcare facilities are also widespread. Primary medical care is provided via a branch of district polyclinics. The second level of healthcare is represented by specialized departments of district polyclinics and polyclinic departments of city hospitals, pediatric hospitals, dentists' clinics, and polyclinic departments within disease-specific facilities. Inpatient care is provided by hospitals.

Although the number of healthcare facilities is relatively high, the clinics are in desperate need of modernization. On top of that, the skills of medical personnel are deteriorating. The healthcare workforce is ageing, especially at the primary care level, and the share of doctors nearing the retirement age is increasing. In addition, the number of nursing staff has been showing a decreasing trend. The main reason for this is the low prestige of primary care in the medical profession. At the same time a growing interest in narrow specialization has been observed as the number of graduating doctors with a specialization is increasing.

The medical care system has experienced moderate reforms since independence. Healthcare is provided free of charge and social health insurance reform has only been under discussion, but has been without any practical implications so far. A gradual reform was launched in primary health care with a transition towards a family-based system. So far, the family-based approach is the only reform initiative observed in the area.

Similarly to education, the healthcare system is financed primarily through local budgets. Local budget funds account for 70-80% of total budget spending, and the remaining 20-30% is provided by the central budget. Naturally, local governments cover the fiscal gap at the expense of central budget subventions. Throughout the crisis period, expenses on healthcare remained relatively stable. The main reason for that is that spending on medicines and public service servants' salaries are protected items in the budget. Wages and salaries constitute the largest share of public health expenditures.

Public health spending is highly inefficient in Ukraine. Similarly to education, healthcare expenses are defined based on input-based norms. In consequence, there is no possibility for local governments to adjust supply to demand in each jurisdiction. To make things worse, the Constitution prohibits closing health care facilities. Thus local governments are bound to financially maintain an oversized and largely underutilized network of health facilities.

Health status indicators for the Ukrainian population have been improving over the last few years. Life expectancy at birth has increased from 61 to 62 years for males and from 72 to 73 for females in the 2005-2008 period. Although the statistics report improvement, the healthcare system still has many unresolved problems due to the long-postponed reforms in the sector.

1. Introduction[1]

The purpose of this study is to analyze the impact of the global financial crisis on the delivery of public services in Ukraine. Although general fiscal trends are also of interest, the report mainly analyzes education and healthcare delivery.

In the report, the authors draw a historical retrospective for public finances and, in particular, for the education and healthcare sectors. General tendencies and the structure of spending in the analyzed areas were also analyzed. Particular attention was placed on crisis management and reform efforts. The authors also discuss the future perspectives of the selected types of public services delivery.

The methodological approach at the study presumes a statistical analysis of the selected sectors with subsequent analytical narrative report with simple statistical presentations. The report presents a regional, historical, institutional and policy background. The economic and social data was drawn from primary sources and was carefully analyzed.

The report consists of three parts. In the first section, the fiscal situation is analyzed, including the general picture of the Ukrainian budget system. Pre-crisis developments are also outlined. Fiscal performance during the crisis is considered within a special sub-section. The second section covers education issues, touching on general features of the system, policy reforms, spending efficiency, developments throughout the crisis and mid-term perspectives. The third section looks at similar issues in the delivery of healthcare services. At the end of the report, conclusions are provided.

The study is based on primary data from the State Treasury of Ukraine and on sector-related data from the State Statistics Committee of Ukraine. Analytical reports of the World Bank and other research institutions were also used.

[1] This paper has been prepared with the editorial assistance of Paulina Szyrmer

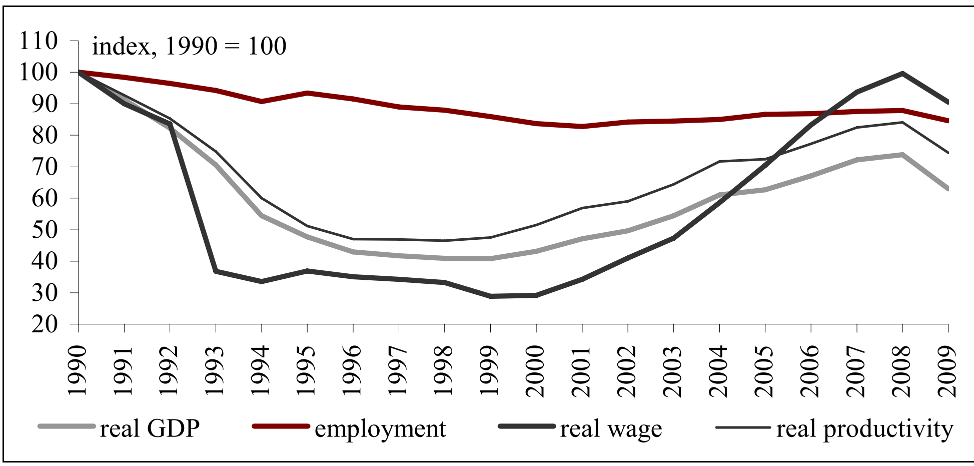
2. Fiscal situation

2.1. Pre-crisis developments

2.1.1. Economic growth between 2000 and 2008

Similar to many transition countries, Ukraine went through a period of economic deterioration, which was followed by years of economic growth. In the 1990s, output declined substantially (see Figure 1). Employment declined less as most adjustment was done through wages. As a result, labor productivity dropped. This was a period of hyperinflation, partially explained by loose fiscal and monetary policies. In particular, the fiscal deficit was largely financed by printing money and then by issuing domestic bonds. Tax arrears increased substantially, while tax exemptions and privileges were often used for supporting specific sectors.

Figure 1. Real GDP, employment, and real wages in Ukraine



Source: Lars Handrich, Oleksandra Betliy: Vor dem Kollaps. Die Sozialsysteme der Ukraine, in: Manfred Sapper, Volker Weichsel (Hg.): Schichtwechsel. Politische Metamorphosen in der Ukraine. Berlin 2010 [OSTEUROPA 2-3/2010].

The economic situation started improving in 2000. Between 2000 and 2008, the Ukrainian economy was growing by 6.9% on average (see Table 1). Economic recovery was explained by favorable world market conditions, better access to external financial markets, growth in consumption and some policy steps.

The political situation was rather unstable: during the 19 years of independence, there were 14 governments in place. Frequent personnel changes in the executive power could be one of the reasons for the lack of strategic reforms in many spheres. Besides, Ukraine had many elections during this period (Presidential, Parliamentary and elections for local self-governance bodies), on the eve of which mostly populist messages were propagated by authorities. Political instability contributed to the worsening of investment climate in the country.

Table 1. Some macroeconomic indicators

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Nominal GDP (UAH, bn)	170.1	204.2	225.8	267.3	345.1	438.7	544.2	720.7	948.1	914.7
Real GDP growth rate, % yoy	5.9	9.2	5.2	9.6	12.1	2.7	7.3	7.9	2.3	-15.1
Real final private consumption growth rate, % yoy	2.5	9.6	9.5	11.5	13.1	20.6	15.9	17.2	13.1	-14.2
Real gross fixed capital accumulation growth rate, % yoy	12.4	6.2	3.4	22.5	20.5	3.9	21.2	23.9	-1.2	-46.2
CPI, % aop	28.2	12.0	0.8	5.2	9.0	13.5	8.0	12.8	25.2	15.9
Imports of goods & services, USD bn	19.9	20.5	21.5	27.7	36.3	43.7	53.3	71.9	100.1	56.3
Imports of goods & services, % of GDP	57.4	53.8	50.7	55.2	56.0	51.0	49.5	50.6	54.9	48.0
Exports of goods & services, USD bn	19.5	21.1	23.4	29.0	41.3	44.4	50.2	64.0	85.6	54.3
Exports of goods & services, % of GDP	62.4	55.5	55.1	57.8	63.6	51.8	46.6	44.8	46.9	46.3
Average wage, UAH	230	311	376	462	590	806	1041	1351	1806	1906
Unemployment rate (ILO definition), % of economically active population between 15 and 70 years old	11.6	10.9	9.6	9.1	8.6	7.2	6.8	6.4	6.4	8.8

Source: State Statistics Committee of Ukraine.

Table 2. Some fiscal indicators

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Consolidated fiscal revenues,[2] % of GDP	28.9 (27.7)*	26.9 (25.8)*	27.4	28.1	26.3	30.4	31.6	30.5	31.4	31.5
VAT revenues, % of GDP	*5.6*	*5.1*	*6.0*	*4.7*	*4.8*	*7.7*	*9.3*	*8.2*	*9.7*	*9.2*
EPT revenues, % of GDP	*4.5*	*4.1*	*4.2*	*5.0*	*4.7*	*5.3*	*4.8*	*4.8*	*5.0*	*3.6*
PIT revenues, % of GDP	*3.8*	*4.3*	*4.8*	*5.1*	*3.8*	*3.9*	*4.2*	*4.8*	*4.8*	*4.9*
Consolidated fiscal expenditures, % of GDP	27.1	27.0	26.8	28.2	29.3	32.1	32.2	31.4	32.6	33.6
Capital consolidates fiscal expenditures, % of GDP	-	*3.1*	*3.1*	*4.3*	*6.0*	*4.1*	*4.5*	*5.4*	*4.3*	*2.2*
Consolidated fiscal balance, % of GDP	0.6 (-0.7)*	-0.3 (-1.4)*	0.7	-0.2	-3.4	-1.8	-0.7	-1.1	-1.5	-2.4 (-8.7)**

Notes:
* Indicators are provided in parentheses if privatization receipts were reported below the line. In 2000 and 2001, the privatization receipts were accounted as a source of fiscal revenues, being reported above the line. Privatization receipts were at UAH 2.1 bn in 2000 and UAH 2.2 bn in 2001.
** The consolidated fiscal deficit in 2009 was 2.4% of GDP, as reported by the State Treasury. This indicator does not include funds for bank recapitalization or short-term loans provided to the Pension Fund. If these expenditures are included, the fiscal deficit is estimated at near 8.7% of GDP.
Source: State Statistics Committee of Ukraine, State Treasury of Ukraine.

2.1.2. Major fiscal policies between 2000 and 2010

Between 2000 and 2010, fiscal policy was subject to some reform. They were related to the approval of the Budget Code, some changes in tax legislation, and social security reforms.

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[2] Consolidated fiscal revenues (expenditures) include Central and local fiscal revenues (expenditures). The revenues (expenditures) of social security funds are excluded, as they are extra-budgetary funds. The revenues of the Pension Fund and other social security funds are accumulated at special accounts at the State Treasury and are not part of fiscal revenues. The only source of financing the Pension Fund's deficit is a central fiscal transfer. Therefore, de-facto there is no much necessity to report separately the general government deficit. In turn, general government statistics is not published by the government.

In 2001, the Parliament approved the Budget Code, which clearly defined the procedure of drafting, approving, executing and amending the State Budget Law, bringing fiscal policies in Ukraine closer to the best international standards. The taxes due to central and local budgets were defined. The deficit financing items include external and domestic borrowings as well as privatization receipts.[3] After approval of the Budget Code, all budgetary funds were eliminated.[4] The Consolidated budget includes central and local budgets. Fiscal revenues and expenditures are distributed into two parts: a general fund and a special fund. The Special fund represents earmarked revenues (which reflect the financing of special targets). Expenditures are defined by economic, functional and program classification. However, a program-targeted fiscal approach was implemented only at the central level, while there were only several pilots for local budgets. At the same time, the medium-term expenditure framework (MTEF) was not envisaged by the Code. As a result, the budgetary process in Ukraine is done on a one-year planning basis, which results in the limited efficiency of fiscal expenditures. Local governments have not been receiving sufficient revenues for financing their liabilities, which resulted in the poor quality of their services and deteriorated infrastructure. In 2010, the Parliament approved a new version of the Budget Code. According to the new regulation, the MTEF will be introduced, which may result in the higher efficiency of fiscal expenditures. However, fiscal decentralization remains low even though some progress has ben made in this field.

In the beginning of the 2000s, the social security system was reformed. In particular, it is now represented by four extra-budgetary funds which deal with pension insurance, unemployment insurance, insurance in the case of temporary loss of working ability, and working accidents insurance.[5] All types of insurance are financed at the expense of the payroll tax, which is higher in Ukraine than in most other European countries (see Table 3).[6]

The Pension reform was initiated in 2003, when two basic pension laws were approved. The reform envisaged three pillars of pension system: Pay-as-you-go

[3] Before 2002, privatization receipts were accounted above the line as part of revenues.

[4] Before the reform there were several budgetary funds (e.g. Chernobyl accident fund), which were financed at the expense of assigned sources of revenues (e.g. contributions); however, their revenues were accounted as fiscal revenues of the Unified Treasury Account. As a result, money from these budgetary funds was sometimes used for financing other liabilities, while the funds lacked money for executing their own tasks.

[5] These funds have their own budgets. Their revenues are accounted on their accounts at the State Treasury of Ukraine.

[6] In 2008 the implicit tax rate on labour (personal income tax and social security contributions) was at 36.5% for the EU-27 (for details, see *Taxation trends in the European Union*, European Union, 2010), which is higher than the social security contribution rate in Ukraine even without personal income tax (flat at 15% in 2010).

(PAYG), a mandatory fully funded second pillar, and non-state voluntary pension funds (the third pillar). However, the pension reform has not yet been completed as the pension system lacks sustainability due to rapid increases in minimum pensions, a low retirement age (55 years for women and 60 years for men), a low qualification period for receiving full pension benefits (20 years for women and 25 years for men), privileged pensions to many professional and social groups, an uneven contribution base, etc. High payroll taxes, along with the low attractiveness of the social security system for employees resulted in a high share of wages paid unofficially.

Table 3. Payroll tax, 2010

	Contribution paid by employer (%)	Contribution paid by employee (%)	Total contribution (%)
Social insurance contributions	**36.76-49.7**	**3.1-3.6**	**39.86-53.3**
Pension insurance	33.2	2.0	35.2
Social insurance in case of temporary working disability and expenses associated funeral	1.4	0.5-1.0*	1.9-2.4
Social insurance against work-related accidents and occupational diseases	0.56-13.5**	0.0	0.56-13.5
Social insurance in case of unemployment	1.6	0.6	2.2

Note. * 0.5% if wage is lower than subsistence minimum, and 1% if it is higher. ** depends on the class of occupation risk.
Source: Ukrainian legislation.

The government also attempted to reform the tax system. In particular, enterprise profit tax (EPT) and personal income tax (PIT) were reformed in 2002. The EPT rate was reduced by 5.0 p.p. to 25% in 2004, while depreciation rates were increased, which somewhat improved the investment climate.

The Parliament also approved the Law on PIT, substituting the progressive PIT rate with a flat rate at 13% since 2004, and 15% since 2007. The PIT base was broadened while low-wage individuals became eligible for tax credits. Besides, some tax deductions were introduced, including education and health care spending. Even though the PIT rate was cut, the expected de-shadowing of wage payments did not happen as the payroll tax remained high.

The government also gradually reduced tax expenditures, which resulted in the growth of fiscal revenues between 2000 and 2003. Besides, in 2005 tax expenditures were substantially cut through the elimination of privileges to special economic zones and different VAT exemptions. As a result, tax expenditures were reduced by 4.4 p.p. to 3.2% of GDP between 2000 and 2005 (World Bank, 2006) and they are officially estimated at 2.5% of GDP in 2009 and 2.1% of GDP in 2010.

At the same time, VAT remains one of the biggest concerns of tax policy in Ukraine. Even though the government reduced VAT exemptions and improved its administration, this tax is characterized by large amounts of fraud. At the same time, there is a huge problem with the accumulation of VAT refund arrears by the government, which worsens the investment climate in the country and weakens the financial situation of Ukrainian exporters. In particular, VAT overdue refund arrears totaled UAH 4.2 bn at the end of 2005, increasing to UAH 12.8 bn at the end of 2008. At the end of 2009, they surged to UAH 21.8 bn (2.4% of GDP), against the background of an increasing fiscal imbalance.

Between 2001 and 2008, Ukraine reformed customs duties to become a member of the WTO. The reduction of some customs duties and the cancellation of others resulted in lower fiscal revenues from international trade in relation to GDP.

Regardless of the tax reform initiatives, the tax system remains very complex, hampering the investment climate. In particular, according to the ‘Paying taxes’ indicator of the World Bank’s Doing Business report, Ukraine was ranked 181st (out of 183 countries) in 2010. Therefore, it is not surprising that various stakeholders have been calling for a comprehensive tax reform for quite some time. After long debates, the Cabinet of Ministers submitted the Draft Tax Code to the Parliament in June 2010. The Tax Code was approved in December 2010 after a very controversial process of discussions. The Code envisages the reduction of the EPT and VAT rates, a moderately progressive PIT (with two rates), a broadening of the tax base, and administration enhancement.

At the same time, the government has not yet approved some very important documents in the fiscal sphere. The necessary laws include laws on state aid and state debt. At the same time, the non-transparent and corrupt public procurement system has been changed many times. In 2010 the Parliament finally approved the law on public procurement, which complies with most EU standards.

To sum up, between 2000 and 2010, Ukraine made some steps toward fiscal reform. The Budget Code was approved framing the major principle of fiscal policies. At the same time, the tax system was somewhat eased. However, the biggest problems of fiscal policy remained: namely, low fiscal decentralization, complex and expensive tax compliance, and accumulated VAT refund arrears, which require further reforms.

2.1.3. Fiscal revenues development between 2000 and 2008

Between 2000 and 2008, nominal consolidated fiscal revenues grew by nearly 6 times, increasing in relation to GDP by 2.5 p.p. to 31.4% due to growth of tax revenues (see Figure 2).[7] In particular, the share of tax expenditures in total fiscal revenues grew by 12.5 p.p. to 76.3%. Factors explaining revenues growth include:

- a reduction in tax exemptions;
- a change in the structure of the economy with the rapid growth of exports and imports. The increase in imports as well as better administration of customs resulted in a rapid increase in VAT revenues paid on imports as well as higher collections of taxes on international trade;
- economic growth, which resulted in higher profits of enterprises and, thus larger EPT collections;
- wage growth attributed to the better financial state of enterprises, higher fiscal revenues, as well as administrative increases in minimum wages;
- increase in consumption due to higher disposable income of households (including pensions) as well as better access to bank credits;
- an increase in excise rates for alcohol and tobacco products;
- a decline in the share of the shadow economy.[8]

Consolidated fiscal revenues increased by 2.2 times in real terms between 2000 and 2008.

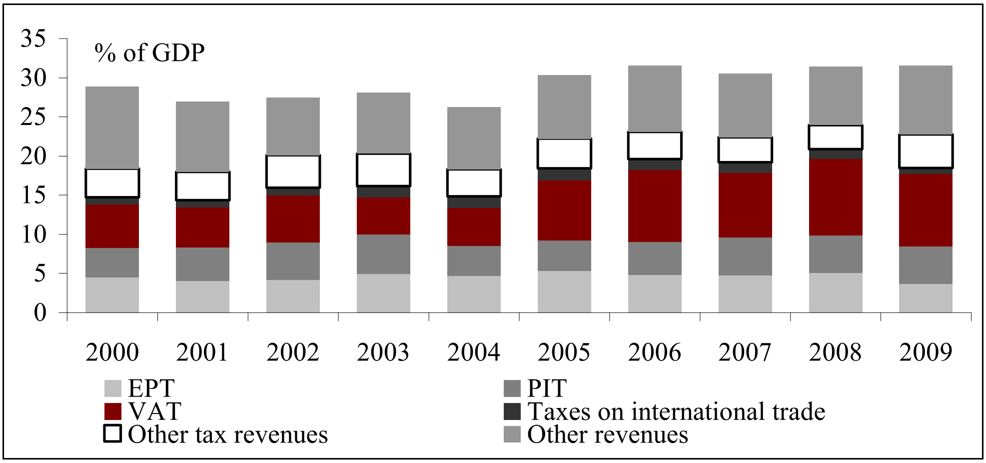
VAT revenues account for near 30% of consolidated fiscal revenues, while EPT and PIT revenues bring another one third of fiscal revenues. At the same time, the share of non-tax revenues[9] in GDP declined in 2002 due to fiscal reform, and then started gradually growing, even though their share in total fiscal revenues declined between 2000 and 2008 against the background of economic growth.

[7] Consolidated fiscal revenues, expenditures and deficit include central and local fiscal revenues, expenditures and deficit, respectively.

[8] According to the estimate of the Ministry of Economy, between 2003 and 2007, the shadow economy declined from 30.6% of official GDP to 28.8% of GDP. The IMF estimate of Ukraine's shadow economy was much higher (52% of GDP in 2005).

[9] Non-tax revenues include own receipts of budget entities, the transfer of profits of the National Bank of Ukraine, dividends of public enterprises, rent payments, gas transit fees, fines and penalties, etc.

Figure 2. Consolidated fiscal revenues



Source: State Treasury Reports.

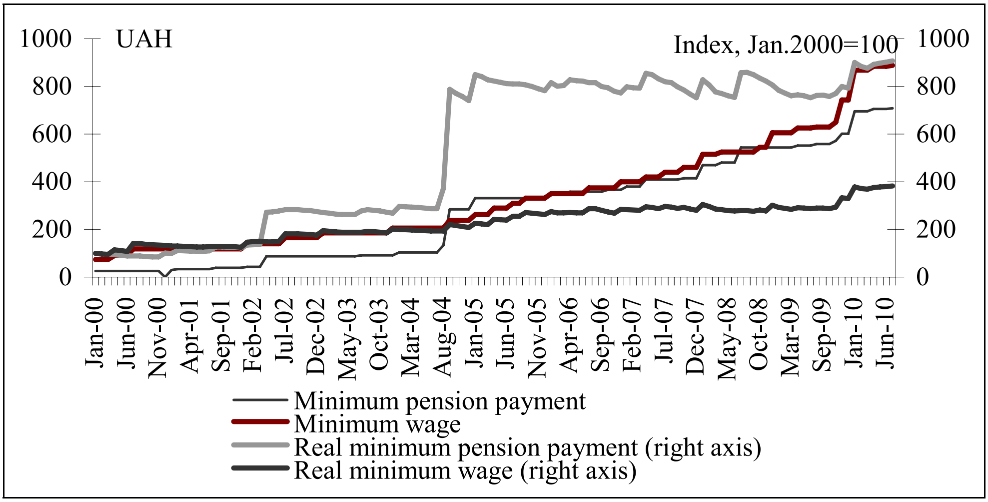
2.1.4. Consumption-oriented budgets

Between 2000 and 2008, consolidated fiscal expenditures substantially increased by 5.5 p.p. to 32.6% of GDP against the background of higher fiscal revenues and better possibilities to finance fiscal deficits. At the same time, the expenditure structure did not change much. The share of current expenditures in the consolidated fiscal expenditures remained high, at near 86% of the total (or 25.6% of GDP) on average during these years. Nearly one fifth of spending was attributed to financing social protection, including transfers to the Pension Fund. As a result, capital expenditures remained low, resulting in the deterioration of the infrastructure sectors.

During the last 10 years, the government rapidly increased social standards, including the minimum pension and the minimum wage (see Figure 3). The sharp minimum pension increase resulted in an unsustainable pension system.

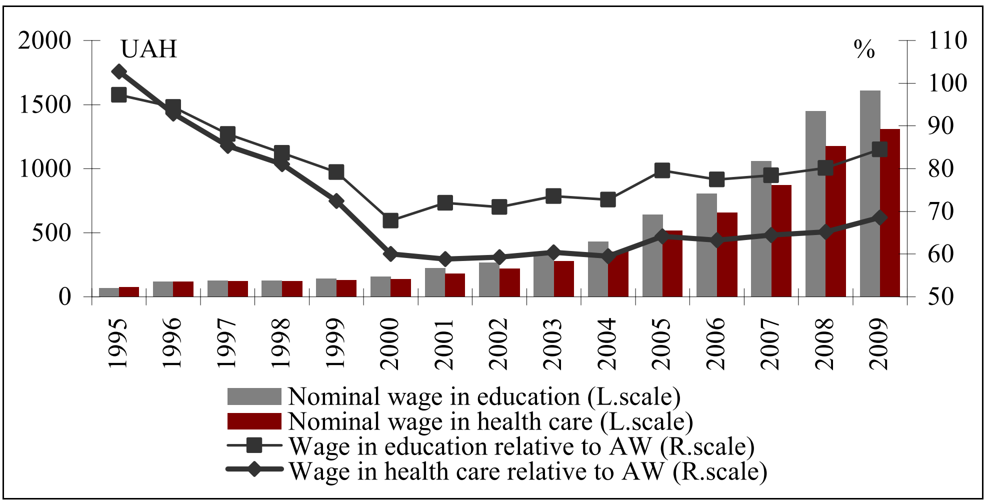
At the same time, a higher minimum wage resulted in larger wage spending in the public sector, even though its impact was somewhat restricted by first using the base salary system and then introducing a Unified tariff scale for employees in public sectors. In particular, the remuneration of employees in public sectors (e.g. education, health care, culture) is regulated by the government Resolution on the Unified Tariff Grid for employees working in public sectors (UTG). According to the UTG, the first tariff rate cannot be lower than the minimum wage, which was violated during the crisis, when the first tariff rate was kept fixed at the December 2008 level, while the minimum wage was gradually raised. This resulted in further wage compression in public sectors, as employees with salaries lower than minimum wage according to the UTG receive co-payments to the level of minimum wage (see Figure 4).

Figure 3. Minimum social standards



Source: Ukrainian legislation, own calculations.

Figure 4. Wages in the education and health care sectors



Note. AW – average wage in economy.
Source: State Statistics Committee of Ukraine.

Overall, during 2000-2008, social protection expenditures accounted for, on average, more than 20% of total expenditures (see Table 4).[10] They were lower in 2003 and 2004, but then rapidly increased in 2005 due to a surge in minimum pensions, which required the government to substantially increase the fiscal transfer to the Pension Fund. Besides, since 2005, the government has started financing birth grants at the expense of subventions to local governments as these grants were increased substantially in 2005 and could not be further paid by the State Insurance Fund in Case of Temporary Loss of Ability to Work. Social protection expenditures also include financing of privileges to different groups of the population, including assistance to low-income families, housing and utility subsidies. However, Ukraine's social welfare system is recognized as inefficient (World Bank, 2006; Handrich et al, 2008). Besides, the government lacks money to compensate all costs to providers of privileged services, which results in the worsening of the financial situation of respective companies.

Table 4. Structure of Consolidated fiscal expenditures, % of total

Code	Name of function	2001	2002	2003	2004	2005	2006	2007	2008	2009
100	General public services	17.0	14.2	13.2	12.1	10.9	11.4	10.7	10.0	10.8
170	*Debt service*	*7.3*	*4.9*	*3.5*	*3.2*	*2.3*	*2.0*	*1.6*	*1.4*	*3.2*
200	Defense	6.2	5.9	7.0	6.1	4.3	3.7	4.2	3.8	3.1
300	Public order	7.6	8.4	7.7	7.8	7.2	7.3	8.2	8.8	7.9
400	Economic activity	12.6	11.9	16.1	18.5	13.5	15.6	17.9	16.6	12.9
500	Environmental protection	1.2	1.1	1.2	1.2	0.9	0.9	1.0	0.9	0.8
600	Utilities	2.8	2.3	2.4	2.6	2.8	4.6	2.6	2.9	2.4
700	Health Care	11.6	12.5	12.8	12.0	10.9	11.3	11.8	10.9	11.9
800	Culture and Sports	2.3	2.4	2.7	2.7	2.4	2.5	2.5	2.6	2.7
900	Education	17.8	20.3	19.8	18.1	18.9	19.3	19.6	19.7	21.7
1000	Social protection	20.9	21.0	17.1	19.1	28.2	23.6	21.5	23.9	25.6
	Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: State Treasury Reports.

Spending for economic activities remains high with a focus on two major sectors: coal mining and agriculture. Support for the agricultural sector was somewhat reformed after Ukraine joined the WTO. In particular, the Ukrainian government tries to limit the 'amber box' measures by the amount agreed with the WTO.[11] A

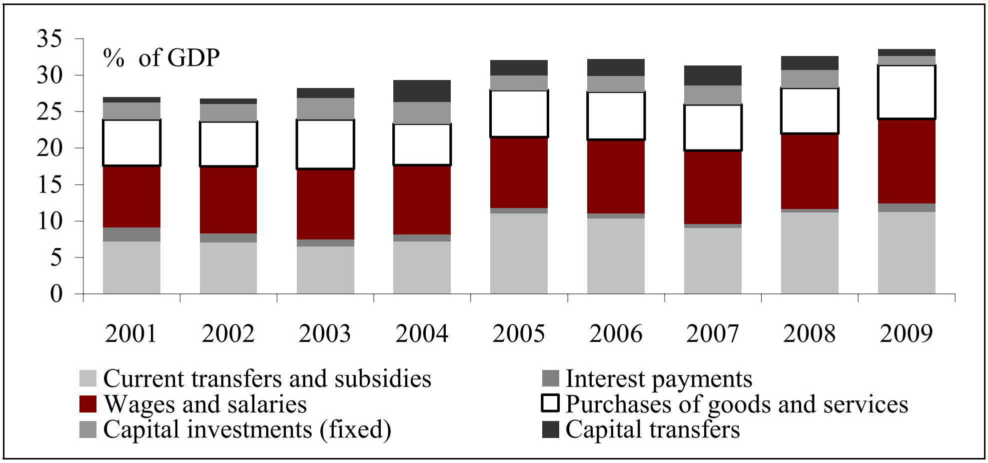
[10] According to the budget classification, social protection expenditures include financing of social assistance to different groups of the population (e.g. housing and utility subsidies, cash and in-kind privileges, birth grants) as well as transfer to the Pension Fund for paying special pensions defined in state pension programs as well as for financing the Fund's deficit.

[11] According to the WTO, 'amber box' measures includes measures that distort production and trade, primarily, price support. In turn, 'green box' subsidies must not distort trade, or

large share of assistance to agriculture is provided in the form of tax exemptions. Financing green box measures remains low.

In 2008, the Parliament approved the Law *on the Increase in the Prestige of Miners' Work*, which resulted in additional privileges to miners (including a 10% PIT rate, higher pensions, etc.). Such privileges could be considered indirect subsidies to mining companies. State aid remains inefficient, and the law regulating the issue of state support has yet to be approved.

Figure 5. Consolidated fiscal expenditures by economic classification



Source: State Treasury Reports.

High recurrent expenditures resulted in a low level of capital spending, which lags behind the level of new EU members. In particular, consolidated capital fiscal expenditures accounted for 4.4% of GDP on average between 2000 and 2008, while in new EU members they were near 10% of GDP (see Figure 5).[12] At the same time, capital investments (fixed) were at 2.5% of GDP, while the rest were capital transfers[13] from the budget to enterprises and to the population. The lack of public investments resulted in the deterioration of infrastructural sectors, namely

at most cause minimal distortion. Green box measures are also called growth-enhancing subsidies.

[12] Between 2000 and 2004, capital expenditures were at 10.4% on average in new EU members (World Bank, 2006).

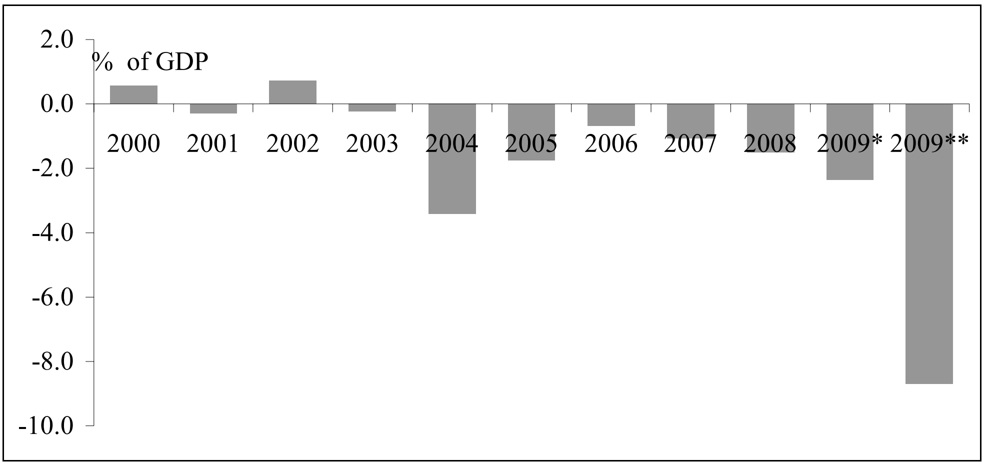
[13] Capital transfers are provided for the purchase of capital assets, the compensation of losses related to the deterioration of fixed capital, or an increase in the assets of recipients. In particular, they include transfers for road repairs, capital expenditures by municipal companies, housing repairs for disabled individuals, the construction of housing for military servants, etc.

energy, transport, housing and utility services. Overall, the World Bank estimated that public investments needed for the modernization of these sectors could total USD 100 bn over 10 years (World Bank, 2006). At the same time, capital spending is inefficient partly due to the lack of a medium-term expenditures framework.

2.1.5. Fiscal deficit under the safe level

During growth years, the consolidated fiscal deficit remained below 3%, which is defined as the threshold according to the Maastricht criteria. Only in 2004 did the deficit reach 3.4% of GDP (see Figure 6).

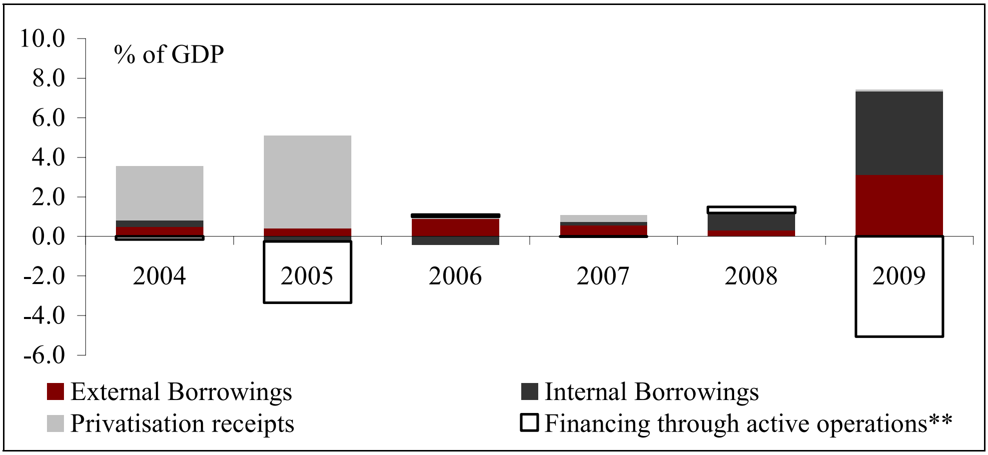
Figure 6. Consolidated fiscal deficit



Notes:
* In 2009, the consolidated fiscal deficit was at 2.4% of GDP as reported by the State Treasury. This level does not include bank recapitalization and short-term loans provided to the Pension Fund.
** According to the estimates of the Ministry of Finance, the consolidated fiscal deficit in 2009 was 8.9% of GDP if the loans provided to the Pension Fund are included.
Source: State Treasury Reports.

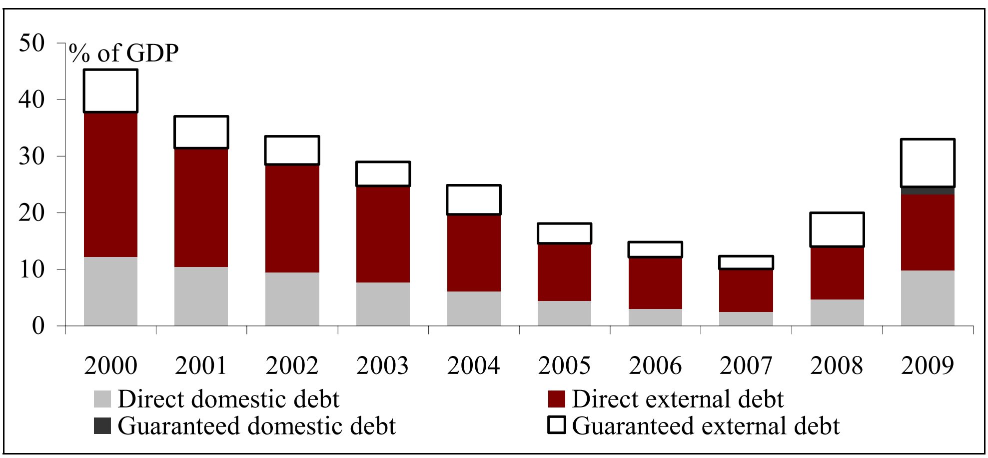
Deficits were primarily financed at the expense of borrowings except for in 2004 and 2005, when the government succeeded in attracting large financing from privatization (see Figure 7). However, between 2006 and 2009, the ambitious privatization plans were not executed primarily due to the lack of political will.

Figure 7. Sources of financing, consolidated fiscal deficit



Notes:
* In 2009, financing includes issues of domestic state bonds directed to the recapitalization of commercial banks and NJSC Naftogaz. The recapitalization is accounted twice in the Treasury report: as placement of domestic state bonds, and as acquiring shares of companies by the state.
** Financing through active operations includes financing at the expense of funds accumulated in the Unified Treasury account as well as the increase in shares in corporate companies owned by state.
Source: State Treasury Reports.

Figure 8. State debt, end of year



Source: Ministry of Finance

Between 2000 and 2007, the level of state debt shrunk from 45.3% of GDP to 12.3% of GDP against a background of limited borrowings and a growing economy (see Figure 8).[14] Guaranteed debt declined, but still remained high. State guarantees provided primarily to state companies facilitated these companies' access to the external financing required for financing investments. On average, cumulative external state debt[15] accounted for two thirds of total state debt. Already in 2008, the state debt increased to 20% of GDP as the government faced high fiscal pressure.

A large share of external debt poses foreign currency risks for the fiscal policy. Another risk for the future of fiscal sustainability is created by a large share of guaranteed debt.

2.1.6. Lack of autonomy of local budgets

During the independence years, Ukraine did not conduct administrative or territorial reform. There are several tiers of local government entities (LGEs): oblasts (including the Autonomic Republic of Crimea and the cities of Kyiv and Sevastopil), rayons (and cities of oblast importance) and villages. The number of LGEs is about 12 thousand, most of which are small (less than 1500 persons), which makes it difficult to provide quality public services to the entire population. The borders of these entities are not always clearly defined. Besides, LGEs differ substantially by level of development. It seems the new version of the Budget Code approved in 2010 has somewhat resolved another essential problem - the unclear distribution of functions between local and central governments.

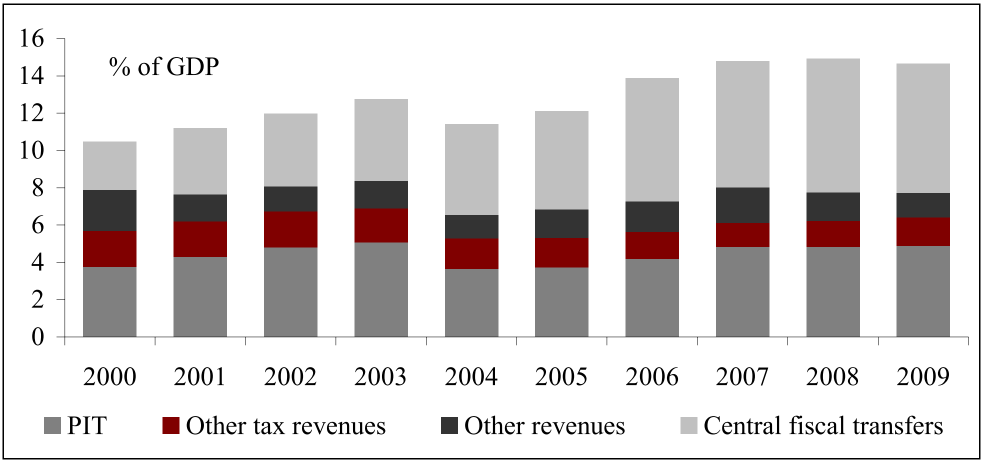
Local fiscal revenues accounted on average for 13.0% of GDP and more than 40% of consolidated fiscal revenues between 2000 and 2008. However, access to their own revenues is restricted. LGE revenues are collected from 17 taxes, including land tax, vehicle owner tax, the revenues of their own budgetary entities, the sale of LGE property and others. However, local taxes account for only around 3% of total local fiscal revenues, while local tax administration is expensive and inefficient. The Tax Code shortened the list of local taxes.

A major part of local fiscal revenues comes from central fiscal transfers. Revenues from the personal income tax (PIT), which is an assigned tax, are another essential source of financing for local budgets (see Figure 9). PIT revenues are assigned for financing delegated tasks, including the financing of education and health care. However, LGEs are not financed for losses caused by the government

[14] Besides, during this period the Hryvnia depreciated, contributing to the decline in external debt in relation to GDP.
[15] External state debt includes borrowings attracted by the government in the form of Eurobonds placements and credits from other governments and IFIs.

decisions to provide additional tax exemptions and tax privileges.[16] At the same time, property tax, which is a major source of LGE revenues in some EU countries, has not yet been introduced in Ukraine.

Figure 9. Structure of local fiscal revenues



Source: State Treasury Reports.

Since 2004, central fiscal transfers to local budgets (including subventions) have accounted for more than 40% of total local fiscal revenues. There are several types of transfers from the central budget to local budgets:

- Equalization grants (the main fiscal transfer) – inter-governmental transfers to equalize the recipient budget's revenue capacity;
- Subventions – inter-governmental transfers of funds to be used for set purposes through procedures defined by the authority that decides to provide the subvention (mostly provided for financing social and investment programs).

The calculation of equalization grants is formula based. In particular, the need for financing different functions is accomplished on the basis of special norms. The norms define staffing and resources needed on the basis of the facility structure (e.g. in health care, these are the number of doctors derived from the number of beds). Therefore, these norms are based on the oversized (not restructured) network, but not on actual demand for services and, thus, provide little incentives for LGEs to reduce excessive facilities. Such regulation has resulted in the limited flexibility of local budget allocations (World Bank, 2008).

[16] In particular the government reduced the PIT rate for miners from 15% to 10% starting in 2009.

Subventions for social programs are provided for financing social assistance to low-income families, compensations to providers of privileged services to different groups of the population, the provision of housing and utilities subsidies. However, LGEs still lack money for financing all social privileges and benefits envisaged in the Ukrainian legislation. As a result, providers of privileged services to the population (e.g. the “Ukrzaliznytsia” rail-road company, the “Ukrtelecom” telecommunication operator and others) are not fully compensated for the services provided.

At the same time, capital subventions are not transparent and lack predictability. As a result, the absence of a MTEF does not allow the LGEs to plan capital expenditures for several years ahead. Besides, capital subventions are predominantly provided on the principle of co-financing, which results in further inequality between LGEs as poorer local governments do not have sufficient funding of their own for projects.

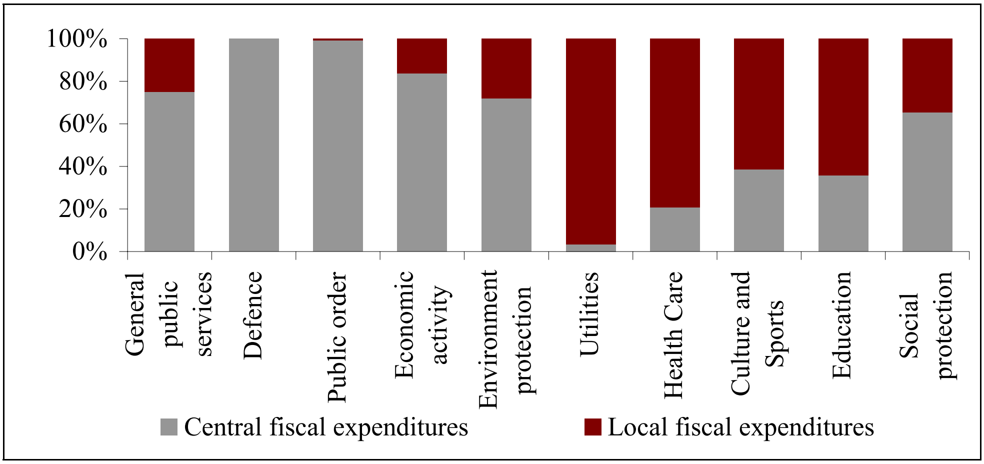
Effective legislation regulates the distribution of inter-governmental transfers across the different levels of government only down to the rayon level. The distribution of transfers between the towns of rayon importance, villages, and settlements is subject to the decisions of rayon councils. This issue was partially resolved in the new version of the Budget Code, which will become effective in 2011.

Local governments finance a significant portion of public expenditures (see Figure 10). Between 2000 and 2008, local fiscal expenditures accounted for, on average, 42.9% of consolidated fiscal expenditures. Financing of important services such as education, health care, culture, and social protection account for nearly 70% of total local fiscal spending, including inter-governmental transfers. In particular, LGEs are responsible for financing all education establishments except higher education. The share of local fiscal expenditures directed at financing the utilities sector was on average at near 6%, even though this sector is almost fully financed by the LGEs. As LGEs continuously lack money for investments, the infrastructure in the utilities sector has deteriorated. Social protection is financed more from the central level as it is more centralized.

Local governments are restricted in taking decisions on expenditure allocation and administrative measures in most sectors, including health care and education (World Bank, 2008), while decisions taken centrally rarely take into account local peculiarities. For example, employment limits and wage setting in LGEs as well as the supply of medicines and health equipment purchases are regulated at the central level.

Overall, the traditional problems of LGE budgets are: lack of resources, overlapping functions and lack of decentralization.

Figure 10. Fiscal expenditures by source of financing in 2009



Source: State Treasury Reports.

2.1.7. Loose fiscal policy – one of the major weaknesses

Overall, between 2000 and 2008, fiscal policy was expansionary. Rapid increases in social standards, including increases in the minimum wage and minimum pension, resulted in a high share of recurrent expenditures, reducing the government's maneuverability to cut or restrict the growth of spending despite insufficient fiscal revenues. At the same time, state aid remained inefficient and non-transparent. The unreformed tax system as well as the incomplete pension reform and the low level of fiscal decentralization were weaknesses of the fiscal system. At the same time, the VAT, which is one of the largest sources of fiscal revenues, largely depends on trade patterns and, at the same time, is subject to massive fraudulent behavior.

The consumption orientation of public spending resulted in low capital outlays. As a result, infrastructural sectors deteriorated already before the crisis. The efficient capital spending was also hampered by the absence of an MTEF, as the financing for many projects was not completed due to planning in only a one-year time frame. At the same time, the lack of reforms in education and health care resulted in obsolete infrastructure in these sectors and poor quality of services, which negatively effected human capital development in Ukraine.

Thus, the Ukrainian economy had major fiscal problems before the crisis, which made it impossible to introduce active fiscal measures to stimulate economic recovery during the crisis.

2.2. Fiscal performance during the crisis

2.2.1. Sharp economic decline in 2009

The world economic crisis in 2008 resulted in a drop in demand for Ukraine's major exports, namely steel, chemical products and machine building production. It also restricted access to external financing in the Ukrainian corporate sector. Already in the fourth quarter of 2008, real GDP declined by 7.8% yoy, while in 2009, it dropped by 15.1%. The more rapid plunge in economy activity in Ukraine compared to neighboring countries can be explained by several factors. First, the Ukrainian economy is open economy with a high share of exports, which are not diversified (Movchan, 2009). In particular, in 2008, metals and related products accounted for 40% of exports. However, this sector has not been modernized, which resulted in the poor quality of its production. Low productivity and efficiency are also problems in other sectors, like machine building, which suffered substantially due to the drop in external and internal demand.

Real final consumption in Ukraine dropped by 14.2% in 2009 due to a decline in real disposable income against a background of net credit repayments. At the same time, gross fixed capital accumulation plunged by 46.2% due to a lack of financing explained by restricted financing and lack of bank credits. Public investments also declined as the economic crisis resulted in lower fiscal revenues.

A harsh economic situation was further exacerbated by a confrontation between and within all power branches. As a result, an unstable political situation resulted in a lack of effective anti-crisis policy steps, which should have been undertaken by the coordinated efforts of the President, government, Parliament and the NBU. The situation was exacerbated by the Presidential elections in the beginning of 2010.

Overall, the sharp economic contraction in Ukraine revealed internal problems (Burakovskiy, Betliy, 2009), especially the non-diversified exports and imports. The low level of modernization and old technologies used in many sectors decrease Ukraine's competitiveness. The delay of structural and institutional reforms (e.g. tax reform, pension reform, reform of the health care and education systems, etc.) also contributed to the sharp decline. The absence of an efficient social welfare system meant the poorest people were not protected from the crisis. The government found it difficult to implement efficient anti-crisis policies with an unreformed economy and limited funding.

In October 2008, the Ukrainian balance of payments suffered from capital outflows and a sharp fall in exports receipts.[17] Despite several billions of USD in

[17] MEMU Supplement, No.6 (104), June, 2009.

NBU interventions, the hryvnia sharply depreciated. As a result, Ukraine asked for IMF assistance. Consequently, the IMF and Ukraine signed a Stand-by Agreement of SDR 11 bn. The approved program was primarily aimed at ensuring macroeconomic stabilization and the soundness of the banking sector. However, in 2009, due to fiscal problems, half of the second tranche and the third tranche (total amount of USD 4.7 bn) were allocated to the state budget. However, in autumn 2009, the IMF refused to transfer subsequent tranches as Ukraine sharply increased social standards in violation of the Program's requirements. Cooperation was renewed in late July 2010, when the IMF and Ukraine signed a new SDR 10 bn Stand-By Agreement. This became possible after the government implemented respective measures, including a budget sequester, an approval of laws on the regulation of the natural gas market, enhanced NBU independence, etc.

The economy started slowly recovering in 2010. In the first three quarters of the year, real GDP grew by 4.7% as compared to the same period in 2009. While real private final consumption started to recover, investments remained stagnant. At the same time, the volatile demand for Ukrainian exports resulted in a rather moderate growth of industries as compared to their drop in 2009.

2.2.2. High fiscal pressure during the economic crisis

Already at the end of 2008, fiscal revenues started deteriorating against the background of the economic crisis. However, the government still succeeded in executing the planned revenues figure. Despite the obvious economic decline, the Parliament approved the State Budget Law for 2009 with fiscal parameters based on an optimistic macroeconomic forecast. In particular, real GDP growth was estimated at 0.4%. As a result, planned fiscal revenues and expenditures for 2009 were higher than actual fiscal parameters in 2008.

Naturally, the drop in economic activity at the beginning of 2009 resulted in a sharp decline in most sources of fiscal revenues, which resulted in strong fiscal pressure on the government. In particular, EPT collections declined as compared to 2008 due to financial losses faced by many enterprises, while PIT revenues decreased against the backdrop of decline in gross wages due to lower nominal wages and employment. Lower imports and consumption resulted in a drop in VAT revenues. The lack of sufficient financing resulted in the rapid accumulation of VAT refund arrears from UAH 12.8 bn as of the beginning of 2009 to UAH 21.8 bn as of the beginning of 2010. At the same time, nearly one third of the actually refunded VAT was paid to Naftogaz to compensate for lower gas tariffs in Ukraine than what was paid for imported Russian gas. To increase potential fiscal revenues, the government gradually increased the excise rate for alcoholic and tobacco products as well as rent payments.

Even though fiscal revenues appeared to be lower than in 2008, for each month of 2009 the government continued reporting the execution of monthly fiscal plans. As a result, the government did not sequester the budget in 2009 even though it was clear that the fiscal targets would not be met.

In fact, the government and the Parliament were doing the opposite. Several amendments to the State Budget Law for 2009 were adopted, primarily increasing expenditures even if most of them remained only declarative due to insufficient financing. In particular, the planned financing of the EURO-2012 was increased. It was suggested that it be financed at the expense of an advance transfer of the NBU profits, which were overestimated.

In November, the opposition factions amended the Budget Law for financing the Law on higher social standards at the expense of redistributing funds from debt servicing. However, the envisaged additional funds for wages, pensions and social assistance were insufficient. The first tariff rate in the Unified tariff scale was not increased, resulting in further wage compression in the public sector.

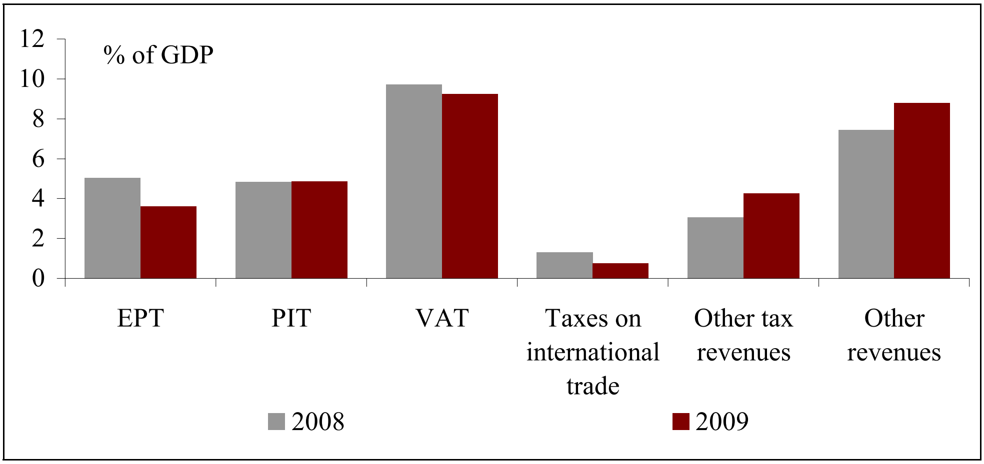
Overall, major tax revenues in 2009 were below 2008 levels in nominal terms, except for excise revenues, which increased due to higher excise rates (see Figure 11). Tax revenues also declined in relation to GDP to 22.7%. At the same time, non-tax revenues increased by 13.9% in nominal terms due to one-time sources of revenues, which included the refinanced loan by Ukravtodor.[18] The transfer of the NBU profits also increased. Besides, the government included the received IMF assistance into fiscal revenues, while according to international standards this is a deficit financing item. Overall, nominal consolidated fiscal revenues declined by 3.1% in 2009.

Lower revenues put government financing of major liabilities at risk. As it was rather difficult to restart the privatization process due to harsh economic conditions and an unstable political situation, the government increased domestic borrowings, which still did not provide sufficient funding. As a result, the government urged the IMF to allocate funds to the budget under the Stand-by arrangement. A large share of IMF installments was spent *de facto* in a non-transparent way on

[18] "Ukravtodor" (State Road Service of Ukraine) is the central government executive agency which administrates Ukraine's roads. The Agency is included into the budget in a special fund. In particular, revenues from import duties and excise for oil products and vehicles as well as transport duties are earmarked for the activities of Ukravtodor. In 2009, the Agency refinanced the previously received loan. This amount was reported in a special fund of the budget both as revenues and as expenditures, even though by international standards, it seemed more appropriate that it be reported in deficit financing.

pensions and other liabilities, even though they were provided to fund the country's external liabilities. As a result, the deficit surged to 8.7% of GDP in 2009 (not taking into account funds for bank recapitalization).[19] By the end of 2009, state debt reached 33.0% of GDP as compared to 12.3% in the end of 2007.

Figure 11. Consolidated fiscal revenues in 2008 and 2009



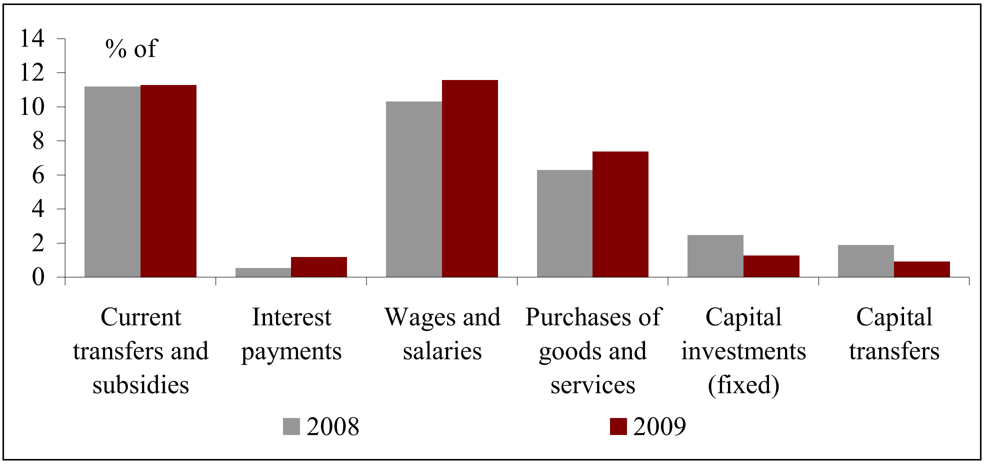
Note. * including SDRs as revenues.
Source: State Treasury Reports.

The budget in 2009 became even more consumption oriented. Current expenditures reached 93.5% of total consolidated expenditures, which was 6.8 p.p. more than in 2008. Wage spending increased against a background of higher minimum wages (see Figure 12). Spending on interest payments on debt more than doubled, reaching 1.2% of GDP due to the high amount of domestic borrowings attracted at high yields. At the same time, capital spending dropped by 51.5% in nominal terms in 2009 to 2.2% of GDP, which is low by international standards. Therefore, public investments did not become the driver for economic recovery in Ukraine as happened in many other countries.

Thus, in 2009 the government was challenged by fiscal instability. Despite the decline in revenues, the government did not sequester the budget. To finance major liabilities, the government rapidly increased domestic and external borrowings.

[19] At the same time, the State Treasury reported the deficit at 2.4% of GDP, which does not include short-term loans to the Pension Fund.

Figure 12. Consolidated fiscal expenditures in 2008 and 2009



Source: State Treasury Reports.

2.2.3. Fiscal policy in 2010

In 2010, for the first time since 1997, Ukraine started out the year without fiscal plan due to the Presidential election campaign. The State Budget Law for 2010 was approved only in April 2010. The Law targeted the fiscal deficit at 5.3% of GDP, not taking into account funds for bank recapitalization. However, fiscal pressure remained high especially due to the rapid increase in minimum pensions and minimum wages. In addition, the government allowed Naftogaz to pay zero VAT rate on imported gas.

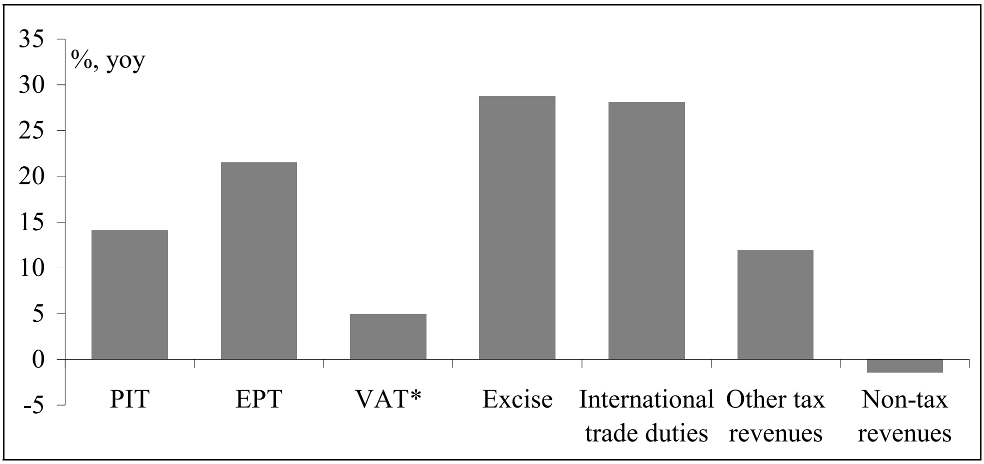
By June it became clear that the approved plan was too ambitious. As a result, in early July the Parliament approved amendments to the State Budget Law sequestering the budget. The targets for VAT and EPT revenues were reduced. At the same time, expenditures that were to be financed from the special fund were, for the most part, reduced. The central fiscal transfer for financing the Pension Fund's deficit was reduced against the background of broadening the contribution base.[20] The resulting planned deficit was reduced to 4.99% of GDP. The deficit was to be financed at the expense of external borrowings (including the IMF loan), domestic borrowings, and privatization receipts.

[20] In particular, the persons on the simplified taxation became eligible to pay pension insurance contribution at least at the level of the minimum contribution starting in July. Additional revenues to the Pension Fund were estimated at near UAH 3 bn by the Ministry of Finance.

The budget continued being consumption oriented due to the high share of recurrent spending including large wage payments and a transfer to the Pension Fund. However, the government increased capital spending as compared to 2009.

Larger spending was financed at the expense of an increase in revenues and running a deficit. In 11 months of 2010, consolidated fiscal revenues increased by 9.5% as compared to the same period of 2009 due to higher tax revenues (see Figure 13). Net VAT revenues increased by 4.9% yoy as the government refunded VAT not only with cash, but also with a special issue of VAT-bonds.[21] The PIT and EPT collections improved with the better economic situation. At the same time, non-tax revenues remained close to the levels of the previous year.

Figure 13. Growth in consolidated fiscal revenues in 11 months of 2010 as compared to the same period of 2009



Note. * Including VAT refunds conducted through VAT bonds.
Source: State Treasury Reports.

The government continued increasing its debt in order to ensure the financing of major liabilities. Already in June, Ukraine attracted USD 2.0 bn from the Russian VTB Bank. At the end of July, Ukraine received USD 1.0 bn from the IMF. According to the new Stand-by agreement, another billion US dollars was allocated for budget purposes at the end of the year as the Ukrainian authorities fulfilled most of the obligations. Additionally, the government placed Eurobonds at USD 2 bn in September and USD 0.5 bn in December. At the same time, the gov-

[21] In August 2010, the Ministry of Finance issued four tranches of VAT bonds provided to the enterprises that had demonstrated VAT refunds arrears as of January 1, 2010. The total current outstanding amount of VAT bonds was UAH 16.4 bn. Bonds carry semi-annual 5.5% p.a. coupons, and 10% of the principal is repaid with each coupon payment.

ernment rapidly increased domestic borrowings. The amount of domestic state bonds outstanding almost doubled by the end of 2010. Overall, state debt increased by nearly 35%.

Therefore, the fiscal situation in 2010 remained difficult, requiring further adjustments. In particular, following the IMF requirements, the government had already approved an increase in natural gas tariffs for the population as well as for heat generating companies. As a result, Naftogaz's deficit, which is financed from the budget, was restricted to 1.0% of GDP, thus reducing the pressure on the fiscal balance of the country.

2.2.4. Unsustainable pension system

The pension system in Ukraine has many drawbacks and weaknesses, including uneven participation in the system as well as privileged provision of pensions to certain population groups. There are a number of legislative documents that set special rules for pension calculations that are not fixed in the main Pension law. These special pension programs, including higher pensions for miners, as well as pensions for retired military servants and judges, are financed through a special central fiscal transfer to the Pension Fund. Besides, the only source for financing the deficit of the Pension Fund is a central fiscal transfer. Indeed the Pension Fund deficit occurred due to populist government decisions, which were not followed up by the respective broadening of the contribution base and the liquidation of certain privileges.

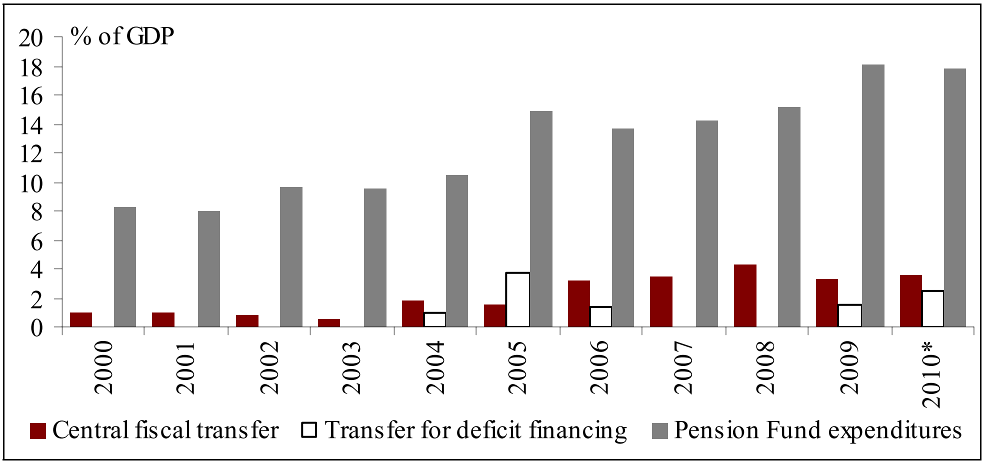
The situation worsened during the crisis. Gross wages, which make up the foundation for the payment of pension insurance contributions, declined at the end of 2008 and beginning of 2009. As a result, the Pension Fund faced liquidity problems, which were resolved by short-term loans provided by the State Treasury. Although this was not a new practice for Ukraine, in 2009, loans were provided at higher volumes than ever before. In particular, in 2008, the Pension Fund did not their UAH 4.7 bn loan to the Treasury, which was provided at the end of the year to ensure pension payments at the beginning of 2009. In 2009, the Pension Fund did not repay UAH 17.4 bn worth of loans.

In 2009, the Pension Fund's expenditures increased from 15.1% of GDP in 2008 to 18.1% of GDP,[22] which is high by international standards. Such an increase could be explained by rapid minimum pension increases as well as by the decline in nominal GDP. At the same time, the total central fiscal transfer, including loans provided

[22] As compared to the Fund's expenditures at 8.3% of GDP in 2000.

by the State Treasury, accounted for nearly 27% of the Fund's spending, which signals the necessity to introduce immediate reforms (see Figure 14).[23]

Figure 14. Central fiscal transfer to the Pension Fund**



Note:
* Planned figures.
** The figures for 2008 and 2009 do not include loans provided by the State Treasury for covering short-term liquidity gaps of the Pension Fund.
Source: State Treasury Reports.

The situation remained difficult in 2010, when minimum pensions were raised again. The total central fiscal transfer was increased to UAH 64.5 bn, which is higher in nominal terms than the total funds transferred to the Pension Fund in 2009 including loans; however, the total transfer will somewhat decline in relation to GDP to nearly 6.0%.

The unsustainable pension system poses substantial risks for fiscal policy. A high central fiscal transfer to the Pension Fund signals the necessity to approve immediate steps towards pension reform. According to the new Stand-by agreement with the IMF, Ukraine promised to gradually increase the retirement age for women (from 55 years to 60 years old), increase the minimum required insurance period, and increase the qualification period for receiving full pension benefits. It is likely that some privileged pensions will also be restricted.

[23] The cumulative central fiscal transfer includes: 1) transfer for financing special pension programs, including pensions to retired military servants, judges and miners; 2) transfer for financing the Fund's deficit; 3) short-term loans from the State Treasury provided for financing the Fund's short-term liquidity shortages. The Pension Fund is obliged to repay only the third type of transfer (short-term loans), even though in 2009 and 2010, part of such loans were written off in the State Budget Laws.

2.2.5. Anti-crisis fiscal policies

During the crisis, Ukrainian authorities approved several anti-crisis legislative acts, which did not solve the pre-existing fiscal problems.[24] Already at the end of 2008, the government approved the decision to cut spending on state administration, introducing a moratorium on new spending items, and restricting public procurement. Even though the State Budget Law for 2009 was approved on the basis of an optimistic macroeconomic forecast, it restricted social standards and wage growth.

The State Budget Law for 2009 envisaged the creation of a Stabilization Fund (with a UAH 20 bn budget), which was supposed to be used for financing most capital spending. However, the creation of a Stabilization Fund remained merely declarative, as its annual spending was reported to be zero by the State Treasury.

To compensate for revenue losses from major taxes, the government gradually increased excise rates on alcoholic and tobacco products. Some rent payment rates were also increased. Such steps resulted in higher fiscal revenues from excises and rent payments. Besides, in March 2009, the government introduced a 13% import duty surcharge on some types of products (namely, automobiles and refrigerators). However, the impact of such a surcharge on fiscal revenues was limited. In September 2009, this surcharge was cancelled under heavy pressure from the international community.

Throughout 2009, the government also supported Naftogaz, whose high budget deficit was financed from the central budget. Besides, as the soundness of the banking sector was at high risk, the government took the decision to recapitalize several banks, namely Ukreximbank and three system banks including Rodovid, Kyiv and Ukrprombank.

In order to ensure the sustainability of the Unemployment Insurance Fund, the Parliament approved some measures related to the labor market, which complicated the registration of people as unemployed and envisaged more stringent rules concerning job seeking, participation in public works, retraining, etc.[25] Such measures restricted the growth of the registered unemployment rate. At the same time, the payment of partial unemployment benefits and the provision of wage subsidies remained low due to the lack of adequate financing of these programs. The lower registered unemployment rate also restricted the number of persons receiving low-income benefits and housing and utility subsidies, as the registration

[24] This section is partially based on the Analytical report 'Coping with the Effect of International Financial Crisis: Searching for Proper Policy Response', IER, 2009.
[25] See Supplement to the MEMU, No.5-2009.

of unemployed people in the State employment centre was defined as one eligibility criteria for state social assistance.

Overall, fiscal policy measures during the economic crisis were limited by the deficiencies of the system. Most measures were directed either at increasing potential fiscal revenues (e.g. an increase in excise rates) and restricting fiscal expenditures (e.g. a limited increase in social standards, reduced wages, etc.). As a result, stimulus packages, similar to those introduced in other European countries, were not introduced in Ukraine.

2.2.6. Fiscal transparency as a cost of the crisis

At the end of 2008 and in 2009, the government seemed to be reluctant to publicly recognize the existing fiscal gap. Even though fiscal revenues in the beginning of 2009 were lower than during the same respective period of 2008, their over-execution was officially stated. At the same time, the planned revenues for 2009 were higher than actual receipts in 2008. Therefore, it was likely that monthly plans had been 'manually' adjusted after the actual monthly figures had become available.

During that fiscal year, the budget was supported significantly by one-off revenues. Besides, the government reported IMF loans as revenues even though they are, in fact, a deficit financing item. Another major cause of deteriorating fiscal transparency in 2009 relates to unreported State Treasury loans to finance the Pension Fund's liquidity shortage. A large share of the IMF tranche received in 2009 was *de facto* used for paying pensions.[26] At the same time, the broader deficit estimate for 2009 would reach 11.4% of GDP if the accumulated VAT refund arrears and bank recapitalization were taken into account.

The availability of fiscal statistics was also restricted in 2009. In particular, for most of the year, regular information on the funds available at the Unified State Treasury Account and the Treasury reports on budget execution were not available.

At the moment, most information is once again available. However, some data, which are to be open to public according to OECD and IMF standards, still have not been provided. These are, in particular, monthly (or at least quarterly) plans of fiscal revenues and expenditures.

[26] According to the requirements of Stand-by Arrangements they were supposed to be spent for serving external debts.

2.2.7. Fiscal sustainability - the issue for the future

Fiscal sustainability is of high concern for Ukraine. Even though the state debt to GDP ratio remains moderate by international standards, its pace of growth is troublesome. Fiscal problems are exacerbated by the unreformed pension system, which results in a large deficit of the Pension Fund. Besides, the unreformed energy system also contributes to higher fiscal expenditures. High recurrent expenditures do not allow the government to increase capital expenditures to the level of new EU members. As a result, the situation in infrastructural sectors worsens substantially.

During the crisis, public debt surged from 20% of GDP at the end of 2008 to 35% of GDP at the end of 2009 against the background of sharp hryvnia depreciation and new domestic and external borrowings. State debt further rapidly increased in 2010 due to substantial external and domestic borrowings. At the same time, state capital outlays remain low, while state debt also crowds out private investments. In particular, in 2009 and 2010, the share of domestic state bonds in commercial bank holdings increased from 30% at the end of 2008 to 40% at the end of 2010. At the same time, bank crediting remained stagnant. Low capital investments hamper further economic development.

Therefore, it is not surprising that bringing fiscal policy back onto a sustainable path was the hot topic of discussions between the IMF and Ukraine within the new Stand-By Arrangement. According to the agreed program, the government promised to conduct structural reforms which would stimulate economic recovery. Specifically, the government promised to conduct tax and pension reforms. The steps towards better performance of the energy sector are expected. Only in the case of successful reforms is the government likely to return to fiscal sustainable policies. Otherwise, the country will be very challenged by repayments of the received IMF loans beginning in 2013.

3. Education

3.1. Key Sector Indicators

In Ukraine, the state is the main provider of education at all levels. Private provision of education services is negligible. Non-public schooling covers only a marginal fraction of enrollments, except for higher education where about 14% of the total number of students are enrolled in private institutions.

Table 5. Ukraine's education system as compared to the International Standard Classification of Education (ISCED)

Level of education according to ISCED	ISCED code	Duration	Ukraine's equivalent level of education
Pre-primary education	0	3-4 years	Pre-school education
Primary education or first stage of basic education	1	4 years	1-3(4) grades of general secondary school
Lower secondary or second stage of basic education	2	5 years	5-9 grades of general secondary school
Upper secondary education	3	2 years	10-11 grades of general secondary school
Post-secondary non-tertiary education	4	1 year	Vocational school
First stage of tertiary education	5A	5-6 years	Higher education of III-IV accreditation levels[27]
	5B	2-3 years	Higher education of I-II accreditation levels
Second stage of tertiary education	6	3 years	Graduate schools

Source: State Statistics Committee of Ukraine.

Ukraine's education system recently underwent a transition from the former 10-year system of primary and secondary education to a 12-year system. However, the new ruling Party of Regions changed it to 11-year system; the corresponding law was passed by the Parliament on July 6, 2010. The same law made pre-school edu-

[27] Accreditation –awarding a higher education institution the right to conduct a particular type of educational activities related to higher education and training, according to the standards of higher education, as well as state requirements for staffing, research methodology and logistics; the accreditation level also presumes the level of capacity of higher education to pursue a particular type of educational activity related to higher education and qualifications; accreditation levels are assigned by the Ministry of Education.

cation compulsory in Ukraine. Children aged five and above are obliged to attend pre-school education facilities. Table 5 shows how the Ukrainian education system is related to the International Standard Classification of Education (ISCED).

Enrollments in Ukraine have fallen at all levels of education except pre-school and tertiary education (see Table 6). The enrollment decline in primary and secondary education is the result of falling enrollment ratios (see Table 7) and a shrinking school-age population (see Table 8). On the contrary, higher education enrollments have been expanding rapidly, with current coverage rates higher than in many new EU member states.

Table 6. Enrollment in Ukraine during 2000-2009, persons (according to ISCED education levels)

	ISCED code							
	0	**1**	**2**	**3**	**4**	**5A**	**5B**	**6**
2000/01	983,001	2,065,348	3,579,702	1,381,980	178,523	1,402,904	528,041	24,426
2001/02	968,034	2,047,085	3,425,454	1,389,180	178,674	1,548,049	561,265	25,362
2002/03	973,535	1,960,512	3,251,458	1,392,475	175,667	1,686,912	582,855	26,454
2003/04	976,781	1,850,734	3,068,479	1,378,631	173,465	1,843,831	592,917	28,326
2004/05	996,481	1,945,715	2,698,222	1,344,605	187,690	2,026,726	548,466	29,683
2005/06	1,031,701	1,753,689	2,611,426	1,284,837	185,266	2,203,830	505,331	31,181
2006/07	1,080,882	1,647,847	2,493,102	1,215,634	176,445	2,318,553	468,029	32,666
2007/08	1,137,488	1,573,458	2,367,061	1,131,463	172,073	2,372,462	441,336	33,915
2008/09	1,194,546	1,531,943	2,227,918	1,055,877	169,199	2,364,541	399,332	34,820

Source: State Statistics Committee of Ukraine.

Table 7. Gross and net enrollment ratios, 2005-2008

Year	**Gross pre-primary enrollment ratio**			**Net pre-primary enrollment ratio**		
	Total	Male	Female	Total	Male	Female
2005	86	88	84	-	-	-
2006	90	92	88	-	-	-
2007	94	96	93	-	-	-
2008	98	100	96	-	-	-
	Gross primary enrollment ratio			**Net primary enrollment ratio**		
2005	108	108	107	91	91	90
2006	102	102	102	90	90	90
2007	100	100	100	90	90	90
2008	98	98	99	89	89	89
	Gross secondary enrollment ratio			**Net secondary enrollment ratio**		
2005	92	95	88	82	85	80
2006	93	94	93	84	83	84
2007	94	94	94	84	84	85
2008	94	95	94	85	84	85

Source: http://stats.uis.unesco.org/.

Table 8. School-age population, 2007-2009

Age group	2007	2008	2009
6-18	6,444,476	6,154,012	5,912,733

Source: State Statistics Committee of Ukraine.

Ukraine has an extensive network of education facilities. The network encompasses 15,508 pre-school education facilities, 20,576 primary and secondary (general secondary) schools, 861 higher education facilities, 781 graduate schools, and 975 vocational schools. The number of all education facilities (except pre-school) has been decreasing over the last several years (see Table 9).

Table 9. Education facilities, 2005-2010

Year	Pre-school, ths.	Secondary, ths.	Vocational	Higher (I-II)	Higher (III-IV)
2005/06	15.1	21.6	1023	606	345
2006/07	15.1	21.4	1021	570	350
2007/08	15.3	21.2	1022	553	351
2008/09	15.4	21.0	1018	528	353
2009/10	15.5	20.6	975	511	350

Source: State Statistics Committee of Ukraine.

According to the Law on Education, higher education institutions in Ukraine are grouped into six types: universities and academies (fourth level of accreditation), institutes and conservatories (third and fourth level of accreditation), colleges (second level of accreditation), and technical schools (first level of accreditation). Vocational schools are considered post-secondary but non-tertiary education. In Ukraine there are 861 higher education facilities: 127 vocational schools, 136 technical schools, 231 colleges, 198 universities, 58 academies, 110 institutes, and 1 conservatory.

Graduate schools are comprised of so-called “aspiranturas” and “doctorunturas”, which are either under the umbrella of higher education institutions or research institutions. The higher education programs are currently transitioning from five-year “specialist” programs to the new Bologna model of four-year bachelor’s programs, and graduate programs are transitioning to the master’s and doctorate levels. Within public higher education, there is a system of “contract” education which is equivalent to private universities operating within public universities. About half of the students in public higher education institutions are “contract students”, paying fees for their studies. The number of “contract” students is regulated centrally; the maximum percentage of contract students among newly admitted students in each institution should not exceed 50 percent.

The responsibility for managing higher education institutions is fragmented across many ministries. The Ministry of Education and Science is responsible for generic education policy, including the elaboration of input norms that are meant to control higher education resource allocation. The Ministry of Finance is responsible for setting and enforcing recurrent expenditure standards. The Ministry of Labor and Social Policy sets the standards for faculty compensation.

Table 10. Availability of teachers and facilities, academic year 2009/10

Education level	Number of facilities	Number of teachers
Pre-school education	15,508	138,613
State	*15,012*	*136,524*
Private	*496*	*2,089*
General schools (primary and secondary education)	20,576	521,743
State	*20,358*	*516,974*
Private	*218*	*4,769*
Higher education	861	201,296
State	*674*	-
Private	*187*	-
Graduate education	781	-

Source: State Statistics Committee of Ukraine.

Quality control

Until recently there were no standardized performance tests that would allow an assessment of the quality of educational outcomes. In 2007, the Ministry of Education and Science made an effort to implement independent student assessments through the full roll-out of the Trends in International Mathematics and Science Study (TIMSS), for which Ukraine signed up in 2005. The TIMSS is an international assessment of the mathematics and science knowledge of fourth- and eighth-grade students around the world. The average mathematics scores for Ukrainian fourth- and eighth-graders (469 and 462 correspondingly) were lower than the TIMSS scale average (500). In science the average scores for Ukrainian fourth- and eighth-graders were a bit higher (474 and 485 correspondingly), but still below the TIMSS average. Ukraine will also take part in TIMSS 2011. Thus, over time, TIMSS will allow an assessment of quality dynamics. This represents a critical milestone in establishing a baseline for performance and quality measurement in education in the country.

3.2. Policy reforms

The education system is managed by the Ministry of Education and Science. The Ministry is responsible for the elaboration of education policy and its execution. Although local governments are an integral part of today's education system structure, in practice the system is highly centralized both financially and administratively. The Ministry of Education and Science coordinates 24 education departments of the oblast state administrations and education departments of the Autonomous Republic of Crimea (ARC) and the Kyiv and Sevastopol city state administrations. These regional departments, in turn, coordinate downwards through rayons and cities (the second tier of local government) and villages (the third tier of local government).

Local governments at all three levels have certain expenditure responsibilities assigned in the education sector. In broad terms, small towns and villages are in charge of pre-school and, in some cases, primary education; rayons and cities are in charge of general secondary education (includes primary); oblasts and cities of special status are in charge of technical and vocational schools; and the central government is in charge of higher education.

The overall education system has seen limited reform. Apart from the intergovernmental reform (through the Budget Code), which changed and clarified, to some extent, the education responsibilities of local governments, the rest of the reforms have been reactions to short-term budgetary constraints in the late 1990s and thus have had marginal impact. These reforms included:

- providing "contract" higher education within public universities for students with entry scores below the threshold for budget-financed students admission;
- requiring students to purchase textbooks and other educational materials that were previously provided for free;
- allowing schools to raise and retain funds through the rental or sale of unneeded facilities and the provision of paid extracurricular courses.

The Ministry of Education and Science retains control over most decision-making; local governments are incapacitated to make the needed market-led structural adjustments. The problem is that the Ministry still establishes the so-called "norms" regulating inputs such as staffing (teaching and non-teaching), teaching hours, materials required, etc. Most of these norms authorize budget formation at the school level irrespective of the number of children enrolled or school-age population in the jurisdiction. These norms have their roots in the Soviet planned economy system, and they remain unchanged.

Instead of eliminating the ‘Soviet norms’ that underlie the major systemic inefficiencies, the subsequent governments began by changing primary and secondary education (general secondary schools) through regulating its duration.

3.3. Spending Trends

Public expenditures on education are high and have been growing over the last few years. They grew from 6.15% of GDP in 2007 to 7.3% of GDP in 2009. This level of expenditures is higher compared to most other transition and OECD countries.

Table 11. Public expenditure on education as % of GDP. International comparison taking into account population demographic structure

Country	Population aged under 15, (%) 2008	Total public expenditure on education as % of GDP, 2007
Austria	15	5.40
Bulgaria	13	4.13
Croatia	15	4.07
Germany	14	4.50
Hungary	15	5.20
Italy	14	4.29
Latvia	14	5.00
Lithuania	15	4.67
Poland	15	4.91
Czech Republic	14	4.20
Estonia	15	4.85
Romania	15	4.25
Ukraine	14	6.15

Source: Eurostat, http://budget.rada.gov.ua.

In nominal terms, spending on public education increased in 2007 by 31% compared to 2006. In 2008 public education spending increased 37% compared to 2007. However, in 2009, it grew by only 9%. In real terms[28], public education spending increased by 12% in 2008 compared to 2007, but dropped by 2.5% in 2009 compared to 2008.

The share of each level as a percent of total public expenditures in education has varied little since 2002. General secondary schools (primary and secondary

[28] Adjusted for consumers’ inflation, base year=2007.

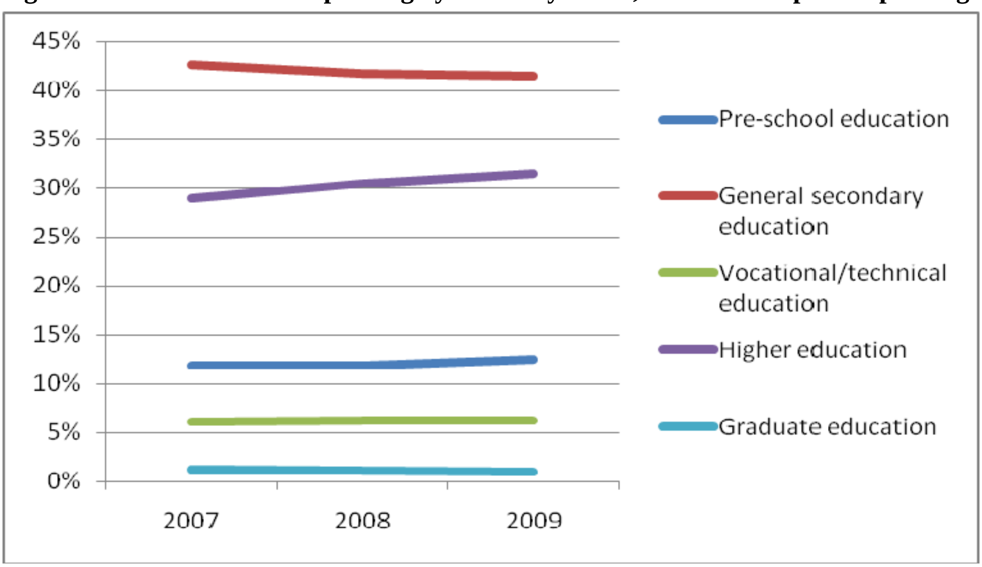
education) account for over 40% of total expenditures on public education The second largest subsector is higher education, which absorbs 30% of total government funds (see Figure 15).

Table 12. Spending on public education in Ukraine, by sector, million UAH

	2007	%GDP	2008	%GDP	2009	%GDP
Pre-school education	5258	0.73	7215	0.76	8325	0.91
General secondary education	18850	2.62	25409	2.68	27641	3.02
Vocational/technical education	2676	0.37	3767	0.40	4108	0.45
Higher education	12828	1.78	18553	1.96	20966	2.29
Higher education institutions of I-II accreditation levels	*2749*	*0.38*	*3987*	*0.42*	*4651*	*0.51*
Higher education institutions of III-IV accreditation levels	*10079*	*1.40*	*14566*	*1.54*	*16316*	*1.78*
Graduate education	505	0.07	668	0.07	666	0.07
Educational activities in out-of-school hours	1804	0.25	2439	0.26	2784	0.30
Education facilities material support	180	0.02	186	0.02	186	0.02
Research and development	219	0.03	331	0.03	286	0.03
Other education facilities and measures	2014	0.28	2391	0.25	1812	0.20
Total	**44334**	**6.15**	**60959**	**6.43**	**66774**	**7.30**

Source: http://budget.rada.gov.ua.

Figure 15. Public education spending dynamics by sector, as % of total public spending



Source: http://budget.rada.gov.ua.

Local governments at all three levels (villages, rayons, oblasts) have certain expenditure responsibilities in the education sector. Local governments spend about 65% of the public education budget. The bulk of local government expenditures for pre-schools and general secondary education is financed through the intergovernmental finance system. This system works through subventions/transfers provided to the local budgets by the central government. There is a gap-filling equalization block (non-earmarked) transfer, which encompasses all of the main delegated functions (i.e., education, health, social care services, culture, sports, and administration). There are also subventions provided strictly for specific purposes (under specific programs). Theoretically, local governments can use equalization transfer receipts as they see fit. Subventions for specific purposes are most often provided for capital expenditures, such as renovations, new equipment, etc. The procedure for the selection of capital projects for funding from state budget subventions is usually regulated by ad hoc Cabinet of Ministers resolutions that are approved annually during the budget cycle. Local governments usually bargain with the central government for these subventions, creating a serious transparency problem.

Central budget resources directly finance the higher education institutions and some vocational schools. Central government budgets for the institutions which are directly managed by the Ministry of Education and Science are negotiated by the Ministry directly with each institution.

Table 13. Spending on public education in Ukraine, by source of financing, million UAH

	Central budget	% GDP	Local budgets	% GDP	Total spending	% GDP
2007	15150	2.10	29184	4.05	44334	6.15
2008	21554	2.27	39405	4.16	60959	6.43
2009	23926	2.62	42848	4.68	66774	7.30
2010 I-III	19714	2.51	35907	4.58	55621	7.09

Source: http://budget.rada.gov.ua.

Spending on public education has been rising, despite Ukraine's negative demographic trends. Ukraine's birth rates have been falling significantly since independence and consequently more recent student cohorts are smaller than in previous years. This should have an effect on the total levels of spending, especially on primary and secondary education, as the demographic changes are first noticed at the primary level before translating into lower intakes at higher levels of education. However, this is not the case in Ukraine. The rise in spending was mainly driven by wage increases and the failure to adapt staffing and network facilities to the shift in demand for education reflected in declining enrollments. The increases in real wages in the sector drove most of the overall increase in public spending on education.

Out-of-pocket payments in education are common in Ukraine. Out-of-pocket payments take place at all levels of education with various degrees of transparency. In the case of pre-school and general secondary education, the government undertook a positive step in formalizing certain payments. This formalization implied the creation of so-called "charitable funds" managed by schools. These funds collect formal fees from parents for certain textbooks and extracurricular activities. This model has the potential for increased transparency but the experience has been mixed. Some charitable funds publicize and monitor the implementation of the activities they finance, while others do not.

On the informal side, schools often collect uniform payments from students and provide them to the school principal for a variety of items, such as uniforms, school facilities renovations, learning materials, etc. Such payments go unrecorded in most cases, providing limited transparency and accountability.

In the case of higher education, close to half of the students ("contract" students) pay their tuition in a formal manner. Informally, a variety of payments exist, the most substantial ones being at the stage of admission. They might serve several purposes, for example, receiving a more positive evaluation or entering a desired department. Most of them are associated with corrupt behavior. There are also payments made to obtain additional tutoring, which are a result of low teacher salaries.

Average wages in the education sector are provided in the table below. Teachers' salaries grew substantially in recent years, reducing the gap between the average wage in the sector and the economy-wide average wage. However, the sector average still remains below the economy average.

Table 14. Wages in the education sector, 2000-2009

	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Monthly average wage in education sector, UAH	156	224	267	340	429	641	806	1060	1448	1611
Education wage as a share of economy wide average, %	67.83	72.03	71.01	73.59	72.71	79.53	77.43	78.46	80.18	84.52

Source: State Statistics Committee of Ukraine.

3.4. Efficiency of Spending

The education sector of Ukraine, like other sectors, inherited considerable inefficiencies resulting from the absence of hard budget constraints and the lack of efficiency incentives in the planned economy. The limited reforms since independence have not effectively addressed the causes of inefficiencies.

The inefficiencies are rooted in the input-based school budget formation. The inputs, especially concerning the number of administrative and support staff, are regulated by centrally set norms. Some such norms are given below:

- Secretary: 0.5 - if the total number of classes ranges from 8-10; and 1 – if there are 11 or more class groups;
- Librarian: 0.5 – if there are less than 30 class groups, 1 – if there are 30 or more class groups;
- Head of library: 1 – if the number of class groups is more than 11;
- One cleaner per 500 square meters;
- One coat room attendant per 200 coat spots in the school.

As a result, the Ukrainian education system suffers from overstaffing. Consequently, budget funds are spent inefficiently on the wages and salaries of largely unneeded workers. Ukraine's average student/teacher ratio is low compared to other countries in the region. Currently, this ratio equals 8.6 in general secondary education. However, the new Order №1308-10 registered by the Ministry of Education and Science on December 22, 2010 forbids hiring new personnel in general secondary schools starting from September 1, 2012.

Table 15. Student/teacher ratio in general secondary education, 2005-2010

	2005/06	2006/07	2007/08	2008/09	2009/10
Student /teacher ratio	9.94	9.53	9.15	8.81	8.61

Source: State Statistics Committee of Ukraine.

Moreover, the problem is aggravated by the falling enrollments due to negative demographic trends. The number of enrollees has been decreasing significantly (in primary and secondary education), while the number of teachers has also been falling but to a much lesser extent. Thus, from 2000/01 to the 2009/10 academic year, the number of students in general secondary schools fell by 34%, while the number of teachers in these schools decreased by only 9.5%[29]. The natural reduc-

[29] Source of data: State Statistics Committee of Ukraine.

tion of teaching staff due to retirement is being offset by new hiring. The system continues to re-hire teachers who have reached pension age, while continuing additional regular hiring. The continued re-hiring of retiree teachers (and new hiring) is carried out to fulfill the current normative of staffing.

Largely because of these systemic issues, the increase in educational expenditures has not been translated into increases in their capital component or in quality enhancing recurrent expenditures. The large share of the budget spent on wages and utility expenditures leaves few funds for other education-enhancing inputs such as textbooks and other goods and services, as well as for capital inputs such as laboratories, computers, internet connection and the like. Recurrent spending constitutes about 95% of total education expenditures from the state budget. Spending on instructional materials and teacher training, which are essential to ensure the quality of education, is limited. Moreover, investments in the maintenance and repair of educational facilities and other capital outlays are low due to the pressures of increasing recurrent spending.

Table 16. Education spending structure by economic classification, million UAH

	2004		**2005**		**2006**		**2007**		**2008**		**2009**	
	mln UAH	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**
Total spending	**18343**	**100.0**	**26816**	**100.0**	**33793**	**100.0**	**44349**	**100.0**	**60968**	**100.0**	**66774**	**100.0**
Recurrent expenditures	16698	91.03	25018	93.30	31392	92.89	41148	92.78	56676	92.96	64304	96.30
Wages	*8598*	46.87	*9655*	36.00	*12219*	36.16	*16195*	36.52	*22050*	36.17	*24770*	37.10
Charge on payroll	*3118*	17.00	*3519*	13.12	*4341*	12.85	*5809*	13.10	*7881*	12.93	*8912*	13.35
Utility services	*1545*	8.42	*1424*	5.31	*1854*	5.49	*2659*	6.00	*3396*	5.57	*4435*	6.64
Capital expenditures	1635	8.91	1784	6.65	2393	7.08	3186	7.18	4283	7.02	2470	3.70
Equipment and long-term use materials	*765*	4.17	*619*	2.31	*722*	2.14	*889*	2.00	*1111*	1.82	*722*	1.08
Capital construction	*157*	0.86	*89*	0.33	*176*	0.52	*310*	0.70	*301*	0.49	*149*	0.22
Capital renovations	*681*	3.71	*370*	1.38	*626*	1.85	*952*	2.15	*1531*	2.51	*817*	1.22

Source: Finance Ministry of Ukraine.

3.5. Developments during the Crisis

In nominal terms, public spending on education was growing throughout the crisis. In 2007 and 2008 the spending growth rate was more than 30% annually, but in 2009 it dropped sharply to 9%. As a share of GDP, public spending on education also went up from 6.15% in 2007 to 6.43% in 2008, and finally up to 7.3% in 2009. Correspondingly, as a share of GDP, public spending grew in almost all sub-sectors of education except for graduate education, research and development, and education facilities material support, where spending stayed more or less at the same level. Public spending on education as a share of GDP dropped only for the residual category of "other education measures and facilities".

The intra-sector allocations pattern has been relatively stable throughout the crisis. The main expenditure category in Ukraine' education system remained general secondary education (primary and secondary education). The share of public spending on general secondary schools decreased slightly from 43% in 2007 to 41% in 2009 of total public education spending. However, despite the decreasing trend in general secondary education enrollments, per student spending did not decrease. On the contrary, it increased from 3.5 UAH in 2007 to 5.7 UAH in 2009. The second largest expenditure category – higher education – increased its share in total expenditures from 29% in 2007 to 31% in 2009. Per student spending in higher education increased as well from 4.6 UAH to 7.6 UAH. Spending on pre-school education stayed the same – at 12% throughout 2007-2009. The share of expenditure on graduate and vocational education also remained the same – at 1% and 6% of total government funds, correspondingly. R&D's share in total spending contracted from 0.5% in 2007 to 0.4% in 2009.

3.6. Mid-term Outlook

Most Ukrainian schools are not listed in the top rankings of world universities. Only the National Shevchenko University and Kyiv Mohyla Academy, arguably the best schools in Ukraine, feature in the reputable Ranking Web of World Universities,[30] in 1,283rd and 1,440th place, respectively, out of 12,000 in 2010. This is not just the problem of higher education; the quality of general secondary education, especially in rural areas, is also getting worse.

[30] http://www.webometrics.info/

The main reasons for the deteriorating quality of education are: low salaries of the teaching personnel, which, consequently, creates disincentives for talented professionals to go into the education sector; government "norms" underlying the major inefficiencies in financing and operating the education system; excessive government interference in the decision-making process at the school/university level.

Greater autonomy for education institutions is the easiest step forward towards a better quality of education in Ukraine. For example, universities should be able to decide for themselves which language or course to teach without government interference.

The deteriorating quality of Ukrainian education is a major problem that the government should urgently address. Substantial reforms that would bring about administrative and pedagogical adjustments to meet the changing demand in light of Ukraine's European and global integration is needed. However, such reforms are unlikely to take place soon, mainly due to the lack of political will.

Enrollments will decline further as the school-age population continues to shrink. Moreover, decreasing enrollments will soon reach the higher education sector as well, since the generations born in the 1990s, when birth rates fell sharply, are approaching the age of higher education entry.

In real terms, public spending on education is likely to decrease. In nominal terms, it might increase at a slow pace, and this will most likely be driven by an increase in the wages and salaries of education workers. The available data on education spending for the first three quarters of 2010 already supports this hypothesis (see Table 13).

As for the intra-sector allocation of funds, there will most likely be a shift in spending from general secondary education to pre-school education. This will be driven by the recent change in the general secondary education duration (reverting back to an 11-year system), and by the changes in the pre-school system (going from optional to compulsory pre-school education).

4. Health

4.1. Key Sector Indicators

Ukraine falls behind economically developed nations in health and life expectancy indicators. Life expectancy in Ukraine declined sharply in the early years of the transition. In fact, Ukraine is one of the few countries that had higher life expectancy rates in the 1960s than it has today. Ukraine's early transition period experienced a rise in mortality rates, especially for adult males. As a result, life expectancy declined sharply and has yet to recover to the pre-transition level.

Table 17. Life expectancy, 2008

Countries	Life expectancy at birth/male	Life expectancy at birth/female	Life expectancy at birth/both sexes
Sweden	79	83	81
United Kingdom	78	82	80
Poland	71	80	76
Romania	70	77	73
Georgia	67	76	72
Ukraine	**62**	**74**	**68**
Russian Federation	62	74	68
Tajikistan	66	69	67
Kazakhstan	59	70	64
Turkmenistan	60	67	63
EU average	**75**	**81**	**78**

Source: WHO statistics.

The latest infant mortality rate in Ukraine is twice as high as rates in the western half of the WHO European Region. However, it shows a clear decline in recent years. The maternal mortality rate is still higher than the average for Western countries, but well below the average for countries in the eastern half of the Region.

Mortality rates exceed birth rates in Ukraine. In 2009, the mortality rate amounted to 15.3, while the birth rate amounted to 11.1 per 1,000 individuals. Young and middle-aged men faced the largest increases in mortality rates after the transition period. Most of the deaths in this age group are caused by "unnatural" or "external" causes, which include accidents, poisonings, injuries, suicides, and alcohol-related diseases.

Table 18. Infant, under-five, and maternal mortality, Ukraine

Year	Infant mortality rate (probability of dying by age 1 per 1000 live births)	Under-five mortality rate (probability of dying by age 5 per 1000 live births)	Year	Maternal mortality ratio (per 100 000 live births)
2006	20	24	2000	25
2007	14	16	2008	15
2008	14	15		

Source: WHO statistics and www.moz.gov.ua.

The main cause of mortality in Ukraine are non-communicable diseases with cardiovascular system diseases ranking first. Unintentional injuries and neuropsychiatric conditions are the second most important in the burden of disease for males and females, respectively. Among infectious diseases, a major problem faced today is the spread of HIV/AIDS and tuberculosis.

Table 19. Cause-specific mortality, Ukraine

	Aged-standardized mortality rates by cause (per100 000 population)[31]				
	Non-communicable of which:				Communicable
	total	cardio-vascular	cancer	injuries	
2002	891	637	139	135	
2004	881	632	127	130	61

Source: WHO statistics.

4.1.1. Health care facilities

In 2009 there were about 2,800 in-patient and 8,800 out-patient facilities, and over 16,000 feldsher-midwife centers. The private healthcare sector is represented by nearly 3,500 private health care facilities and about 30,000 private practitioners.

Table 20. Number of polyclinics, ths.

	1990	2000	2005	2009
Number of polyclinics	6.9	7.4	7.8	8.8

Source: State Statistics Committee of Ukraine.

[31] Rates are age-standardized to WHO's world standard population.

4.1.2. Primary healthcare

Primary healthcare is provided within a branched structure (adult and children's polyclinics, departmental healthcare structures, women's consultations, rural ambulatories); and is organized according to the district based principle, which means that the area assigned to a polyclinic is divided into districts. The key providers of primary care are district physicians and pediatricians. The standard number of individuals is 1,700 per one physician, and 800 children per one pediatrician. Due to the reorganization of some rural hospitals into ambulatories, the number of polyclinics has been increasing.

4.1.3. Secondary and tertiary healthcare

Out-patient services at the secondary level are provided by specialized departments in district polyclinics and polyclinic departments of city hospitals, pediatric hospitals, dentists' clinics, and polyclinic departments within disease-specific facilities. In Ukraine there is no strict division between primary and secondary (specialized) health care services. Patients can go to specialists without a district physician's referral. Key facilities providing tertiary out-patient care are healthcare facilities at the regional level.

4.1.4. In-patient care

The number of hospitals per 100,000 people is significantly higher in Ukraine than in neighboring European countries that are intensively reforming their healthcare systems, such as Poland and Hungary. Despite the fact that in 1996-1997 the number of beds was significantly reduced, the number of beds per 10,000 individuals remains high.

Table 21. Number of hospitals and beds

	Number of hospitals (ths)	Number of beds per 10,000 people
1991	3.9	135.2
2000	3.3	95.0
2005	2.9	95.2
2009	2.8	94.2

Source: State Statistics Committee of Ukraine.

The large number of inpatient facilities and hospital beds is a misuse of the limited healthcare resources. This limits the possibilities for the introduction of modern medical technologies. Taking into account that most health facilities are in desperate need of modernization, new equipment would come in handy.

4.1.5. Human resources

An analysis of the availability of specialists reveals a growing trend. However, only about 80% of doctors' positions are filled. Nursing staff has been showing a decreasing trend. Nurses leave the health care sector for other sectors of the economy, primarily because of low wages and a lack of opportunities for career development.

Table 22. Wages in the health sector, 2000-2009

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Monthly average wage in health sector, UAH	138	183	223	279	351	517	658	871	1177	1307
Health wage as a share of economy wide average, %	60.00	58.84	59.31	60.39	59.49	64.14	63.21	64.47	65.17	68.57

Source: State Statistics Committee of Ukraine.

The healthcare workforce, especially at the primary care level, is showing an ageing trend; the share of doctors of retirement age is increasing. This is caused by the imbalance in training of new personnel; the medical profession, especially in primary care, is losing prestige, while the number of graduating specialized doctors is increasing. Ukraine provides training for doctors in as many as 123 specialties, which significantly exceeds the number of medical specialties in other European countries (Great Britain – 24; Sweden -28).

Table 23. Doctors of all specialties and nurses per 10,000 people

	1990	1995	2005	2009
Number of doctors of all specialties	44.0	45.1	47.9	49.1
Number of nurses	117.5	116.5	106.2	102

Source: State Statistics Committee of Ukraine.

4.2. Policy Reforms

4.2.1. Government goals and state guarantees

Ukraine has retained the Soviet tax-based approach, in which free medical care is provided to the public. The Constitution of Ukraine declares that “state and community health institutions provide medical services free of charge; the existent network of such institutions may not be reduced.”

The Constitution also secures the right of citizens to health insurance and further guarantees that the state “encourages the development of health facilities of all forms of ownership.”

Based on the legislation, the main principles of the healthcare system include:

- Priority of disease prevention and development of primary healthcare;
- Multi-channel funding (budget funds, health insurance, savings of citizens, charitable contributions and other funds not prohibited by the law);
- Decentralization and development of self-management of health facilities;
- Private medical practice;
- Necessity of establishing a health insurance system that should be funded by the state budget, funds of enterprises and institutions, personal funds of citizens, etc.

The Verkhovna Rada (Parliament) of Ukraine builds the legislative foundation for healthcare by setting goals, establishing budget guidelines, creating a system of regulatory bodies and approving a list of national health programs.

The government is the dominant player in the health care provision system in Ukraine. The vast majority of preventive and curative health services are provided and financed by the state through general revenues and through different levels of government. Private health care service delivery is negligible. There are also small private insurance programs that have agreements with the existing private hospitals.

The health care system is managed by the Ministry of Health (MoH) under a centralized structure as regards administration, budgeting, and accountability. The Ministry of Health coordinates state-owned health facilities, allocates material and technical resources, improves public health care standards; and it is responsible for the implementation of state health policies. The MoH coordinates the regional (oblast) level, which is divided into 24 oblasts, Crimea AR, and two city authorities with special status (Kiev and Sevastopol). These regional departments, in turn, coordinate downwards among rayons, cities, and villages.

4.2.2. Reforms

In Ukrainian healthcare legislation, a few conflicting steps were made that hindered the process of reform. Initially, in order to control state healthcare expenditures, the legislative act on healthcare (1992) introduced a new approach - a fixed basic package of medical services that are to be provided to the public for free. However, Article 49 of the Constitution (1996) basically anulled this regulation, stating that "all citizens without any exception shall receive free and unlimited medical aid". This provision became a basic obstacle for further reforms in this area. The same article hindered necessary reforms in resource usage. The statement, "state and community health institutions provide medical services free of charge; the existent network of such institutions may not be reduced," made it impossible to reduce the excessive number of hospitals, which impedes the efficient use of resources.

The implementation of many early declared principles has not been started yet because of the lack of an adequate regulatory act. Thus, for many years nothing has been done to change the economic and legal status of state and municipal health facilities, to reorganize them from budget-sustained institutions into state (municipal) enterprises, with a higher level of economic, managerial and financial autonomy. The lack of legal support also impedes introduction of modern methods of payment to health workers, especially those in primary healthcare, who are not motivated to serve additional patients.

The primary health care system is undergoing a gradual reform. The year 2000 was a turning point, when the Ministry of Health developed a plan for a gradual transition towards a family-based system of primary healthcare. The standard workload per family physician is 1,500 adults and children in urban areas, and 1,200 in rural areas. Preliminary calculations show that with a workload of 1,500 patients, about 33,000 family physicians are needed to provide care for the entire population. Some family care facilities were established simply with a name change, while their material and technical resources do not comply with requirements. Great efforts are needed to complete the transition to family-based primary healthcare.

The need for a social health insurance reform has been under discussion in Ukraine for the last decade. Several proposals, taking different forms, have been put forward. The main point of the proposed reforms is raising additional sources of financing. Different proposals suggest different alternatives, but the general idea is to transition to mandatory and/or voluntary health insurance.

4.3. Spending trends

Ukraine has a national health system that is mainly financed by general revenues from the budget. Local budget funds account for 70-80% of total budget spending; the remaining 20-30% is provided by the central budget. However, local budgets also receive subventions from the central budget to support healthcare financing mainly through program-based transfers which are given for specific purposes, e.g. to acquire ambulance vehicles for villages, to combat the A/H1N1 epidemic, etc.

A total of 26,718 million UAH was spent on healthcare in 2007 (3.71% of GDP). As a share of GDP, healthcare spending dropped in 2008. This downfall was followed by an increase in 2009 up to 4% of GDP. The reason for such an increase may have been thesharp fall in GDP in 2009, when at the same time relatively the same spending on healthcare was maintained. Capital spending has been cut radically from 13% of total health spending to below 5%, while the share of recurrent spending has increased (see Table 26).

In-patient care is the main expenditure category in Ukraine's healthcare system – about 70% of all resources go to hospitals (see Table 24). Moreover, general hospitals receive more than 45% of total government funds.

Table 24. Healthcare spending in Ukraine, by sector, million UAH

	2007		2008		2009	
	mln UAH	**% of GDP**	**mln UAH**	**% of GDP**	**mln UAH**	**% of GDP**
Polyclinics and ambulatories, ambulance and emergency aid	3638	0.51	4643	0.49	5050	0.55
General polyclinics and ambulatories	*2019*	*0.28*	*2566*	*0.27*	*2785*	*0.30*
Specialized polyclinics	*263*	*0.04*	*322*	*0.03*	*319*	*0.03*
Dental clinics	*439*	*0.06*	*567*	*0.06*	*620*	*0.07*
Ambulance and emergency aid stations	*570*	*0.08*	*732*	*0.08*	*821*	*0.09*
Feldsher-midwife centers	*347*	*0.05*	*457*	*0.05*	*505*	*0.06*
Hospitals and spa facilities	18462	2.56	23628	2.49	25495	2.79
General hospitals	*12038*	*1.67*	*15727*	*1.66*	*17302*	*1.89*
Specialized hospitals	*4910*	*0.68*	*5964*	*0.63*	*6241*	*0.68*
Maternity hospitals	*521*	*0.07*	*663*	*0.07*	*728*	*0.08*
Spa facilities	*993*	*0.14*	*1274*	*0.13*	*1224*	*0.13*
Sanitation and antiepidemic measures and facilities	1248	0.17	1566	0.17	2326	0.25
Research and development	180	0.03	232	0.02	249	0.03

	2007		2008		2009	
	mln UAH	**% of GDP**	**mln UAH**	**% of GDP**	**mln UAH**	**% of GDP**
Other	3190	0.44	3491	0.37	3445	0.38
Children's home	235	0.03	308	0.03	324	0.04
Blood transfusion stations	167	0.02	223	0.02	253	0.03
Other healthcare measures and facilities	2789	0.39	2960	0.31	2868	0.31
Total	**26718**	**3.71**	**33560**	**3.54**	**36565**	**4.0**

Source: http://budget.rada.gov.ua.

A tendency of increasing the local budgets' share in healthcare financing has been observed lately. This increase has been driven by the increasing wages of health workers, which are mostly dependent on local budgets.

Table 25. Healthcare spending in Ukraine, by source of financing, million UAH

	Central budget		Local budgets		Total spending	
	mln UAH	**% of GDP**	**mln UAH**	**% of GDP**	**mln UAH**	**% of GDP**
2007	6321	0.88	20397	2.83	26718	3.71
2008	7366	0.78	26194	2.76	33560	3.54
2009	7535	0.82	29030	3.17	36565	4.00
2010 I-III	5093	0.65	24958	3.18	30051	3.83

Source: http://budget.rada.gov.ua.

Wages and salaries constitute the largest share (close to 60%) of public health expenditures and drive overall spending trends in this sector. Recurrent spending for materials, services, etc. is the second largest share. Capital expenditures such as new construction, capital goods acquisition, and renovations are less than 10% of the entire health budget (see Table 26).

Local budgets are mainly responsible for financing the wages and salaries of health workers while recurrent spending on materials and capital expenditures are the shared responsibility of both the central and the local budgets. Research and development is financed by the central budget, including by means of these "programs".

Based on the World Bank estimates, the government finances close to 60% of total health spending, while the remainder comes from private/out-of-pocket household payments. This estimate is based on the analysis of the National Health Accounts. Some estimates consider out-of-pocket spending to be as high as total public spending. Most in-patient care is funded by the government, while the majority of out-patient care is financed by out-of-pocket payments. This occurs because a large share of out-patient care involves the purchase of pharmaceuticals.

Out-of-pockets expenditures are comprised of official user charges, pharmaceuticals purchased outside health clinics, under-the-table (informal) payments, and health-related costs of transportation, food, and lodging. Informal payments remain high, due to the low remuneration of health workers.

The World Bank estimates based on household surveys and other surveys for formal and informal out-of-pocket expenditures in health suggest that they may have been as high as 2.8 % of GDP for 2005.

4.4. Mandatory Health Insurance System

Ukrainian legislators have repeatedly tried to pass a law on mandatory health insurance. Several draft laws were initiated and submitted to the Parliament by different deputies, but all of these attempts were in vain. The latest draft law on mandatory health insurance appeared on the official website of the Ministry of Health on April 8, 2010. Its finalization is still on the Ministry's agenda for 2011. These plans still did not get off the ground largely due to institutional inertia. Also, a number of legal barriers will have to be removed before setting up such a system as these concerns a constitutional provision guaranteeing free healthcare to Ukrainian citizens.

4.5. Efficiency of Spending

Public health spending is highly inefficient in Ukraine. Sectoral regulation constrains budget flexibility at the health facility and local government levels. Health care outcomes remain low by international standards. Maternal and infant mortality rates and the incidence of diseases such as tuberculosis and HIV/AIDS are high, while life expectancy is one of the lowest in the region. This is also attributed to the wrong principles of financing these sectors, when money is spent for maintaining the existing facilities rather than financing the services provided. The wrong principle of financing has resulted in an inefficient structure of sectors and inefficient services provided.

Even though most public spending takes place through local governments they have little control over expenditure allocations. The way local health facilities form their budgets is dictated by strict input-based norms established by the Ministry of Health. These norms detail the number of doctors, nurses, and other staff at each local administrative level based on hospital beds and other network parameters, as opposed to being demand based. Examples of such norms include the requirement that there be one therapist per 25 beds in district hospitals, one obstetrician-gynecologist per 20 beds in rayon hospitals, and one cleaner per 500 square meters. This input-based system gives no possibility for local governments to adjust supply to demand in each jurisdiction.

Moreover, these regulations bring about rigidities in budget management. While wages and the recurrent procurement of materials consume most of the budget, other needed supplies such as pharmaceuticals must be financed privately out of pocket by patients. Moreover, this situation leaves few resources to invest in the training and re-training of personnel, acquiring modern medical equipment, and upgrading healthcare facilities. All these components are critical to improving the quality of care.

Table 26. Healthcare spending structure by economic classification, million UAH

	2004		**2005**		**2006**		**2007**		**2008**		**2009**	
	mln UAH	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**	**mln UAH**	**% of total**	**Mln UAH**	**% of total**
Total spending	**12159**	**100.0**	**15477**	**100.0**	**19738**	**100.0**	**26718**	**100.0**	**33560**	**100.0**	**36565**	**100.0**
Recurrent expenditures	10542	86.70	14159	91.48	17736	89.86	23158	86.68	30134	89.79	34879	95.39
Wages	*4700*	38.65	*6822*	44.08	*8579*	43.46	*11351*	42.48	*15061*	44.88	*16963*	46.39
Charge on payroll	*1722*	14.16	*2508*	16.20	*3074*	15.57	*4048*	15.15	*5358*	15.97	*6063*	16.58
Utility services	*830*	6.83	*924*	5.97	*1198*	6.07	*1684*	6.30	*2130*	6.35	*2859*	7.82
Capital expenditures	1617	13.30	1317	8.51	2001	10.14	3559	13.32	3426	10.21	1686	4.61
Equipment and long-term use materials	*1148*	9.44	*753*	4.87	*1065*	5.40	*1956*	7.32	*1814*	5.41	*1038*	2.84
Capital construction	*78*	0.64	*92*	0.59	*92*	0.47	*195*	0.73	*230*	0.69	*39*	0.11
Capital renovations	*335*	2.76	*325*	2.10	*567*	2.87	*951*	3.56	*1273*	3.79	*538*	1.47

Source: Finance Ministry of Ukraine.

As mentioned above, the constitution prohibits closing health care facilities. Thus, demand issues are not thoroughly thought of. Local governments are bound to financially maintain an oversized and largely underutilized network of health facilities.

Therefore, even though the level of spending on health care is compatible with that of new EU members, the outcomes are poor. This is primarily explained by deficiencies of financing principles, which do not create incentives for local governments to increase the efficiency of spending.

4.6. Developments during the Crisis

In nominal terms public spending on healthcare was growing throughout the crisis, however, at a decreasing rate. Thus, in 2007 there was a 35% increase in spending; Already in 2008, there was only a 26% increase, and in 2009, a mere 9% increase. In real terms,[32] public spending on healthcare increased by 4% in 2008, but dropped by 3% in 2009.

The pattern of intra-sector allocations did not change much throughout these years. The main expenditure category in Ukraine's healthcare system remained inpatient care. Hospitals received 69-70% of total government funding throughout these years. Within the 'hospitals' sub-sector, the 'general hospitals' share increased from 45% of total government funding in 2007 to 47% in 2008 and 2009, while the shares of specialized hospitals and maternity hospitals decreased. The public spending share on polyclinics and ambulatories increased only slightly – from 13.6% in 2007 to 13.8% in 2008 and 2009. Sanitation and antiepidemic measures and facilities received a substantial increase in 2009 – of almost 50% more government funds than in the previous year. Thus, in 2009, its share increased from the usual 4.7% to 6.4% of total public spending. This change in intra-sector spending is related to the outbreak and treatment of the A/H1N1 epidemic in 2009.

Also, a tendency of increasing the local budgets' share in healthcare financing remained throughout the crisis. Thus, the local budgets' share in healthcare financing increased from 76% in 2007 to 79% in 2009 driven by the increasing wages of health workers, which are mostly financed from local budgets.

[32] Base year 2007, CPI.

4.7. Mid-term Outlook

Health status indicators for the Ukrainian population have been improving slightly over the last few years. For example, life expectancy at birth had grown from 61 to 62 years for males and from 72 to 73 for females in the 2005-2008 period[33]. According to the State Statistics Committee, birth rates have been steadily increasing since 2002[34], while mortality rates have been decreasing since 2006. Given that public healthcare at least does not deteriorate and private healthcare expands further, this positive tendency is likely to continue.

Healthcare spending is likely to stay more or less at the same level as currently, as a % of GDP. Wages and salaries of health workers, which constitute the largest share in total spending, will not decrease. The available data on healthcare spending for the first three quarters of 2010 (see Table 25 above) already shows approximately the same levels of spending in real terms as for the same period in 2009.

[33] WHO statistics.
[34] Earliest available statistics on birth rates.

5. Conclusions

Over the last 10 years, the Ukrainian economy passed through years of economic growth followed by sharp economic decline. During these years, the Ukrainian authorities did not complete the structural reforms needed to stimulate future economic development.

The most important fiscal policy measure was the approval of the Budget Code, which framed major provisions in state budget planning and execution and defined the distribution of financing among different levels of government. In 2010, the new version of the Budget Code was approved, aimed at higher decentralization and the implementation of the MTEF.

At the same time, the social security system has been reformed and is approaching the international accepted means-testing principles in social assistance provision. However, the current insustainability of the Pension Fund requires the launching of pension reform. At the same time, changes of tax regulations were incidental and limited and the tax system remains excessively complex. As Ukraine joined the WTO, some customs duties were reduced, while others were cancelled.

Between 2000 and 2009, consolidated fiscal revenues increased from 27.7% of GDP to 31.5% of GDP, primarily thanks to a reduction in tax exemptions, economic growth, a change in the structure of the economy, wage growth, and an increase in excise rates. Higher revenues and better possibilities to finance fiscal deficits resulted in the growth of consolidated fiscal expenditures to 32.6%. At the same time, the consumption oriented structure of expenditures remained unchanged primarily due to the lack of expenditure side reforms and populist policies.

Local governments are essential in financing and providing basic services to the population, including health care and education. At the same time, the lack of autonomy and high recurrent expenditures have resulted in the poor quality of most services provided. High recurrent expenditures have resulted in low capital outlays. Infrastructure in most sectors is deteriorated, requiring an increase in capital outlays.

Health care and education are mostly financed at the expense of local budgets. Although the level of financing is relatively solid, the outcomes are poor. This can partially be explained by inefficient financing principles and the lack of reforms in these sectors. As nearly 80% of all budget allocations to these sectors are directed towards wage and utilities payments, infrastructure in these sectors is deteriorated resulting in poor quality and unequal access to services.

The economic crisis pointed towards the inefficiency of fiscal policy in Ukraine. During the crisis, the government faced reduced revenues against the background of a need to finance higher liabilities. Capital outlays declined rapidly. In order to finance major liabilities, the government intensified external and domestic borrowings. As a result, the state debt-to-GDP ratio is likely to almost double by the end of 2010 as compared to 2008.

Therefore, the issue of fiscal sustainability is very important in Ukraine, taking into account the necessity to repay outstanding loans in a few years. The absence of meaningful structural reforms puts future economic development under question. Besides, the lack of changes might result in the further deterioration of outcomes in health care and education, which are important for human capital development.

Therefore, Ukraine requires an extended package of reforms, which would result in higher fiscal sustainability. Possible measures might include:

- approval of the Tax Code, which would facilitate tax compliance in Ukraine and, thus, improve the investment climate;
- increase in the retirement age for pensioners;
- reform of social welfare system directed at the provision of targeted social assistance;
- approval of the law on State aid, which would comply with the EU standards and reform the system of subsidies to enterprises;
- introduction of the MTEF;
- implementation of measures directed towards further fiscal decentralization and higher autonomy of LGEs;
- shift of budget allocation in education and health care from the current normative approach to a demand-based service delivery principle;
- implementation of a mandatory healthcare insurance system.

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