**UKRAINE**

# PUBLIC FINANCE REVIEW

June 27, 2017

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# Currency Equivalents

Exchange Rate Effective May 15, 2017
Currency Unit: Hryvnia (Hrv)
Exchange rate:
1 USD = Hrv 26.48

Fiscal Year: January 1 - December 31

# Abbreviations and Acronyms

| | |
|---|---|
| AC | Amalgamated community |
| BEEPS | Business Environment and Enterprise Performance Survey |
| BOP | Balance of payments |
| CIT | Corporate income tax |
| COV | Coefficient of variation |
| DB | Defined benefit |
| DC | Defined contribution |
| DGF | Deposit Guarantee Fund |
| DTT | Double taxation treaties |
| ECA | Europe and Central Asia |
| EFTA | European Free Trade Area |
| EMIS | Education Management Information System |
| EU | European Union |
| FDI | Foreign direct investment |
| GDP | Gross domestic product |
| GMI | Guaranteed minimum income |
| HEIs | Higher education institutions |
| HUS | Housing and Utility Subsidy |
| ICT | Information and communications technology |
| IMF | International Monetary Fund |
| IOTA | Intra-European Organization of Tax Administrators |
| LEB | Life expectancy at birth |
| $m^2$ | Square meters |
| MIS | Management information system |
| MOF | Ministry of Finance |
| MOH | Ministry of Health |
| MRD | Ministry of Regional Development |
| NCD | Non-communicable disease |
| OECD | Organisation for Economic Cooperation and Development |
| OOP | Out-of-pocket |
| PAYG | Pay-as-you-go |
| PFU | Pension Fund of Ukraine |
| PFR | Public Finance Review |
| PHC | Primary health care |
| PIT | Personal income tax |
| PPP | Purchasing power parity |
| PROST | Pension Reform Options Simulation Toolkit |
| SFS | |
| SOE | State Fiscal Service |
| SNG | State-owned enterprise |
| SSC | Subnational government |
| VAT | Social Security Contribution |
| VET | Value-added tax |
| WHO | Vocational education and training World Health Organization |


Regional Vice President: Cyril E Muller
Country Director: Satu Kähkönen
Senior Director: Felipe Jaramillo
Director: John Panzer
Practice Manager: Gallina Vincelette
Task Team Leaders: Karlis Smits and Anastasia Golovach

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# Acknowledgements

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# Overview: Restoring Fiscal Sustainability and Improving Public Service Delivery

## Despite bold efforts to consolidate public finances, Ukraine's growth potential remains undermined by a large public sector, high public debt levels and inefficient provision of critical public services

**Ukraine has made considerable progress in restoring macroeconomic stability and reducing large structural imbalances.** The fiscal adjustment reduced the government deficit (including *Naftogaz*) to 2.2 percent of gross domestic product (GDP) in 2016 from over 10 percent in 2014. Policy steps have included strict controls on public sector wage growth and reduced state support to the economy. In addition, a bold decision to align energy tariffs to the price of imported gas helped reduce the *Naftogaz* deficit from 5.6 percent of GDP in 2014 to almost zero in 2016. This step, together with measures to support the macroeconomic adjustment—in particularly the introduction of a flexible exchange rate—helped stabilize economy after a severe recession triggered by changes in external environment and conflict in east Ukraine. Economic growth has resumed, with GDP rising by 2.3 percent in 2016, after a decline of 16 percent in 2014-2015. However, economic recovery faces significant headwinds, including the continuing conflict in east Ukraine, and growth is expected to remain moderate at 2.0 percent in 2017 and 3.5 percent in 2018.

**However, despite notable efforts to consolidate public finances, high public expenditure and public debt levels continue to undermine Ukraine's growth potential**. Public sector spending remains high as a share of GDP and is higher relative to both peer countries and levels in 2001. The combination of persistent fiscal imbalances, a sharp drop in GDP, and currency depreciation pushed up the public debt-to-GDP ratio from 40.6 percent in 2013, to over 70 percent of GDP in 2014 (figures 0.1 and 0.2). In response, Ukraine initiated a restructuring of external public and publicly guaranteed debt, which helped reduce the debt level to 70.3 percent in 2015. However, public debt increased to 89 percent in 2016 due to the need to support the banking system. Ukraine's current fiscal outlook, marred by slow growth recovery, structural weaknesses and a sizable pension fund deficit, is likely to move Ukraine's public debt towards an unstainable trajectory. The term structure of public debt is also unfavorable, with large repayment pressures beginning in 2019. The currency structure of public debt shows a significant shift towards the FX obligations (about 70 percent in 2016), while interest payments remain high (at about 4 percent of GDP per year).

**Figure O.1. General Government (GG) Fiscal Operations, Percent of GDP**

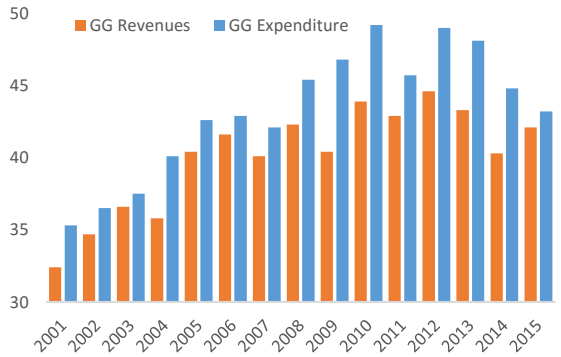
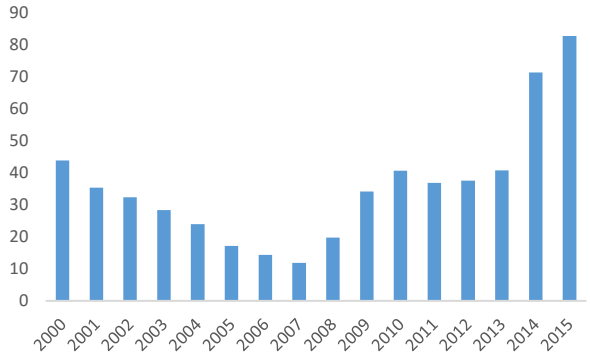


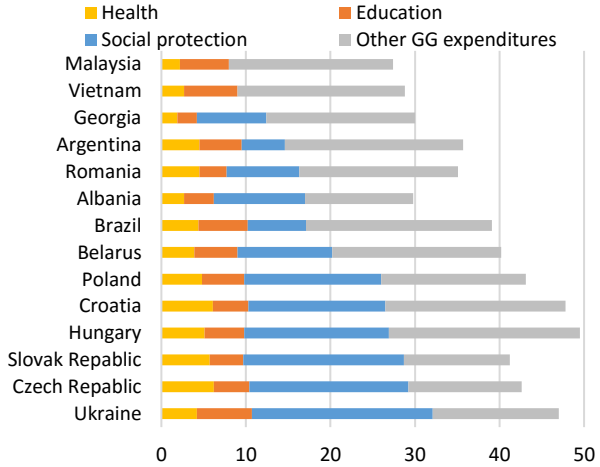

**Figure O.2. Public and Publicly Guaranteed Debt, Percent of GDP**




*Source*: Ukrainian Statistic Service, World Bank estimates.

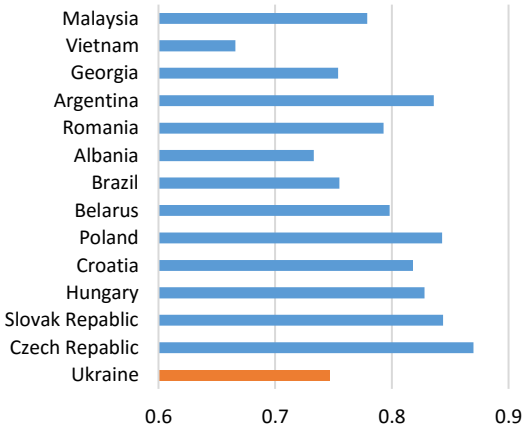
**These problems are compounded by the fact that high social expenditures have not improved the quality of public services**. While Ukraine spends about 6 percent of GDP on education and 4.5 percent on health (figure O.3), life expectancy has not changed significantly in the last 20 years, and the hospital sector is oversized and inefficient (figure O.4). General education outcomes have improved, however, highly- and middle-skilled jobs remain hard to fill. Similarly, government spending on social transfers (about 11 percent of GDP on pensions and 4 percent on social assistance) ranks among the highest in the region, funds are not efficiently distributed, and the bulk of pensions and social assistance payments go to those households above the bottom 40 percent income levels.

**Figure O.3. Composition of General Government Expenditure, Ukraine vs Peers, Percent of GDP Average for 2010-2015**




*Source*: World Bank Development Indicators

**Figure O.4. Human Development Index 2014**




*Source*: UNDP, 2015

**The Ukraine government faces new public spending pressures which, if realized, would reverse recent fiscal consolidation gains**. The recent fiscal consolidation was facilitated by several one-off factors, including higher than expected inflation and exchange rate depreciation, which resulted in higher growth in nominal revenues and decline in real wages and pensions (figure O.5). By 2016, both the inflation and exchange rate had stabilized. Similarly, significant increases in minimum wages in early 2017 are estimated to increase the aggregate wage bill by 1.5 percent of GDP in 2017 and by over 2 percent of GDP in the medium term. In addition, the government is currently considering, in addition to a reform of the pension system, an ad hoc pension benefit increase to compensate for the lack of benefit indexation in the recent years that may result

in additional expenditures amounting to about 1 percent of GDP in 2018 (figure O.6). Moreover, tax revenue collection in 2016 shows that the process of *de-shadowing* remains very gradual. Recent increases in nominal tax revenues are driven mainly by gradual recovery in economic activity rather than improvements in the tax administration. Absence of reforms, tax revenues as a share of GDP are expected to remain flat at about 40 percent of GDP in the medium term. As a result, the general government deficit is expected to widen from 2.2 percent in 2016 to 3.1 percent in 2017 and, without a more reasonable approach to fiscal affordability of social benefits and services, could stay elevated over the medium term.

**Figure O.5. Fiscal Adjustment by Economic Classification, 2014-2017. Real Changes, Percent YoY**

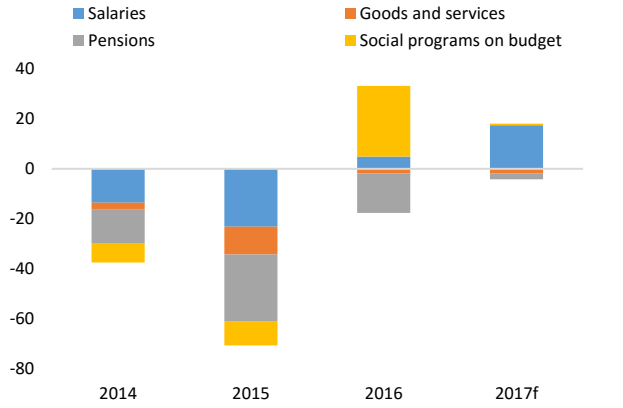
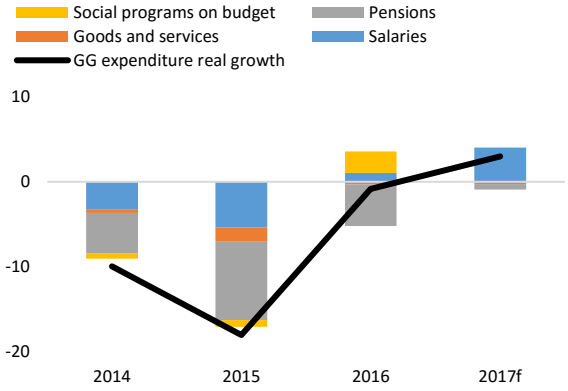



**Figure O.6. Contribution to the Real Growth of GG Expenditures, 2014-2017, Percentage points**




*Source*: Ukrainian Statistic Service, World Bank estimates.

**In this context, the objective of this Public Finance Review (PFR) is to inform the Government of Ukraine about fiscal reform options to restore sustainability of public finances while improving critical public services and improving medium-term growth prospects**. The PFR offers reform options for a gradual and sustainable fiscal deficit reduction and mitigation of risks to debt sustainability through broadening the tax base, improved tax administration, and more efficient public spending. Chapter 1 provides an overview of Ukraine's fiscal situation and key pressures to fiscal sustainability. Chapter 2 focuses on options to broaden the tax base and improve tax administration following the recent tax reform measures. Although Ukraine already collects a high share of GDP as taxes, it can improve tax compliance, broaden the tax base, and reduce the tax burden. Improving tax administration and broadening the tax base are critical to improve fiscal sustainability in the short term and to create a foundation for sustainable economic growth in the medium term. Chapter 3 focuses on options to improve the fiscal sustainability of the pensions system, which is the largest public finance expenditure item and a source of fiscal vulnerability on the expenditure side. Chapters 4, 5, 6 and 7 look at opportunities for delivering public services, specifically, education, health, social assistance and decentralization, that are more efficient, equitable and higher quality. Reforms in these areas are anchors of Ukraine's long-term fiscal sustainability and core elements of the strategy to reduce the fiscal deficit.

**Analyses of expenditures in this review are structured according to functions rather than economic categories**. Hence, the PFR does not focus explicitly on providing specific policy recommendations for the aggregate wage bill, public investment or contingent liabilities arising from SOEs—important categories of public expenditures; instead, recommendations target structural reforms in key sectors aimed to improve fiscal sustainability and service delivery over the medium to long term.

## Tax reforms should focus at broadening the tax base and improving tax administration

**Ukraine's tax system is still complex, inequitable, and eroded by exemptions.** The tax reform adopted in 2015 improved adequacy of the key tax rates, streamlined the tax regime and brought key tax rates in line with or below regional averages. Nevertheless, the tax-to-GDP ratio in Ukraine still remains slightly higher relative

to other countries at the similar income level (figure O.7). Moreover, the recent tax reform did not fully tackle issues of tax exemptions or those related to tax administration. There is still room to eliminate tax loopholes and exemptions. While value-added tax (VAT) exemptions in agriculture were recently fully abolished, printing services are tax-exempt, and pharmaceutical products and medical equipment were not taxed at all until 2014, while their current VAT rate is 7 percent, much below the general rate of 20 percent. In addition, a simplified tax regime is also often used for tax evasion, contributing to tax base erosion and creating large arbitrage opportunities and an uneven playing field for taxpayers. This tax regime was to support development of private entrepreneurs and small enterprises, but it is misused by large companies to reduce tax payments. The Government recently adopted a strategy for removing incentives to missuses the simplified tax regime, focusing on the revision of the criteria, that is a move in the right direction.

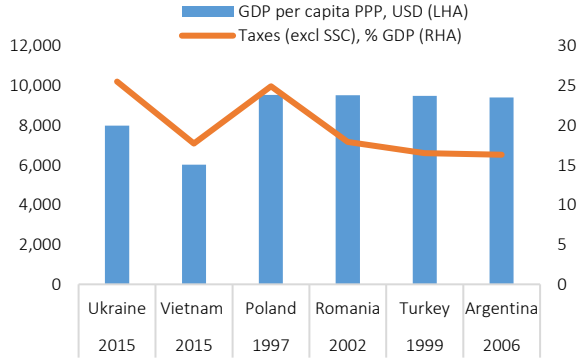
Further actions in revision of the international treaties will help to broaden the tax base and close loopholes for profit-shifting. International taxation was particularly problematic for Ukraine and lead to tax base erosion for decades. Ukraine signed 66 tax treaties and is still bound by treaties with the Federal Republic of Yugoslavia (now assumed by Montenegro and Serbia), and those signed earlier by the Union of Soviet Socialist Republics (U.S.S.R.) with Spain, Malaysia, and Japan that have not been renegotiated. These treaties are intended to prevent double taxation by clearly allocating taxing rights, thus providing legal certainty. However, Ukrainian double taxation treaties (DTTs) vary considerably in the extent to which they restrict the taxing rights of the country in which income arises (the "source state") and the country where the beneficial owner of the income resides (the "residence state"). These problems undermined Ukraine's international competitiveness, complicate competition for domestic firms, encourage widespread informal economic activities, and ultimately hinder Ukraine's growth prospects. Starting for 2016 the government made a progress in renegotiation the terms of the treaties with Cyprus, Luxemburg, Netherlands and the United Kingdom of Great Britain. As a result, the royalties, dividends and interest rates were raised for the transaction with these jurisdictions. Further progress in revision of the international treaties is an effective instrument to broaden the tax base and to increase Ukraine's international competitiveness.

**Cigarette Excise Tax increases is other important policy measure to expand the tax base, mobilize domestic resources to enhance fiscal space, and protect population health.** Since 2008, Ukraine has increased the average tax on tobacco by 14 times, with the most recent increase introduced at the end of 2016. However, even after these tax increases, the average retail price for a pack of 20 cigarettes in Ukraine at USD 0.89 in 2016 remains one of the lowest price levels in Europe and Central Asia. The proposed increase of 40 percent in specific excise taxes and maintaining the current 12 percent ad valorem rate under the 2017 budget could help generate total tobacco tax revenue (combining excise taxes, VAT and levies on tobacco) amounting to about 2.4 percent of GDP in 2017, up 2.3 percent of GDP in 2016. Controls over the distribution chain and improved technologies can help improve customs administration and complement tobacco tax reforms. In the long-run, the additional positive fiscal impact should come from lower health expenditures. Our estimates show that by 2035, Ukraine's tobacco tax hike will avoid: 126,730 new cases of smoking-related disease; 29,172 premature deaths; and 267,098 potential years of life lost. Reductions in disease and death will save UAH1.5bn in healthcare costs and UAH16.5bn in premature mortality costs per year. An increase in cigarette excise taxes may require increased coordination with neighboring countries (particularly Belarus and Moldova) to reduce potential illicit trade in tobacco products that take advantage of price differences.

Tax administration is inefficient and widely perceived to be corrupt. Ukraine's tax administration currently uses too many resources to collect taxes. The cost of collection in Ukraine totals 1.25 percent of taxes collected, which is more than the cost for regional comparators (figure O.7). Number of taxpayers per tax staffer is also significantly lower than in comparator countries. The tax administration also imposes an excessive compliance burden on taxpayers. Ukraine ranks 84th in the Doing Business 2017 report for ease of paying taxes. On average, firms spend 355 hours a year filing, preparing, and paying taxes, which take up 51.9 percent of profit. This compares with an average of 221.5 hours for Central Asia and Eastern Europe,

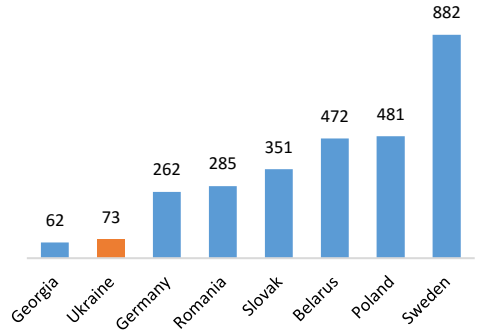
and an even lower average of 163.4 hours for OECD High Income countries. The problems with both compliance and revenue collection are exacerbated by the perceived corruption in tax administration. According to the 2013 Business Environment and Enterprise Performance Survey (BEEPS), the percentage of firms that do not consider corruption to be a problem is only 19 percent; 15 percent stated that bribery is frequent in dealing with taxes, and over 50 percent stated they were expected to give gifts in meetings with tax inspectors.

**Figure O.7, Ukraine and Comparators, GDP Per Capita, Tax-to-GDP Ratio**




*Source*: IOTA, OECD.

**Figure O.8. Number of Taxpayers Per Tax Staffer, Ukraine and Comparators, 2012**




*Source*: IOTA.

**Reforms to broaden the tax base and improve the tax administration are critical for fiscal sustainability since most structural reforms in the social sectors would create fiscal savings only in the long term**. A comprehensive approach to reform is needed, including specific short- and medium-term measures to make tax collection more efficient, lower the cost of compliance, and reduce corruption. Measures to consider include:

- *Rationalization of tax exemptions in all tax instruments and revision of international treaties* to generate additional revenues. For example, in case of the simplified tax regime, the revision of eligibility criteria for individuals to prohibit collusion between employers and employees and limiting eligibility of legal entities based on number of employees (not above 5-10) should increase revenues from all key taxes including Social Security Contributions.
- *Right-sizing the tax administration, conducting risk-based audits, and adopting better technological solutions*. While improvements in tax administration will be neither rapid nor likely to generate considerably more revenue, especially in the short term, improving how revenues are collected could reduce tax compliance costs, improve the business climate, facilitate economic growth, and stimulate revenue collection over the medium term.

## Strengthening fiscal sustainability of pension system and adequate protection of pensioners is a priority

**Ukraine's pension system expenditures comprised 11 percent of GDP in 2016, representing a major fiscal vulnerability that has been exacerbated by structural weaknesses, including a cut in the social contribution (SSC) rate and population aging**. As a result of the SSC rate cut, revenues declined from 9.6 percent of GDP in 2015 to 5.5 percent in 2016, resulting in a pension fund deficit of 5 percent of GDP. The cut in the SSC rate was a move in the right direction since it lowered previously high and distorting tax wedge on labor. However, the SSC collection rate after the rate cut exposed structural weaknesses in the pension system. Specifically, weak links between individual contributions and pension levels are undermining incentives to contribute (figure O.7). The consequent excessively high deficit of the pension fund undermines fiscal sustainability as well as the government's ability to guarantee adequate protection to elderly (figure O.8).

**Pension levels for most beneficiaries are extremely low, with the average old-age pension amounting to about USD 2 per day**. The adequacy of pension benefits is undermined by the current policy of indexing only the minimum pension amount at or below inflation. Indexation to inflation or below was intended to contain pension expenditure pressures, but a large proportion of beneficiaries under the subsistence minimum implies that costs have not significantly declined. Furthermore, if this policy is maintained, the replacement rates for existing benefits will fall to around 20 percent of the average wage in the long-term, exerting pressure on the political system to address social inequities.

**Figure O.9. Pension Fund Revenue and Expenditure, Percent of GDP**

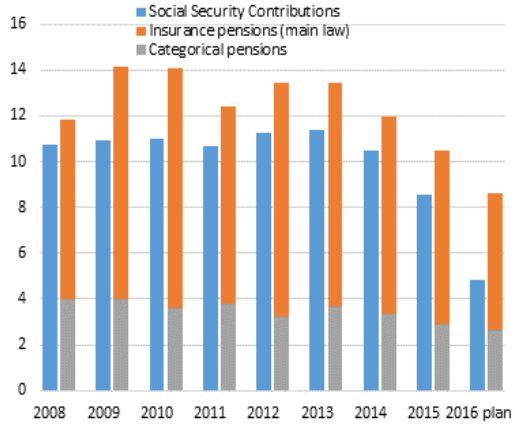
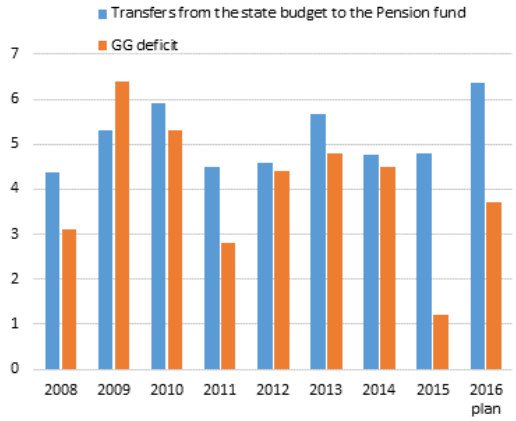



**Figure O.10. GG Deficit and Pension Fund Deficit, Percent of GDP**




*Source*: World Bank estimates.

**Demographic pressures going forward are considerable**. Ukraine has about 12.3 million pension beneficiaries and about 14 million contributors. Demographic projections indicate that the cohorts entering retirement will be considerably larger than the cohorts entering the labor market, with the ratio of contributors to pensioners falling to two-thirds in 20 to 25 years from the current ratio of about 1.1.

**The structure of pension expenditures is heavily influenced by the cost of various categorical benefits, privileges, and the minimum subsistence top-up**, which jointly constitute over one-quarter of total pension expenditures. This translates into a heavy fiscal burden and creates nontransparent subsidies between different programs administered by the pension fund that lessen incentives to participate in the pension system.

**Some categorical benefit and privilege programs—estimated at about 2 percent of GDP—should be considered formally as a part of social assistance and covered by general budget revenues**. While such a reclassification of expenditures would not result in direct fiscal savings, it could reduce disincentives to contribute and focus attention on the need to improve targeting of Ukraine's social assistance programs. It would also illustrate that Ukraine's social assistance expenditures—totaling 7 percent of GDP—far exceed levels in other countries of similar income levels.

**Unless reforms are implemented, the pension system will transform from an earnings-related benefit system to a de-facto flat benefit program**, further undermining incentives to contribute. The government tops any pension benefit up to the minimum subsistence level, irrespective of the degree of the individual's participation in the system. This undercuts the fundamental premise of a contributory pension program, which is to grant benefits proportional to past wages and length of service. Furthermore, benefit indexation remains complex and ad-hoc, resulting in a benefit structure that is neither transparent nor manageable, but that accounts for a considerable share of individual benefits.

**In the past, initiatives to reform pensions have been *ad hoc***. In 2015, the authorities introduced some saving measures by cutting benefits for working retirees and by unifying provisions for eligibility and pension

benefit calculations for various categories. The indexation of pension benefits was also suspended temporarily. The fundamental challenges of the current pension program, however, remained unaddressed.

**Pension system reforms should balance the need to reduce fiscal pressures with the need to ensure adequate social protection of pensioners**. Several reform options, effectively parametrical changes, could make the pension system more financially sustainable. These include:

- *Measures to mobilize fiscal savings in the pension system*:
  - gradually increasing the statutory retirement age for both men and women;
  - raising the minimum earnings eligibility requirements related to pensions;
  - imposing a moratorium on reducing the statutory retirement age for any special work category for professions unless properly funded.
- *Measures to insure equal treatment of the pensioners*:
  - introduction of a basic pension supplement in the benefit formula, which would help sustain the pension value over time (Such an approach becomes increasingly common to address issues of fiscal imbalances and/or to clearly separate and strengthen mechanisms of the insurance provision);
  - eliminate the remnants of gender discrimination in pension provision and all unify the rules for men and women;
  - elaborate the transition mechanism for increasing the retirement age of women;
  - reformed pension guarantees in the way that allows incorporate all special and categorical supplements into the calculation of individual amount of the subsistence top-up.

**The rules for indexation of individual pension benefits must be clear and equitable**. It is important that the rules preserve the benefit value and are fiscally affordable. The indexation formula could be based on some combination of inflation and wage growth, which is consistent with both the historic trend in Ukraine and international precedents. The methods by which the basic, insurance, and poverty components are indexed should be clearly defined.

**Recently Ukraine has made significant progress in developing a comprehensive pension reform plan.** The new pension reform proposal discussed by the government aims to mobilize fiscal savings through tightening the eligibility criteria for retirement (introduction of the "retirement age corridor"), increasing the age of social assistance for elderly without sufficient contributions, and further tightening the guarantees of the minimum pension. The proposed plan will also result in some reduction in the generosity of benefits for the new retirees. Finally, new indexation provisions are being introduced that would provide for the annual adjustment index as 50 percent inflation and 50 percent of nominal wage growth.

## Reforming health financing model from input-based to output-based financing

**Total public and private health spending exceeds the global average for Ukraine's income level, but health outcomes remain weak**. Public health spending has averaged 4 percent of GDP in recent years and is far above the global average for countries at Ukraine's income level. At the same time, households co-finance health expenditures at the same level as government: out-of-pocket payments reached almost 50 percent of total health expenditures in 2015, which is among the highest in Europe. However, life expectancy at birth in Ukraine is 71 years, which is over 10 years below the European Union (EU) average.

**The health system in Ukraine has not changed much from Soviet times when it was mainly designed to cope with acute episodic care**. The healthcare needs of Ukrainians today mostly relate to non-communicable diseases (NCDs), which require behavioral changes and health promotion. Public financing mostly supports a large network of health facilities and staff but health outcomes remain poor. Health allocations are skewed towards inpatient care, which is not effective for controlling avoidable deaths. Inpatient institutions absorb

more than 60 percent of the total health budget, while only about 10 percent is allocated to specialized outpatient facilities, 9 percent to primary health care, and less than 2 percent to disease prevention.

**The current mechanism for allocating resources finances inputs instead of services**. Currently, the budget for inpatient facilities relies heavily on the number of beds. Such a system provides no incentives for more efficient use of budget resources or better patient treatment. As a result, Ukraine still has about 40 percent more hospital beds per capita than the EU average. This infrastructure consumes most of the available funding while often providing only very basic services. The system also weakens healthcare provision, since it incentivizes unnecessary increases in hospitalization rates and the length of stay in inpatient facilities to justify the oversized hospital network. The average length of stay in Ukraine was 11.7 days in 2013, while the average for the European region was 8.6 days.

**Figure O.11. Total Healthcare Spending and GDP Per Capita, 2013**

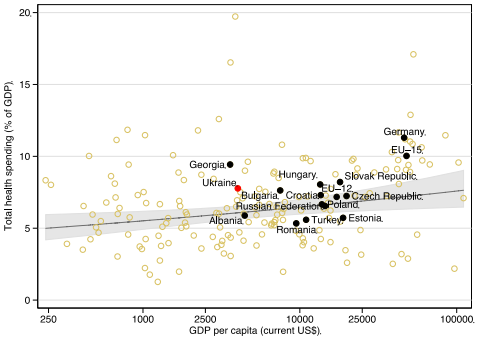
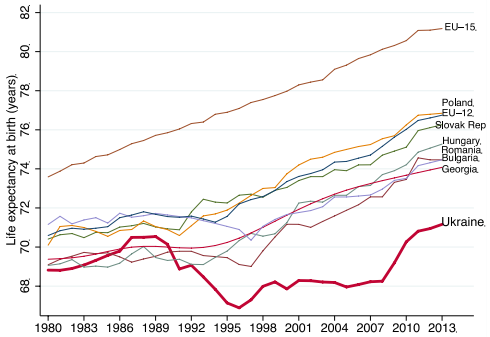



**Figure O.12. Life Expectancy: Ukraine and Comparators, 1980–2013**




Source: WHO.

**Current expenditures comprise about 90 percent of the total health budget, squeezing out any investment in developing a modern health care infrastructure**. Salaries of medical personnel is the largest item of health expenditure, comprising over 50 percent of the health budget in 2015, while over 37 percent is spent on goods and services. Public procurement in the health sector has been a major source of inefficiency and corruption. As a result, few resources are available for much needed capital investment to replace outdated equipment and improve facilities.

**In 2016, the government adopted a health reform package** that includes: (i) transforming healthcare financing, including the creation of a national purchasing entity, the Ukraine National Health Services (UNHS); (ii) modernizing primary health care; (iii) improving access to pharmaceuticals; (iv) addressing non-communicable diseases; and (v) creating an integrated National Public Health Institute for disease control and prevention. The package of reforms was approved in October 2016, and the current leadership of the Ministry of Health is taking active steps toward implementing the reform measures.

**The overarching goal of the reform is to create an equitable health system that is responsive to clients**, transparent, efficient, and effective in preventing and controlling NCDs. However, healthcare reform needs to embrace paradigm shifts, including the following transformations:

- *Moving from predominately curative to more preventive healthcare*. This requires: (i) scaling up preventive and primary care, and adopting a systematic approach to NCD prevention and management; (ii) strategic investment in health care infrastructure, reducing overcapacity, re-profiling the hospital sector, and modernizing remaining facilities for better quality care; and (iii) introducing transparent procedures for managing public funds for health.
- *Transitioning from input- to output-based financing*. This requires changing the current input-based financing to performance-based payment for specialized care and capitation for primary care. Under such a principle, money would follow the patient instead of inputs.

- *Shifting the so-called free-care-for-all with significant patient informal payments to a transparent benefit package*. This involves reducing out-of-pocket payments by clearly defining the government's guaranteed benefits package, allowing copayments, but protecting the poor and chronically ill.

**The healthcare system needs to be fiscally affordable and consistent with an efficient allocation of public finances**. While some healthcare reform measures may require additional fiscal resources for investment in the short term, over the medium term, measures related to optimizing the hospital network, staffing and the wage bill should create more fiscal space for much needed capital investment to improve the quality of medical facilities. Moreover, the public procurement system still needs to be refined. A separate public agency for procuring pharmaceuticals and medical products requires strong anti-corruption mechanisms and investment in staff capacity.

## Optimizing school network to improve resource allocation

**In recent years public spending on education has declined, however, despite falling enrollment rates Ukraine maintains an extensive network of education institutions (figures O.11 and O.12).** Most public education spending finances personnel costs. Low budget shares allocated to capital investment at all levels of education make it impossible to ensure equitable access to quality modern learning environments for all students. Moreover, while public allocation for pre-university education is lower than OECD country averages, public spending for higher education exceeds OECD averages. High levels of public spending on colleges and universities potentially crowd out investments in other levels of education. In this context the key challenge in education sector is improving efficiency of resource allocation in general education (grades 1–11), also referred to as primary/secondary and pre-university education.

**Recent fiscal consolidation measures have aligned public expenditures on education with the regional average, but these gains could be reversed unless Ukraine makes further progress to optimize the school network and staffing levels**. The reduction in the education budget over 2014-2016 has improved the sector's fiscal situation, but school networks and higher education institutions remain oversized given Ukraine's declining youth population.

**Figure O.13. Public Spending on Education by Category, 2007–15, Percent of GDP**

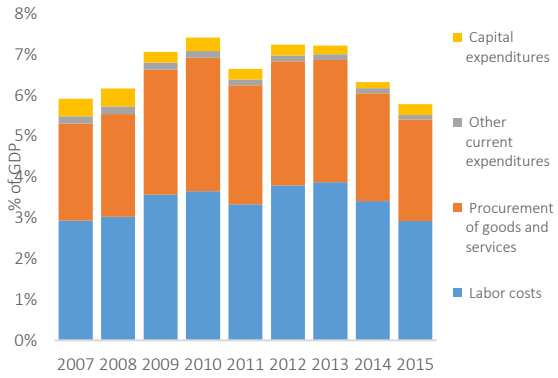
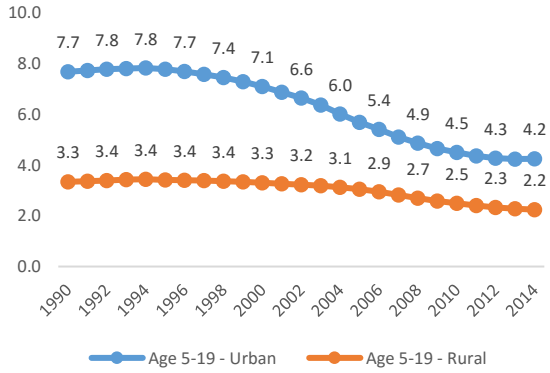



**Figure O.14. School-Age Population by Urban-Rural Location, 1990–2014, Millions**




*Source*: Ukraine BOOST government expenditure database, Ukrainian Statistics office.

**Current funding mechanisms are not conducive to effective utilization of available resources**. Allocation of public resources within education sector remains suboptimal. Public spending on higher education is higher than in most Organisation of Economic Co-operation and Development (OECD) member countries, but spending on pre-university education is slightly below the OECD average. Moreover, a high share of recurrent expenditures tends to crowd out much-needed capital investment.

**Critical education reforms were initiated in 2014, but further changes are needed, particularly at the pre-university level**. Ukraine is beginning to optimize the school network in rural areas through a system of "hub schools," and there are plans to introduce a more rational school financing formula. In late 2016, a vision for the "New Ukrainian School", a wide-reaching reform in pre-university education was launched by the Government. However, achieving the intended reforms requires sustained political leadership, effective stakeholder consultation, and evidence-based decision making.

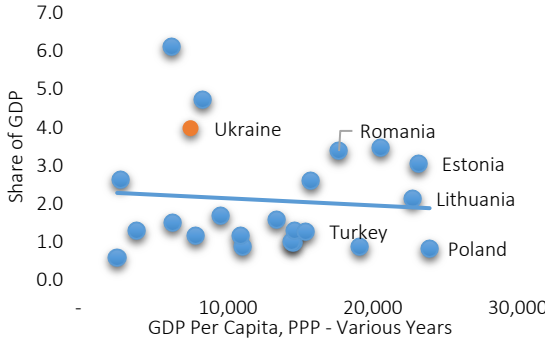
**The fiscally affordable education reform could focus on further optimization of the school network and changing the financing formula for more efficient resource allocation**. Specifically, reform options include:

- Modernize the rules governing teacher employment and remuneration and financing mechanisms for higher and general secondary education institutions;
- Update the per-student financing formula for general secondary education. The new formula should provide incentives for efficient use of resources by encouraging school network optimization and ensuring the equalization of resources across local authorities with varied own-source revenues;
- Continue consolidating local school networks and applying the new per-student financing formula;
- Continue consolidating service providers in higher education. Consolidation of public expenditure on higher education is needed to free up fiscal space for pre-university capital investment; and
- Modernize education management tools to support evidence-based policymaking, by, for example, putting in place a comprehensive electronic management information system (EMIS) linking school-level data on finances, learning outcomes, student background characteristics, and many other indicators is essential for managing a modern education system, to provide policymakers with up-to-date detailed information on a wide range of indicators to inform decision making.

## Improving targeting of social assistance by moving from universal to means-tested programs

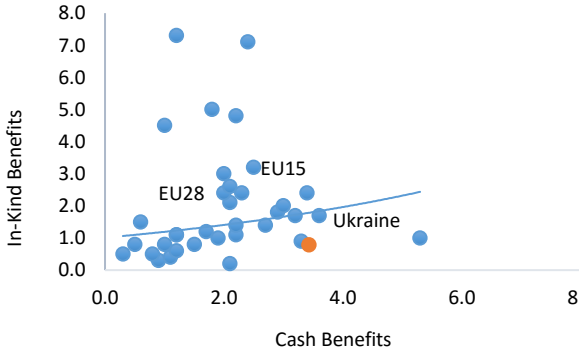
**Ukraine's social assistance spending is among the highest in the region, but support to vulnerable households is insufficient and characterized by low coverage**. In 2016, Ukraine spent 4.8 percent of GDP on social assistance; although this is comparable with the European Union (EU)-27 average, the quality of support is lagging. Ukraine covers only about half of the poorest quintile through social assistance, which is lower than most other European countries. The generosity of social assistance in all social programs also amounts only to about 17 percent of the expenditures of the poorest quintile.

**Figure O.15. Social Assistance Spending, Share of GDP and GDP Per Capita, Select ECA Countries**




*Sources*: WB staff based on BOOST, pension fund annual report, Ministry of Finance, IMF World Economic Outlook

**Figure O.16. In-Kind Vs. Cash Social Assistance Benefits, Percentage of GDP**




Sources: WB staff based on BOOST, pension fund annual report, Ministry of Finance, IMF World Economic Outlook

**The inefficiency of the current safety net is a result of poor targeting**. Ukraine inherited from the Soviet Union a welfare system dominated by categorical benefits. Many programs are directed to groups that are not on average poor. As a result, support to low-income households is still inadequate and fragmented.

**In 2014–15, the Government of Ukraine undertook a range of measures to reform social assistance programs** with the broader aim of containing spending and reallocating resources to increase the share of transfers targeting the poor. Overall, these measures helped contain categorical assistance while expanding means-tested programs. At the same time, expenditures for the household utility subsidy (HUS)—a means-tested program—increased more than initially planned over the past two years, mostly due to problems with verification of eligibility. Expenditure on the HUS program, which was relatively stable over 2010-2014, increased sharply since 2015, reaching 1.8 percent of GDP in 2016.

**Despite an increase in the share of targeted programs, different eligibility rules and targeting methodologies have not achieved more accurate targeting**. More than 70 local welfare programs and 39 central government programs lack sound monitoring, management and coordination. Weaknesses in targeting mechanisms are likely to deepen in future if some categorical benefit and privilege programs currently covered by the Pension Fund (comprising about 2 percent of GDP) become a part of social assistance package.

Given the challenging economic environment, **social policy objectives could be restructured to focus on greater balance between public affordability and the scope of welfare**. Reforms may be considered in three main areas:

- *Better targeting and improving adequacy*. Ukraine needs to continue moving from universal towards means-tested programs. There is also a case for eliminating many programs that do not provide value for money, and mobilizing savings to bolster and expand well-designed and well-performing programs. Specifically:
  - The costly child birth grant does not meet core safety net principles, and the resources would be better utilized if reallocated to programs such as the Guaranteed Minimum Income (GMI) program and for improved funding of reformed social care services.
  - The GMI program requires more adequate benefit indexation and should be scaled-up to cover all the eligible population. The program has the potential to become the main anti-poverty program in Ukraine's modern welfare system. Unlike other social assistance programs, GMI directs most of its budget resources to the poorest. However, GMI funding needs to become flexible enough that the program can expand during times of economic hardship and contract when employment is high.
  - The HUS targeting needs to be improved; in the long term, the subsidy should be part of a package of benefits provided to low income and vulnerable households.
- *Categorical benefit and privilege programs currently administrated by the Pension Fund should be formally considered and accounted as a part of social assistance and covered by general budget revenues*.
- *Simplification of the overall safety net* by consolidating specific programs, coordinating eligibility rules, and implementing a verification process, including:
  - A more effective approach to social protection, which will require a shift to a comprehensive and systematic policy to integrate contributory and noncontributory benefits into a social protection system that does not treat pensions and in-kind and cash benefits independently. Such a shift will require investments in staff, as well as streamlining administrative processes, targeting mechanisms, and the management information system.
  - A unified approach to improve the quality of information; more effective administrative cross-checks, identity verification, monitoring analytics; and data-sharing protocols for agencies (e.g., tax services, civil registries, the social security fund, and property), which should help to improve

HUS administration and optimize income verification procedures; and a more transparent financial management to replace an opaque system of inter-institutional settlements that produces waste, fraud and errors.

## Accelerating decentralization for more efficient public finance and better service delivery

**Ukraine is highly decentralized in terms of service delivery, yet most local revenues remain skewed toward central government transfers**. High reliance on transfers undermines incentives to improve service delivery. Subnational spending, including on social security, accounts for 31 percent of consolidated government spending. While public spending in Ukraine is equalized to a considerable extent by the transfer system, there is weak accountability for service delivery and performance at local levels. Since 70 percent of spending on education, health, and social services is passing through subnational governments, improving decentralized delivery mechanisms can help create an incentive for more efficient funds allocation.

**Decentralization reform implemented in 2015 helped improve revenues of the subnational governments, but it did not change their dependence on the transfers**: the share of central government in net expenditures in the consolidated budget increased to 59 percent in 2015. Moreover, there are few incentives for rationalizing education and healthcare networks or creating an enabling environment for efficient delivery of services. The new local revenues and revenue-sharing arrangements do not align resources with services. For example, the corporate income tax (CIT) is not a suitable source of subnational government revenues, and the narrow tax base for property tax will limit its importance.

**Another problem is the fact that subnational governments act as both providers and purchasers of social services**, which creates a conflict of interest undermining the quality of service delivery outcomes. The current input-based regulations need to be replaced by regulations promoting results-oriented quality management of social assistance, health, and education. The core objective of social assistance reform should be to introduce flexibility into the delivery model so that the system self-adjusts to address pockets of risk and changes in demand.

**Furthermore, future amalgamation of local communities may fall short in terms of improving service delivery and increasing local accountability**. The main goals of decentralization, which are to demarcate the territorial and administrative organization of different tiers of government to support subsidiarity, local accountability, and sound subnational government fiscal management, are difficult to reach by voluntary amalgamation of communities as presently designed.

The reforms going forward may focus on:

- *Strengthening subnational government's revenue base* by abolishing sharing of CIT, which does not align resources with services; ensure that the personal income tax (PIT) is attributed to the jurisdiction where the taxpayer resides; revamp the property tax system by removing exemptions and give local government more flexibility to set rates and ensure that all real estate is accounted for and taxed; developing a local debt market.
- *Revision of budget allocation mechanism in social sectors*: review health and education subventions to align them with the goals of changing the financing mechanism and create incentives for improving the quality of services.
- *Improvising transparency and accountability of subnational governments* (SNGs): grant the Accounting Chamber the right to audit local budgets; improve the participation of citizens in the community budget, for example by providing easily accessible and comprehensive budget information and encouraging participation in all phases of the budget process.

- *Revising practices and guidelines for voluntary amalgamation of local units* to encourage formation of regional amalgamations that are neither to large or small as well as to offer incentives for amalgamation and inter-municipal cooperation.

## Implementation of comprehensive structural reforms are needed to achieve permanent fiscal savings and improve service delivery

**Maintaining sustainable public finances and addressing spending pressures would not be possible without comprehensive structural reforms that improve tax compliance, increase fiscal sustainability of the pension system, improve targeting of social assistance, enhance intergovernmental relations and improve health financing model.** The government's fiscal framework, underpinned by the IMF's EFF, envisages a gradual reduction of the fiscal deficit to about 2 percent of GDP by 2020. However, if spending pressures are not addressed due to delays with the implementation of pension, tax administration and other reforms (defined as a *no reform scenario*), general government expenditure levels would again reach levels over 45 percent of GDP, while revenues are expected to remain flat at about 40 percent of GDP. In the *no reform* scenario, estimated *fiscal financing needs* (defined as deficit financing and debt redemption payments) will reach almost 24 percent of GDP by 2019 (figure O.18). In the current environment, meeting these *fiscal financing* needs in domestic or international financial markets would be difficult. In this context the purpose of advancing structural reforms is to identify measures that would yield permanent fiscal savings of about 5 percent of GDP over the next three years. These fiscal savings would effectively lower the fiscal financing needs to a more manageable level of about 15 percent of GDP by 2020 (figure O.17 and figure O.18).

**Figure O.17 Medium-Term Fiscal Financing Gap and Fiscal Deficit targets, Percent of GDP**

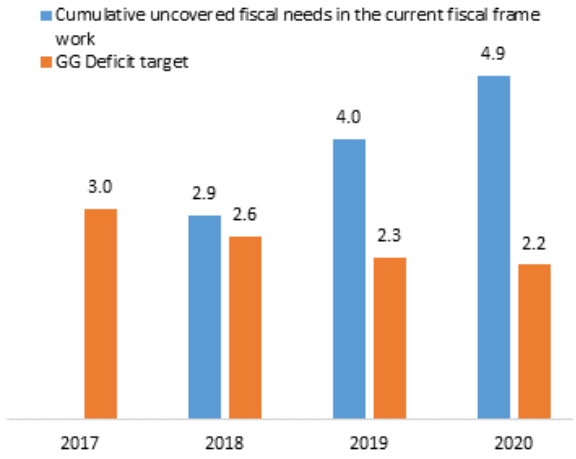
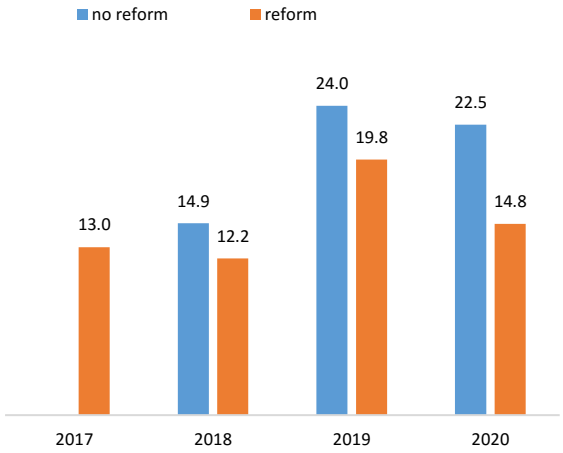



**Figure O.18. Estimated Medium-Term Fiscal Financing need*, Percent of GDP**




*Source*: World Bank estimates.
* "no reform" scenario estimates fiscal financing needs for the case, if authorities do not identify measures needed to reach the GG deficit targets in sustainable manner.

**The recommendations in this report identify permanent fiscal savings needed to produce a more sustainable government debt-to-GDP ratio (*the reform scenario*).** Table O.1 summarizes suggested measures to generate cumulative fiscal savings of 4.7 percent of GDP for the next three years. The burden of the fiscal adjustment is equally shared between revenue and expenditure measures. On the revenue side, the largest cumulative savings (about 1.2 percent of GDP over the medium term) come from improvements of VAT administration and revisions of the international treaties. On the expenditure side, the introduction of structural reforms in education and health sectors would give sizable cumulative fiscal savings over the medium to long term. In the short run, these fiscal savings would come mainly from improving the targeting of social benefits by rationalization of categorical social benefits and the reform of the pension system.

**Table O.1. Estimated Fiscal Impact of Additional Identified Reforms Relative to Baseline, Percent of GDP**

| Reform | 2018 | 2019 | 2020 |
|---|---|---|---|
| **1. Summary Relative to Baseline (2+3)** | **2.7** | **3.9** | **4.7** |
| **2. Revenue Measures** | **1.3** | **1.8** | **2.3** |
| Improvements in VAT administration | 0.4 | 0.6 | 0.8 |
| Improvements in Transfer Pricing audits procedures | 0.1 | 0.1 | 0.1 |
| Reduction of complexities and uncertainties in tax legislation | 0.1 | 0.2 | 0.3 |
| Revisions of international treaties | 0.0 | 0.2 | 0.4 |
| Adjustments in eligibility criteria to use simplified tax regime | 0.2 | 0.2 | 0.2 |
| Adjustments in property tax rates at the local level | 0.2 | 0.2 | 0.2 |
| Increases in tobacco taxes | 0.3 | 0.3 | 0.3 |
| **3. Expenditure Savings** | **1.4** | **2.1** | **2.4** |
| Optimization of categorical social assistance benefits | 1.0 | 1.3 | 1.3 |
| Reforms related to basic pension component | 0.1 | 0.2 | 0.2 |
| Reforms related to old age insurance pension | 0.0 | 0.2 | 0.4 |
| Optimization of higher education spending | 0.2 | 0.2 | 0.2 |
| Introduction of guaranteed health financing package | 0.1 | 0.2 | 0.3 |

*Source*: World Bank estimates.

**The implementation of these reform measures would allow to sustainably reduce the fiscal deficit moving the debt-to-GDP ratio towards a sustainable trajectory.** The debt sustainability analysis shows that the public debt-to-GDP ratio would decline to below 65 percent by 2020 in the case of *the reform scenario*. Absent of additional measures (*the no reform scenario*) the public debt-to-GDP ratio would decline just to about 75 percent in 2020. Although the estimated debt trajectory is declining under both scenarios, in *the no reform* scenario the decline in debt-to-GDP levels is being achieved only due to expected economic recovery and exchange rate stabilization. In no reform scenario there is a risk that over time such large debt levels would again lead to balance of payments pressures and volatile growth trajectory.

**Figure O.19. Estimated dynamics of revenue components, Percent of GDP**

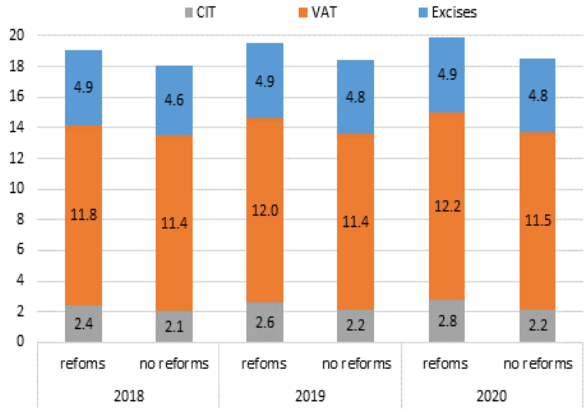



**Figure O.20. Estimated dynamics of expenditure components, Percent of GDP**


**Figure O.21. Estimated dynamics of key fiscal indicators, Percent of GDP**

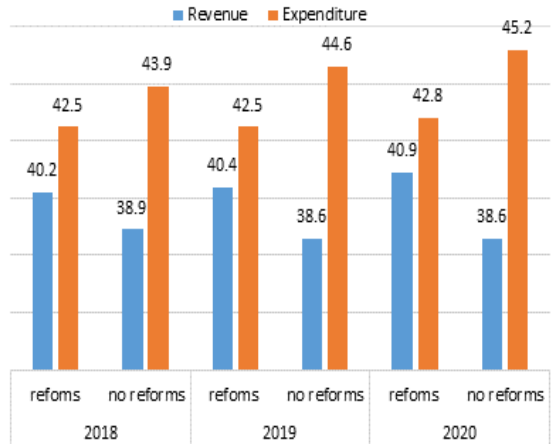
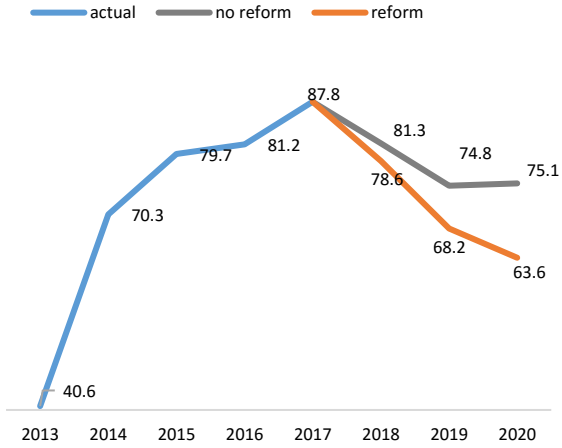



**Figure O.22. Public and Publicly Guaranteed Debt, Percent of GDP**




*Source*: World Bank estimates.

**Implementing these reforms will not be easy considering Ukraine's continuing acute political and security challenges.** While actions taken to date have been important in stabilizing the economy, a large backlog of unfinished reforms and substantial vulnerabilities mean that advancing reforms on multiple fronts will be critical to put Ukraine on the path to sustained recovery and shared prosperity. Deep-rooted corruption and the powerful impact of vested interests complicate reform. To gain wide support for the vast reform agenda, the government must continue improving the quality of public services and the living standards of the population.

# Chapter 1 The Need for Comprehensive Fiscal Reforms

Ukraine has made considerable progress restoring macroeconomic stability and reducing large structural imbalances, but high public expenditure and aggregate public debt levels are undermining the country's growth potential. In addition, the high government footprint—including a high level of public social expenditures—is associated with poor quality of public services. Given strong spending pressures anticipated going forward, there is a risk that recent fiscal consolidation gains will be gradually reversed.

In this context, the objective of this Public Finance Review (PFR) is to present the government of Ukraine with fiscal reform options that would restore sustainability of public finances while improving critical public services and building up medium-term growth prospects. The PFR offers reform options for a gradual and sustainable fiscal deficit reduction and mitigation of risks to debt sustainability through a broadening of the tax base, more effective tax administration, and more efficient public spending. This chapter provides an overview of Ukraine's overall fiscal stance and key pressures to the fiscal sustainability.

## Accommodative fiscal policy stance had made Ukraine vulnerable to external shocks

Over the last two decades, Ukraine has gone through episodes of strong and weak growth that masked significant structural fiscal weaknesses. Prior to 2014, Ukraine relied primarily on accommodative fiscal policies to support growth recovery. Excessive reliance on accommodative policy, combined with a rigid exchange rate regime, caused sizable current account and fiscal deficits to accumulate (figures 1.1 and 1.2). The growth impact of pro-cyclical fiscal measures was undermined by Ukraine's trade openness, growing public debt, and the real appreciation of the exchange rate, which contributed to widening external imbalances and an erosion of investor confidence. Large deficits reduced aggregate savings and led to inflation, high interest rates, balance of payments pressures and volatile growth trajectory.

**Figure 1.1. Pro-Cyclical General Government Spending,**

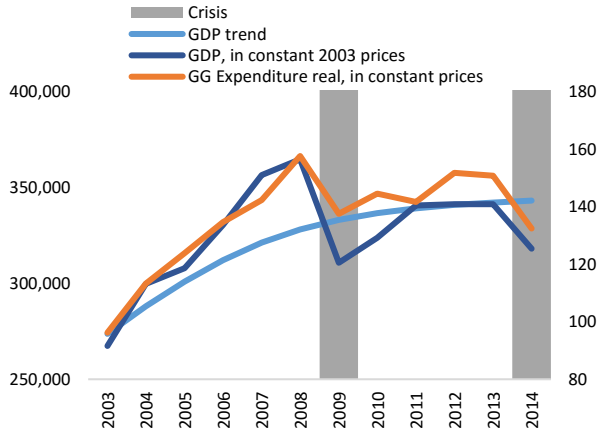
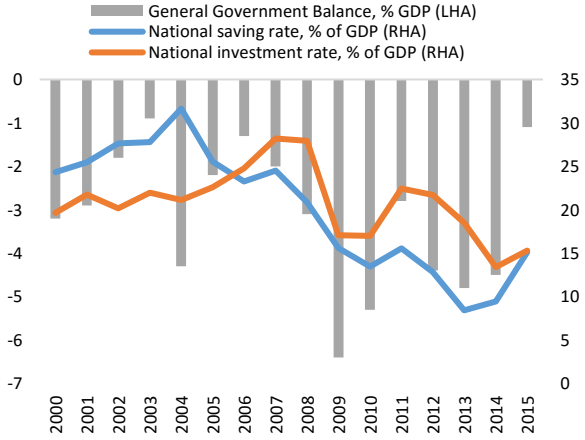



**Figure 1.2. General Government Fiscal Balance, National Savings and Investment, Percent of GDP**




*Source*: Ukrainian Statistic Service, World Bank estimates.

In early 2014, a correction in commodity prices, erosion of the external environment, and conflict in the east of the country significantly increased balance-of-payment (BOP) pressures and triggered a severe recession (a cumulative decline of 16 percent over 2014-2015) and sharp currency depreciation (63 percent

over 2014-2015). While the military conflict that began in east Ukraine in 2014 did not cause the country's macroeconomic problems, it introduced immediate fiscal challenges and made it more difficult to restore macroeconomic stability. Weak revenue collection from the east, higher spending on security, and a higher quasi-fiscal deficit of *Naftogaz* (due to the exchange rate adjustment) undermined efforts to reduce fiscal imbalances in 2014. General Government deficit reached 4.5 percent of GDP in 2014, while the *Naftogaz* deficit reached 5.6 percent of GDP. In addition, the need to support the banking system and the Deposit Guarantee Fund (DGF) brought the overall government financing needs to 12.4 percent of GDP. As a result, the combination of persistent fiscal imbalances, GDP contraction and currency depreciation pushed up the public debt-to-GDP ratio from 40.6 percent in 2013 to 70.3 percent in 2014.

Tight expenditure control, an increase in gas tariffs and external public debt restructuring helped to stabilize the fiscal stance at the end of 2015. Further fiscal tightening accompanied with unprecedented hike in gas tariffs helped to slash the General Government fiscal deficit to 1.2 percent of GDP and reduced the *Naftogaz* deficit to 0.9 percent in 2015. Total fiscal requirements, including the cost of refinancing banks and Deposit Guarantee Fund (DGF), amounted to 4.4 percent of GDP in 2015, which were just a third of the 2014 level. In November 2015, Ukraine successfully restructured about USD 19 billion of its public external debt, and by year-end 2015, public and publicly guaranteed debt amounted to 80 percent of GDP, down from over 95 percent before the debt restructuring.

**Figure 1.3. General Government Fiscal Operations, Percent of GDP**

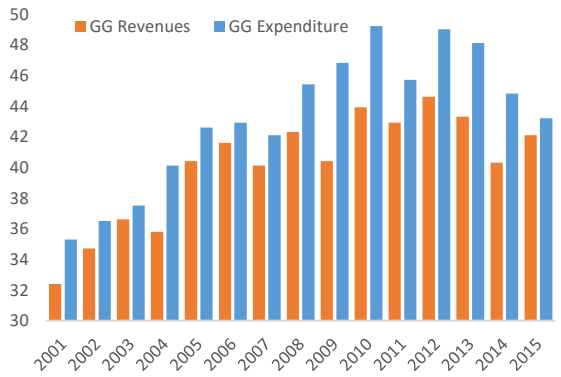
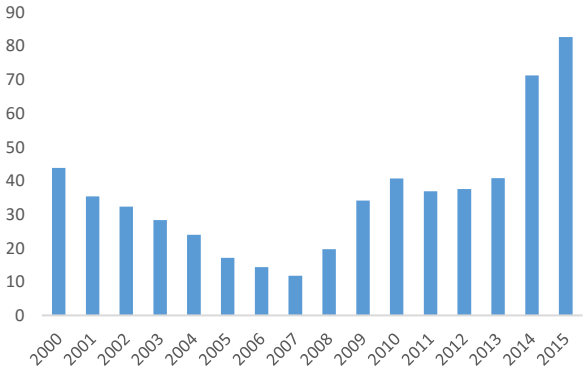



**Figure 1.4. Public and Publicly Guaranteed Debt, Percent of GDP**




*Source*: Ukrainian Statistic Service, World Bank estimates.

However, going forward, spending pressures remain high and there is a risk that recent fiscal consolidation gains will be gradually reversed. The General Government deficit doubled in 2016 amounting 2.2 percent of GDP and it is projected to widen further to 3.1 percent of GDP in 2017. Partially it is explained by the fact that the recent fiscal consolidation was facilitated by several one-off factors—higher than expected inflation and exchange rate depreciation resulted in higher growth of nominal revenues. By 2016, both the inflation and exchange rate had stabilized. Fiscal pressures intensified again in 2016 due to cut in the social security contributions (SSC) rate from 40 to 22 percent. Social Security Contribution (SSC) revenues declined from 9.6 percent of GDP in 2015 to 5.5 percent in 2016, resulting in the permanent pension fund deficit of close to 5 percent of GDP. In addition, significant increases in the minimal wage starting in early 2017[1] are estimated to expand the aggregate wage bill by 2 percent of GDP, reversing some wage bill adjustment done in recent years.

Additional pressures are coming from weak economic recovery and significant headwinds from the conflict. Economic recovery is expected to remain moderate at 2.0 percent in 2017 and 3.5 percent in 2018. Significant headwinds remain in accelerating reforms in a complex political environment. In addition, the

[1] The 2017 Budget Law includes a significant increase in minimal wage to Hrv 3200. To minimize a fiscal cost of this move the minimal wage will be delinked from the subsistence minimum and unified wage scale.

conflict in the east of Ukraine has escalated since end-January 2017. The trade blockade with the uncontrolled areas in the east of Ukraine is expected to negatively impact current account deficit that may put addition pressure on the currency market. A combination of weak economic growth and exchange rate pressures is making debt reduction more challenging.

The debt level remains elevated due to slow economic recovery, persisting fiscal deficit and quasi-fiscal pressures. Public and publicly guaranteed debt is projected to increase again to 89 percent of GDP in 2017, due to a 3 percent of fiscal deficit, and about 3.7 percent of GDP of expected support the banking system and DGF. Moreover, the term structure of public debt remains unfavorable with large repayment pressures emerging starting from 2019. Thus, a credible strategy for reducing the fiscal deficit is needed to stabilize and gradually decrease the public debt.

**Table 1.1. Key Macroeconomic Indicators**

| | 2013 | 2014 | 2015 | 2016 | 2017f | 2018f | 2019f | 2020f |
|---|---|---|---|---|---|---|---|---|
| **Real economy** | | | | | | | | |
| Nominal GDP, UAH *billion* | 1465.2 | 1586.9 | 1988.5 | 2383.4 | 2735.0 | 3085.4 | 3449.5 | 3802.8 |
| Real GDP, *percent change* | 0.0 | -6.6 | -9.8 | 2.3 | 2.0 | 3.5 | 4.0 | 4.0 |
| Consumption, *percent volume change* | 5.2 | -6.2 | -15.9 | 1.4 | 3.1 | 2.8 | 3.3 | 4.7 |
| Investment, *percent volume change* | -8.4 | -24.0 | -9.2 | 20.1 | 15.4 | 7.9 | 7.7 | 6.2 |
| Exports, *percent volume change* | -8.1 | -14.2 | -13.2 | -1.6 | 1.6 | 3.0 | 5.0 | 3.4 |
| Imports, *percent volume change* | -3.5 | -22.1 | -17.9 | 8.4 | 1.7 | 1.6 | 6.7 | 5.1 |
| Unemployment rate (ILO definition), *percent* | 7.2 | 9.3 | 9.1 | 9.3 | 8.5 | 8.0 | 9.0 | 8.3 |
| GDP deflator, *percent change* | 3.1 | 14.8 | 38.4 | 17.1 | 12.5 | 9.0 | 7.5 | 6.0 |
| CPI (pa), *percent change* | -0.3 | 12.1 | 48.7 | 13.9 | 11.7 | 9.5 | 6.5 | 5.5 |
| **Fiscal Accounts** | | | | | | | | |
| Revenues, *percent GDP* | 43.6 | 40.3 | 42.1 | 38.6 | 38.9 | 40.2 | 40.4 | 40.9 |
| Expenditures, *percent GDP* | 48.4 | 44.8 | 43.3 | 40.6 | 41.9 | 42.5 | 44.6 | 42.5 |
| General Government Balance, *percent GDP* | -4.8 | -4.5 | -1.2 | -2.2 | -3.0 | -2.3 | -2.1 | -1.9 |
| General Government and Naftogaz Balance, *percent GDP* | -6.7 | -10.1 | -2.2 | -2.3 | -3.0 | -2.3 | -2.1 | -1.9 |
| PPG debt (eop), *percent GDP* | 40.6 | 70.3 | 79.7 | 81.2 | 87.8 | 78.6 | 68.2 | 63.6 |
| **Selected Monetary Accounts** | | | | | | | | |
| Base Money, *percent change* | 20.30 | 8.50 | 0.80 | 13.60 | 13.00 | 12.70 | 12.10 | 11.70 |
| Credit to non-government including exchange rate effect, *percent change* | 9.50 | -15.60 | -19.40 | -3.70 | 6.80 | 8.10 | 11.40 | 10.0 |
| Interbank overnight rate (annual average), *percent* | 3.8 | 12.2 | 21.5 | 16.9 | … | … | … | … |
| **External Accounts** | | | | | | | | |
| Current Account Balance, *percent GDP* | -9.2 | -4.2 | -0.3 | -3.8 | -4.1 | -3.0 | -3.2 | -3.1 |
| Foreign Direct Investment, *percent GDP* | 2.1 | 0.2 | 3.6 | 3.4 | 1.8 | 2.5 | 35.5 | 34.6 |
| Gross Reserves, *billion US$, eop* | 20.4 | 7.5 | 13.3 | 15.5 | 21.8 | 29.5 | 42.0 | 40.9 |
| *In months of next year's imports* | *3.5* | *1.8* | *3.1* | *3.4* | *4.6* | *5.8* | *3.2* | *3.4* |
| External Debt, *percent GDP* | 78.6 | 97.6 | 131.5 | 129.6 | 131.6 | 125.4 | 107.1 | 95.7 |
| Terms of Trade, *percent change* | 0.9 | 2.1 | -7.3 | 1.2 | 4.4 | -1.9 | 1.3 | 1.8 |
| Exchange Rate, UAH/*US$ (average)* | 8.2 | 12.1 | 23.4 | 25.7 | … | … | … | … |

Source: *Source*: World Bank estimates.

## The composition of spending reflects decades of unfinished reforms

Ukraine's public expenditures are misallocated, inefficient, and far too large; they are significantly higher than the average for the region or countries with similar income levels. At 43.4 percent of GDP on average for the last 10 years, general government spending is about 10.3 percentage points above the Europe and

Central Asia (ECA) regional average and about 14 percentage points above countries with similar per capita incomes. This gap has widened in recent years, making Ukraine an outliner among all peer countries (figure 1.5). For the past five years Ukraine's capital spending has averaged only about 2.4 percent of GDP, far below the below income group and regional averages (figure 1.6).

**Figure 1.5. General Government Spending, Percent of GDP, Average for 2010–15**

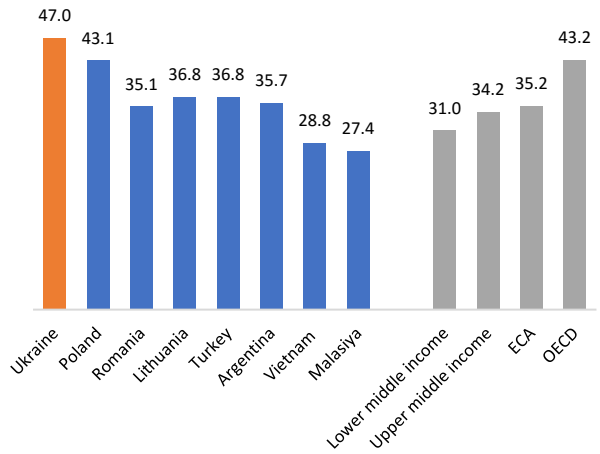
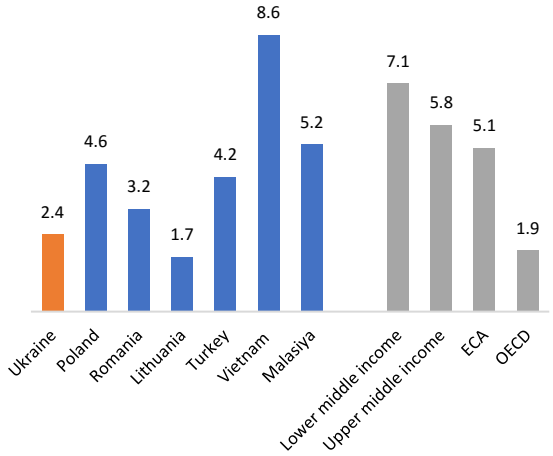



**Figure 1.6. Public Capital Spending, Percent of GDP, Average for 2010–15**




*Source*: Ukrainian Statistic Service, World Bank estimates.

The Ukrainian government significantly increased social spending between 2007 and 2013 as benefits were indexed to wages, which were rising, and demographic developments pushed up the number of beneficiaries. This led to a rapid enlargement of government and a reduction in capital spending (figures 1.7 and 1.8). Spending on social benefits, mainly pensions, expanded from an already high 19.6 percent of GDP to 23.4 percent. The public sector wage bill rose from 10.1 percent of GDP to about 11.5 percent. Moreover, despite falling student enrollment, expenditures on education also rose, from 6.2 percent of GDP in 2007 to 7.2 percent, mainly due to higher teacher salaries. Health care expenditures also increased, though from a relatively low 3.7 percent of GDP to 4.2 percent. Interest payments also rose due to greater public debt, reaching 2.5 percent of GDP in 2013. Meanwhile, capital spending contracted from 5.4 percent of GDP to 2 percent of GDP in 2013.

**Figure 1.7. Changes in General Government Revenues, 2001–14, Percentage Points of GDP**

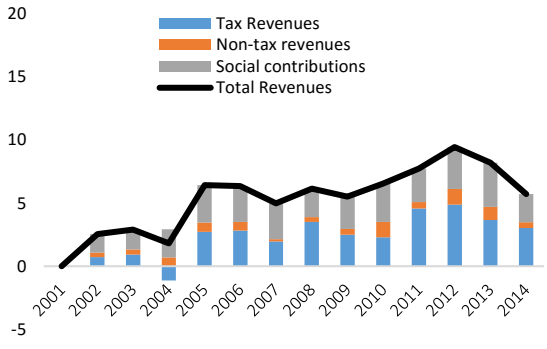
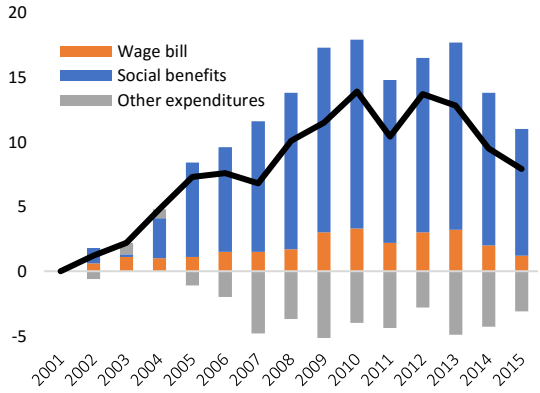



**Figure 1.8. Changes in General Government Spending, 2001–15, Percentage Points of GDP**




*Source*: World Bank estimates.

## Recent fiscal consolidation gains could be reversed if structural reforms in social sectors are delayed

In 2014 and 2015, an ambitious expenditure-led fiscal adjustment and an increase in gas tariffs reduced the aggregate deficit and created fiscal space for defense and interest payments. Compared to pre-crisis levels, spending on social sectors (functional classification) and wage bill (economic classification) declined, making room for priority spending on defense and interest payments (table 1.2). Across all main spending functions, the wage bill was reduced the most over the last two years. Outlays on social protection were reduced by effectively freezing pension levels, reducing the social pension replacement rate from 70 to 60 percent, and tightening eligibility for early retirement. Budget subsidies for economic sectors—mainly related to inefficient coal-mining—were also slashed.

**Table 1.2. General Government Spending by Function, Before and After Adjustment in 2014/2015, Percent of GDP**

| | Average 2005–13 | 2014 | 2015 |
|---|---|---|---|
| **Functional Classification** | | | |
| General Services | 3.6 | 4.8 | 5.9 |
| Defense | 1.1 | 1.7 | 2.6 |
| Public order and safety | 2.5 | 2.8 | 2.8 |
| Economic Affairs | 4.5 | 2.7 | 2.8 |
| Environment | 0.3 | 0.2 | 0.3 |
| Housing and communal services | 0.9 | 1.1 | 0.8 |
| Health | 3.8 | 3.6 | 3.6 |
| Sport, culture, religion | 0.9 | 0.9 | 0.8 |
| Education | 6.6 | 6.3 | 5.8 |
| Social Protection | 21.6 | 20.5 | 17.8 |
| Total | 45.8 | 44.8 | 43.2 |
| **Economic Classification** | | | |
| Labor cost | 10.5 | 10.2 | 9.4 |
| Procurement of goods and services | 6.6 | 6.8 | 7.2 |
| Payment of interest/ income on liabilities | 1.3 | 3.3 | 4.5 |
| Current transfers to residents | 2.6 | 2.3 | 1.4 |
| Social security | 21.2 | 20.3 | 17.5 |
| Other current expenditures | 0.1 | 0.6 | 0.9 |
| Acquisitions of capital assets | 1.8 | 0.9 | 1.8 |
| Capital transfers | 1.6 | 0.4 | 0.6 |
| Total | 45.8 | 44.8 | 43.2 |

*Source*: World Bank estimates based on BOOST.

The composition of spending is still steeply tilted toward nondiscretionary items that reduce the fiscal room for maneuver. Most budget expenditures are in priority or mandatory categories, some of which are specifically protected in the budget code.[2] When functional and economic classifications of expenditures are combined, in 2015 about 80 percent of the total was still related to social spending, interest payments, wages, or defense expenditures in 2015 (table 1.3).

[2] Protected categories, specified in Article 55 of the Budget Code of Ukraine, include salaries, payroll, utilities, debt servicing, transfers to households, transfers to local government, purchase of medicines, and tertiary education.

**Table 1.3. General Government Expenditures by Functional and Economic Classification in 2015, Percent of Total Expenditures**

| | Public Services | Defense and Public Order | Economic Affairs | Health | Education | Social Protection | Other | Total |
|---|---|---|---|---|---|---|---|---|
| Current Expenditures | | | | | | | | |
| Labor costs | 2.1 | 7.0 | 0.5 | 4.2 | 6.8 | 0.5 | 0.8 | 21.7 |
| Goods and Services | 1.3 | 4.5 | 3.3 | 3.1 | 5.8 | 0.4 | 0.5 | 18.9 |
| Interest | 10.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 |
| Social security and current transfers to residents | 0.2 | 0.3 | 1.8 | 0.2 | 0.2 | 40.0 | 0.9 | 43.6 |
| Capital Expenditures | 0.2 | 0.7 | 2.4 | 0.8 | 0.6 | 0.3 | 0.4 | 5.5 |
| Total | 13.8 | 12.5 | 8.4 | 8.3 | 13.4 | 41.1 | 2.5 | 100.0 |

*Sources*: BOOST and Treasury data.

Despite the fiscal consolidation measures, spending is still high in areas considered unproductive for growth: public services, defense and public order, and social protection. In 2016 Ukraine still spent more than 60 percent of its consolidated general government budget on social sectors (figures 1.9 and 1.10). Most social spending occurs at the subnational level, with a third of total subnational spending devoted to education and a quarter to social protection.[3] Spending on health accounts for 22 percent. Spending on economic infrastructure, such as roads, accounts for only seven percent of total expenditure. Spending on housing, including subsidies to cover the arrears of utility companies, accounts for another five percent.

**Figure 1.9. General Government Spending by Economic Classification, 2016**

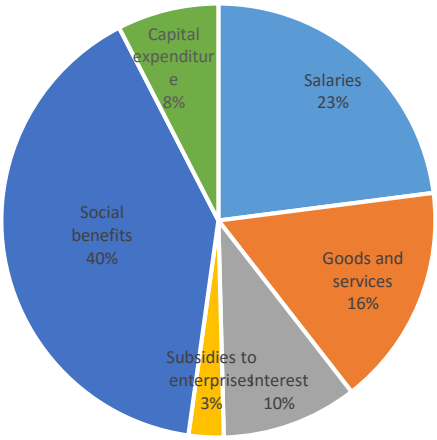
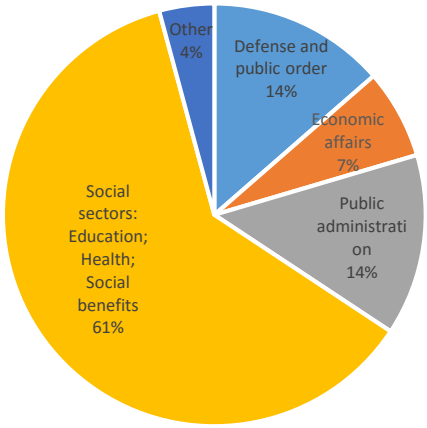



**Figure 1.10. General Government Spending by Functional Classification, 2016**




*Source*: BOOST and Treasury data.

More importantly the fiscal adjustment did not address structural inefficiencies in social sectors resulting in new expenditure pressures. The main burden of adjustment felt on the wage bill in social sectors and pensions driven mostly by temporary freezes of wage growth and limited indexation. Absent of structural reforms in social sectors—most importantly pension reform—fiscal consolidation gains can be reversed. Expenditure pressures on the wage bill have reemerged in 2017. For example, the government has doubled the minimum wage to Hrv3200 effective from 2017, mostly in health and education sectors. It is estimated to increase the aggregate wage bill by 1.5 percent of GDP in 2017 and by over 2 percent in the medium term. To minimize the fiscal cost of this move in 2017 the minimal wage will be delinked from the

[3] Social protection covers spending on residential facilities for the disabled, cash transfers to individuals, and subsidies to public companies, such as transport companies to cover centrally mandated subsidies to vulnerable populations.

subsistence minimum and unified wage scale. However, to reduce the fiscal pressures going forward the structural reforms in the social sectors are needed to right size large and inefficient public sector and to improve the quality of public services.

**Figure 1.11. Fiscal Adjustment by Economic Classification, Real Changes in Percent, YoY**

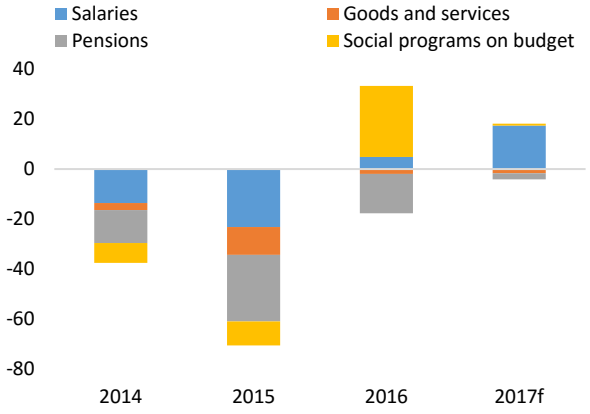
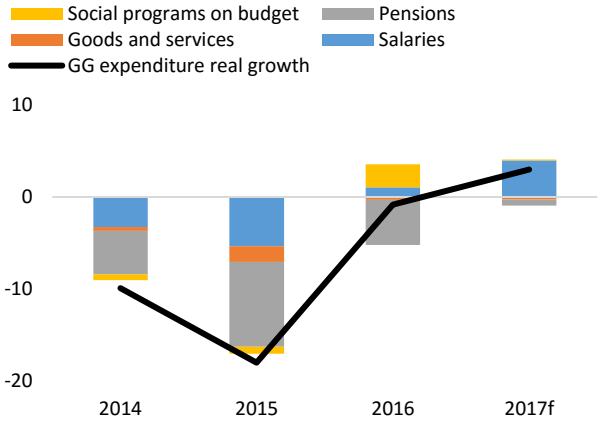



**Figure 1.12. Contribution to the real decline of GG expenditures, Percentage points**




*Source*: Ukrainian Statistic Service, World Bank estimates.

## A permanent fiscal adjustment to reduce the fiscal deficit is needed to stabilize and gradually reduce public debt

Public debt level remains elevated and risks to its sustainability are high. The currency structure of public debt shows a significant shift towards the FX obligations (about 70 percent in 2016), while interest payments remain high (at about 4 percent of GDP per year). Thus, the projected decline in public debt is subject to many downside risks related to uncertain growth outlook, exchange rate and contingent liabilities related to the banking system. Debt Sustainability analysis show that a decline in growth by about 10 percent per year would push the debt to an unsustainable level (above 100 percent) again. Moreover, the term structure of public debt remains unfavorable with large repayment pressures emerging starting from 2019.

Actionable measures for permanently reducing the fiscal deficit through 2020 are needed to stabilize and gradually reduce the public debt. Solving Ukraine's budget problems will require comprehensive and deep fiscal reforms, broadening the tax base, strengthening tax administration, and rationalizing current expenditures, particularly pensions. Reforms should aim to balance the budget and gradually but durably reduce the size of the government while ensuring sustainability of public services and social insurance. The benefits of the fiscal adjustments were already evident in the first half of 2015, but continued reforms will be needed for sustained progress. With no policy action taken Ukraine's fiscal outlook is not promising—slow growth recovery, structural weaknesses and a sizable pension fund deficit would move Ukraine's public debt towards an unstainable trajectory.

The authorities are committed to meeting the IMF program's general government deficit targets, but the annual gap between the expected deficit and the IMF program target is about 1 percent of GDP in the medium term, assuming no further reforms. If comprehensive measures are not implemented, the debt level will approach 90 percent of GDP in 2017, not likely to decrease to 71 percent in 2020 as the IMF Extended Fund Facility (EFF) intends (figures 1.13 and 1.14).

The recommendations in this report identify cumulative fiscal savings amounting to about 5 percent of GDP for 2017-20 that could support a more sustainable trajectory for the government debt-to-GDP ratio (table 1.4). Analysis of expenditures in this review is structured according to functions rather than economic categories. Hence, the PFR is not focusing explicitly on providing specific policy recommendations for the aggregate wage bill, public investment or contingent liabilities—important economic categories of public

expenditures. Instead, the policy recommendations in this report focus on improving fiscal sustainability and service delivery through structural reforms in key sectors over the medium to long term.

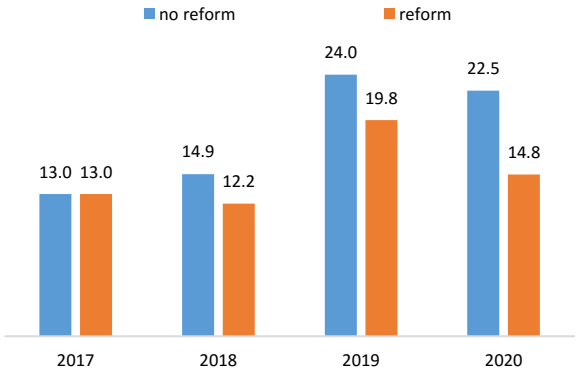
If the savings are used to reduce the deficit, that would support a further improvement, moving the debt-to-GDP ratio down to below 70 percent by 2020. A debt sustainability analysis based on the fiscal consolidation including suggested measures shows the public debt-to-GDP ratio can decline to 65 percent in 2020 even in case of some further gradual currency depreciation and support to the banking system. In addition, the suggested measures would guarantee a sustainable decline in expenditure due to its structural transformation—building an incentive for more efficient use of public funds in the social sectors, including right-sizing of the wage-bill, strengthening of the pension system and better targeted social assistance. Absent of additional measures (*the no reform scenario*) the public debt-to-GDP ratio would decline just to about 75 percent in 2020. Despite, the estimated debt trajectory is declining in both cases, for *the no reform* it is being achieved only due to expected economic recovery and exchange rate stabilization. Over time such large debt levels would again lead to balance of payments pressures and volatile growth trajectory.

**Table 1.4: Estimated Fiscal Impact of Additional Identified Reforms (the reform scenario) Relative to Baseline (the no reform scenario), Percent of GDP**

| Reform | 2018 | 2019 | 2020 |
|---|---|---|---|
| **1. Summary Relative to Baseline (2+3)** | **2.7** | **3.9** | **4.7** |
| **2. Revenue Measures** | **1.3** | **1.8** | **2.3** |
| Improvements in VAT administration | 0.4 | 0.6 | 0.8 |
| Improvements in Transfer Pricing audits procedures | 0.1 | 0.1 | 0.1 |
| Reduction of complexities and uncertainties in tax legislation | 0.1 | 0.2 | 0.3 |
| Revisions of international treaties | 0.0 | 0.2 | 0.4 |
| Adjustments in eligibility criteria to use simplified tax regime | 0.2 | 0.2 | 0.2 |
| Adjustments in property tax rates at the local level | 0.2 | 0.2 | 0.2 |
| Increases in tobacco taxes | 0.3 | 0.3 | 0.3 |
| **3. Expenditure Savings** | **1.4** | **2.1** | **2.4** |
| Optimization of categorical social assistance benefits | 1.0 | 1.3 | 1.3 |
| Reforms related to basic pension component | 0.1 | 0.2 | 0.2 |
| Reforms related to old age insurance pension | 0.0 | 0.2 | 0.4 |
| Optimization of higher education spending | 0.2 | 0.2 | 0.2 |
| Introduction of guaranteed health financing package | 0.1 | 0.2 | 0.3 |

*Source*: World Bank estimates.

**Figure 1.13. Estimated Medium-Term Fiscal Financing need, Percent of GDP**




*Source*: World Bank estimates.

**Figure 1.14. Estimated Public and Publicly Guaranteed Debt, Percent of GDP**

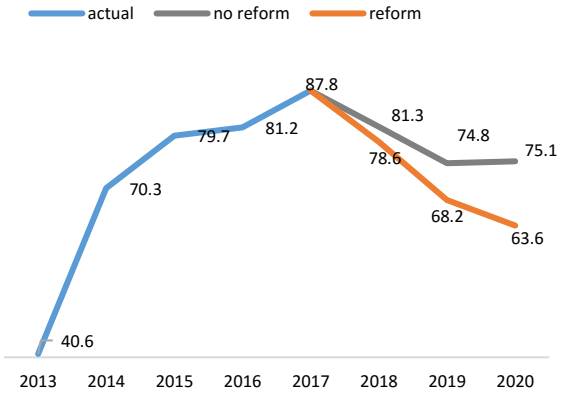


**Table 1.5: Estimated fiscal indicators, based on suggested reforms, Percent of GDP**

| | 2015 | 2016 | 2017f | 2018f | | 2019f | | 2020f | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | no reform | reform | no reform | reform | no reform | reform |
| **Revenues** | **42.1** | **38.6** | **38.9** | **38.9** | **40.2** | **38.6** | **40.4** | **38.6** | **40.9** |
| Tax revenues | 35.5 | 33.1 | 34.4 | 34.8 | 36.1 | 34.7 | 36.5 | 34.8 | 37.1 |
| Corporate profit tax | 2.0 | 2.5 | 2.3 | 2.1 | 2.4 | 2.2 | 2.6 | 2.2 | 2.8 |
| Personal Income tax | 5.1 | 5.8 | 6.0 | 6.1 | 6.1 | 6.2 | 6.2 | 6.3 | 6.4 |
| Payroll tax | 9.6 | 5.5 | 6.1 | 6.2 | 6.2 | 6.3 | 6.3 | 6.4 | 6.5 |
| Property tax | 0.8 | 1.1 | 0.9 | 0.9 | 1.1 | 0.8 | 1.0 | 0.8 | 1.0 |
| VAT | 9.0 | 9.9 | 10.7 | 11.4 | 11.8 | 11.4 | 12.0 | 11.5 | 12.2 |
| Excises | 3.6 | 4.3 | 4.6 | 4.6 | 4.9 | 4.8 | 4.9 | 4.8 | 4.9 |
| Taxes on international trade | 2.0 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| Other taxes | 3.4 | 3.1 | 3.0 | 2.7 | 2.8 | 2.2 | 2.7 | 2.0 | 2.5 |
| Non-tax revenues | 6.6 | 5.5 | 4.5 | 4.1 | 4.1 | 3.9 | 3.9 | 3.8 | 3.8 |
| **Expenditures** | **43.3** | **40.6** | **41.9** | **43.9** | **42.5** | **44.6** | **42.5** | **45.2** | **42.8** |
| Current expenditures | 40.7 | 37.5 | 38.6 | 40.8 | 39.6 | 41.4 | 39.4 | 42.0 | 39.6 |
| Wages and compensation | 9.4 | 9.3 | 10.8 | 12.0 | 11.9 | 12.2 | 12.1 | 12.2 | 11.9 |
| Goods and services | 7.4 | 6.7 | 6.5 | 6.3 | 6.3 | 6.2 | 6.0 | 6.2 | 6.0 |
| Interest payments | 4.2 | 4.1 | 4.2 | 4.3 | 4.3 | 4.0 | 4.0 | 3.9 | 3.9 |
| Subsidies to corporations | 1.3 | 1.1 | 1.2 | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | 0.8 |
| Social benefits | 18.4 | 16.3 | 15.9 | 17.2 | 16.1 | 18.1 | 16.4 | 18.9 | 17.0 |
| Pensions | 13.4 | 10.7 | 10.4 | 11.7 | 11.6 | 12.8 | 12.4 | 13.7 | 13.1 |
| Unemployment, disability and accident insurance | 1.2 | 1.0 | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 |
| Social programs | 3.8 | 4.6 | 4.6 | 4.7 | 3.7 | 4.6 | 3.3 | 4.5 | 3.2 |
| Other current expenditures | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Capital expenditures | 2.4 | 3.1 | 2.8 | 2.9 | 2.9 | 3.1 | 3.1 | 3.2 | 3.2 |
| Reserve fund | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Net lending | 0.2 | 0.1 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| **General Government Balance** | **-1.2** | **-2.2** | **-3.0** | **-5.0** | **-2.3** | **-6.0** | **-2.1** | **-6.6** | **-1.9** |
| Naftogaz Balance | -0.9 | -0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Bank Recapitalization Requirements and DGF | 2.3 | 5.7 | 3.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total financing needs** | **4.4** | **8.0** | **6.7** | **5.0** | **2.3** | **6.0** | **2.1** | **6.6** | **1.9** |

*Source*: World Bank estimates.

# Chapter 2 Broadening the Tax Base and Reforming Tax Administration

The tax system is complex, inequitable, and eroded by exemptions, and tax administration is large, inefficient, and widely perceived as corrupt. Although Ukraine already collects a high share of GDP as taxes, it can improve tax compliance and broaden the tax base. Further efforts in broadening the tax base and improving tax administration are critical to improving fiscal sustainability in the short term and laying a foundation for sustainable economic growth in the medium term. This chapter analyzes Ukraine's current tax system and identifies reform options in these two areas.

## Ukraine's tax system is complex, inequitable, and eroded by exemptions

In 2015, Ukraine's fiscal revenues amounted to about 40 percent of GDP, with tax revenues constituting the bulk, at about 23 percent of GDP. On average, Ukrainian tax revenues as a share of GDP are equivalent to the OECD average (figure 2.1), but about 5 percentage points higher than in the other countries of Europe and Central Asia (ECA). Ukraine also taxes more than comparator countries did when they had similar level of GDP per capita (PPP) (figure 2.2).

**Figure 2.1. Taxes (Excluding Social Security Contributions), Average Percent of GDP, 2010–15**

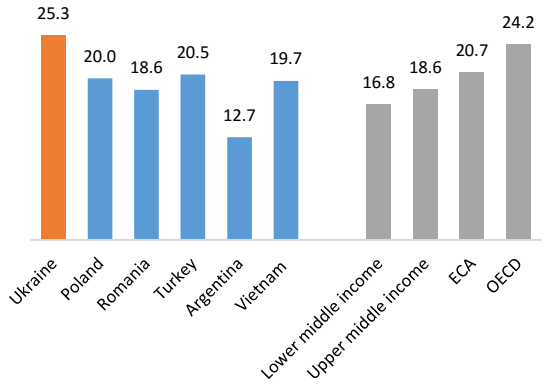
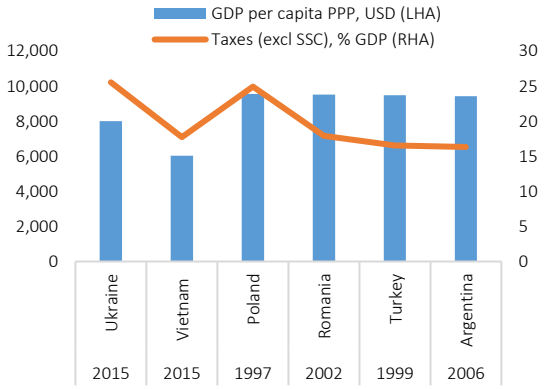



**Figure 2.2, Ukraine and Comparators, GDP Per Capita, Tax-to-GDP Ratio**




*Source*: IMF WEO.

Ukraine's tax rates are now broadly in line with European comparators (figure 2.3). The standard 20 percent VAT rate, and 18 percent corporate income tax (CIT) rate are in line with those in other European countries, but higher than rates in peer countries in the region. For example, rates in Bulgaria, Georgia, Moldova, and Romania range from 10 to 16 percent. The 18 percent personal income tax (PIT) rate in Ukraine is about the same as the European average. After the most recent payroll tax cut, the total tax on labor (including SSC) has been brought into line with most other European countries.

**Figure 2.3. Regional Tax Rates Compared**

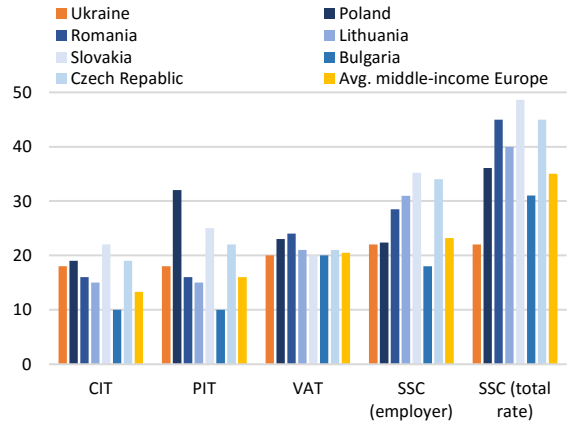
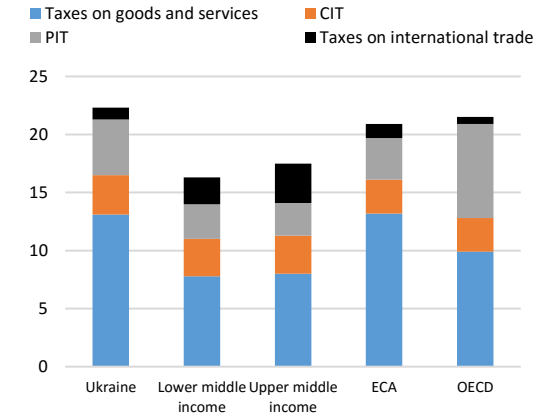



**Figure 2.4. Composition of Tax Revenues Compared, Average Percent of GDP, 2010–15**




*Source*: WB and IMF data bases.

As in other ECA countries, indirect taxes generate the bulk of revenues because they are easier to administer (figure 2.4). The tax system is based on VAT (which accounted for 21.4 percent of general government revenues in 2015), income taxes (16.6 percent), and social security contributions (22.8 percent).

However, the tax system is still complex, inequitable, and eroded by exemptions. Exemptions and loopholes for special interests have drastically narrowed the tax base, causing a high effective tax burden on law-abiding citizens and companies. The shadow economy is estimated at 44 percent of GDP (Schneider 2012) (see box 2.1). In the Business Environment and Enterprise Survey (BEEPs) survey, "Practices of the Informal Economy," informality is viewed as the fourth biggest constraint, and as many as 60 percent of firms view it as a problem.

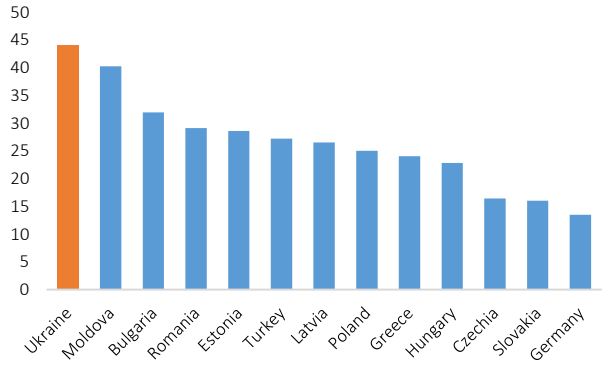
**Box 2.1. The Informal Economy in Ukraine**

Tax administrations globally increasingly worry about the intransigent problem of the shadow economy, especially the valuable tax revenues they lose to it. On average, one-third of the world economy is informal.

What is "informality"? How is the "shadow economy" defined? A narrower definition used by Schneider, Bruen, and Montenegro (2012) states: "the shadow economy includes all market-based legal production of goods and services that are deliberately concealed from public authorities to avoid payment of income, value added or other taxes; to avoid payment of social security contributions; having to meet certain legal labor market standards, such as minimum wages, maximum working hours, safety standards, etc.; and complying with certain administrative procedures, such as completing statistical questionnaires or administrative forms." Among factors identified in numerous studies as having a bearing on the level of informality are high levels of tax complexity, low or ineffective tax enforcement, and lack of incentives to carry out business transactions and make payments through formal banking channels. All these factors can be influenced by tax policies and measures adopted by the tax administration.

In Ukraine, the shadow economy is a major barrier to competitiveness, better living standards, and European integration. It reflects active, unreported, economic activities; public sector corruption; and the low legal and tax morale of entities and individuals. After the political changes of 2013–14, resolving these problems has become even more of a major challenge. The shadow economy, estimated at 44 percent of GDP in 2012, is much larger than in comparator countries (figure B2.1.1).

**Figure B2.1.1 The Shadow Economy as a Share of GDP**



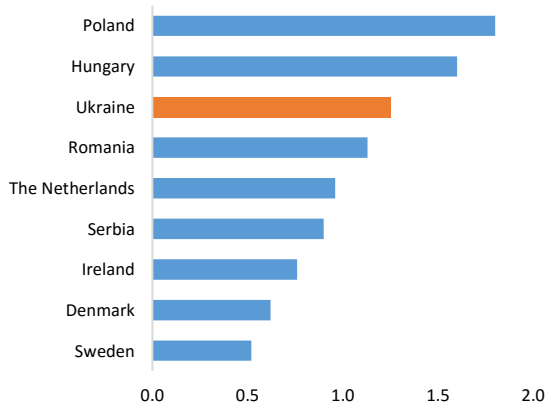

Schneider, Bruen, and Montenegro (2012).

It should be noted that the State Statistics Service estimates the shadow economy at 15 to 18 percent of GDP, but the Ministry of Economic Development and Trade estimate ranges from 29 to 38 percent. The total size of the shadow economy in 2012 was estimated at a minimum of Hrv 350 billion. In 2013, about Hrv 250 billion was circulating in the shadow economy.

## Tax administration is inefficient and widely perceived to be corrupt

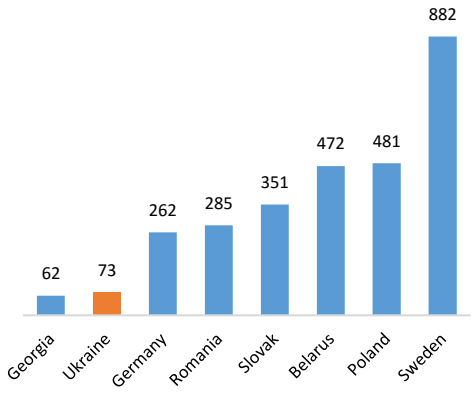
Ukraine's tax administration currently uses too many resources to collect taxes (table 2.1). In 2012, the cost of collection in Ukraine totaled 1.25 percent of taxes collected, which was more than the cost for regional comparators (figure 2.5). There were over 70 taxpayers per one member of the tax administration staff in 2012,[4] considerably fewer than Slovakia (351), Romania (285), or Sweden (882) (figure 2.6).[5] Clearly, the low efficiency of tax administration raises the costs of collection. The State Tax Service downsized to 40,000 staff in 2016, however the efficiency in terms of number for taxpayers per staff can only be improved substantially with the use of a modern risk management approach to tax administration. Moreover, the downsizing did not alter Ukraine's position vis-a-vis other countries.

**Figure 2.5. Cost of Tax Collection: Ukraine vs Comparators, 2012**




*Source*: IOTA, OECD.

**Figure 2.6. Number of Taxpayers Per Tax Staffer, Ukraine and Comparators, 2012**




*Source*: IOTA.

The tax administration also imposes an excessive compliance burden on taxpayers. Ukraine ranks 84th in the *Doing Business 2017* report for ease of paying taxes. On average, firms spend 355 hours a year filing, preparing, and paying taxes, which take up 51.9 percent of profit. This compares with an average of

[4] Ukraine has a tax staff of 52,871 and 3,854,617 taxpayers (Doing Business, World Bank Group).
[5] Intra-European Organization of Tax Administrators (IOTA).

221.5 hours for Central Asia and Eastern Europe, and an even lower average of 163.4 hours for OECD High Income countries. The tax burden, as measured by the total tax rate is also lower in Central Asia and Eastern Europe on average at 33.8 percent, and at 40.9 percent in EU/EFTA. The new *Doing Business* methodology includes a Post-Filing Index, which evaluates performance of tax administrations on VAT refunds, tax audits, and tax dispute resolution. Ukraine lags the OECD high income average, and scores particularly low in terms of issuing VAT refunds efficiently.

**Table 2.1. Tax Administration Summarized**

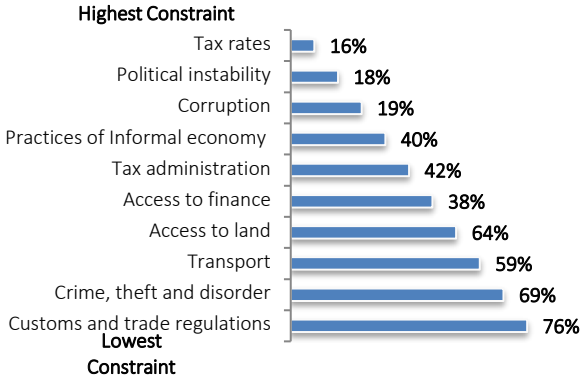
| Indicator | Ukraine | Europe & Central Asia | OECD high income |
|---|---|---|---|
| **Payments**. Number Per Year. | 5.0 | 17.6 | 10.9 |
| **Time** (Hours Per Year). The time it takes to prepare, file and pay (or withhold) the corporate income tax, value added or sales tax, and labor taxes, including payroll taxes and social contributions (in hours per year) | 355.5 | 221.5 | 163.4 |
| **Total Tax Rate** (% of Profit). The total tax rate measures the amount of taxes and mandatory contributions payable by the business in the second year of operation, expressed as a share of commercial profits | 51.9 | 33.8 | 40.9 |
| **Post-Filing Index** (0-100). The Post-Filing Index is based on four components: (1) time to comply with VAT refund; (2) time to obtain VAT refund; (3) time to comply with corporate income tax audit; and (4) time to complete a corporate income tax audit. If both VAT and corporate income tax apply, the Post-Filing Index is the simple average of the distance to frontier scores for each of the four components. If only VAT (or GST) or corporate income tax applies, the Post-Filing Index is the simple average of the scores for only the two components pertaining to the applicable tax. If neither VAT nor corporate income tax applies, the Post-Filing Index is not included in the ranking of the ease of paying taxes. | 79.3 | 71.9 | 85.1 |

Source: Doing Business database.

The Business Environment and Enterprise Survey (BEEPS) also found that Ukraine's tax administration is viewed as a constraint on business, producing a significantly adverse impact on the investment climate and the formal economy (Figure 2.7). High compliance burdens are usually associated with more informality (Schneider and Buehn 2009).

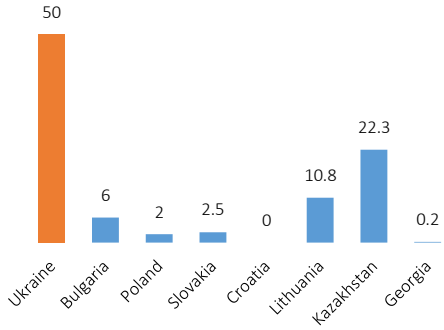
The problems with both compliance and revenue collection are exacerbated by the perceived corruption in tax administration. According to the 2013 BEEPS, released in May 2014, the percentage of firms that do not consider corruption to be a problem is only 19 percent; 15 percent stated that bribery is frequent in dealing with taxes, and over 50 percent stated they were expected to give gifts in meetings with tax inspectors (figure 2.7). ("Bribe tax"—bribes as a percentage of company revenues—is reported to be as high as 5.1 percent of annual sales (BEEPS at-a-Glance 2013). The World Economic Forum (WEF) Global Competitiveness Report 2016 Report suggested that Ukraine has problems with "irregular payments and bribes," ranking 113$^{th}$ out of 140 countries evaluated. Such issues tend to unequally affect small- and medium-sized enterprises while creating tax loopholes for larger businesses. The 2013 BEEPS indicates that the incidence of bribery is ubiquitous (figure 2.8).

**Figure 2.7. Top 10 Constraints on Business; Percent of Firms Indicating Each Issue Is Not a Problem**




*Source*: BEEPS 2013.

**Figure 2.8. Firms Expecting to Pay Bribes, Percent, 2013**




Tax audits are important to promote taxpayer compliance, but their administration needs major improvements. Audit coverage has been falling: of some 600,000 legal entities, less than 1 percent (4,867) received a planned audit in 2014 (table 2.2) and in the first half of 2015, when only 1,635 planned audits were completed. The bulk of State Fiscal Service (SFS) coverage is achieved through unplanned audits, which are triggered by criteria within the law. However, these have also declined from 32,496 audits in 2013 to 28,013 in 2014 (IMF 2016).

Planned audits, for which companies are selected based on risk, yield much better results. Using risk management tools and risk-based audit selection can help make audits more effective, but the trend suggests that far fewer planned than unplanned audits occur.

**Table 2.2. Audit Results for 2014 through June 2015, Smaller Taxpayers**

| | Planned Audits | | Unplanned Audits | |
|---|---|---|---|---|
| | 2014 | First Semester 2015 | 2014 | First Semester 2015 |
| | Legal Entity Taxpayers | | | |
| Number of Audits Performed | 4,867 | 1,635 | 28,013 | 9,882 |
| Total Assessments (Fines and Charges), Hrv'000 | 3,024,054 | 895,659 | 4,016,218 | 1,567,501 |
| Hrv'000 Per Audit | 621.34 | 547.80 | 143.37 | 158.62 |
| | Individuals | | | |
| Number of Audits Performed | 3,455 | 1,462 | 34,948 | 8,144 |
| | 2014 | First Semester 2015 | 2014 | First Semester 2015 |
| Total Assessment (Fines and Charges) Hrv'000 | 99,824 | 50,008 | 130,132 | 40,508 |
| Hrv'000 per Audit | 28.89 | 34.20 | 3.72 | 4.97 |
| Collected Revenues Hrv'000 | 86,185 | 30,721 | 47,160 | 19,280 |

*Source*: SFS.

The WEF Report ranked Ukraine 86th in terms of "technological readiness" in tax administration. Modern tax administration relies heavily on the latest information and communications technology (ICT) for improved efficiency. While the Ukraine tax administration has been using ICT systems, there may be opportunities to upgrade its systems to ensure sharper and more effective enforcement of tax laws and better service to taxpayers.

## Efforts to improve tax base and close tax gaps

In 2015, the Ukrainian government launched a full-scale reform to broaden the tax base, but only some of the measures were implemented. The most significant measure was a cut in the social security contribution

rate from 67 different rates, with the effective rate of 41 percent reduced to a single rate of 22 percent (table 2.3). While this reduction is generally in the right direction—the high labor tax wedge undermined the country's competitiveness and created incentives to under-report wages and employment—it will increase fiscal pressures in the short term. The revenue losses of the Pension Fund of Ukraine (PFU) in 2016 are estimated to be about 4 percent of GDP in 2016. Measures to partially offset the revenue loss were introduced. In addition, recent changes to the tax code did not properly tackle issues of tax exemptions and tailor-made waivers or issues related to tax administration. Despite an increase of the effective rate of PIT by almost 20 percent (from 15 to 18), the ratio of PIT revenues to GDP only increased by 1 percent of GDP in first half of 2016 and slightly reduced in Q3 2016. The increase can be attributed to a rate increase rather than any impact on compliance. Thus, the current tax system remains complicated and eroded by exemptions.

**Table 2.3. Statuary Tax Rate Levels in 2015 and 2016, Percent**

| | 2015 | 2016 |
|---|---|---|
| VAT | 20.0 | 20.0 |
| Personal Income Tax | 15/20 | 18.0 |
| Corporate Tax | 18.0 | 18.0 |
| Social Security Contribution: | 44.6 | 22.0 |
| *– by employer* | *41.0* | *22.0* |
| *– by employee* | *3.6* | *0.0* |

Recently steps were made to reduce VAT exemptions, particularly for agriculture, publishing, and pharmaceuticals. Table 2.4 illustrates the cost of these exemptions. The recent reform made the agricultural sector subject to the standard VAT rate of 20 percent from 2017 onward with a transitional arrangement in 2016, eliminating an implicit subsidy to the sector. The reform should substantially reduce the policy-related VAT gap starting 2017.

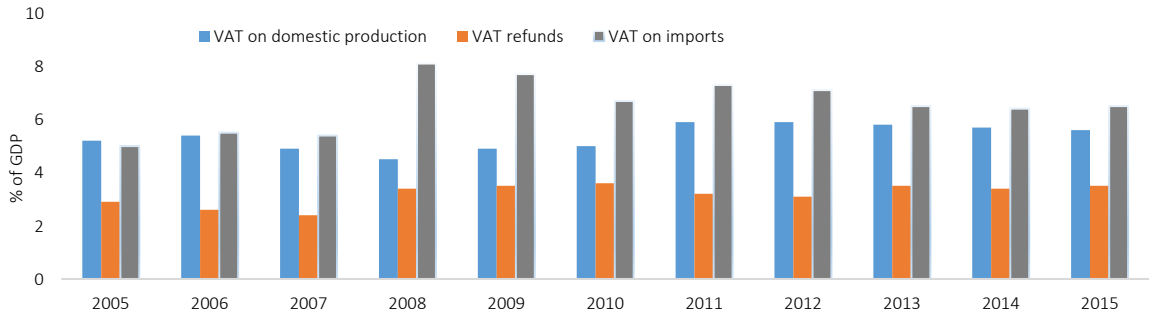
**Table 2.4. Tax Expenditures, 2011–14, Percent of GDP**

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Agriculture | 1.29 | 1.01 | 1.01 | 1.21 |
| Printing | 0.06 | 0.07 | 0.06 | 0.04 |
| Pharmaceuticals | 0.2 | 0.22 | 0.21 | 0.07 |

*Source*: State Statistics Committee, Tax Administration.

The government began addressing VAT refund-related issues in 2014. VAT revenues account for nearly 10 percent of GDP (figure 2.9). On the one hand, schemes like "fly by night" and fictitious firms and fake VAT refund invoices contribute substantially to the VAT leakage. On the other, when budgeted revenues fall short and VAT refund arrears accumulate, tax authorities have discretion to decide who gets refunds, which encourages corruption and can distort the optics of revenue performance. Transparency was enhanced by publishing information on VAT refund process, and the automatic VAT refund system was expanded by streamlining criteria for its use, but more must be done to improve the system.

**Figure 2.9. Ukraine VAT Revenues and Refunds, Percent of GDP, 2005–2015**




*Source*: State Treasury of Ukraine data.

Despite these reforms, the VAT gap[6] in Ukraine is a sizable 25 to 30 percent, indicating strong potential to raise VAT revenues mainly through improvements in compliance. The VAT gap has two components: first is a policy gap related to exemptions and special regimes defined in legislation, which may lead to losses in revenues, and the second is an administration gap related to revenue lost due to low compliance. The VAT gap increased throughout the 2011-13 period with slight decline in 2014. The policy gap reduced due to elimination of tax exemptions and increasing the VAT rate for pharmaceuticals from 0 to 7 percent, although close to 2 percent of GDP in tax exemptions related to VAT alone remain. The administration gap remains significant, at over 5.5 percent of GDP (table 2.5).

**Table 2.5. VAT Gap, 2011–14, Percent of GDP**

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| VAT Potential | 15.18 | 15.74 | 16.67 | 16.22 |
| VAT Actual | 9.64 | 9.51 | 8.42 | 8.87 |
| VAT Gap (Total) | 5.54 | 6.23 | 8.25 | 7.35 |
| VAT Gap/Tax Policy | 3.07 | 2.07 | 1.72 | 1.71 |
| VAT Gap/Tax Administration | 2.47 | 4.16 | 6.53 | 5.64 |

*Source*: State Statistics Committee, Tax Administration.

The simplified tax regime also contributed to tax base erosion by creating large arbitrage opportunities and an uneven playing field for taxpayers. For example, Ukraine's simplified tax regime allows a private entrepreneur or a small business to use an alternative, simplified regime of taxation that offers considerable tax savings. The taxpayers under the simplified regime pay only a single unified tax, which depends on income amount, number of employees and type of business. The unified tax replaces income tax, military tax, VAT, land tax and provides for a minimum social security contribution payment of 22 percent of minimum wage. The government tried to tighten qualification of simplified regime in 2016 by increasing rates for the taxpayers falling in groups III and IV of the simplified regime, and reducing the qualification threshold for the third group to Hrv 5 million from Hrv 20 million in turnover.

Ukraine's simplified tax regime distorts behavior in economically inefficient ways. First, firms have an incentive to fragment their operations to meet threshold requirements, which may dampen productivity through lost economies of scale. There is also a disincentive to grow since, for example, companies with over Hrv 5 million in turnover would incur substantial increase in tax liability. Second, the graduation from the simplified system is not well defined. There is no apparent mechanism to move from the simplified to regular taxation system other than exceeding the turnover threshold. In some countries, there is a limit on number of years that taxpayers can participate in simplified tax regime.

The simplified tax regime imposes horizontal and vertical inequality, since tax liabilities under general and simplified regime differ considerably. In addition to small businesses, many employees can choose to file their taxes under a simplified tax regime. For example, an individual with annual income of Hrv 1 million working as an software developer could choose to file under simplified regime (third group based on type of activity), paying Hrv 30,000 in unified tax and Hrv 22,000 in social security contributions. Under the general taxation regime, the individual would incur tax liabilities of Hrv 220,000 in social security contributions and Hrv 152,100 in income tax. About a million individuals use the simplified tax regime.

The government recently adopted Strategy for better public finance management for 2017-2020 that includes removing incentives to missuses the simplified tax regime, focusing on the revision of the criteria, that is a move in the right direction.

[6] VAT gap refers to the difference between potential proceeds from VAT assuming no exemptions and evasions and actual proceeds. Here, Ukraine's potential VAT is calculated based on final consumption multiplied by the standard VAT rate of 20 percent based on Input-Output tables. VAT collections are based on data from the State Fiscal Service adjusted for the lag between assessment and payment to make it consistent with final consumption. The VAT gap is then split into policy and administration, where the policy gap equals VAT exemptions and the administration gap is estimated by subtracting VAT exemptions from the total gap.

International taxation and related profit-shifting and tax base erosion are particularly worrisome areas for Ukraine. Ukraine has signed 66 tax treaties and is still bound by treaties with the Federal Republic of Yugoslavia (now assumed by Montenegro and Serbia), and those signed earlier by the Union of Soviet Socialist Republics (U.S.S.R.) with Spain, Malaysia, and Japan that have not been renegotiated. These treaties are intended to prevent double taxation by clearly allocating taxing rights, thus providing legal certainty; however, Ukrainian double taxation treaties (DTTs) vary considerably in the extent to which they restrict the taxing rights of the country in which income arises (the "source state") and the country where the beneficial owner of the income resides (the "residence state"). Formal information exchange obligations, occasional administrative assistance in collection, and anti-abuse provisions are supposed to mitigate tax evasion, but depend on the details of each agreement and the division of taxing rights. Each of these treaties may limit Ukraine's rights to tax Ukrainian-sourced income, such as interest payments, dividends, royalties, and lease payments; proceeds from sales of real estate in the territory of Ukraine; profits from securities transactions joint activity agreements, and long-term agreements; broker or agency fees; and other kinds of income derived by a foreign entity from Ukrainian business activity.[7]

Starting for 2016 the government made a progress in renegotiation the terms of the treaties with Cyprus, Luxemburg, Netherlands and the United Kingdom of Great Britain. As a result, the royalties, dividends and interest rates were raised for the transaction with these jurisdictions. Further progress in revision of the international treaties is an effective instrument to broaden the tax base and to increase Ukraine's international competitiveness.

Ukraine recently aligned its transfer-pricing legislation with OECD Guidelines, but its administration still needs to catch up. The 2014–15 legislation is a step forward in controlling the transfer-pricing practices of companies and minimizing tax avoidance. The amendments in the new law are intended to:

- enforce application of the arm's-length principle;
- expand the scope of the law to ensure broad transaction coverage and remove uncertainty;
- replace the transactional value threshold with the threshold based on the size of an entity to close loopholes and exclude smaller entities from transfer-pricing obligations;
- improve administration arrangements; and
- remove discretionary application of the law by removing or substantially revising the temporary transfer-pricing method established in the previous law.

However, the capacity of the tax administration to control transfer pricing requires time to build, and during 2015 additional assessment brought in only several tens of millions of hryvnia. Ukraine faces revenue losses linked to preferential withholding rates for dividends and interest payments. The Ukraine Tax Policy Report (World Bank, 2016) identified the revenue losses as a result of direct effect (multiplying payment streams to a country by the differential of the applicable general withholding tax rate and the rate negotiated in the country specific treaty) and indirect effect (accounting for changes in flow as a behavioral response to increase in withholding rates). A comprehensive treaty policy approach needs to guide any future revisions to treaty-based withholding tax rates to avoid treaty shopping and redirecting of investments.

[7] According to Article 160.1 of the Tax Code.

**Table 2.6. Estimates of Revenues Foregone from Reduced Withholding Rates (Significant Recipients), USD Millions**

| | From reduced withholding on | | | |
|---|---|---|---|---|
| **Country** | **dividends** | **dividends** | **interest** | **royalties** |
| | **2012** | **2014** | **2014** | **2014** |
| **Cyprus** | 77.3 | 14.5 | 21.7 | 0.02 |
| **Netherlands** | 42.4 | 34.1 | 1.8 | - |
| **Russia** | 9.6 | 6.0 | 4.7 | 0.4 |
| **Austria** | 5.6 | 6.5 | 3.5 | - |
| **Switzerland** | 4.7 | 6.2 | - | -0.3 |
| **UK** | - | - | 20.1 | 3.1 |
| **TOTAL** | **139.6** | **67.3** | **51.8** | **3.2** |

Source: World Bank staff estimates

Cyprus maintains a high preferential status, and accounts for over 30 percent of foreign direct investment into Ukraine and 90 percent out of Ukraine. Renegotiation of the original Cyprus-U.S.S.R. agreement led to several revisions in 2012 that became effective in January 2014. Amendments increased withholding tax rates and introduced the beneficial ownership concept for dividends, interest, and royalties. While some of these revisions were recommended to address shortcomings in protecting the Ukrainian tax base, Cyprus retains a preferential status. Senior Ukrainian policymakers are thus still concerned about this DTT and negotiations were recently reopened.

Cigarette excise tax increases is other important policy measure to expand the tax base, mobilize domestic resources to enhance fiscal space, and protect population health. Since 2008, Ukraine has increased the average tax on tobacco by 14 times, with the most recent increase introduced at the beginning of 2016[8]. However, even after these tax increases, the average retail price for a pack of 20 cigarettes in Ukraine at USD 0.89 in 2016 remains one of the lowest price levels in Europe and Central Asia. A proposed increase of 40 percent in specific excise taxes and maintaining the current 12 percent ad valorem rate under the 2017 Budget could help generate total tobacco tax revenue (combining excise taxes, VAT and levies on tobacco) amounting to about 2.4 percent of GDP in 2017, up 2.3 percent of GDP in 2016. On the other hand, if the ad valorem excise tax is increased to 15 percent, together with a proposed increase of 40 percent in specific excise taxes, the fiscal revenue from excise taxes on tobacco will increase excise tax revenue to about 1.7 percent of GDP, and total tobacco tax revenue (combining excise taxes, VAT and levies on tobacco) will increase to 2.5 percent of GDP. An increase in cigarette excise taxes may require increased coordination with neighboring countries (particularly Belarus and Moldova) to reduce potential illicit trade in tobacco products that take advantage of price differences.

Controls over the distribution chain and improved technologies can help improve customs administration and complement tobacco tax reforms. In the long-run, the additional positive fiscal impact should come from lower health expenditures. Our estimates show that by 2035, Ukraine's tobacco tax hike will avoid: 126,730 new cases of smoking-related disease; 29,172 premature deaths; and 267,098 potential years of life lost. Reductions in disease and death will save Hrv 1.5 bn in healthcare costs and Hrv 16.5 bn in premature mortality costs per year.

**Box 2.2. Regional and Global Experiences of Tobacco Taxation**

Tobacco use is one of the major public health burdens in Ukraine. Non-communicable diseases such as cancers, cardiovascular diseases, and chronic respiratory diseases are estimated to account for 90 percent of total deaths in Ukraine. While smoking is declining in most high-income countries, the observed prevalence of smoking in Ukraine among

[8] Revenues from tobacco taxes (VAT and the 5 percent sales tax) from January-May 2016 reached an estimated USD 0.5 billion—almost USD 0.2 billion more than in the same period of 2015. More importantly, largely due to the tobacco taxation policy, the number of smokers is dropping slowly but steadily, from 10.1 million people in 2008 to 6.7 million in 2015.

adult males is still among the highest in the world. Besides the negative public health impact, the rising burden of tobacco-related diseases impose a heavy cost on public healthcare expenditures and household budgets.

Governments could discourage smoking by adopting effective fiscal and regulatory control measures. Higher tobacco taxes help hike up cigarette prices, which can contribute to significantly reducing prevalence and intensity of smoking despite the addictive nature of tobacco. Scores of studies shown that increased taxes reduce the number of smokers and the number of smoking-related deaths. Price increases induce some smokers to quit and prevent others from becoming regular or persistent smokers.

Ukraine already has successful experience of tobacco excise increase, however, the average retail price for cigarettes in Ukraine remains one of the lowest in Europe and Central Asia region. Moreover, the excise burden on cigarettes is currently 41.5 percent in Ukraine, which is below the EU directive requirements of 60 percent. Therefore, the industry in Ukraine has a higher profit margin on the sale of cigarettes compared to the industry in the EU. This represents an opportunity for the Ukrainian government to increase the excise tax burden, raise more revenues and come closer to the requirements of the EU directive.

A tobacco tax increase would (i) generate public health benefits by reducing consumption among smokers and preventing addiction among the youth; (ii) help mobilize additional fiscal revenues to expand the fiscal space to fund priority investments and programs, particularly in the healthcare sector; and (iii) help meet European Union - Ukraine Association Agreement requirements.

Several countries have raised tobacco taxes with good health-related results. Some examples are:

- United States: In 2009, the Obama Administration raised the federal cigarette tax from USD 0.39 per pack to approximately USD 1.01. Plausible estimates suggest that this increase in cigarette taxes will reduce the number of premature deaths due to smoking by between 15,000 and 70,000 for each cohort. The health benefits will be progressively distributed, representing a far larger fraction of income for lower-income families, and even more so when counting the benefits of the expansion of children's health insurance coverage that the increase funded. Indeed, federal cigarette tax revenue rose by 129 percent, from USD 6.8 billion to USD 15.5 billion in the 12 months after the tax (April 2009 to March 2010). Cigarette pack sales declined by 8.3 percent in 2009, which was largest decline since 1932 (Furman, 2016).
- Philippines: Fundamental restructuring of the tobacco and alcohol excise tax structure in 2013, including simplification by reducing the number of tiers, indexation of tax rates to inflation and substantial tax increases resulted in fiscal and public health gains. About USD 3.9 billion or 1.3 percent of GDP in additional revenues was generated from the Sin Tax Law in its first three years of implementation. The additional fiscal space increased the Department of Health budget threefold and increased the number of families whose health insurance premiums were paid by the National Government from 5.2 million primary members in 2012 to 15.3 million in 2015. Additional fiscal space was also generated from interest savings as the Philippines got an investment grade rating shortly after the passage of the Sin Tax Law (WBG, 2016).
- China: The 2015 tobacco tax reform is proving to be a win-win for both fiscal and public health. The sales weighted tax as a share of retail price increased from 52 percent in 2014 to 56 percent in 2015. The sales weighted average excise tax as a share of retail price increased from 31 percent in 2014 to 35 percent in 2015. For the first time since 2001, the volume of cigarette sales decreased by 2.36 percent in 2015 compared to 2014. After the 2015 tax adjustment, sales continued to decrease by 4.61 percent over May 2015-April 2016 compared with May 2014-April 2015, and by 5.36 percent between October 2015-September 2016 compared with October 2014-September 2015.
- Turkey: Total tobacco taxes were increased from 70.6 percent to 82.1 percent in between 2003 and 2015. As a result, per-capita tobacco consumption decreased by 24 percent while tobacco tax revenue increased by 281 percent during this period. Even though the tobacco taxes are not ear-marked to healthcare, the increase in tobacco tax revenue provided additional fiscal space for the Government of Turkey to implement the Health Transformation Program successfully. Turkey's experience also illustrates how to increase efforts against illicit tobacco trade while increasing taxes. In 1990s, the fear of smuggling was an impediment to raising tobacco taxes in Turkey as well.

## Reform Options

Although Ukraine has taken steps to reform the tax system, the reforms have not been broad enough to tackle all the issues. Deeper reforms could target reducing exemptions, rationalizing the simplified tax system, reinforcing tax administration, and addressing issues related to international taxation.

**Tax administration reform** may concentrate on (1) making tax collection more efficient; (2) lowering the cost of compliance; and (3) reducing corruption. These goals can be achieved by right-sizing staffing levels of the

tax administration, conducting risk-based audits, and applying better technological solutions. Among specific options to improve tax administration are these measures:

- Prepare a long-term tax administration reform strategy focused on rightsizing staff, but keeping a strong central office to deal with higher-risk areas, such as large taxpayers and transfer pricing. Over the medium term this would also require to attract and retain highly skilled personnel in the taxpayer service. Continue building the capacity of the centralized transfer pricing unit in the tax administration.
- Use risk-based audit planning to lower the number of unplanned audits and focus planned audits on high risk, high yield cases.
- Make tax collection more efficient by facilitating voluntary compliance and using a robust risk management at registration, filing, payment and audit, rather than frequent inspections and payment demands driven by revenue targets.
- Introduce mandatory PIT filing, after improving online filing to make it more user-friendly.
- Invest in state-of-the-art information and communication technologies (ICT) systems, such as counter-suppression technology, to thwart the problems posed by underreporting and non-reporting of sales transactions.
    - Set up a third-party information system by law with an ICT system that supports the flow of information to the tax administration through channels such as banks, companies, customs, and property registrars.
    - Cutting-edge ICT technologies also could be deployed to support "big data"–based risk profiling. Expanding data mining and information collection and matching are crucial to track evaders and reduce the shadow economy. There is a need to systematically collect data from third-party sources to track money flows and identify business relationships; the data can then be mined to build comprehensive risk profiles of taxpayers.
    - ICT could also improve how the PIT is administered. Currently, PIT administration is done by employers and the tax administration, generally leaving taxpayers outside the process. In the medium term, mandatory income declarations could be considered to make it easier for the SFS to monitor compliance, but this will require considerable improvement in ease of compliance, such as moving to online filing with user-friendly taxpayer support throughout the process. Online filing would help clarify liability for income tax and provide another comprehensive database that could ensure better validation for social assistance programs.

**A comprehensive tax policy reform is needed to meet revenue targets and distributional goals with the lowest possible distortions on economic activity.** While many ad hoc tax policy measures have been taken in recent years[9], to improve the implementation capacity of tax administration, to reduce shadow economy and to make tax system more conducive to economic growth would require a more thorough analysis on who actually bears the economic costs of taxation—commonly referred to as the 'incidence' of a tax. Here it is important to look at tax neutrality—the degree to which taxes favor one type of economic activity over another and the distribution of the economic incidence. Among specific options to improve tax policy in short and medium term include:

- Rationalize tax exemptions, in all tax instruments.

[9] In 2014, Ukraine aligned its transfer-pricing legislation with the OECD Guidelines to reduce tax avoidance, although progress in this area has been slow because of the limited capacity of the State Tax Service. Automatic VAT refund procedures have also been improved. In 2015, changes to the tax code reduced the SSC rate, and the special regime of VAT for agriculture was abolished as of January 1, 2017, but the single-tax regime for small enterprises and the critical problem of strengthening tax administration remain obstacles to overall reform.

- Reform tax laws to reduce complexities and uncertainties and thus improve the tax-related aspects of the investment climate.
- Further developments in revision of DTT.
- Amend eligibility criteria for the simplified tax regime for individuals to prohibit collusion between employers and employees, including lowering the threshold for individuals.
- Limit eligibility of legal entities to use simplified tax system based on number of employees (not exceeding 5 to 10).
- Increase in tobacco taxation.

It is estimated that these proposed revenue measures would yield a cumulative fiscal savings of about 1.4 percent of GDP over 2018-2020. Improvements in VAT administration are expected to yield fiscal savings of about 0.6 percent of GDP, while revisions in tax treaty policies would yield an additional 0.4 percent of GDP. Over the medium term, measues to amend eligibility criteria for the simplified tax regime for individuals to prohibit collusion between employers and employees, including lowering the threshold for individuals are expected to broaden tax base for PIT and SSC. At the same time implementation of some reforms would require additional fiscal resources, for example investments in ICT and big data platforms.

# Chapter 3 Pension Reform: Medium to Longer-Term Issues

The current pension system provides benefits that are too small and for too many people, ultimately weakening fiscal stability and social adequacy. At about 11 percent of GDP, pension spending is a major fiscal vulnerability that is intensifying by the cut in the social contribution rate and population aging. Although spending is high, the system is unable to provide socially sustainable pensions for most beneficiaries. The median old age pension at the market exchange rate prevailing is about USD 2 a day. This chapter provides a rationale for reform options that include a combination of parametric changes, including gradually increasing the retirement age and minimum service requirement and restructuring the benefit package into a basic and insurance component, and introducing clear and equitable rules for indexation of individual pension benefits.

## Ukraine's pension system is socially and fiscally unsustainable

Ukraine's pension spending is very high for a lower middle-income country and considering its per capita income (figure 3.1), at 15.4 percent of GDP in 2014. After cost-saving measures were introduced in 2015, pension spending declined to 13.4 percent of GDP, or 31 percent of total public spending, which is still high by international standards. Payroll taxes amounted to 9.6 percent of GDP in 2015, and fiscal transfers to the pensions system constituted 3.8 percent of GDP. Today, after the SSC cut in 2016, about 55 percent of pension expenditures are financed from general revenues (figure 3.2). This represents a major fiscal vulnerability for Ukraine that impedes economic stability and crowds out resources for public investment and other critical expenditures.

**Figure 3.1. Public Pension Spending in 2014, Percent of GDP**

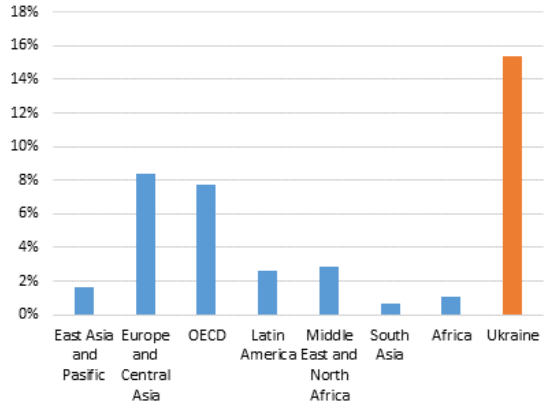
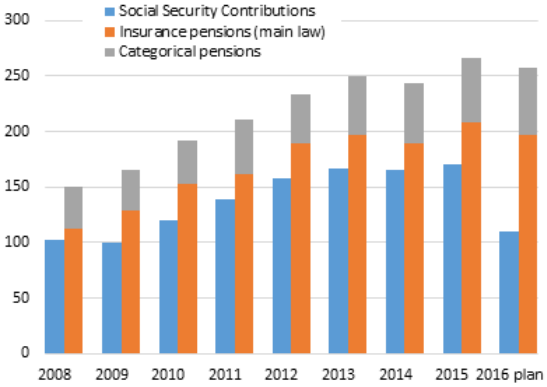



**Figure 3.2. Public Pension Spending and Social Security Contributions**




*Source*: World Bank calculations.

Fiscal pressures resulting from pensions are compounded by unfinished SSC reforms. To stimulate participation in the formal economy and improve compliance with pension requirements, the SSC rate was reduced from 40 to 22 percent effective in 2016. Authorities anticipated that cutting the rate would shrink the informal economy and improve compliance. However, comparative analysis does not provide clear evidence to support this measure. The revenue loss, assessed at close to 4 percent of GDP, will not be recoverable through improved compliance unless additional sources of financing are identified.

Despite high spending, the pension system is unable to provide socially sustainable pensions for most beneficiaries. According to PFU data, the median old age pension (Hrv 1,225 a month) at the market exchange rate prevailing at mid-year was just USD 1.9 a day in 2015. The adequacy of pension benefits is further undermined by the current policy of indexing only the minimum subsistence amount at or below inflation. Effectively, this implies a flattening of the benefit distribution as more and more individual benefits will be falling below subsistence level and require top-ups. This benefit indexation is diminishing the value of individual benefits over time and producing a benefit structure that is not transparent and is unmanageable.

The system bears the burden of past ad hoc and populist decisions, such as inadequate indexation and non-systemic adjustments in benefits. As a result, the benefit formula rules do not give participants a clear indication of their future benefits, which undercuts an earnings-related benefit design. The public sees pension benefits as only vaguely related to lifetime contributions, which until recently were among the highest in the ECA region. In addition, weak links between pension benefits and lifetime contributions distort labor market incentives and contribute to high levels of informality.

The system is effectively transitioning from an earnings-related to a flat benefit program. This negates the fundamental premise of a contributory pension program, which is to grant benefits proportional to past wages and length of service. Close to half of the new old age pensioners retired with a benefit at or below the minimum pension because of inadequate contribution history, low declared wages, and a non-transparent benefit formula (table 3.1); many new retirees even with full length of service would end up getting the subsistence minimum if they earned around the minimum wage level.

**Table 3.1. Subsistence Benefit Recipients among New Retirees in 2014, Percent**

| | Old Age Pension | Disability | Survivors | Service Pension | Total |
|---|---|---|---|---|---|
| Men | 34 | 75 | 12 | 83 | 47 |
| Women | 55 | 89 | 37 | 74 | 60 |
| All | 47 | 81 | 31 | 76 | 55 |

*Source*: Pension Fund sample data, 2015.
*Note:* The minimum monthly pension in 2014 was Hrv 949.

Inadequate benefits, a lack of transparency, and the high costs of participating in the system, among other problems, undermine incentives to contribute and have led to contribution evasion and underreporting of wages, which in turn produces inadequate pensions. The upshot is a vicious circle of contribution evasion, higher deficits, and ever more of the elderly falling below the minimum subsistence level due to lack of pensionable service at retirement. This low level of contributory coverage for Ukraine, which has an estimated employed population of 19 million, will reduce the coverage of the old age contributory benefit from almost universal now to perhaps as low as two-thirds of the population above retirement age in 20 to 25 years, when current cohorts of contributors retire. The rest of the population will burden the welfare system.

## Population aging, categorical benefits stress the pension system

Serious demographic pressures are building over the medium term that will further pressure the pension system. Ukraine counts about 12.3 million pension beneficiaries and about 14 million contributors. Going forward, the cohorts entering retirement will be considerably larger than the cohorts entering the labor market. It is estimated that in 20 to 25 years, the ratio of contributors to pensioners will fall to two-thirds.[10] Even assuming future improvements in compliance and moderate improvements in fertility, the situation will prove difficult because Ukraine is also projected to lose 20 percent of the current population by the mid-2050s (figure 3.3), when one-third of the population will be over 60, and the younger workforce cohorts will be much smaller than they are today (figures 3.4, 3.5 and 3.6).

[10] The projections use fertility and mortality assumptions kindly provided by the Ukrainian Institute of Demography.

**Figure 3.3. Population Composition by Age Groups, Percent**

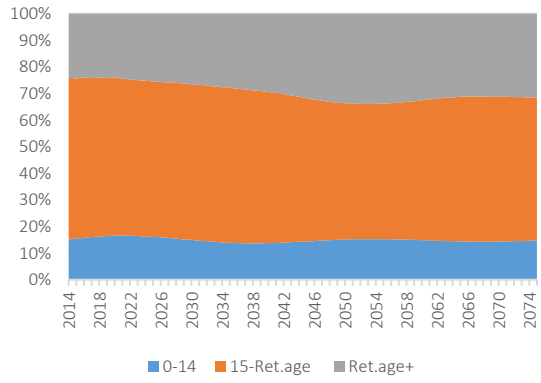
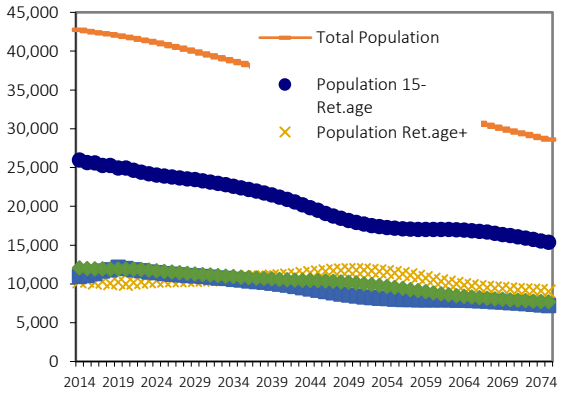
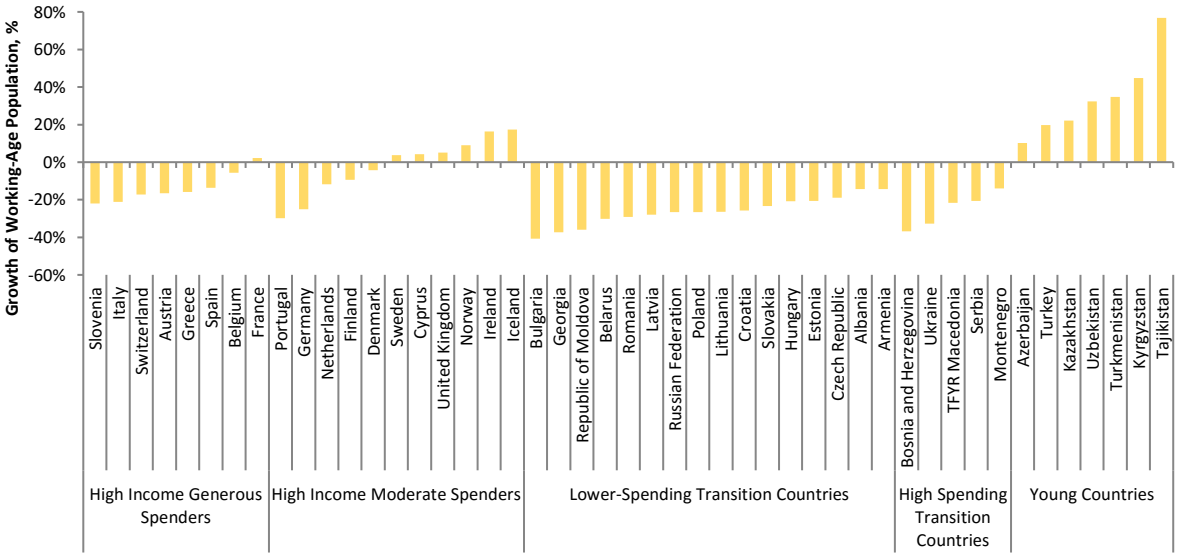



**Figure 3.4. Population, Contributors, and Beneficiaries**




*Source*: World Bank projections, 2016.

**Figure 3.5. Growth of Working Age Population, 2010–50.**




*Source*: Schwarz et al. 2014.

Apart from the adverse demographics, the main reason for imbalances between the number of contributors and beneficiaries is lax retirement provisions. In 2014, the country had 12.7 million full-time equivalent[11] contributors and 12.1 million pension beneficiaries. System dependency, defined as the ratio of all pension beneficiaries to the average annual number of contributors, approached 97 percent,[12]which in a balanced pay-as-you-go (PAYG) scheme would imply that revenue from one contributor provides a benefit for only one pensioner. The statutory retirement ages (60 for males and 57.5[13] for females) are among the lowest in the region. Additionally, myriad special provisions allow for early retirement, a legacy of the past of providing unfunded pension promises in lieu of wages. As a result, about 4 million out of 9.9 million old age pensioners, or 41 percent, were younger than 65 in 2015.

Many pensioners continue working past retirement age. According to the 2012 labor force survey,[14] up to one-third of those aged 60 to 70 years, and even more at younger ages, continue working or are looking for a job to supplement their retirement benefit. In fact, the PFU reports 2.6 million retirees working in the

[11] Full time is measured as 12 months of payroll contributions a year.
[12] This dependency ratio double-counting working pensioners both as beneficiaries and as contributors.
[13] Retirement age for women is currently increased by 6 months every year and will reach 60 by 2021.
[14] Ukrainian Longitudinal Monitoring Survey, 2012.

formal sector and receiving pensions simultaneously. The low effective pension age turns the pension scheme into a social transfer mechanism to relatively young labor force participants. On the other hand, the system is failing to provide proper insurance against inability to work due to aging because the benefits are inadequate. Given low retirement ages and considerable numbers of working pensioners, a rise in the statutory retirement age would not only relieve fiscal pressure but would be also socially feasible. Part of the savings from the pension age increase could be directed to making current benefits more adequate.

The structure of pension spending is heavily influenced by the costs of various categorical benefits, privileges, and the minimum subsistence top-up, that together add up to more than one-quarter of total pension spending. About 60 percent of pensioners receive top-ups to the insurance pension. This translates into a heavy fiscal burden and creates nontransparent subsidies between different PFU programs, leading to loss of incentives to participate in the pension system.

There are also problems with administration of the contributions collected. While the tax administration is formally in charge of collecting contributions, data exchange mechanisms between the tax administration and the PFU are weak and institutional responsibilities are not always clearly defined.

Finally, although the PFU is a repository of one of the largest arrays of high-quality individual data, its information systems are not used to their full potential. The PFU stores current and historic data on registered employment, individual businesses, monthly earnings, monthly pensions, and other benefits. All these data could be effectively used in assessing eligibility for social assistance and other public benefits. While there are some data exchanges, they are not fully automated, often operate ad hoc, and are not well-designed.

## Parametric changes are not sufficient to fix the pension system

Several cost-saving measures were introduced in 2015 in response to the growing fiscal pressures. The government froze growth of the reference wage base for calculating pensions began indexing only the minimum pension and started reducing pensions that were triple the minimum monthly wage. Given high inflation in 2015 (the CPI was close to 50 percent), these cost-cutting measures brought pension spending down to about 13 percent of GDP. Notably, from January 2015 to January 2016, the average monthly pension grew from Hrv 1,582 to Hrv 1,700, equivalent to only one-sixth of the 2015 inflation rate. However, if benefit growth contracts more, a larger proportion of beneficiaries will be eligible for the guaranteed subsistence minimum and require compensatory payments.

The World Bank Pension Reform Options Simulation Toolkit (PROST) was used to estimate Ukrainian pension expenditure trends in various scenarios. The simulation results are summarized in figures 3.6 and 3.7 and are presented under two benefit indexation regimes (100 percent indexation to prices and alternatively the "Swiss formula," which indexes 50 percent to prices and 50 percent to real wage growth). At the beginning of simulation period in 2016, total PFU benefit spending amounted to 13 percent of GDP.[15] The largest share of PFU spending (about 10.2 percent of GDP) was devoted to mandatory pensions for 11.2 million beneficiaries (table 3.2).

[15] Nominal GDP in 2015 was projected at Hrv 1980.7 billion.

**Table 3.2. Mandatory Pension Insurance Law Spending by the PFU, August 2015**

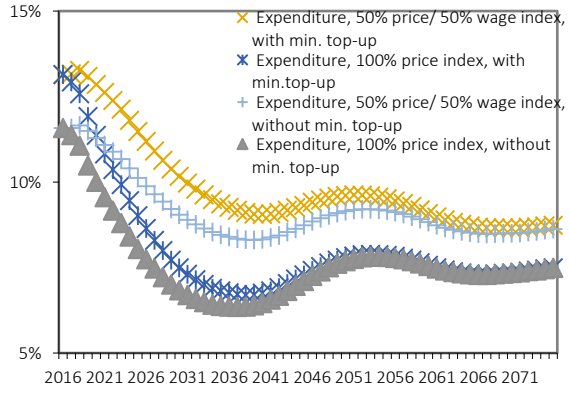
| | Monthly expenditure, Hrv billion | % of GDP[16] |
|---|---|---|
| Insurance Pension | 10.3 | 6.3% |
| Subsistence Level Top-Ups | 2.6 | 1.6% |
| Other Supplements | 3.8 | 2.3% |
| Total | 16.8 | 10.2% |

*Source*: PFU administrative data.
*Note:* In August 2015, monthly benefits were topped up to Hrv 949. In September, monthly subsistence level was raised to Hrv 1,075.

As noted, about a quarter of PFU expenditures consist of categorical benefits and subsistence level top-ups, mostly financed from general state revenues. The projections assume[17] no new categorical benefits and supplements after 2015, but those already in existence will be honored, though it might take close to 20 years to clear most of the liabilities for categorical and preferential supplements already accumulated. Outlays for the subsistence top-ups also eventually disappear, because in the simulation, real wages start growing again, so the new pensions[18] increase faster than the minimum subsistence level.[19] Thus, fewer new pensioners in the future will require subsistence top-ups. Given these assumptions, projected PFU spending without top-ups is relatively stable at 7.5–9.0 percent of GDP in the long term, depending on the indexation method (figure 3.6).

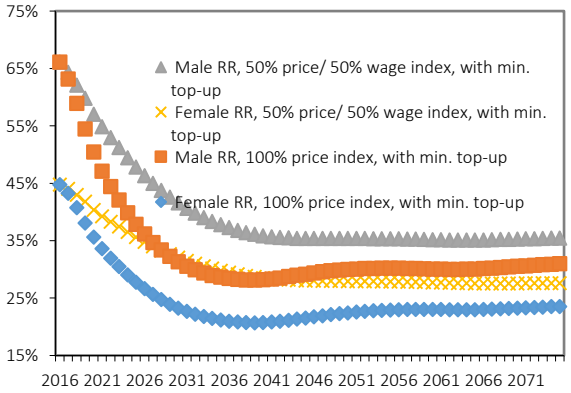
Although it helps to contain costs, the option of indexing all pensions to inflation alone may not be socially sustainable because benefits will shrink considerably. As noted, due to price shocks in 2014 and 2015 and sub-par indexation, benefits for most pensioners are very low. Having raised the subsistence level from Hrv 949 per month to Hrv 1075 at the end of 2015, the government also increased the number of subsistence top-ups. Furthermore, the projections reveal worrisome trends in pension adequacy. If the policy of indexing to inflation holds, the replacement rates for current benefits may fall in 15 to 20 years to 20 to 30 percent of the average formal wage (figure 3.7). The outcome of these measures will be unacceptable to Ukrainians. If indexation follows the Swiss formula, replacement rates would improve over the inflation-only scenario by 5 to 8 percentage points in the long term. However, Swiss formula indexation would result in additional spending of as much as 1.5 percent of GDP. Moreover, under current rules and current contribution patterns, at that time about one-third of the elderly may not qualify for a contributory pension. That means the minimum guarantee provisions for all the elderly will have to be significantly expanded.

**Figure 3.6. Projected PFU Expenditure, Percent of GDP**




*Source*: World Bank projections, 2016.

**Figure 3.7. Old Age Pension Replacement Rates, Percent of Average Wage**

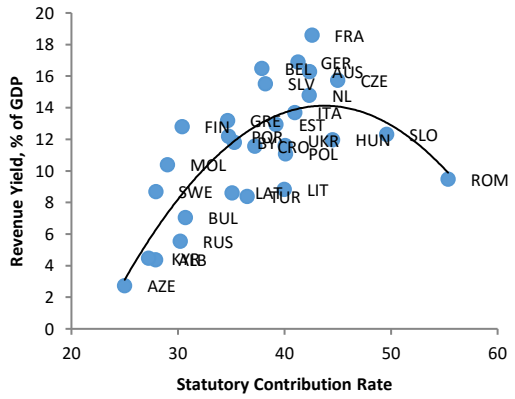



*Source*: World Bank projections, 2016.

[16] One-twelfth share of annual projected GDP is used as the denominator.
[17] Assumptions include no indexation in 2015– 16, and 100 percent price or Swiss indexation starts thereafter.
[18] In the simulations, new pensions are calculated using only the current PAYG formula, based on past wages and without any supplements.
[19] In the simulations, the minimum subsistence level is indexed in line with current pensions either to inflation or using a Swiss formula.

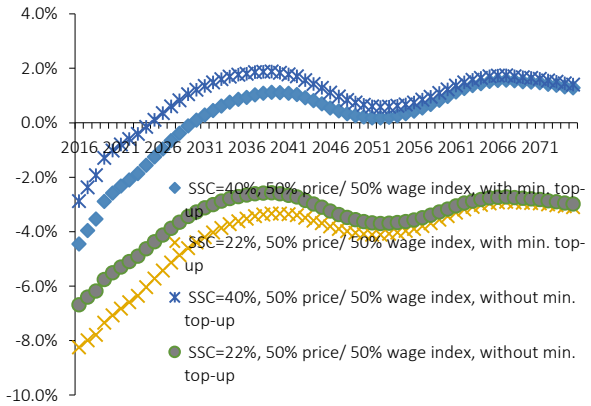
The short-term revenue losses resulting from the recent SSC cut, which come close to 4 percent of GDP, would throw the PFU into permanent deficit without some combination of structural changes and compensatory measures to broaden the tax base. Figure 3.9 projects PFU balances with and without subsistence top-ups and with Swiss formula 50 percent wage/50 percent price indexation. Before the recent tax changes, the balance could have stayed positive in the longer term, but the 2016 changes mean that the system will stay in permanent deficit.

**Figure 3.8. Contribution Rates and Revenue Yield, Selected European and Central Asian Economies, 2011**




Source: Schwarz, Anita et al, The Inverting Pyramid: Pension Systems Facing Demographic Challenges in Europe and Central Asia. The World Bank, Washington DC, 2014.

**Figure 3.9. PAYG Balance through 2071**




*Source*: World Bank projections, 2016.

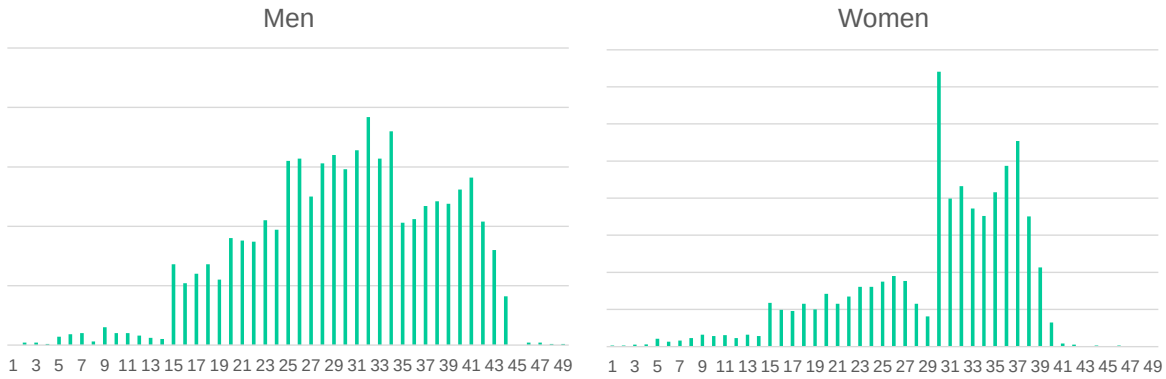
## Reform options

Before any legal initiatives are considered, the government must develop a comprehensive strategy and vision supported by an assessment of fiscal costs and the social adequacy of reform options. The government reform proposal should aim to restore the social insurance function and ensure adequate income in old age, but tighten eligibility conditions, granting benefits only when people are not able to work due to old age or other conditions.

**Both revising the eligibility requirements and upgrading administrative procedures need to be included the reform agenda.** Among specific options for improving the financial sustainability of the pension system are these parametric reforms:

- Gradually raise the statutory retirement age for both men and women. This can be done over several years, but the process needs to start now.
- Revise the minimum eligibility requirements for an earnings-related pension. The minimum service to qualify for a benefit at normal retirement age could be set at 25 years for both men and women. Short of the minimum required service, individuals would continue working after the statutory retirement age until they either meet the minimum service requirement or reach the "maximum normal age of retirement:" 65 is the age proposed for both men and women. This would align with the recent reform of the SSC to stimulate formal employment because it would exert pressure on businesses and individuals to declare legal employment and pay contributions. Figure 3.10 indicates that the introduction of the minimum required length of service for retirement at 60 from 15 to 25 years can yield a 20 percent reduction in the number of new pensioners.

**Figure 3.10. Distribution of New Retirees by Length of Service, years**




*Source*: World Bank calculations based on sample data from PFU, 2015.

- Individuals who do not meet the 25-year minimum service requirement will qualify for a pension at 65 with any service and without any further conditions.
- Include all categorical and compensatory payments and the earnings of working pensioners when calculating the minimum guarantee top-up.
- Set a moratorium on reducing the statutory retirement age for special work categories or professions that are not fully funded.
- Introduce clear and equitable rules for indexing individual pension benefits. The rules should preserve the benefit value and be simple to understand and fiscally affordable. The indexation formula could be a combination of inflation and the wage growth, as is consistent with both the historic trend in Ukraine and international precedents.
- PFU administrative systems need to be upgraded, and this will require assessments of administrative systems and infrastructure; investments in upgrading software applications, databases, and connectivity; digitization of paper records and consolidation of electronic records; and mechanisms for automatic data exchange with other agencies, especially to help determine rights to social assistance and subsidies.

**To enhance PFU transparency and enhance socially desirable behaviors, structural changes in the benefit package should be considered.** The benefit package could constitute of three separate components (table 3.3):

- *Basic pension*: a universal flat benefit for all individuals retiring, funded from the general budget, as a new social contract between state and citizens. Those who meet the minimum service requirements would be eligible for the basic pension at the normal retirement age. Others would become eligible as soon as they accumulate minimum service, but no later than age 65.
- *Insurance pension*: an earnings-related pension, smaller than the current one and funded from contribution revenues, with a reduced service coefficient (about 1.0, down from the current 1.35) and with no redistributions or other distortions, so the individual's rights to future benefits are clear.
- *Old-age assistance (means-tested)*: a guaranteed minimum supplement for some retirees to ensure that their combined incomes do not fall below the subsistence minimum. The supplement amount would vary depending on other pensions, incomes, or conditions.

**Table 3.3. Outline of the New Structure of the Pension System**

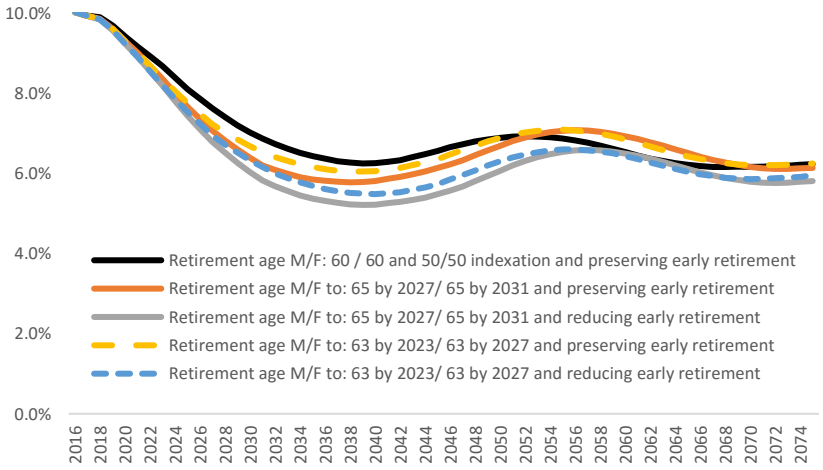
| Pension Component | Key Parameters |
|---|---|
| (1) Basic Pension | – An amount set at the rate of around 50% of the subsistence minimum<br>– Provided to all those receiving insurance pensions |

| | |
|---|---|
| | – When retirement is postponed, with 25 years of service available, the basic pension may be increased to stimulate later retirement<br>– Those who are not eligible for insurance pensions require other means of support |
| (2) Reformed Insurance Pension | – The coefficient for one year of service in the new formula is set at 1.0<br>– Introduction of a retirement age corridor: with at least 25 years of service, pensions may be provided at the age of 60, otherwise they are provided when individual accumulates 25 years of service or reaches 65 years of age (whichever earlier)<br>– At age 65, pensions are provided with no limitation on length of service and payable based on actual record of service, so every month of work is monetized |
| (3) Poverty Top-Up for Retirees | – A maximum amount set at 50% of the living standard<br>– Can be provided only to those receiving insurance pensions<br>– An individual top-up level is reduced by:<br>– 50%-100% of the amount of other public benefits (top-ups, bonuses, and so on), depending on the type and amount of such bonuses<br>– 50% of the insurance pension under new legislation for regular retirees<br>– 100% of the insurance pension for those who retired early<br>– 100% of the insurance pension accrued under old legislation |

Proposed reform measures are estimated to yield fiscal savings in amount of 0.7 percent of GDP over 2018-2020. Moreover, absent of these reform measures spending pressures would continue to increase. Two scenarios of the gradual pension age increase were modeled, to 65 and to 63 for both men and women, and two sub-scenarios, with early retirement patterns reduced and with the status quo. Figure 3.11 shows the projections' results. The primary contributing factor to the observed reduction in the overall expenditures for all cases in the first two decades is a reduction in the special pensions and privileges. Their importance has already been highlighted above. Fiscal gains resulting only from an increase in the retirement age to 63 are not significant. The simultaneous cuts in the early retirement, however, produce substantial reduction in the expenditures over an extensive period. Under the most optimistic assumptions regarding the early retirement improvements and most drastic increase in the retirement age to 65, the maximum savings on the expenditure side are estimated only at around 1 percent of GDP in the medium term. At the same time, it is close to 15 percent of the estimated total expenditure on the old age pensions in the medium term. Part of these savings could be directed to ensuring adequacy of the current benefits.

The statutory pension age increase alone is insufficient to address the crisis in the pension finances in Ukraine. Additional fiscal savings could come from a reduction in numbers and in categories of the early pensioners; and a reduction in the special pensions and benefits. At the same time, any increase in the statutory pension age will likely produce an important effect of increasing revenues, assuming the economy can accommodate expansion in the labor force.

**Figure 3.11. Old Age Pension Payments, Percentage of GDP**




*Source*: World Bank projections, 2016.

Finally, it is important that the proposed structural measures clearly segregate the financing of different elements of the pension program and help to balance the finances of the insurance component (see figures 3.12 and 3.13). The general budget could finance both the basic pension and old age assistance to control the basic parameters of sociodemographic policy. At the same time, the PFU retains responsibility for balancing the insurance pension program. Consequently, deficit financing of the current mixed and convoluted benefit package will be converted to programmatic financing of the new social contract. The parameters of the new basic pension will therefore need to be set at a level that ensures that both the basic and the insurance pensions are sustainable, the latter estimated initially at about 60 percent of the minimum subsistence rate.

**Figure 3.12. Fiscal Impact of Proposed Structural Changes**

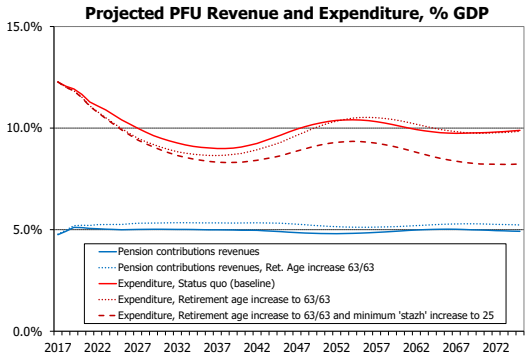
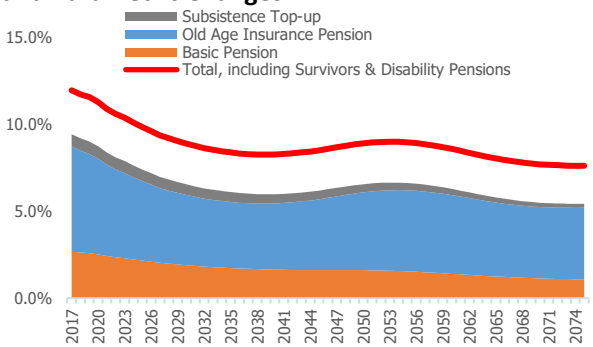



**Figure 3.13. Fiscal Impact of Proposed Structural and Parametric Changes**




*Source*: World Bank projections, 2016.

**Recently Ukraine has made significant progress in developing a comprehensive pension reform plan.** The new pension reform proposal discussed by the government aims to mobilize fiscal savings, achieve financial balances, and address social inequities. Specifically, it envisions: (i) linking retirement eligibility to pensionable service ("pension age corridor"), (ii) increasing eligibility age for social assistance for those who do not qualify for contributory pension, (iii) tightening guarantees of subsistence minimum, (iv) strengthened indexation provisions, etc. Furthermore, the Government took measures to reduce generosity of the pension formula, which should yield considerable savings in the long run. These all constitute an important step in the right direction. At the same time, structural changes in the benefit package remain an open agenda for the future.

# Chapter 4 Reforming Healthcare Financing

Total public and private health spending exceeds the global average for Ukraine's income level, but health outcomes remain weak Public health spending has averaged 4 percent of GDP in recent years. At the same time, households co-finance healthcare expenditures at the same level as government—out-of-pocket payments reached almost 50 percent of total health expenditures, among the highest in Europe. However, life expectancy at birth in Ukraine remains more than 10 years less than the European Union (EU) average. This chapter first reviews the organization of the healthcare sector, recent trends in health outcomes, and the quality of health services. It then analyzes healthcare financing and public spending efficiency before concluding with recommendations for short- and medium-term reforms.

## Health outcomes remain weak

After the dissolution of the U.S.S.R. (Soviet Union), life expectancy in Ukraine declined from 70.1 years in 1989 to 66.9 years in 1996.[20] Recent improvements in life expectancy were achieved after 1996, and life expectancy reached 71.2 years in 2013 (figure 4.1). Nevertheless, Ukraine's life expectancy remains significantly lower than the EU-15 average of 81.2 years, and levels in neighboring Poland (76.9 years) and Romania (74.5 years) (figure 4.2).

**Figure 4.1. Life Expectancy: Ukraine and Comparators, 1980–2013**

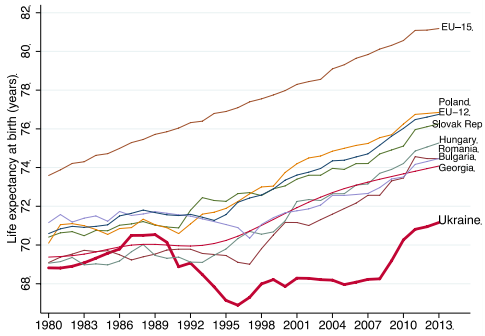
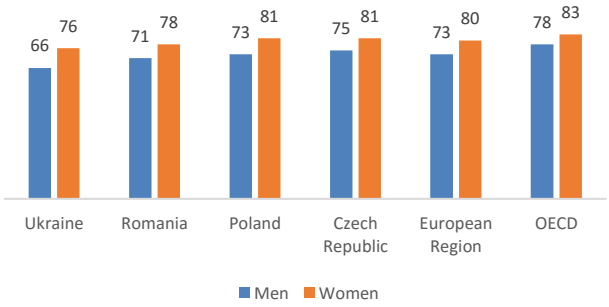



**Figure 4.2. Life Expectancy at Birth, Ukraine and Comparators, 2013**




*Source*: World Development Indicators, WHO, 2015.

The decline in life expectancy at birth is principally due to a high adult mortality rate—the probability of dying between ages 15 and 60 per 100,000 population. Ukraine's mortality rate is much higher than in other ECA countries (figures 4.3 and 4.4). The high mortality of Ukrainian men is especially remarkable: the rate is twice as high as in neighboring EU countries. Cardiovascular diseases and cancer caused about 81 percent of all deaths in 2013–14, and the current health care system is not coping with the burden of non-communicable diseases (NCDs).

[20] The steep drop in life expectancy at the beginning of the 1990s was common for former Soviet Union countries, and was mainly explained by adverse mortality trends probably caused by stress-related heart attacks, alcoholism, and accidents.

**Figure 4.3. Age-Standardized Mortality Rate by Cause, Ukraine and Comparators, 2012, Per 100,000**

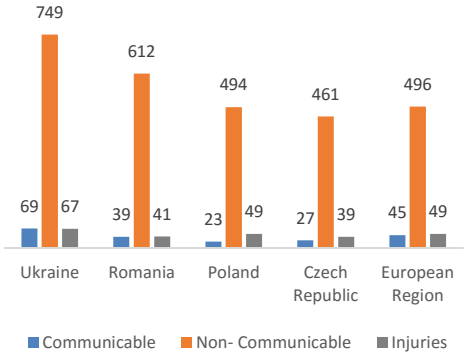
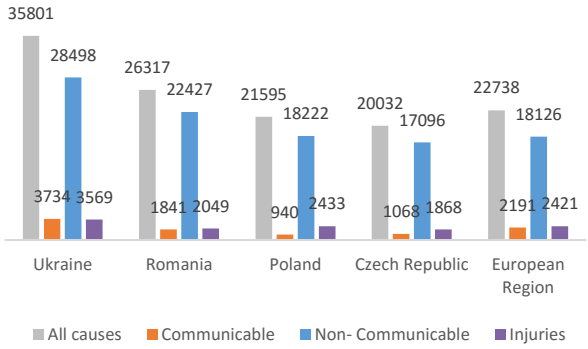



**Figure 4.4. Years of Life Lost by Cause, Ukraine and Comparators, 2012, Per 100,000**




*Source*: World Health Statistics Report, 2015.

In contrast, Ukraine's maternal and child health outcomes have improved moderately. Infant mortality fell from 23 deaths per 1,000 live births in 1980 to 8.6 in 2013. Despite this reduction, the mortality rate is still almost three times higher than the EU-15[21] average of 3.2 and slightly higher than the EU-12[22] average of 5.5. Maternal mortality has also decreased from 49 deaths per 100,000 births to 23 deaths per 100,000 births but remains high relative to other comparator countries (figure 4.6).

**Figure 4.5. Infant Mortality Per 1,000 Live Births, Ukraine and Comparators, 1980–2013**

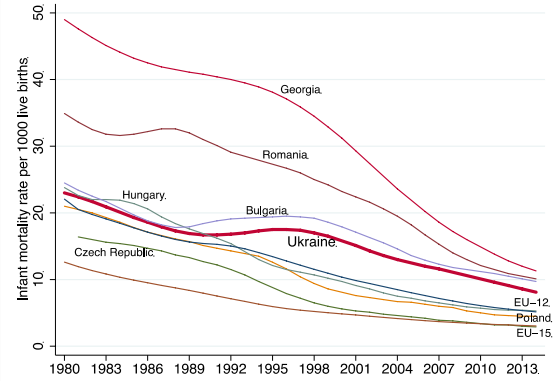
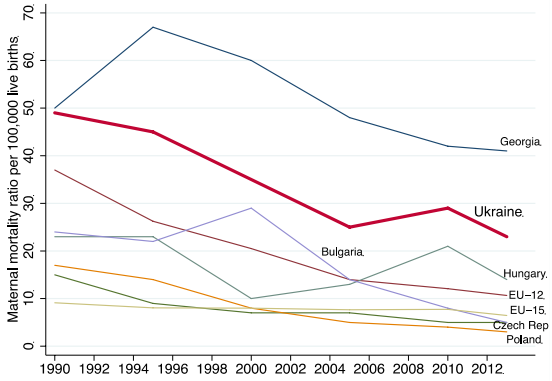



**Figure 4.6. Maternal Mortality Per 100,000 Live Births, Ukraine and Comparators, 1990–*2013***




*Source*: World Development Indicators & WHO, 2015.

Although NCDs impose the heaviest disease burden, human immunodeficiency virus (HIV) and tuberculosis (TB) continue to be serious problems. The HIV prevalence in adults of 0.6 percent in 2015 and the TB incidence of 70.5 new cases per 100,000 people in 2014 (30,236 new cases a year) are among the highest in Europe. Until recently, domestic funding for HIV had been growing steadily, but in the past two years it plunged due to the economic crisis and devaluation of the national currency. This circumstance, as well as the planned phase-out of the Global Fund at the end of 2017, raises significant questions about whether Ukraine can achieve ambitious national targets in reducing disease incidence. The inefficient delivery of care (as is characteristic of the whole sector) calls for better integration of HIV and TB services into the general health care network; adoption of patient-centred models with more engagement with out-patient

[21] EU-15 includes Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
[22] EU-12 includes Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, Slovenia, Bulgaria and Romania.

capacities; more technically efficient of services; emphasis on prevention and early detection of cases (World Bank 2016a, 2016b).

Unhealthy lifestyles, especially among young men, put Ukrainians at risk of chronic disease. Twenty percent of Ukrainians indulge in heavy or binge drinking, reporting one or more days in the last month on which they had more than five drinks. Over 80 percent of heavy or binge drinkers are men, and these drinkers represent a third of the adult male population. In comparison, only 7.4 percent of adult women falls in this category. In 2015, the prevalence of smoking was 42.2 percent among men and 9 percent among women. About 10 percent of Ukrainians are sedentary, with 6.3 percent having insufficient weekly physical activity. Most surprising is that 10.9 percent of Ukrainians aged 18 to 29 are sedentary, compared with 3.7 of people in the Czech Republic and 7.1 percent in Hungary (high, but still lower than Ukraine). Women are more likely to be sedentary than males. Sedentary behavior is also more prevalent among those residing in urban areas and increases with wealth.

Immunization coverage is alarmingly low. Although between 1992 and 2007 Ukraine achieved nearly universal immunization coverage of BCG, DPT, Pol3, and measles, immunization rates have plunged since 2008. By 2013, only 74 percent of children under the age of 1 had been vaccinated against polio; the result was a polio outbreak in 2015. In recent years Ukraine has also reported more cases of measles, rubella, and mumps. Reported measles cases, for example, soared from 100 in 2010 to more than 16,000 in 2012 (UNICEF 2015). Ukraine is now engaged in polio vaccination campaigns to raise coverage to 95 percent, but more should be done to raise public awareness and demand. Disruptions in vaccine supplies in the past two years have pushed immunization rates to unacceptable lows. Vaccinations dropped from 96 percent in 2005 to 23 percent in 2015,[23] and the statistics for 2016 show no improvement. Public mistrust of vaccinations, poor vaccine supply, and corruption in the health system have been cited as the main reasons for plummeting immunization rates.

Ukrainians have a lower opinion of their health status than their neighbors. While the global prevalence of self-rated poor health was about 10 percent in 2002 (Subramanian, Hujits, and Avendano), in Ukraine the rate was 27 percent. However, since 1995, more people in Ukraine have a better perception of their health status and are less likely to report bad health. In 2015 about 40 percent[24] of adult Ukrainians assessed their health as good, 41 percent as moderate, and 18 percent as bad. The results were better for the urban population: 32 percent of rural residents and 44 percent of urban residents reported having a good health. The poor appear to be the least protected and have the lowest self-assessment of their health (table 4.1). Only 23 percent of respondents in the poorest quintile reported good health, although they too were more positive than in 2013. By comparison, 58 percent of Polish respondents reported good health in 2013.

**Table 4.1. Health Self-Assessment by Income Group**

| Quintile | 2013 | 2015 |
|---|---|---|
| | Share of Respondents Reporting Good Health-Status | |
| **1st Quintile** | 12% | 23% |
| **2nd Quintile** | 29% | 33% |
| **3rd Quintile** | 50% | 58% |
| **4th Quintile** | 60% | 71% |
| **5th Quintile** | *not available* | *- not available* |

*Source*: Health status self-assessment, KIIS, 2015.

[23] WHO/UNICEF coverage estimates 2015 revision for 194 WHO member states. Source: 2015 Immunization Coverage Progress and Challenges Slides, produced in July 2016 by Immunization Vaccines and Biologicals, WHO.
[24] According to Kyiv International Institute of Sociology survey (KIIS), conducted in May 2015. http://www.kiis.com.ua/?lang=eng&cat=reports&id=537&page=1

## Extensive health care infrastructure, but low quality of health care services

Healthcare services are predominantly delivered at an extensive network of publicly owned facilities (see box 4.1). In 2013, Ukraine had over 2,200 hospitals, down by a third since 2000 mainly from closing small rural branch hospitals (figure 4.7). Over the same period, the number of outpatient clinics rose by almost half (figure 4.8), to almost 11,000, mostly in 2013 when most primary health centers were established. The Ministry of Defense, State Security Service, Ministry of Interior, and State Border Service all have their own healthcare facilities. In 2015, the first attempt to unite all facilities under a single ministry translated into a merger of over 80 facilities of the Ministry of Infrastructure ("railway hospitals") into to the network of facilities subordinated to local communities and the Ministry of Health (MoH). Private healthcare facilities are negligible.

**Figure 4.7. Number of Hospitals, 2000–13, Thousands**

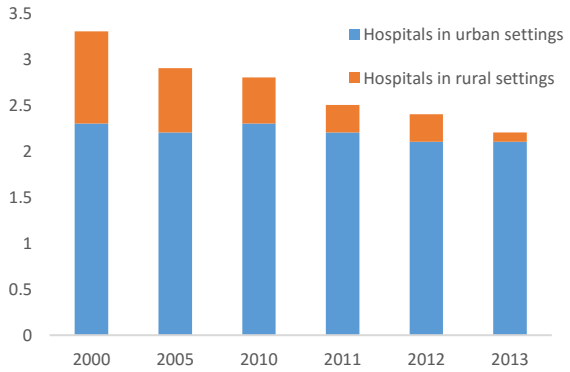
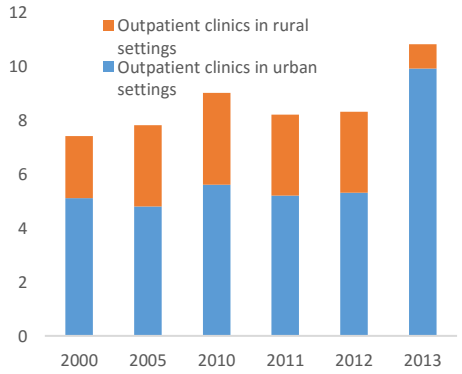



**Figure 4.8. Number of Outpatient Clinics and Posts, 2000–13, Thousands**




*Source*: Network of Health Facilities, State Statistics Service, 2015.

**Box 4.1. Organization of the Health Sector in Ukraine.**

The government is the main provider of health care in Ukraine, but the system has multiple layers of administration and accountability. The majority of providers are publicly owned facilities. Healthcare is the third largest employer after industry and education. While the constitution guarantees free universal access to health care, individuals pay a significant share of health-related expenses out-of-pocket (OOP). The private sector, which plays a limited role, consists primarily of pharmacies, diagnostic facilities, and physicians in private practice. The core healthcare system of Ukraine is coordinated and managed centrally by the Ministry of Health; responsibility for formulating healthcare policy development is shared by the MoH, the Cabinet of Ministers, Parliament, and the president.[25] MoH's system functions under a strict framework of norms and standards imposed by central government. At the local level, the healthcare system is managed vertically: each oblast, raion, and municipality has a department of health responsible for providing services. Their facilities are responsible to the MoH for meeting the standards and regulations, and to local authorities for financial and other managerial matters.

Most healthcare institutions report directly to the MoH. While most healthcare services are channeled through facilities funded from SNG budgets, 111 special facilities[26] are funded directly from the national budget. Among these, there are 49 specialized care, outpatient, and inpatient facilities; 19 national sanatoriums, rehabilitation facilities, national labs, and surveillance centers; 19 national research centers, expert services, national forensic services, and the national medical statistics center; 17 medical universities and post-graduate institutes; and 10 colleges. In 2015, about 81.5 percent of total government spending on healthcare was channeled through local governments, and 18.5 percent through central institutions like the MoH.

Ukrainians rate the quality of their healthcare services as the lowest in the ECA. Although people report high need for healthcare services, with about 78 percent having been ill at least once, and about 79 percent seeking medical care in 2015 (Population 2016), only 10 percent[27] of Ukrainians had a good opinion of the

[25] The Ministry of Defense, the Ministry of Infrastructure, and a few other ministries have their own health services.

[26] Data as of December 2015, not including Crimea, Sevastopol, and occupied territories of Donetsk and Luhansk.

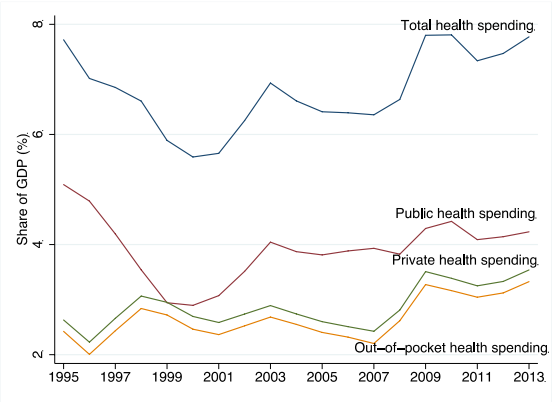
[27] The survey was conducted by the information and analytical center "RATING Pro"; 2,000 respondents were surveyed, period – June 2015. Access mode: http://ratinggroup.ua/files/ratinggroup/reg_files/healthcare_report_072015.pdf

quality of care in Ukraine. Most people (85 percent) consider the quality of healthcare services bad or very bad. Most also think the quality has declined in the past five years and will continue to deteriorate. Moreover, in 2015, out of all households in need of medical care or medication, 29 percent could not access it, for a variety of reasons (Population 2016), and 15 percent of households in need could not access medical care due to economic (79 percent) and physical (13 percent) barriers.

## Healthcare Financing Trends

Total healthcare spending is 7.6 percent of GDP, which is significantly above the global average for Ukraine's income level (figure 4.10). Despite high OOP[28] (3.2 percent of GDP), public healthcare spending constitutes a significant share of GDP (4.1 percent) and is slightly above the global average for countries at Ukraine's income level. In 2013, the public share of total healthcare spending was 54.5 percent compared to 65.9 percent in 1995. As a result, private health spending went up from 34.1 percent in 1995 to 45.5 percent in 2012, with the OOP share rising from 31.4 percent to 42.8 percent (figure 4.9). The share of voluntary health insurance is small: in 2012, 2.1 percent of private spending on healthcare was through prepaid plans; health insurance coverage is low: in 2013 between 2.4 and 3.3 percent of the population were insured. External spending on healthcare accounted for 0.7 percent of total health spending in 2013; most of these funds are invested in vertical programs for tackling specific diseases and are mainly provided as technical assistance.

**Figure 4.9. Composition of Healthcare Spending, Ukraine, 1995–2013**




*Source*: World Development Indicators and WHO NHA, 2015.

**Figure 4.10. Total Healthcare Spending and GDP Per Capita, 2013**

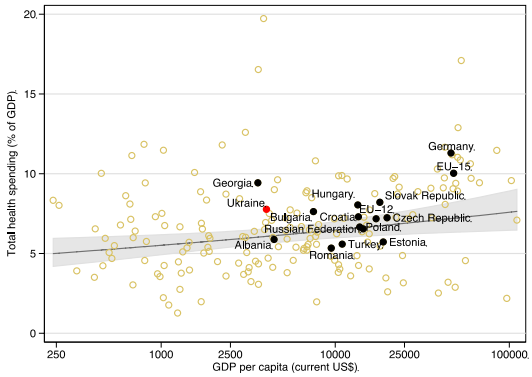



**Table 4.2. Healthcare Financing and Health Outcomes Indicators**

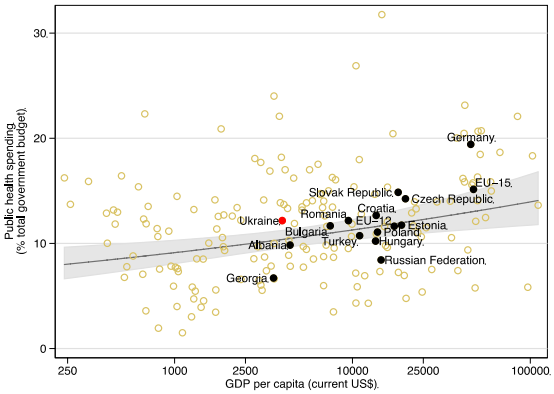
| | 2000 | 2005 | 2010 | 2011 | 2012 | 2013 | 2014[1] |
|---|---|---|---|---|---|---|---|
| GDP Per Capita (Current USD) | 636 | 1829 | 2974 | 3570 | 3855 | 4030 | 2115 |
| Total Health Spending (% of GDP) | 5.6 | 6.4 | 7.8 | 7.3 | 7.5 | 7.8 | 7.4 |
| Public Health Spending (% of GDP) | 2.9 | 3.8 | 4.4 | 4.1 | 4.1 | 4.2 | 3,6 |
| Public Health Spending (% of Total Health Expenditures (THE)) | 51.8 | 59.5 | 56.6 | 55.7 | 55.4 | 54.5 | 51.7 |
| Out-of-Pocket Health Spending (% of THE) | 44.1 | 37.5 | 40.5 | 41.5 | 41.8 | 42.8 | 48.1 |
| Total Health Spending Per Capita (current USD) | 36 | 117 | 231 | 262 | 290 | 313 | 157 |

[28] This significantly limits the financial risk protection provided by the system. In 2013, out-of-pocket payments represented almost 43 percent of total health spending and 3.3 percent of GDP (WDI 2016). Ukraine thus does not meet the WHO criterion of financial protection; OOP is significantly higher than the WHO threshold of 15–20 percent as a share of total health spending. Previous estimates also indicated that 21.4 percent of the population spent more than 40 percent of non-food consumption on health (World Bank 2010). The high level of OOP creates severe financial barriers for the poor and might lead to catastrophic expenses for those who seek care and/or need to purchase medicines. Almost 15 percent of households did not access health care when needed, with the majority (over 80 percent) citing high costs at the point of service (World Bank, 2014).

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Life Expectancy at Birth (years) | 67.9 | 68.0 | 70.3 | 70.8 | 70.9 | 71.2 | 71.4 |
| Maternal Mortality ratio Per 100,000 Births | 35 | 25 | 29 | … | … | 23 | … |
| Infant Mortality Rate Per 1000 Live Births | 15.8 | 12.5 | 10.1 | 9.6 | 9.1 | 8.6 | 7.8 |

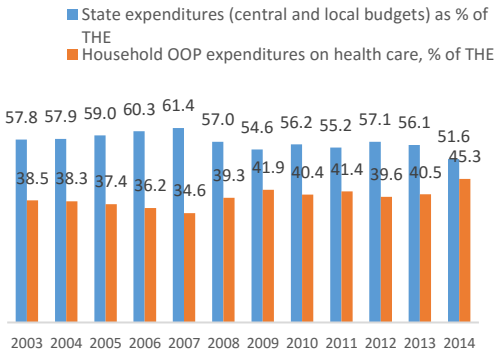
[1] Comparisons for Ukraine's key statistical indicators is complicated due to unavailability of data for 2014 from Crimea, part of eastern regions in the conflict zone, and potential inaccuracy for Donetsk and Lugansk regions, where data are yet to be verified.

**Figure 4.11. Healthcare Spending Share of Total Government Budget and GDP Per Capita, 2013**




*Source*: World Development Indicators and WHO NHA, 2015.

**Figure 4.12. Public and Private Healthcare Shares of Total Healthcare Spending in Ukraine, 2003–14**




*Source*: National Health Accounts, State Statistics Service, 2016.

The traditionally resource-intensive hospital sector on average still absorbs about 65 percent of all healthcare resources. Most public resources for healthcare financing come from general taxation, which is allocated according to inputs and mainly used for recurrent costs.[29] In 2013, direct funding to healthcare facilities was mainly spent to cover salaries—84 percent in outpatient clinics and 74 percent in general hospitals.[30] The Ukrainian healthcare care system emphasizes care necessary to cope with acute episodic diseases; the majority of the resources are spent for inpatient care, leaving little funding available for primary health care (PHC). Primary and preventive care receive just over 10 percent (figure 4.13). PHC spending has been growing in recent years, but mainly at the expense of reduced funding for other outpatient facilities. The emphasis remains on conservative curative care, which is not effective for control avoidable deaths.

[29] For example, the funding public hospitals receive is allocated according to line-item budgeting, and for each item such as energy, staff, etc. the total amount the hospital receives depends on its beds and bed days. Staff numbers are associated with beds based on national "staffing norms."

[30] Ukraine BOOST is a micro-expenditure database that follows the national fiscal reporting methodology and contains information on approved, revised, and actual budgets by level of government, administrative unit, sub-national spending unit, economic and functional classification, budget programs, and source of funds.

**Figure 4.13. Healthcare Resources: Distribution of Expenditures by Economic and Functional Classification in 2015**

| | Labor costs | Goods and services | other current expenditures | Capital Expenditures | Total |
|---|---|---|---|---|---|
| General and specialized out-patient clinics, ambulatories, feldsher posts and first-aid stations | 10.6% | 7.6% | 1.0% | 0.8% | 20.0% |
| **General and specialized hospitals** | 35.9% | 19.8% | 0.8% | 8.3% | 64.8% |
| Preventive care | 1.3% | 0.3% | 0.1% | 0.0% | 1.6% |
| R&D in healthcare | 0.0% | 0.5% | 0.0% | 0.1% | 0.6% |
| Other activities in healthcare | 2.5% | 8.6% | 1.1% | 0.8% | 13.0% |
| Total | 50.3% | 36.8% | 2.9% | 9.9% | 100.0% |

Source: BOOST data.

Current medical subventions cover prevention, primary care, and outpatient and inpatient services. They are pooled for oblasts, raions, separate municipalities, and hromadas. The volume of medical subvention is first decided as a proportion of the national budget (total sum), and is then calculated for each budget based on a capitation formula that accounts for population size and differences in service provision, with an additional coefficient for providing services in mountain areas.[31] In general, about one-third of total subvention is channeled to oblast budgets and two-thirds to hromadas, raions, or cities. Subventions for specific medical programs, pooled at the oblast level, are used to fund national programs at the local level for example, emergency care supplies, diabetes, or hemodialysis.

In 2015, some flexibility in facility budget management was introduced: budget holders can now keep unspent funds for the following year, whereas previously all unspent funds were supposed to be transferred back to the central government, which did not encourage economy or rationalization of spending. Also, providers of healthcare services could be funded by different levels beginning in 2015, which means that local governments could co-fund services already covered via medical subventions. These changes represent opportunities to make spending more efficient.

The government is currently considering legislation to support a change in status of healthcare facilities from budgetary units into enterprises. Status as budgetary units implies secured funding from the state budget for salaries and facility maintenance costs, and regulation by the Budgetary Code. Some healthcare facilities owned by a regional or municipal community, however, have enterprise status and are regulated by the Economic Code. The main difference is that facilities operating under the Economic Code have contractual relations with the funding agency, more freedom to reallocate funds within the approved budget, and more flexibility for staffing and salary arrangements and can charge a fee for services.

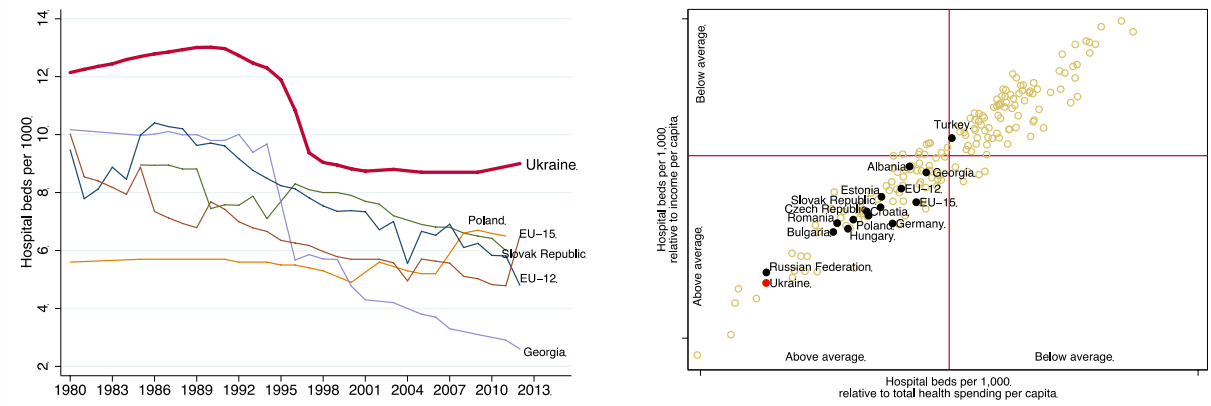
## Efficiency of public health services

The current mechanism for allocating resources finances inputs instead of services. This represents an outdated traditional system in which providers receive funds based on historical allocations and input needs, not performance indicators. The government allocates funds for healthcare facilities to administrative units using the subvention mechanism. In the health sector, there are two types: general medical subventions and subventions targeted to specific medical programs. Currently, the budgets for inpatient facilities relies heavily on the number of beds. Such a system provides no incentives for more efficient use of budget resources or better patient treatment. As a result, Ukraine still has about 40 percent more hospital beds per capita than the EU average. While the hospital bed to 1,000-population ratio declined from 12.7 in 1992 to

[31] The formula also includes age and sex coefficients, but these coefficients are not accounted for in practice.

9.4 in 1997, it has held at about nine beds per 1,000 population since 1998. This is substantially higher than the EU-15 average of 6.5 beds and the EU-12 average of 4.8 beds (figure 4.14). This infrastructure is consuming most of the available funding while often providing only very basic services. Late in November 2015, the Cabinet of Ministers decreed a new limit of 6 beds per 1,000; regional authorities will be responsible for maintaining this ratio, adjusted for morbidity rates and regional specifics.

**Figure 4.14. Hospital Beds Per 1,000 Population**




Source: World Development Indicators, WHO 2015.

This system also undermines the adequacy of healthcare treatment, leading to unnecessary increase in hospitalization rates and length of stay in inpatient facilities to justify the oversized hospital network. Hospitalization is higher in Ukraine than in other countries of the region; for instance, in 2013 in Ukraine there were 22.5 discharges per 100 population, the average for the European region is 18, and in neighboring countries the figure is 16.5 for Poland, 20.9 for Romania, and 20.7 in the Czech Republic. Not only is hospitalization more frequent, the average length of stay is also significantly higher: in 2013, it was 11.7 days in Ukraine versus 7 in Poland, 9.4 in the Czech Republic, 5.6 in Bulgaria, and 7.3 in Romania, with the European region average being 8.6 days. The problem lies in the mechanism used to calculate the budgets for inpatient facilities, which relies heavily on the number of beds in each facility but also applies their utilization rate; if the standards are not met, beds could be cut for the next fiscal year. Note that in 2007, 32.9 percent of admissions were made apparently without specific indications for hospitalization (Lekhan et al.). This evidence suggests healthcare resources are spent inefficiently; efficiency gains could be achieved by introducing per-case payments and giving hospitals more autonomy.

The current planning for levels of care and catchment areas leaves little room to change incentives to optimize healthcare delivery. Population coverage norms exist for primary, secondary and tertiary care but are based on inputs, such as beds, human resources, and facilities. Current normalization planning for healthcare facilities treats each territory as a separate geographic area regardless of resident population. At raion and municipal levels, each administrative unit is entitled to organize general and specialized secondary care for its population, which may cause redundancies that waste resources.

Almost 10 percent of the total Ukrainian formal workforce is employed in the healthcare sector, even though there are few formal incentives for medical personnel to stay in the system. About one-fifth of nearly 200,000 physician positions registered in the MoH system in 2015 (Center for Medical Statistics 2016) were vacant. Employed physicians totaled 161,600 or 3.8 per 1,000, above the OECD average of 3.2. However, because many of these are in administrative posts, only 106,300, 2.5 per 1,000 population, were seeing patients. Physicians find work in oblast and city facilities more attractive than in raion hospitals and rural ambulatories. There are 13,440 physicians who hold more than one position (less than 10 percent of the total). Among practicing physicians, 24 percent (38,800) have reached retirement age. Annually, the state pays for about 4,000 to 5,000 students to enroll in medical universities, and about half of them are tuition paying students (Center for Medical Statistics 2016). There are more than 344,000 nurses, 8.1 per 1,000

population, and about 14 percent (45,000) of these are of retirement age. The physician-to-nurse ratio is 1 to 2.1.

There are sufficient doctors and nurses engaged in PHC to build up delivery of services. About 21,000 physicians (15 percent) work at PHC ambulatories, and over 13,000 of these specialize in family medicine. The current general practice/family medicine physician-to-population ratio is 3.1 per 10,000. About 3,500 PHC therapists and over 3,800 pediatricians work in policlinics, making the total number of physicians engaged at the primary level about 30,000, almost 20 percent of all physicians. The total PHC workforce thus makes the PHC physician-to-population ratio 7 per 10,000, close to optimal.

The fragmented distribution and management of healthcare in Ukraine has led to duplication of functions and inefficient use of resources. Historically, healthcare budgets were allocated to different levels of government; MoH, oblasts, municipalities and raions each spent resources to support facilities subordinated to their local councils. For instance, in theory only oblast budgets should fund specialized services delivered by tertiary-care facilities. In practice, tertiary facilities provide services of all complexity levels based on informal fee-for-service payments. As of 2016, there were 634 healthcare budget pools[32] cumulating the healthcare budgets of oblast, city and raion levels.

The current decentralization concept[33] suggests delegating financing functions even lower, to amalgamated communities or hromadas. The idea is to give more autonomy to the community in numerous areas of social services and local decision making, including in prevention, primary healthcare services, and emergency care. The concept envisions that secondary care will still be provided by raions and tertiary care by oblasts. In 2016, for the first time, healthcare subventions (budget transfers to local levels) was provided to hromadas. Based on capitation, each community received about USD 26 per person. Due to gaps in the legislation, communities were not able to use the resources to contract with health services providers and the funds were transferred to the raions. The population of communities varies a lot: the smallest had 1,633 citizens, the largest 44,000. The degree of risk pooling also differs, although it is too low to ensure system efficiency.

Transferring health subvention to communities has deepened the financing fragmentation. It added 159 new regional pools, bringing the total to 793 separate budgets in 2016. The number of pools is likely to increase further as decentralization continues. As is known from international experience, the amount of risk pooling determines whether a system can redistribute the risk among the captured population and ensure that funds are allocated effectively to those who need services. Fragmented financing will result in unequal risk distribution and situations where an individual with a serious illness will affect the resources available for the group covered (WHO 2010).

High OOPs with relatively high public spending is another sign of inefficient use of government allocations and low protection of the population from catastrophic healthcare costs. Household OOPs account for 93 to 95 percent of all private health spending. They constituted more than 40 percent of total healthcare spending between 2009 and 2013, and peaked at 48.1 percent in 2014.[34] Ukraine thus does not meet the WHO criterion for financial protection, which sets a threshold of 15 to 20 percent of total healthcare spending. OOP payments in Ukraine represent on average 4.1 percent of total household spending. Payments to service providers, both formal and informal, are prevalent in Ukraine: the 2010 survey (Tambor et al. 2013) suggests that among those using the services, 70.7 percent paid for inpatient services and 56.1 percent for outpatient.

High OOPs also create a barrier to accessing healthcare services for the poor and generate catastrophic expenses for those seeking urgent care or affected by chronic diseases. Health-related financial vulnerability

[32] Based on Annex 6 to the Law "About the State Budget of Ukraine for Year 2016."
[33] Concept for local administration reforms and territorial organization of government in Ukraine as of April 1, 2014, http://zakon5.rada.gov.ua/laws/show/333-2014-%D1%80 (Ukrainian)
[34] National Health Accounts (NHA) of Ukraine in 2014: Statistical Bulletin. State Statistics Service of Ukraine, 2015.

undermines the potential well-being for Ukrainians. Growing OOPs and absence of financial protection often results in catastrophic health-related expenditures, reducing the potential for prosperity for those affected. The threshold for healthcare spending to be considered catastrophic is 10 percent of total household spending; in 2013, the incidence in Ukraine was 9.1 percent of total and 25.8 percent of nonfood budgets (Smith and Nguyen 2013). In the 2013 household survey, 33 percent of households interviewed had spent more than 10 percent of their total outlay on health; the EU-15 average was 5.8 percent (Smith and Nguyen 2013).

Considering these issues, the healthcare system is not shaped to effectively control Ukraine's NCD epidemic, which is the main cause of avoidable productivity losses. Healthcare services are not currently oriented to prevention, early detection, and effective management of NCDs; they are basically unchanged since independence, and focused on control of infectious diseases and curative care rather than healthcare promotion. High levels of consumption of alcohol (13.9 liters of pure alcohol per person per year (WHO 2014) and tobacco (21 percent prevalence as of 2014 [MoH annual report 2014]), unhealthy diets, and little physical activity are among the factors explaining the high NCDs.

The conflict in the east and the economic crisis have heightened the risk that the healthcare system will not be able to respond adequately to the health needs of the population. Although there are no data on conflict-related health outcomes, the decline in economic growth is likely to worsen health indicators and create barriers to accessing healthcare services. High inflation and growing unemployment could put more households at financial risk and make it harder for those in need to access health services.

## Reform Options

In 2016, the government adopted a healthcare reform package that includes: (i) transforming health financing (including creating a national purchasing entity–Ukraine National Health Services (UNHS); (ii) modernizing primary health care; (iii) improving access to pharmaceuticals; (iv) addressing non-communicable diseases; and (v) creating an integrated National Public Health Institute for disease control and prevention. The package of reforms was approved in October 2016, and the current leadership of the Ministry of Health is taking active steps toward implementing the reform measures. The proposed measures aim to make public spending on healthcare more efficient and should improve access to and the quality of healthcare within the available scarce resources.

Going forward, the healthcare reform may need to embrace paradigm shifts, not small incremental fixes. The overarching goal of the reform is to create an equitable health system that is responsive to clients, transparent, efficient, and effective in preventing and controlling NCDs. The needed shifts include the following transformations:

- **From predominately curative to more focus on preventive health care.** Building up PHC is vital key to boost the accessibility, effectiveness, and efficiency of healthcare. This would require:
  - (i) scaling up preventive and primary care, and adopting a systematic approach to NCD prevention and management;
  - (ii) strategic investment in healthcare infrastructure, reducing overcapacity, re-profiling the hospital sector, and modernizing remaining facilities for better quality care; and
  - (iii) introducing transparent procedures for managing public funds for health.
- **From input- to output-based financing.** This would require changing the current input-based financing to performance-based payment for specialized care and capitation for primary care. Under such a principle, money would follow the patient instead of inputs.
- **From the so-called 'free-care-for-all' with significant patient informal payments to a transparent benefit package.** This would involve reducing out-of-pocket payments by clearly defining the

government's guaranteed benefits package, allowing copayments, but protecting the poor and chronically ill.

All the proposed reforms are crucial and require support from all stakeholders. Although the healthcare sector is defined as a reform priority, it is not a focus of political attention. However, there are policy reform areas which could increase service delivery and lower costs:

- **The public procurement system still needs to be refined. A separate public agency for procuring pharmaceuticals and medical products requires strong anti-corruption mechanisms and investment in staff capacity.** Public procurement is one of the most visible segments of the healthcare sector because of its inefficiency and incidence of major corruption. In 2016, two innovations ushered a breakthrough in public procurement: (1) outsourcing procurement of medicines to international agencies, and (2) adoption of *Prozorro*, a new system for public procurements in all sectors.
- **Deregulating the pharmaceutical sector is another reform priority because pharmaceuticals constitute over a third of total health spending and the costs are mostly paid by Ukrainian households.** The goal of reform should be to ensure effective and efficient regulations and clear benefits for patients. The country needs to clearly specify the essential drugs list and enforce sound prescription practices; otherwise, a significant share of public and household spending will continue to be wasted without any evidence of the efficacy of drugs and medical technologies. Reinforcing the institutional capacity of the regulators, including clear assignment of functions and elimination of duplications, simplifying regulatory procedures, and making regulatory procedures and balanced economic regulations transparent are central to ensuring that medicinal products are accessible and affordable.

The healthcare system needs to be fiscally affordable and consistent with an efficient allocation of public finances. While some of the health reform measures may require additional fiscal resources for investment in the short run, over the medium term, measures related to optimizing the hospital network and right-sizing staffing and the wage bill should create more fiscal space for much needed capital investment to improve the quality of medical facilities. The introduction of guaranteed health financing package at all health care levels, including new financing model towards integrated patient centered care is expected to yield fiscal revenues in amount of 0.4 percent of GDP over 2018-2020.

Mandating health insurance is not a feasible option in the current economy. As international evidence shows, social health insurance by itself would not improve accessibility or immediately reduce OOPs, and it would probably increase the costs of healthcare administration, which is already too high at 15 to 16 percent of total public health spending in 2013–14.[35] Mandatory health insurance also would not be consistent with the current policy of easing the payroll tax burden, and is likely to fail given the low trust of population in public mechanisms of resource redistribution.

In additional to fiscal implications Healthcare reform is important both for the well-being of Ukrainians and their economic development prospects. Over 80 percent of deaths of working-age men were from illnesses that could have been treated through better primary care. The estimated number of productive life years lost due to premature death and disability is 5.9 million years annually (among the 45-65 age group) in Ukraine. This situation is hindering Ukraine's economic performance. Bloom, Canning, and Sevilla (2004) demonstrate that raising life expectancy by one year raises steady-state GDP per capita by about 4 percent.

[35] National accounts for health sector of Ukraine in 2014, Ukrainian Statistical Service

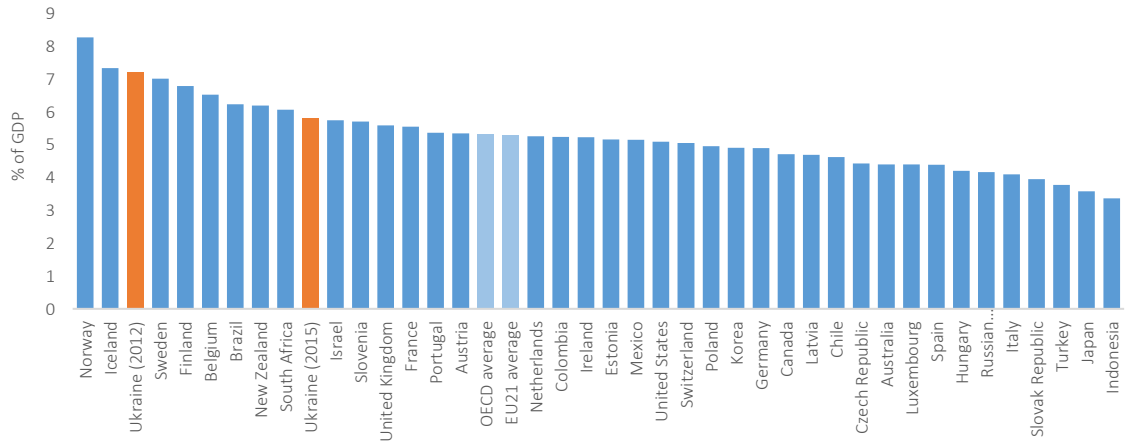
# Chapter 5 Optimizing the School Network

In recent years public spending on education has declined, however despite falling enrollment rates Ukraine maintains an extensive network of education institutions. Most public education spending finances personnel costs, low budget shares allocated to capital investment at all levels of education make it impossible to ensure equitable access to quality modern learning environments for all students. Moreover, while public allocation for pre-university education is lower than OECD country averages, public spending for higher education exceeds OECD averages. High levels of public spending on colleges and universities potentially crowd out investments in other levels of education. This chapter focuses the most important challenge in the education sector - the efficiency of resource allocation in general education (grades 1–11), also referred to as primary/secondary and pre-university education.[36]

## An extensive network of education institutions and falling enrollment rates

By most metrics, Ukraine's public spending on education is relatively high, although spending has declined in recent years. Between 2013 and 2015, budget financing shrank from 7.2 to 5.8 percent of GDP (from 21 to 17 percent of total government spending). After the steep devaluation of the hryvnia, public education spending declined by 35 percent in real terms over two years. The decline brought Ukraine closer to international benchmarks in terms of the share of national wealth devoted to education. At 5.8 percent of GDP, Ukraine's education spending is now on par with Slovenia, Israel, France, and the United Kingdom (U.K.), and is closer to the OECD and EU averages of 5.3 percent of GDP than the far more generous levels of spending found in the Scandinavian nations (among which Ukraine found itself a few years ago) (figure 5.1).

**Figure 5.1. Public Spending on Education,[1] Percent of GDP, Ukraine (2012 and 2015) and OECD Countries (2012)**



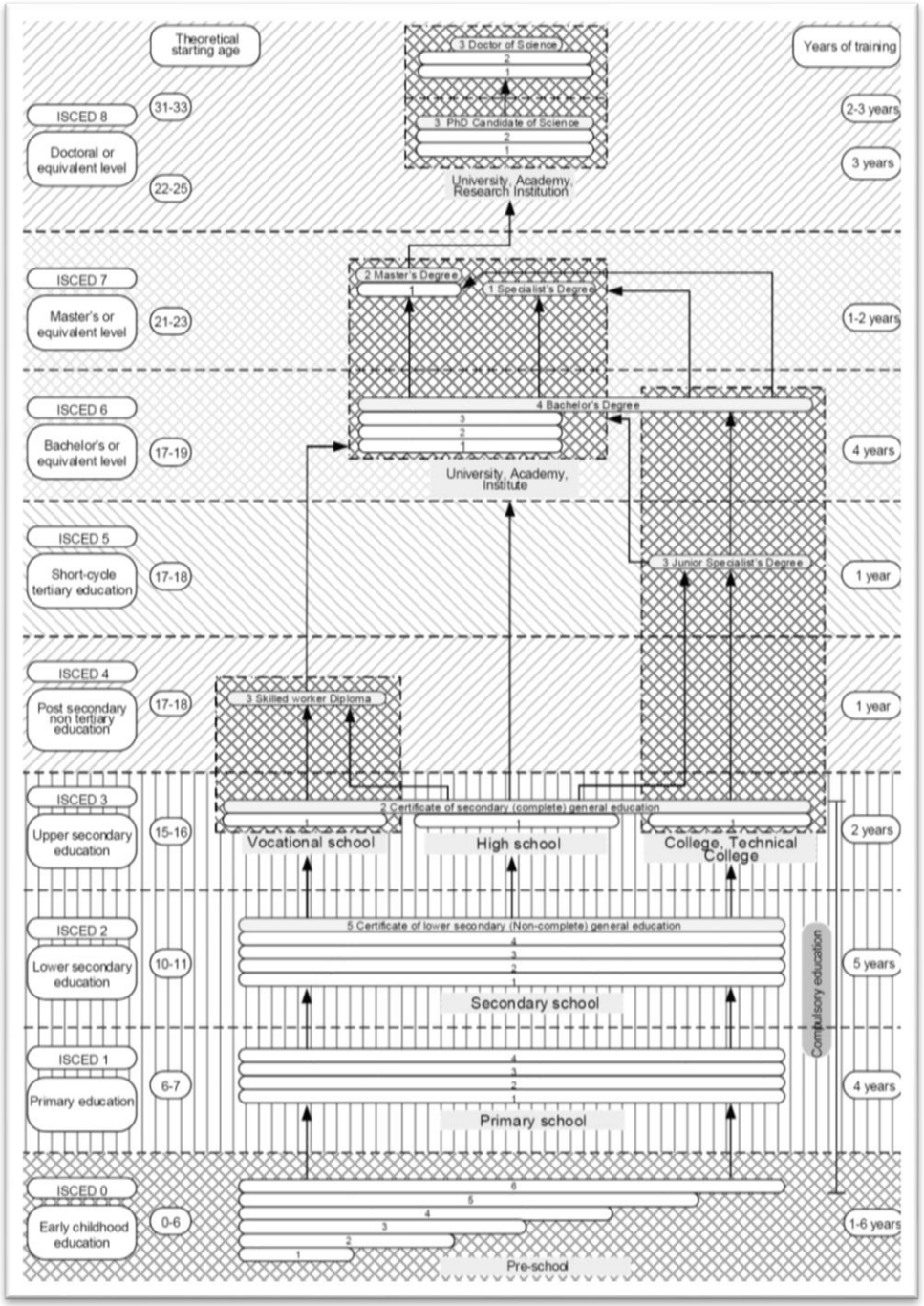

*Source*: Ukraine BOOST v1.2 government expenditure database and OECD 2015.
*Note*: [1] Pre-primary through tertiary, including expenditures not allocated by level.

[36] This chapter analyzes issues related to education that are particularly relevant to Ukrainian policymakers, but does not cover the full breadth of the education sector. For example, higher education financing has been debated and analyzed at length elsewhere; See for example, CEDOS (2016a and 2016b). The review of the current allocation formula for the education subvention, as defined by the Cabinet of Ministers (2015a) is also addressed by Herczyński (2016) and the intergovernmental relations chapter of this PFR.

Ukraine's law on education guarantees every citizen the right to education. Public expenditures go towards maintaining an extensive network of public education institutions covering preschool, general secondary, vocational, and higher education (box 5.1):

- Preschool. Preschool education is mandatory in Ukraine. It can be obtained within the family setting, (until the child reaches age 5) and from qualified providers. When children reach 5 years of age, parents can choose a form of preschool education from among full-time preschool institutions, part-time groups, or special pre-primary groups within primary schools.
- General secondary. General secondary education (GSE) in Ukraine is divided into three levels: primary (level I: grades 1–4), basic general secondary (level II: grades 5–9), and high school/complete general secondary (level III: grades 10–11). A certificate of completion of lower secondary general education is issued after level II, and a certificate of completion of upper secondary general education is issued after level III. GSE services are provided through a network of institutions of various types.
- Vocational education and training. Vocational education and training (VET) is also offered in several types of institutions. Students can enroll in VET after completing lower secondary (grade 9) or upper secondary (grade 11). Those enrolling in VET after grade 9 can receive an upper secondary education certificate together with a "skilled worker diploma" after two years of study. Those enrolling after grade 11 receive a "skilled worker diploma" after one year of study.
- Higher education. Higher education in Ukraine is provided by colleges, technical colleges, universities, institutes, and academies. Before the Law on Higher Education was passed in 2014, Ukraine had four levels of higher education institutions (HEIs): level I, technical colleges; level II, colleges; level III, institutes and conservatories; and level IV, universities, academies, institutes, and conservatories. Since the 2014 reform, a junior specialist degree is awarded upon completion of one to two years of study, and a bachelor's degree after four years of study. Postgraduate Master's, Candidate of Science (PhD), and Doctor of Science degrees are available.

**Box 5.1. The Ukraine Education System**




According to the latest data available, over 33,000 institutions provide educational services in Ukraine. Of these, 15,002 offer preschool education, 17,337 general secondary, 798 vocational, and 659 higher education. These institutions enroll 6,987,424 students and employ 784,172 teaching staff (table 5.1).

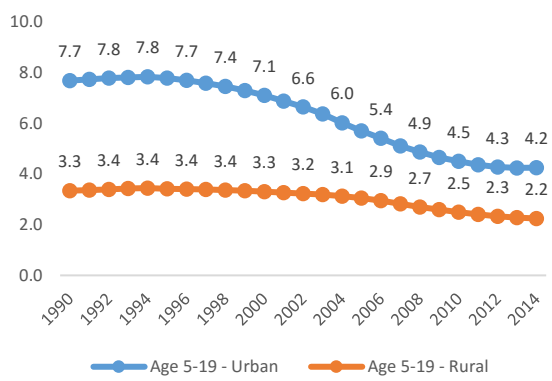
**Table 5.1. Basic Statistics of the Ukraine Education System, 2015 [1]**

| | Institutions | Students | Teachers | Students Per Institution | Students Per Teacher |
|---|---|---|---|---|---|
| Preschool Education[2] | 15,002 | 1,294,891 | 133,772 | 86.3 | 9.7 |
| General Secondary Education | 17,337 | 3,783,150 | 444,089 | 218.2 | 8.5 |
| *of which*: Urban | 5,669 | 2,585,942 | 234,231 | 456.2 | 11.0 |
| Rural | 11,668 | 1,197,208 | 209,858 | 102.6 | 5.7 |
| Vocational Education | 798 | 304,113 | 43,416 | 381.1 | 7.0 |
| Higher Education[3] | 659 | 1,605,270 | 162,895 | 2435.9 | 9.9 |

*Notes*:
[1] Excluding the Autonomous Republic of Crimea, the city of Sevastopol, and parts of the regions of Donetsk and Luhansk.
[2] Figures as of the end of 2014 (latest available year).
[3] Includes short programs (accreditation levels I–II), bachelor programs (accreditation levels III–IV), and postgraduate programs.

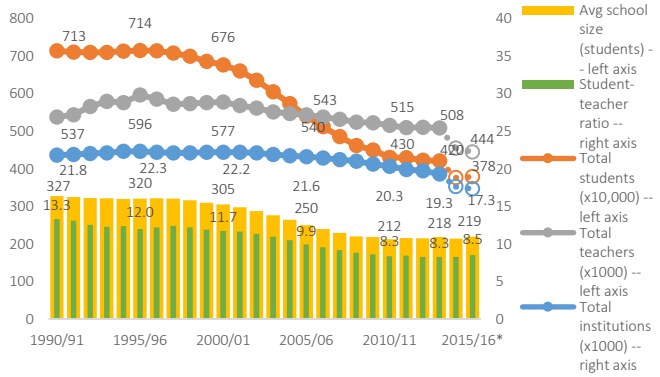
The number of students enrolled in school has declined due to demographic changes. Falling birth rates have led to an aging of the population and a reduction in the number of school-aged children (figure 5.2). Since gaining independence from the U.S.S.R., the number of Ukrainian children aged 5 to 19 years declined by 41 percent—from 11 million in 1990 to 6.5 million in 2014.[37] The decline was observed in both urban and rural areas of the country. The urban population of 5- to 19-year-olds shrank by 45 percent, from 7.7 to 4.2 million, and the rural population by 33 percent, from 3.3 to 2.2 million. General education institutions, which enrolled 7.1 million students at the beginning of the 1990/91 school year, saw enrollments shrink by 41 percent by 2013/14, to 4.2 million. Over the same period, the number of general education schools declined by 11 percent (figure 5.2), and the number of teachers fell by 5 percent. Meanwhile, the nationwide average school size shrank from 327 to 218 students, and the student-teacher ratio dropped from 13.3 to 8.3.

**Figure 5.2. School-Age Population by Urban-Rural Location, 1990–2014, Millions**




*Source*: State Statistics Service data.

**Figure 5.3. General Education Schools, 1990/91–2015/16**




*Source*: IDSS (2014) using State Statistics Service data.

Ukraine's demographic changes have had different effects on urban and rural school networks. In urban areas, where the drop in enrollment has been more pronounced, the numbers of schools and teaching staff have aligned more closely to the lower enrollments than in rural areas. Although the student-teacher ratio in urban schools declined significantly since the 1990s, it stabilized at about 11.2 by 2015/16. In rural schools, however, student-teacher ratios dipped to 5.7 by 2015/16 (CEDOS 2016c).

## Most of education spending is allocated for recurrent expenditures

As in many countries, most public education spending finances personnel costs and general education.

[37] The latest year for which comparable figures are available. After 2014, most data exclude the Autonomous Republic of Crimea, the City of Sevastopol, and parts of the regions of Donetsk and Luhansk.

According to economic classification, 51 percent of all budgeted spending on education went to labor costs; non-personnel recurrent costs accounted for 45 percent, and capital spending made up less than 5 percent. However, these figures mask an issue in higher education, where more than 90 percent of spending is allocated through a single budget program classified as non-personnel recurrent expenditure.[38] In terms of functions, the largest part of public spending on education is allocated to the general secondary subsector, followed by higher education and preschool education. Of the 5.8 percent of GDP spent on education in 2015, 43 percent went to general secondary schools, 27 percent to higher education institutions, 16 percent to preschools and other preprimary education institutions, and 5 percent to VET schools (figure 5.4).

**Figure 5.4. Distribution of Public Expenditures on Education by Economic and Functional Classification in 2015**

| | Labor costs | Goods and services | other current expenditures | Capital Expenditures | Total |
|---|---|---|---|---|---|
| Pre-school education | 9.4% | 5.2% | 0.5% | 0.8% | 15.9% |
| **General education** | 28.5% | 8.1% | 0.1% | 1.9% | 38.6% |
| Special boarding schools | 2.8% | 1.8% | 0.0% | 0.2% | 4.9% |
| Vocational education and traning | 3.0% | 1.2% | 1.1% | 0.1% | 5.4% |
| Colleges and technical colleges | 0.2% | 6.1% | 0.1% | 0.1% | 6.5% |
| **Universities, inistutions, academies and conservatories** | 1.0% | 18.7% | 0.0% | 0.9% | 20.7% |
| Post-graduate education | 0.6% | 0.2% | 0.0% | 0.0% | 0.8% |
| Out-of-school education | 3.4% | 0.6% | 0.0% | 0.1% | 4.2% |
| Material procurement programs | 0.0% | 0.0% | 0.0% | 0.2% | 0.2% |
| R&D in education | 0.0% | 0.6% | 0.0% | 0.0% | 0.6% |
| Other education expenditures | 1.6% | 0.4% | 0.1% | 0.2% | 2.2% |
| Total | 50.6% | 43.0% | 1.9% | 4.6% | 100.0% |

Source: BOOST data.

The share of recurrent spending in Ukraine's education budget is substantially higher than in most OECD member countries. In 2012, the OECD average for recurrent spending in primary and secondary education was 93 percent and in tertiary education was 90 percent compared to about 98 percent in Ukraine (in 2015). Many wealthier countries spend 7 to 10 percent or more of their education budget on capital investment; Ukraine's education budget has long underinvested in capital assets.

Low investment in capital and low teacher salaries is a problem. The low budget shares allocated to capital investment at all levels of education make it impossible to ensure equitable access to quality modern learning environments for all students. Because of underinvestment from the central budget, local authorities that have the means to repair and maintain education facilities do so using local funds. Areas with insufficient local revenues are unable to do this, which is why stakeholders throughout the country identify the poor condition of education infrastructure as one of their main concerns. Miserly teacher salaries also take a toll on the quality of education. Many teachers are still poorly paid because the size of the teaching workforce has not been adequately adjusted to the numbers of students declining over two decades.

Furthermore, in addition to salaries, each subsector has specific expenditure categories that appear to be

[38] Expenditure category 2282, "Special initiatives to implement national/regional programs other than development activity." These block transfers to universities and other HEIs contain a high proportion of personnel spending, thus biasing the categorical distribution of public spending.

important drivers of costs. In general secondary education, spending on utilities and heating costs is likely a result of underutilized education facilities in rural areas. In preschool education, food costs are the main non-salary cost driver, possibly because of inefficient procurement practices and non-targeted provision of free meals. In vocational and possibly higher education, a key cost driver is the widespread use of student stipends not targeted to financial need. Other post-Soviet countries, such as Latvia, have recently moved away from near-universal student stipends toward cost-sharing arrangements for financing higher education that combine tuition fees, student loans, and need-based targeted scholarships.[39]

While public allocation for pre-university education is lower than OECD country averages, public spending for higher education exceeds OECD averages. The amount spent on higher education in 2015—equal to 1.6 percent of GDP—is higher than the mean of 1.3 percent of GDP in OECD member countries.[40] Only a small number of wealthy Scandinavian countries spend as much or more as Ukraine does on higher education. In fact, most middle-income OECD members and partner countries spend 0.8 to 1.0 percent of GDP in public funds on higher education. However, in Ukraine, HEIs include tertiary colleges and technical colleges that more closely resemble OECD vocational secondary or post-secondary non-tertiary institutions.[41] Meanwhile public allocations to pre-university education fall short of mean OECD levels. In 2015, Ukraine spent about 2.8 percent of GDP on general secondary and vocational education compared to 3.5 percent in the OECD.[42] Only a small number of OECD member and partner countries spend as little in public funds on schools as Ukraine does, with Russia the main outlier at 2.2 percent. Most OECD members spend 3 to 4 percent of GDP in public funds on primary and secondary education. Ukraine also spent 0.9 percent of GDP on public financing of preschool education compared to the OECD average of 0.6 percent.

High levels of public spending on colleges and universities potentially crowd out investments in other levels of education. Although the data do not allow for detailed analysis of expenditures within higher education, the large share of the education budget that tertiary education receives is cause for concern. In particular, the expansive network of colleges and universities leads to less than efficient provision of education. Large proportions of public funds spent on stipends in vocational (and likely higher) education may be a symptom of poorly designed educational programs for which individuals must be paid to attract students. Since these payments are not generally targeted by financial need, they constitute inefficient and often regressive transfers from the public budget.

The composition of education expenditures by functions and economic categories has remained broadly stable over recent years (figure 5.5). The recent decrease in aggregate financing was spread evenly across education levels and expenditure categories. Between 2013 and 2015, each subsector's funding decreased by 30 to 45 percent in real terms (figure 5.6). Preschool education was cut least (31 percent); the largest cuts were to VET (42 percent) and postgraduate education (43 percent). General secondary and higher education also faced cuts, but together still accounted for 70 percent of total public spending on education in 2015 (the same share as two years earlier). Overall, remuneration declined from 3.9 percent of GDP in 2013 to 2.9 percent in 2015, and spending on goods and services shrank from 3.0 percent of GDP to 2.5 percent.

[39] See, e.g., https://ec.europa.eu/education/compendium/implementation-new-higher-education-funding-model_en; http://www.izm.gov.lv/lv/izglitiba/augstaka-izglitiba/augstakas-izglitibas-finansesanas-modelis (in Latvian); and https://likumi.lv/ta/id/274944-par-jauna-augstakas-izglitibas-finansesanas-modela-ieviesanu-latvija (in Latvian).

[40] The OECD average is from 2012, the latest year available, when Ukraine's spending was even higher at 2.1 percent of GDP.

[41] According to the 2015 Treasury data reported in the BOOST database, HEIs at the I-II accreditation levels (colleges and technical colleges) accounted for about 24 percent of all Ukraine's spending on higher education, up from 21 percent in 2007. If this amount were reclassified as public spending on VET, that sector's share of GDP would rise from 0.3 to 0.7 percent and higher education's share would fall from 1.6 to 1.2 percent of GDP.

[42] The OECD average is from 2012, the latest year available, when Ukraine's spending was higher but still below the OECD average at 3.4 percent of GDP.

**Figure 5.5. Public Spending on Education by Category, 2007–15, Percent of GDP**

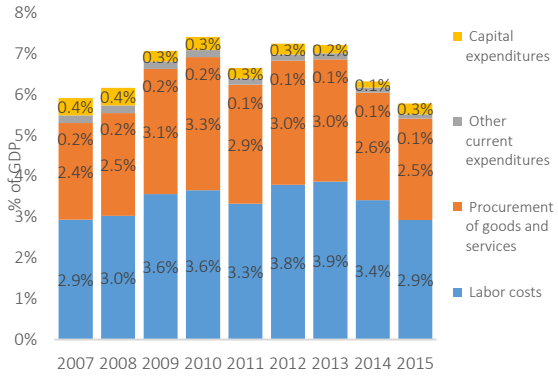
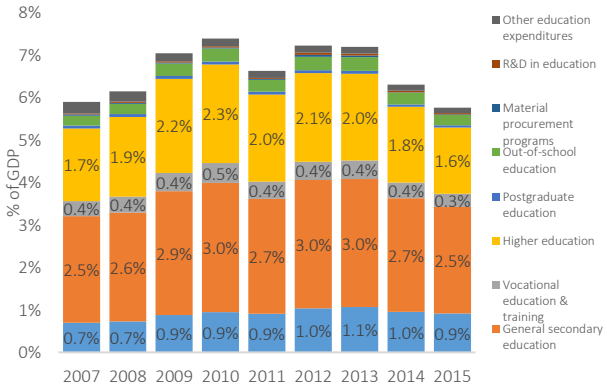



**Figure 5.6. Public Spending on Education by Subsector, 2007–15, Percent of GDP**




*Source*: Ukraine BOOST government expenditure database.

Personnel costs accounted for 72 percent of all public spending in general secondary education in 2015. This was close to the OECD average of 73 percent for primary and secondary education (2012 OECD data). The share spent on non-personnel recurrent costs, 23 percent,[43] was slightly above the OECD average of 20 percent, though this percentage varies widely among OECD member states, most of which spend 20 to 25 percent on non-salary recurrent costs. At 5 percent, capital spending in Ukraine was substantially below most OECD members. Although the OECD average was 7 percent in 2012, some members (like South Korea and Japan) spent as much as 13 percent of their education budget on capital investment. It is important to note that the latest OECD data are from 2012, a year in which Ukraine spent only 3 percent on capital investment in general secondary education, with the figure dropping as low as 2 percent in 2014.

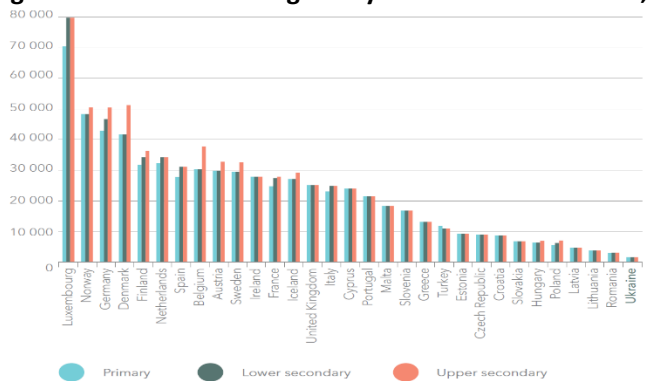
In preschool and vocational education, personnel costs made up less than 60 percent of total public spending. Meanwhile, non-personnel recurrent spending accounted for 36 percent for preschool and 42 percent for VET. The reasons for high spending on goods and services differed. For preschools, 14 percent of public spending went to pay for food (accounting for 40 percent of all non-personnel recurrent expenditures). Meanwhile, the major cost driver in VET other than employee compensation was student stipends, which accounted for 19 percent of total spending and 45 percent of all non-personnel recurrent expenses.[44]

Teacher salaries in Ukraine remain low, and have been decreasing because of economic factors. Budget cuts since 2014 and the steep devaluation of the hryvnia have driven down teacher take-home pay. At 58 percent of GDP per capita, salaries for starting teachers were already far below Western European benchmarks even before the recent round of budget cuts (figure 5.7). In a 2015 survey (Institute for Education Development 2015) 90 percent of school principals, 80 percent of teachers, and 52 percent of parents identified the need to address low salaries as a key issue if the quality of education in Ukraine's schools is to improve.

[43] Of the total spent on non-personnel recurrent costs, 61 percent financed utility costs (such as heating and energy), and 24 percent paid for food. These two categories accounted for 20 percent of the total cost of general secondary education in 2015.

[44] It is highly likely that the public funding of stipends is also a major cost driver in higher education, though this cannot be verified with the data available, for reasons already noted. According to estimates of CEDOS think tank, the structure of public spending in universities during 2015 was composed as follows: Salaries – 44 percent; Payroll taxes – 16 percent; Stipends – 31.7 percent; Utilities – 6 percent; Capital costs – 0.3 percent; other – 2 percent.

**Figure 5.7. Annual Starting Salary of a Full-Time Teacher, 2014, Euros**



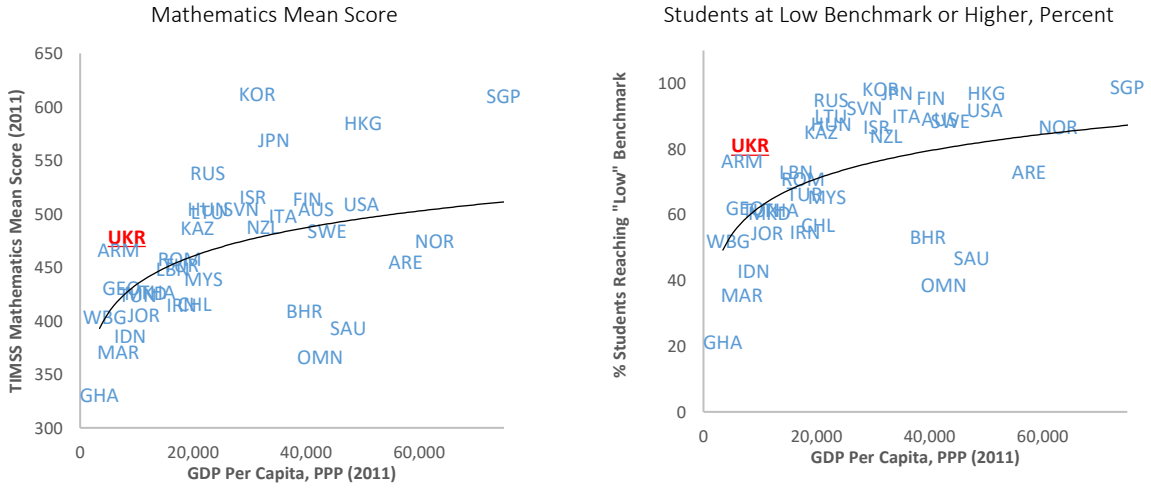

*Source*: CEDOS 2016c, based on Eurydice and the State Statistics Service of Ukraine.

## Subnational variations in student performance hints at inefficiency in the use of resources

Comparative international analyses of education efficiency are difficult. Since Ukraine has not participated in international assessments of student learning since 2011, little can be said about the quality of its education. According to 2011 data from the Trends in International Mathematics and Science Study (TIMSS 2011), Ukrainian grade 8 students performed relatively well given the country's level of economic development. Ukraine's mean scores on the mathematics test were significantly higher than those of Armenia, Georgia, and Indonesia (countries with similar GDP per capita). In fact, Ukraine's results were close to those achieved by eighth graders in far richer countries, including Norway, Sweden, and New Zealand.

Basic proficiency in mathematics was relatively high in TIMSS 2011 (figure 5.8), in which 81 percent of Ukraine's eighth graders reached at least the low international benchmark, which measures basic acquisition of mathematics knowledge at the eighth-grade level. This level was only achieved by 76 percent of test takers in Armenia, 62 percent in Georgia, and 43 percent in Indonesia. However, TIMSS assessments measure only knowledge acquisition in mathematics and science, not the ability to apply that knowledge in solving real-world problems. To assess the latter and measure the functional literacy and numeracy of Ukrainian students, results of the OECD's Program for International Student Assessment (PISA) are needed. Ukraine is scheduled to participate in PISA for the first time in 2018.

**Figure 5.8. TIMSS 2011 Mathematics Performance and GDP Per Capita**

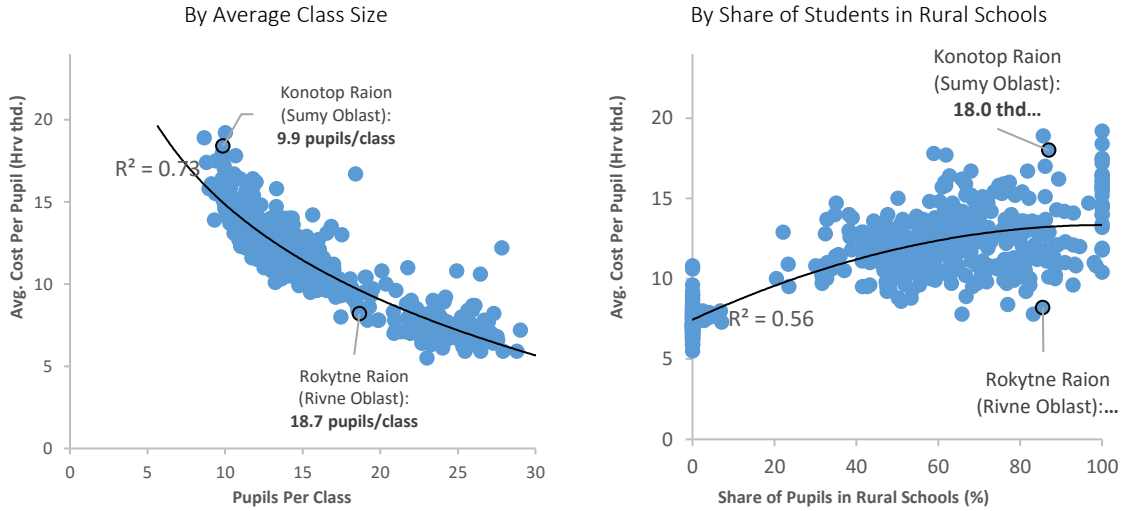



*Source*: World Bank EdStats database.
*Notes*: [1] Qatar, with GDP per capita at PPP of USD134,000, is not shown on the figures.
[2] Panel (b) shows the share of students having at least basic mathematics proficiency.

Subnational variations in student performance and other indicators offer hints about possible areas of technical inefficiency in the use of educational financial resources. An analysis of unit costs of general secondary education provision reveals large differences between *raions* (districts). According to data from 2014, school spending per student ranged from about Hrv 5,500 to more than Hrv 20,000.[45] Not surprisingly, unit costs were significantly higher in raions where classes were smaller. In Ukraine, as in the rest of the world, smaller classes are associated with higher unit costs ($R^2$=0.73) (figure 5.9). Small classes are found largely—but not exclusively—in raions, where many students live and study in rural areas.

However, even in raions with similar shares of students in rural schools, unit costs can vary substantially. For example, Konotop raion of Sumy oblast and Rokytne raion of Rivne oblast have similar population densities and about 85 percent of their students are in rural schools. However, average spending per student in 2014 was Hrv 18,000 in Konotop and Hrv 8,200 in Rokytne. This difference closely mirrored the choices these raions made about average class sizes. While classes in Rokytne averaged 18.7 students, those in Konotop had only 9.9. However, the mean mathematics scores on a 100-200-point scale on the 2014 external independent assessment exam were almost identical: 141.3 in Rokytne and 145.1 in Konotop.

**Figure 5.9. Unit Costs in General Secondary Education by Raion, 2014**

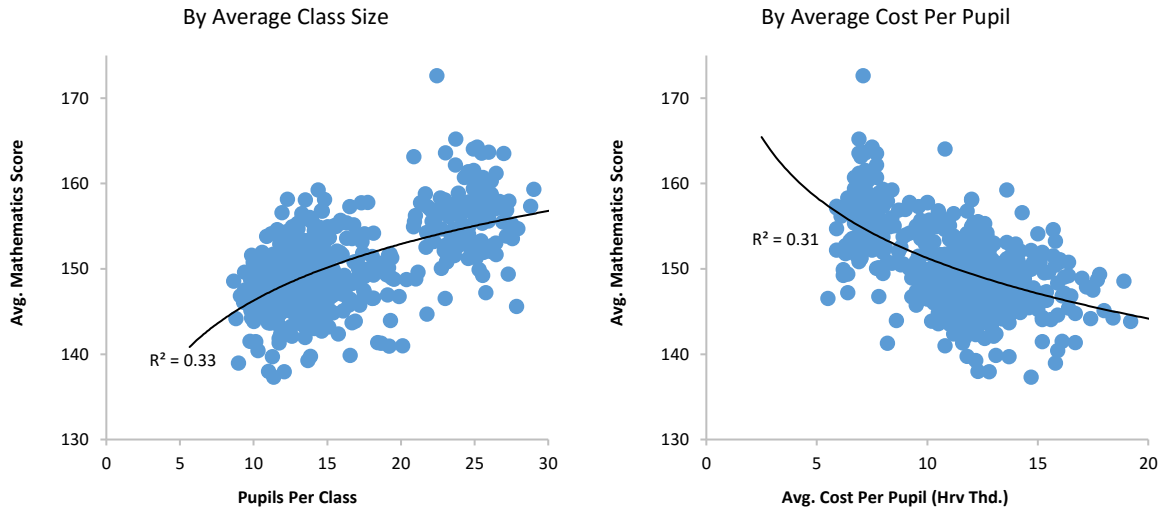



*Source*: Data from CEDOS 2015.

To some extent, the results of Ukraine's national standardized tests can also be used to evaluate the relative efficiency of different localities. The External Independent Assessment (ZNO) is designed mainly to select students for university admission, not to assess the quality of education individual schools or school districts provide. However, large variations in test scores among similarly positioned districts that make similar resource allocation decisions may point to local differences in technical efficiency. As illustrated in figure 5.10, the relationship between average class sizes or unit costs in a raion and average ZNO mathematics scores is quite weak. Districts that spend similar amounts per student often vary by 20 points or more on the ZNO scale. Locations where test scores are higher than would be expected given their per student spending can be said to be relatively more efficient. Districts that spend about the same but whose students receive lower ZNO scores would then be relatively less efficient. However, these analyses are incomplete without considering the detailed demographic and socioeconomic situation of each raion.

[45] A small number of raions with outlier values are excluded from this analysis.

**Figure 5.10. External Independent Assessment (ZNO) Mathematics Scores by Raion, 2014**




*Source*: Data from CEDOS 2015.

More data are needed to accurately assess the technical efficiency of Ukraine's general secondary education system**.** A modern integrated Education Management Information System (EMIS; see box 5.2) is essential to allow policymakers to use school-level data to inform a wide range of policy decisions. A comprehensive information system containing data on inputs used at school level (including financial resources) together within various measures of outputs produced by the schools should be linked to other sources of highly disaggregated demographic and socioeconomic information collected by the State Statistics Service and other agencies. More precise measurement of student learning at different levels of schooling is also important. Learning assessments that use student and school background questionnaires would allow policymakers to better understand the role that school-level decisions and household characteristics play in determining the quality of education. Participation in PISA 2018 will considerably enrich the data on student learning currently available in Ukraine, but contemporaneous improvements in the national assessment system can also be beneficial.

**Box 5.2. Education Management Information System (EMIS) in Ukraine**

An EMIS was first established in Ukraine on a pilot basis in 2012, authorized by MOES Orders #729 and #1345. Developed and maintained by a private entity (OOO Novi Znannya / "New Knowledge LLC"), the system collected data from educational institutions with the dual aim of compiling statistical reports for the MOES while also creating a market for the company's other products, such as electronic journals for schools. The EMIS covered about 80 percent of Ukraine's general education schools and many preschools. School-level administrative, geographic, and basic statistical information was then made available through the EMIS portal at http://isuo.org/. The system was also able to generate various statistical reports required by the MOES.

In 2016, a decision was made to transfer—on mutually agreed terms—the ownership of the EMIS from the private entity to the state. At the same time, the MOES issued Order #319 instructing the Institute of Educational Analytics (IEA) to develop a modern State Education Information System (DISO is the Ukrainian acronym) that would serve the Ministry's current and future needs for managing the education sector. The IEA took possession of various EMIS modules, databases, and registers of educational institutions in early 2016. It also registered the domain http://diso.gov.ua/ to host the future DISO system, which will be developed based on the previous EMIS.

The IEA has been tasked with consolidating a variety of modules, databases, and registers into a single unified EMIS. The final product is expected to give education administrators at all levels access to the data needed to make informed management decisions. The final system will contain detailed data on school financing, staffing, enrollment, infrastructure, and other indicators, along with the capability to produce customized analytical reports on demand. It is expected that except for personal information, the data will be available through an Open Data Portal to all interested stakeholders in accordance with globally accepted best practices. (A subset of the EMIS data was made available through the CEDOS School Map website in 2015: http://www.cedos.org.ua/edustat.

## Approaches to school optimization

Although only one-third of Ukraine's children currently live in rural areas, two-thirds of all general secondary schools are rural. Nearly half the country's teachers work in rural schools, a share that has been increasing in recent years. This is to be expected, in part due to the lower population density in these areas. However, it is also the legacy of a Soviet-era model of a large network of small schools serving children in rural areas. This emphasis on village schools, to which citizens in many post-Soviet countries have grown accustomed, has led to increasingly inefficient resource allocations as student numbers in rural areas have declined. Moreover, the practice of retaining many under-enrolled schools with small classes stands in stark contrast to the approach to rural education provision used in many western countries with far lower population densities than Ukraine, such as Canada, Australia, and Sweden (see box 5.3).

**Box 5.3. Approaches to Rural Education Provision in OECD Countries.**

In **Canada**, although more than 900 small rural community schools have been closed since 1966, the closure policy was complemented by a bus system that transported growing numbers of students for longer distances to larger schools, farther away from their communities. The small-class schools that are still operational today are often in remote areas where schools have very low enrollments – often much fewer than 100 students – and where a bus system is ineffective. The consolidation approach to rural education is limited by how far and how long policymakers can expect students to tolerate riding a school bus.

In **Portugal**, until 2005 rural areas were dominated by small schools with poor facilities, while urban areas had overcrowded schools with double-shift education. The government determined that small schools with poor performance indicators were to be closed in 2005/06 and clusters of schools should be created. The reorganization had several important features, including: (1) a clear central vision about what type of schools/clusters should replace the closing schools; (2) a recognition that parents needed to be convinced of the benefits of the new model (transportation for students was free); (3) incentives for municipalities to invest in new or rehabilitated facilities; and (4) consultations to ensure that the program would be sustainable. In general, the reorganization brought about innovations and improved the efficiency of the schools, reduced the isolation of teachers, improved the socialization of underprivileged or isolated students, and fostered a collaborative approach between the Ministry of Education (centrally and regionally), municipalities, schools, and other stakeholders.

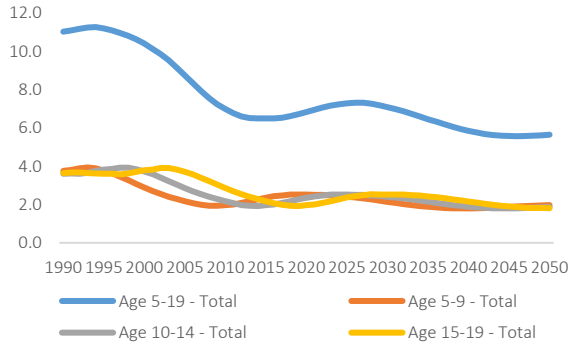
Another approach suggested by the literature is collaboration of small-class schools with larger schools, which avoids closure and consolidation. This collaboration emphasizes sharing in the facilities of larger schools, which tend to be better equipped. Small-class schools often face difficulties in providing physical spaces and costly learning tools beyond textbooks. Larger schools serve as hubs, and small-class schools serve as "feeder" or "satellite" schools, as in the approach used in **Queensland, Australia**. Students from small-class schools are transported to the larger schools on a set timetable. Sharing facilities allows students of small-class schools to benefit from a wider curriculum where an applied element is required in areas such as dance, physical education, ICT, and visual arts. This approach allows small-class schools to avoid closure.

*Source*: OECD/World Bank 2015.

The hub schools initiative launched in early 2016 is a major stride toward rationalizing Ukraine's network of general education schools. The MoES concept presents a vision for school consolidation that aims to achieve four main objectives: (1) providing conditions for equal access to quality education; (2) improving the quality of education; (3) encouraging the efficient use of available resources; and (4) enhancing the capacity of local authorities. However, after two decades of virtually no adjustment to the demographic reality in rural areas, rationalizing the school network will not be easy. A long-term strategic vision is needed for rural education, backed by solid analysis and guided by international best practices.

Meanwhile, demographic prospects do not look promising (figure 5.11). While the population of urban 5- to 19-year-olds is expected increase from the current 4.2 million to about 5.2 million in 2027, the rural population will continue to decline. The current rural population of 2.2 million 5- to 19-year-olds is projected to decline slightly to about 2.1 million in 2026, after which the decline is expected to accelerate. By 2035, the number of rural school-age youth is projected to be 1.7 million, 22 percent below the current level and 50 percent below the 1994 peak of 3.4 million. After 2027, both urban and rural populations of youth are expected to decline.

**Figure 5.11. School-Age Population Groups, 1990–2014 (Actual) and 2015–50 (Projected), Millions**



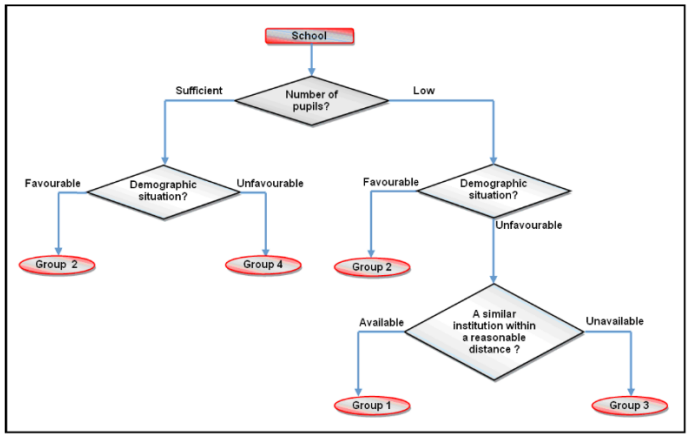

*Source*: IDSS (2014) using data from the State Statistics Service of Ukraine.

A thorough assessment of future demand for school infrastructure is needed to prepare for the continued decline of the rural school-age population. The assessment should (1) *map* all education institutions in Ukraine with precise geographic information and data on student enrollment in each grade, current staffing levels (teaching, administrative, and auxiliary), and the condition and capacity of school and road infrastructure; (2) *forecast* demographic trends and the demand for schooling in each location; (3) *simulate* the feasibility of facility and staff optimization in each location; and (4) *estimate* the scope of school, class, and staff consolidation nationwide.[46] Box 5.4 offers examples of such assessments in other countries.

**Box 5.4. School Grouping in Moldova and Thailand**

Among other countries facing demographic challenges, neighboring Moldova conducted a 2010 study of the feasibility of grouping rural schools into four categories (figure B5.4.1). Three criteria were used to assess each school's future viability: (1) its current number of students; (2) the demographic situation in the locality (forecast for population growth or decline); and (3) whether there was a similar institution existed within a reasonable distance of this school (using 5, 10, and 15 km by road).

**Figure B5.4.1. Methodology of School Grouping in Moldova**



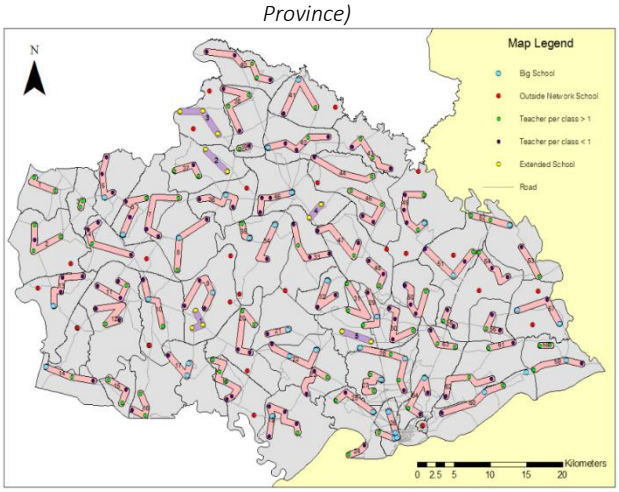

*Source:* QERAM 2010.

Thailand recently carried out a larger-scale network optimization analysis. While Moldova's grouping exercise covered fewer than 1,000 rural schools, Thailand's was a nationwide assessment of the feasibility for optimization of its more than 30,000 schools. Careful mapping found that 85 percent of small schools were relatively close (less than 20 minutes' travel) to another school. Institutions were then grouped into four categories based on enrollment and proximity to another school. The study found that by consolidating 16,943 non-isolated small schools with 9,421 non-isolated large schools, the Thai authorities could create up to 14,252 viable schools that would provide better-quality education at a lower cost to the children.

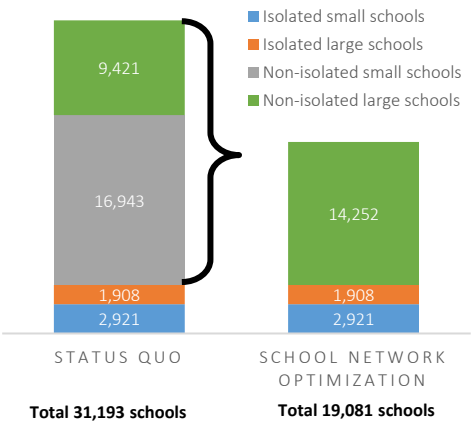
[46] Some aspects of this analytical work have already been initiated in Ukraine. See, e.g., Herczyński 2015 and Seitosmanov et al. 2016.

**Figure B5.4.2. School Network Optimization Analysis in Thailand**

*(a) Example of School Mapping Exercise (Ubon Ratchathani Province)*




*(b) Simulation of Nationwide School Network Optimization*




*Source*: World Bank 2015.

School consolidation is never easy since political and cultural barriers often impede rational downsizing of a school network when demand for education services decreases. At the same time, popular pressures call for new or expanded education facilities when demand for services (such as preschools) increases. Such adjustments are a natural part of education infrastructure policy in all countries, but may prove particularly difficult in countries that, like Ukraine, face significant demographic declines.

At the same time, many countries have found innovative and cost-effective ways to deliver education to children in remote and rural areas (see Box 5.3). Canada, Australia, and Sweden, whose average population density is far lower than Ukraine's, offer Ukrainian policymakers useful lessons on designing a forward-looking strategy for rural education. Portugal's rural school reorganization program, implemented 10 years ago, also offers important procedural guidance on how to put such measures in place by focusing on improving the quality of education and consulting local stakeholders.

In Ukraine, consensus is building for the need to rationalize school infrastructure by consolidating small rural schools and ensuring that all children have equal access to a quality learning environment. A recent survey (Institute for Education Development 2015) of 1,800 school principals, teachers, and parents in Kyiv and 15 other regions of Ukraine found that 62 percent of principals, 46 percent of teachers, and 45 percent of parents supported the consolidation of rural schools (if adequate transportation is provided for the students). In contrast, 34 percent of principals, 45 percent of teachers, and 36 percent of parents opposed school consolidation. All stakeholders ranked the poor state of school infrastructure among the top three problems facing the sector (the others were low salaries of education workers and government attitudes that the education sector is a drain on the state budget). Vast majorities of those surveyed also saw a need for immediate reforms and believed that their success would lead to a better quality of education.

Ukraine has multiple options for resolving the education challenges caused by declining and aging populations. School consolidation is one obvious path. Creation of hub schools or school clusters is a popular way to maximize the use of scarce educational resources to ensure they reach the greatest number of students in remote areas. Busing or other transportation options and greater reliance on technology can be leveraged in innovative ways. Ultimately, forward-looking strategic planning, solid evidence-backed analysis, clear communication with all stakeholders, and effective leadership are needed to ensure a sustainable system for delivering high-quality education in the 21st century.

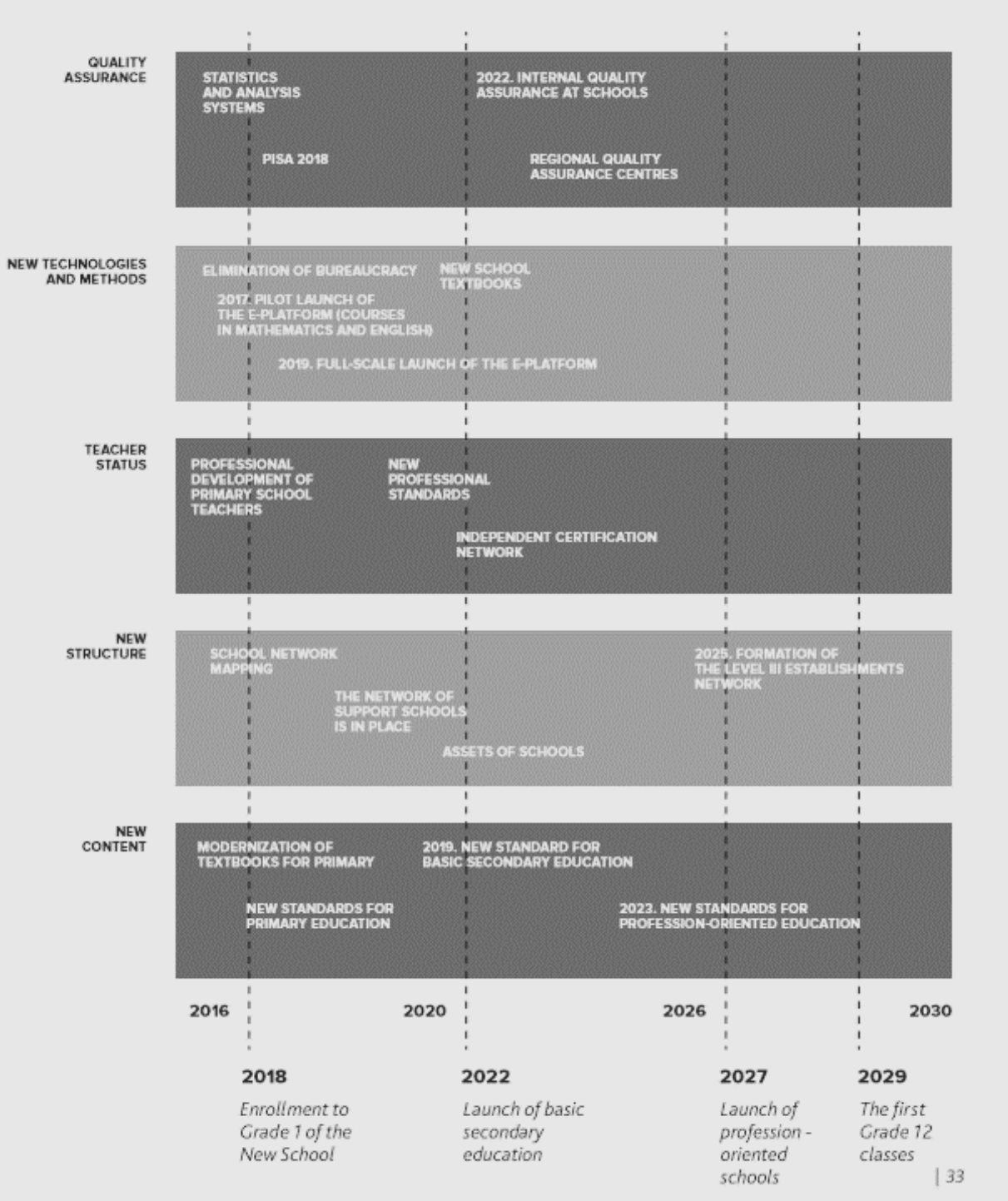
## Reform Options

Given recent budget cuts, public spending on general secondary education in Ukraine is no longer much higher than international benchmarks. Overall levels of public investment in education can be considered adequate, especially with the number of school-age children declining over time. However, internal reallocations are needed to ensure sustainability in some areas. Adjustments over time would also be needed to ensure that the number of schools, classes, and staff keeps pace with the changing demand for education services, especially the expected population declines in rural areas.

Critical education reforms initiated in Ukraine in recent years include the following:

- Introduction of external independent assessment. Beginning in 2006, external independent assessment (ZNO, its Ukrainian acronym) has been used to evaluate the achievement of students completing general secondary education. Since 2007, ZNO has been a mandatory criterion for university admission. Its introduction is considered among the most successful education reforms in the past 10 years, contributing significantly to reducing corruption in university admissions.
- Preschool reforms. Preschool education for children aged 5 has been mandatory in Ukraine since 2010, increasing the net enrollment rate of 3- to 5-year-olds from 75 percent in 2010 to 80 percent in 2013. Changes to the tax code have also made it easier to establish private preschools. In 2016, new sanitary rules issued by the MoH relaxed many antiquated rules regulating the functioning of preschool institutions. It is expected that this will speed up the entry of private providers in the marketplace for preschool education.
- Reforms in general secondary education. The need to adapt the general secondary network to demographic reality has long been recognized in Ukraine (see, e.g., Coupé, Olefir, and Alonso 2016). In 2010, authorities decided to form new education districts to rationalize schools at the local level. For a variety of reasons, implementation of the decision did not begin until 2016, after the Ministry of Education and Science developed the concept of a "hub school" (MOES 2016a). In December 2016, a concept for the "New Ukrainian School" was approved by Government (MOES 2016b). This vision lays out a twelve-year program of reform that foresees a wholesale reorientation of the school network toward imparting modern competencies and professional skills to its graduates.
- Vocational education reforms. In recent years, the number of students in VET institutions has been declining steadily. Although nearly 80 percent of VET graduates find work in their areas of specialization (and another 10 percent continued their studies or joined the armed forces in 2014/15), the content of VET programs is generally considered outdated for the modern labor market. A National Qualifications Framework was approved in 2011 and standards have been drafted for 301 professions, although so far only 170 have been adopted.
- Reforms in higher education. The most active area of education reform in Ukraine has been higher education. The Law on Higher Education, which was adopted in 2014, gave HEIs more autonomy in several important areas. This has allowed HEIs to create their own programs and make their own decisions about how to organize the academic process. Financial and administrative autonomy has expanded their ability to raise and spend financial resources and establish endowment funds. The MoES retains the coordination and oversight role for higher education, providing the strategic vision and labor market analysis necessary to manage the sector. Optimization of the network of HEIs has been underway since 2011, with the objective of closing those that perform worst and building up those that perform best. Between 2010/11 and 2015/16, the total number of HEIs (levels I–IV) declined 23 percent, from 854 to 659. An independent national quality assurance agency is in the process of being launched and a draft Law on Education Funding is being prepared as of early 2017.

**The New Ukrainian School reform framework**




*Source*: MOES (2016b).

Going forward several options for reform include:

- Modernize the rules governing teacher employment and remuneration and financing mechanisms for higher and general secondary education institutions. The "stavka" system of teacher remuneration based on teaching hours in pre-university education and the "state order" allocation

of student places in vocational and higher education are two Soviet-era policies that do not serve the needs of a market economy.

- Continue consolidating service providers in higher education. To free up fiscal space for pre-university capital investment, it may be necessary to consolidate public expenditure on higher education. This requires continued consolidation of HEIs and better targeting of public aid for needy students (rather than the Soviet system of non-need-based stipends). Increasing teacher salaries in the long term also requires creating fiscal space in the public education budget by addressing inefficiencies in the networks of higher education and pre-university institutions.
- Update the per-student financing formula for general secondary education. The new formula should provide incentives for efficient use of resources by encouraging school network optimization and ensuring the equalization of resources across local authorities with varied own-source revenues. These efforts are already being planned but require continued commitment from policymakers at every level to ensure sustainable implementation of a technically sound solution.
- Formulate a comprehensive long-term strategy for optimizing school networks and providing rural education. The hub school initiative launched in early 2016 is an excellent first step, but a comprehensive strategy is needed for rural education provision in Ukraine. A publicized action plan is also needed, with concrete targets (e.g., number of schools to serve students in each area, medium-term student-teacher ratios, etc.) and a timeline for implementation. The strategy and action plan should be backed by rigorous analysis and detailed school mapping, for which further development of data collection systems will be needed.
- Support local authorities in building capacity to consolidate school networks and apply the new per-student financing formula. Passing legislation to reform the school network and change financing mechanisms is not enough to ensure that these reforms occur. The experience of other countries has shown that a substantial amount of capacity building and stakeholder consultation is needed both before and during the implementation of these reforms. Some examples of support to local stakeholders include training of school staff on topics relating to financial management and making targeted financial assistance available to local authorities that undertake school network optimization (e.g., to cover costs relating to modernizing the facilities of receiving schools or student transportation).
- Modernize education sector management tools to support evidence-based policymaking. For example, a comprehensive EMIS could be established to provide policymakers with up-to-date detailed information on a wide range of indicators to inform decision making. An EMIS linking school-level data on finances, learning outcomes, student background characteristics, and many other indicators is essential for managing a modern education system. Making use of cutting-edge methods for measuring student learning is also crucial. Participating in PISA 2018 and producing a national analytical report relevant to a wide range of domestic stakeholders will be important.

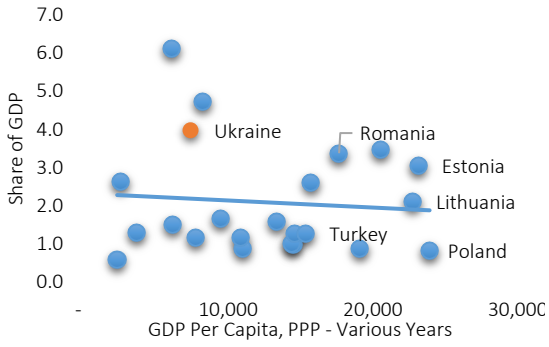
# Chapter 6 Building an Effective and Fiscally Sustainable Welfare System

Ukraine's social assistance spending is high but not well targeted and heavily skewed to cash transfers. Social assistance in Ukraine is complex, fragmented and dominated by legacy programs that are unable to adapt to changing needs. After the dissolution of the U.S.S.R., Ukraine inherited a welfare system dominated by categorical benefits, a legacy that influenced social protection policy and societal expectations. Despite continuing fiscally expansive efforts to support the population, support to vulnerable households suffers from both low coverage and low adequacy. This chapter uses budget and household survey data to examine spending and performance of social assistance and services. The following questions will be addressed: (i) how much is spent on social protection; (ii)) what type of programs are funded by public resources; (iii) is the spending adequate and appropriate; and (iv) what are the policy priorities for adequate support, fiscal savings, consolidation, budget reallocation and for improved delivery of services.

## Social assistance spending is high but not well targeted

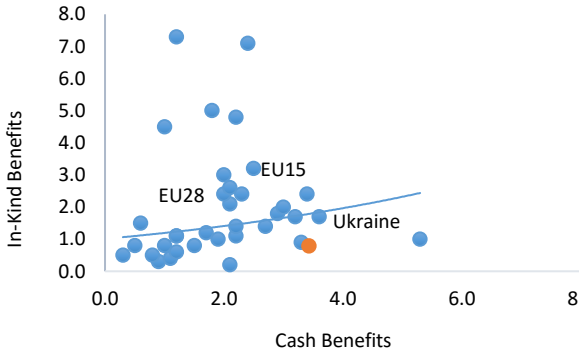
Ukraine's social assistance spending is among the highest in the region (figure 6.1) and heavily skewed to cash transfers. In 2014, it reached 4 percent of GDP, a level of spending that is comparable to average spending in EU-27 countries (4 percent of GDP in 2012). Around a third of all pension fund expenditures constitute various categorical benefits and supplements as well as subsistence top-ups and social pensions that are financed from the general revenues. When added to the rest of the non-contributory social assistance, the total overall level of public allocations towards non-contributory benefits and various social guarantees reaches nine percent of GDP. More than 80 percent of the social assistance budget goes to cash programs (figure 6.2), and about 15 percent went to administration-related expenditures.

**Figure 6.1. Social Assistance Spending, Share of GDP and GDP Per Capita, Select ECA Countries**




*Sources*: WB staff based on BOOST, pension fund annual report, Ministry of Finance, IMF World Economic Outlook

**Figure 6.2. In-Kind Vs. Cash Social Assistance Benefits, Percentage of GDP**




Sources: WB staff based on BOOST, pension fund annual report, Ministry of Finance, IMF World Economic Outlook

Despite continuing fiscally expansive efforts to support the population, support to vulnerable households suffers from both low coverage and low adequacy. Ukraine inherited a welfare system dominated by categorical benefits. Many of these programs are directed to groups that are not on average poor. As a result, despite high spending, Ukraine covers only about half of the poorest quintile through social

assistance, lower than most other countries in Europe. The generosity of social assistance in all social programs also amounts only to about 17 percent of the expenditures of the poorest quintile. In 2014/15, the Government of Ukraine undertook a range of measures to reform social assistance programs with the broader aim of containing spending and reallocating resources to increase the share of transfers targeting the poor. Despite these measures, overall support to low-income households is still not adequate and remains fragmented.

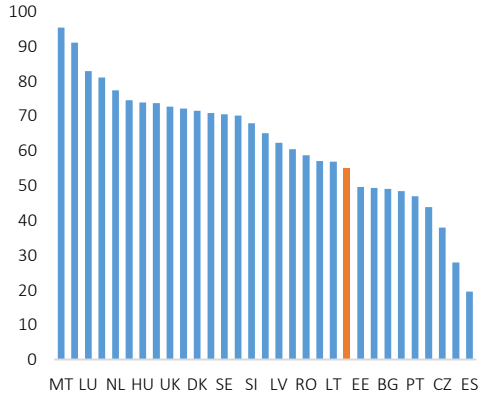
The objectives for welfare policy are categorized by the following major types of social assistance:

1. Disability and old age benefits (cash and in-kind)
2. Support for families with children and low-income households
3. Fuel subsidies, housing and utilities (HUS) subsidies and privileges
4. Benefits for victims of Chernobyl, war and work veterans
5. Other programs, such as benefits for resettlement, mortgage payment support, compensation for savings lost when the U.S.S.R. broke up

Until 2014, maternity and child benefits absorbed the largest share of social assistance expenditures, but since 2016, housing and utilities benefits became the largest share of support. Maternity and child social assistance has significantly expanded over time, doubling from its 2008 level to 2.3 percent of GDP in 2014. The expansion predominantly reflects the growing fiscal impact of the birth grant, which was introduced to boost national fertility rates. From 2015 onwards, housing and utilities subsidies accounted for the largest share of total social assistance budget. Expenditure on the HUS program, which was relatively stable over 2010-2014, saw a sharp increase in 2015, hitting 0.76 percent of GDP in 2015, and reaching 1.8 percent of GDP in 2016. In terms of spending shares, maternal and child benefits were followed by noncontributory disability benefits, which consumed about 0.8 percent of GDP. This group includes benefits for victims of Chernobyl and veterans of war and "special occupations" (0.5 percent), but this spending category has shrunk by 30 percent since 2008. The remaining 0.4 percent of GDP was primarily consumed by subsidies and privileges that compensated for housing and utility costs. Finally, administration costs are quite low relative to overall spending.

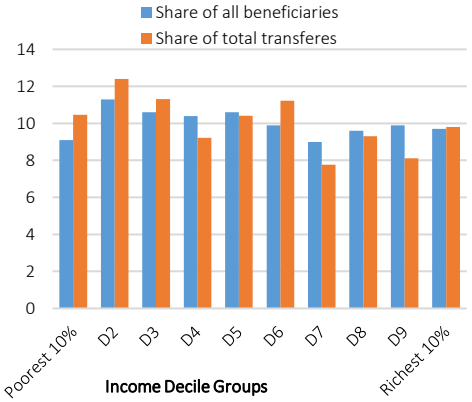
Despite high welfare expenditures, Ukraine ranks low in effectiveness of support resulting in low cost-effectiveness and inequities. Ukraine's rate of coverage of the poor is among the lowest in the region (Figure 6.3), that is, only about half of the poorest quintile are reached through social assistance, lower than most other countries in Europe (figure 6.4).

**Figure 6.3. Coverage Rates for Various Countries, 2012, and for Ukraine, 2014**




*Source*: BOOST data, ESPROS (Eurostat).

**Figure 6.4. Total Beneficiaries by Income Deciles and of Total Transfers by Expenditure Decile, 2014**




*Source*: 2014 HSB.
*Note*: Direct and indirect beneficiaries, 2014 HBS

The fact that few programs rank high in terms of effectively covering the poorest households essentially translates into a coverage gap and heightened vulnerability to poverty. It also highlights the risk that the safety net will be ineffective during economic downturns. Tables 6.1a and 6.1b present targeting analysis in terms of the share of social assistance reaching different quintiles for different types of benefits. The following conclusions can be drawn:

- Among the categorical benefits, the family and child assistance seems relatively more progressive; about 26 percent of total transfers reaches the poorest 20 percent, and about 52 percent of all transfers in this group go to the poorest 40 percent.
- GMI has the best targeted accuracy, with 36 percent of the total going to the poorest 20 percent and 66 percent to the poorest 40 percent.
- Privileges are skewed toward high-income groups; less than 23 percent of transfers reach the poorest 40 percent.

**Table 6.1. Targeting of Social Assistance by Type of Major Program Groups and Expenditure Quintiles**

| | | Quintiles of Per Adult Equivalent Consumption | | | | |
|---|---|---|---|---|---|---|
| | Total | Q1 | Q2 | Q3 | Q4 | Q5 |
| - Family and Child Assistance | 100.0 | 26.1 | 25.7 | 17.4 | 20.2 | 10.6 |
| - GMI (Guaranteed Minimum Income) | 100.0 | 35.5 | 30.1 | 26.1 | 5.5 | 2.8 |
| - Subsidies for Utilities and Housing | 100.0 | 12.9 | 20.1 | 22.3 | 24.5 | 20.2 |
| - Privileges | 100.0 | 8.9 | 13.3 | 18.1 | 23.6 | 36.1 |

Source: 2015 HBS for all SA program groups (except for privileges, for which 2014 data is available).

**Table 6.2. Efficiency of Key Social Programs, Percent**

| Program Results | Child Birth Grant | Housing and Utilities Subsidy (HUS) | Guaranteed Minimum Income Program (GMI) |
|---|---|---|---|
| Coverage of Bottom Quintile | 23.5 | 17.8 | 4.0 |
| Share of Beneficiaries (Bottom Quintile) as Share of Total | 31.3 | 20.8 | 36.8 |
| Share of Transfers Received by Bottom Quintile | 27.3 | 12.9 | 35.5 |
| Share of Total Population Income | 14.7 | 5.7 | 19.7 |
| Share of Bottom Quintile Income | 20.7 | 6.4 | 20.2 |

Source: 2015 HBS

The generosity of support to poor households is also low. The adequacy of social assistance is measured by the generosity of payments (table 6.2). While some benefits such as the birth grant are overly generous regardless of household income level, on average, social assistance contributes towards 8 percent of the total household expenditures. While benefits are often inadequate in providing effective poverty relief, many cash benefits go to groups that are not poor on average. Beneficiaries as a share of the total are spread similarly across the income deciles, and the share of social assistance received as a percent of total transfers is also very similar across income groups. Both demonstrate a failure to prioritize the poor.

**Table 6.3. Generosity of Social Assistance Major Program Groups by Quintiles, Percent**

| | | Quintiles of Per Adult Equivalent Consumption | | | | |
|---|---|---|---|---|---|---|
| | **Total** | **Q1** | **Q2** | **Q3** | **Q4** | **Q5** |
| **Family and Child Assistance** | 12.6 | 19.6 | 15.9 | 10.9 | 11.5 | 6.5 |
| **GMI** | 19.5 | 27.9 | 22.5 | 19.6 | 8.2 | 5.4 |
| **Subsidies for Utilities and Housing** | 5.7 | 6.4 | 7.5 | 6.5 | 5.1 | 4.3 |
| **Privileges** | 2.1 | 2.3 | 2.2 | 2.2 | 2.2 | 2.0 |

*Source:* 2015 HBS for all SA program groups (except for privileges, for which 2014 data is available).

Since 2015 the government has adopted measures for targeting assistance more efficiently. The intention was to mitigate the impact of the crisis on poor and middle-income households while remaining fiscally affordable. Numerous changes were also made to the level and composition of social assistance spending; for instance, the child birth grant was reduced, universal child benefits for 0- to 3-year-olds was eliminated,

and a targeted supplement was introduced for young children in households eligible for the GMI benefit. As part of energy sector reforms, the government markedly reduced the size of the universal subsidy for consumption of gas and district heating by increasing household tariffs and significantly expanded the means-tested housing and utilities benefit to mitigate the price shock; eligibility for utility privileges also became restricted via a means test. Although it cannot be accurately estimated, these efforts are likely to have increased the share of targeted assistance.

Overall, some of these measures helped to contain categorical assistance while expanding means-tested programs. In fiscal terms, the bulk of the adjustment fell on the childbirth grant and childcare benefits for children below 3 years old, which together saw a budget cut of 0.4 percentage points of GDP between 2014 and 2015 (table 6.3). Other family and child related benefits also experienced a reduction in public funding of 0.07 percentage points of GDP over the same period. Expenditure on social care and services have been compressed by about 0.08 percentage points of GDP and are now lower than the historical averages. Demographic developments (that have been primarily behind the reduction in public spending on benefits for the victims of Chernobyl, war and labor veterans during 2010-2014) continued to influence the level of spending in 2015. Meanwhile, the GMI program, which witnessed a spending boost in 2014, continued to fiscally expand throughout 2015 reaching 0.42 percent of GDP compared to an average of 0.15 percent over 2010-2013. Nevertheless, while improved targeting addresses some long-standing issues, more needs to be done to make public spending on social assistance more effective and equitable. This is especially important given Ukraine's acute fiscal pressures and widening poverty.

**Table 6.4. Ukraine Social Assistance Programs Spending, 2010-2015**

| | AVERAGE 2010-2013 | 2014 | 2015 | 2014/2015 change |
|---|---|---|---|---|
| Total, Percent of GDP | 3.98 | 3.92 | 4.12 | 0.20 |
| Family and Child Benefits | 1.86 | 1.83 | 1.36 | -0.47 |
| *Childbirth grant* | *1.05* | *1.25* | *1.06* | *-0.19* |
| *Childcare benefits (below 3 years old)* | *0.45* | *0.22* | *0.01* | *-0.21* |
| *Other family and child related benefits* | *0.35* | *0.35* | *0.28* | *-0.07* |
| Assistance for Care for Children and Youth | 0.09 | 0.07 | 0.06 | -0.01 |
| Assistance for Care for Disabled Persons | 0.45 | 0.50 | 0.44 | -0.06 |
| Assistance for Care for the Elderly | 0.27 | 0.25 | 0.24 | -0.01 |
| Benefits for Victims of Chernobyl, War and Labor Veterans | 0.36 | 0.23 | 0.16 | -0.07 |
| Privileges | 0.50 | 0.40 | 0.36 | -0.05 |
| *Housing utilities and fuels* | *0.36* | *0.29* | *0.26* | *-0.03* |
| *Transportation and telecommunication, etc.* | *0.14* | *0.11* | *0.10* | *-0.02* |
| Benefits to Low Income Families | 0.15 | 0.39 | 0.42 | 0.03 |
| HUS Program | 0.15 | 0.15 | 1 | 0.85 |
| Other Social Assistance Expenditures, *Incl.* | 0.15 | 0.09 | 0.37 | 0.28 |
| *Allocations for temporary displaced persons* | *n.a.* | *n.a.* | *0.17* | *0.17* |

Source: World Bank staff estimates based on BOOST data.

Social assistance in Ukraine is complex, fragmented and dominated by legacy programs that are unable to adapt to changing needs. The review found over 70 local government welfare programs and 39 central government programs that lack sound monitoring, management and coordination. A strong case can be made for simplifying the overall safety net by consolidating specific programs, coordinating eligibility rules, and creating a sound framework for interagency cooperation in areas of data exchange and program implementation. There is also a case for eliminating many programs that do not provide value for money and mobilizing the resultant savings to build up and expand well-designed and well-performing programs. This will require a review of existing programs and their social objectives and consideration of the legal, fiscal, and welfare ramifications of any changes.

For example, the costly child birth grant does not meet key safety net objectives, and provides low return relative to its cost in terms of reducing poverty and boosting fertility. It has been the main driver behind the rapid expansion of Ukraine's family-related benefits as the number of recipients increased and grants were

indexed to subsistence minimum increases. The dramatic increase in the funding of fertility incentives was facilitated by past economic growth. However, the potential risks to affordability and the fiscal needs of a countercyclical anti-poverty program were considered. If the objective is purely non-poverty-related, the resources could be much more effectively deployed to support a new policy that would result in higher fertility and social return relative to the cost, such as boosting public child-care services. The evidence is overwhelming that financial incentives linked to birth have little effect on fertility and early child development. Instead, the decision to have children is much more influenced by in-kind incentives such as public child care services and by flexible labor markets that can accommodate part-time work.

The GMI program has the potential to become the principal anti-poverty program in a modern welfare system for Ukraine. Unlike other social assistance programs, a major share of its budget resources is directed to the poorest: 62 percent of all beneficiaries are in the poorest 30 percent of the population. In comparison, social assistance in total reaches only 30 percent of that group. The GMI program has the essential features of a modern safety net to be emulated by other programs, some of which might be consolidated with the GMI.

## Social care and services are underfunded and spending is inefficient

Social care and services are underfunded and spending is inefficient. In 2013, social care and services expenditures made up 0.85 percent of GDP. Ukraine spends too little relative to other countries in Europe on the essential services needed to provide care and support for old age, disability, mental health, and child services. Subnational governments spent 90 percent of this budget to finance operational costs for residential care homes, boarding schools, day care, social service centers, and rehabilitation and recreation facilities. There are longstanding concerns about major allocative inefficiencies and poor quality services resulting from funding arrangements, accountability, and the administration structure.

A significant share of resources currently held by oblasts may be reallocated to alternative services provided by local governments. For instance, much of what oblasts now spend on residential care could be redirected to alternative programs administered by cities and raions/amalgamated communities. For programs that require consolidation on a larger scale, local governments might enter into joint funding agreements, as proposed by the new law “On Cooperation among Territorial Communities.”

Although the December 2014 budget reform resulted in increased revenues for local budgets, the impact has been largely concentrated in cities. Rural localities will need support within Ukraine’s regional development agenda through programs for less-developed and depressed areas, including specific grants and capacity-building activities. It is important to integrate a social investment component into future programs, including training and earmarked funding for social commissioning practice.

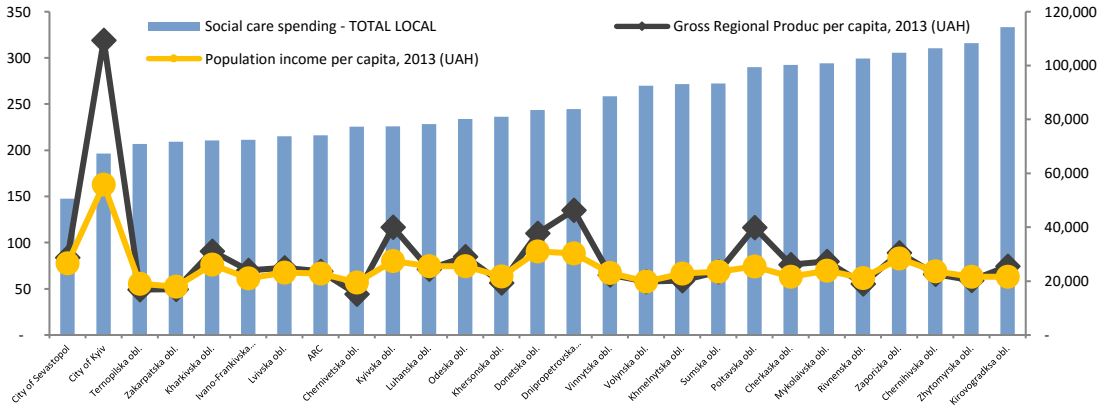
The administrative-territorial reform has launched a merger of villages into new amalgamated territorial communities that will assume responsibility for delivering social care. Currently, sub-raion (villages, settlements, small towns) have no social care responsibilities; most social service providers for their residents are maintained by raion administrations. The administrative-territorial reform assumes that communities will gradually amalgamate into larger structures with the same revenue and expenditure assignments as raions and cities. As of April 2015, 847 villages and towns had been amalgamated to create 172 new communities; this represents about 7.5 percent of all villages and towns in Ukraine. For many amalgamated communities, providing social care is a completely new function for which they are unprepared, and they have opted to hand this responsibility, and the related resource transfers, back to the raion administration. As a result, in the latest reporting period (January-May 2016), per capita spending on social care in newly amalgamated communities was 41.7 times lower than in cities and 63.5 times lower than in raions.

Neither the scope of the state’s financial responsibility for social care services, nor the roles and responsibilities for different levels of government are clearly defined. The Constitution broadly defines

state's responsibility to deliver protection against several social exclusion risks; the Law on Social Services further elaborates the types of social care services. The MoSP has identified 15 such core services with range of service standards that would define the government's funding mandate. Recipients of services are required to co-pay a "differentiated fee" of 12 percent of the client's average income over the previous six months.[47] The Budget Code allocates social care functions to government tiers against an explicitly specified list of service types and institutional service providers. This approach promotes provision of social care services through residential institutions. Since oblast budgets are responsible for most residential facilities as well as for oblast-wide social inclusion programs, they receive most of the funding. Raions and large cities maintain a very limited range of residential services; their responsibilities include maintenance of rehabilitation centers for the disabled, territorial centers for social services, centers for social services for family, children and youth, and other local social care programs. Some programs are not assigned to any local budget, such as programs and shelters for homeless persons, persons released from detention, and support to war veterans.

While the MoSP is working to draft new social service minimum quality standards, providers are still subject to rigid input-based norms affecting the way they provide services. For example, traditional service providers must organize their activities based on "standing orders" that contain strict requirements for service provision, including specific types and amounts of inputs to be used and their funding levels.[48] This approach is not cost effective.

**Figure 6.5. Total Oblast Social Care Expenditures Per Capita, 2013**




Source: World Bank staff estimates based on Boost data.

Dependence on transfers and insufficient local revenues make it difficult to develop customized services, but specific reforms passed in 2014 may improve the situation. Before 2015, all functions delegated to local governments were funded through gap-filling transfers that aimed to equalize estimated expenditure per potential client. In social care, "potential clients" were defined as those registered in existing facilities, mostly residential. This designated link to specific providers was a key barrier to changing the service delivery model away from institutional care. In addition, before 2015, small revenues from local taxes did not allow local governments to introduce additional or alternative services to what they were assigned. The December 2014 amendments to the Budget Code introduced equalization of revenues, rather than expenditures, for most functions, including social care. This removes incentives to boost the clientele of

[47] Three vulnerable groups exempted from co-payments: (i) single persons unable to self-service; (ii) children and youth in CLC; and (iii) persons in CLC with an income below the subsistence minimum.

[48] For example, standing orders for "organizations providing permanent and temporary shelter to people with mental disabilities" require that any such organization should have groups of exactly eight people; standing orders for "centers for social adaptation of people released from prisons" contain strict staffing numbers such as, e.g., 0.5 dishwashers for every 30 clients.

residential facilities and gives flexibility in allocating funds to social services based on client needs.[49] Moreover, 2014 reforms introduced two significant local taxes that are expected to eventually expand opportunities for local innovation in social service delivery. The actual increase in revenues from local taxes in the first year after reform was modest (up from 1.3 percent of GDP in 2014 to 1.8 percent) due to economic decline, generous exemptions, and immature administration capacities.

While reforms are likely to bring about improvement in the longer run, there are transition-related risks to delivering social care while local revenue flows are still weak. Without central transfers, allocations to social services became vulnerable to cuts. This particularly concerned oblasts that used to receive transfers on a per-client basis to maintain their boarding homes. At the level of raions and cities, the two programs most in danger of cuts are territorial centers for Social Services and Centers of Social Services for Families, Children, and Youth. The first year of reform demonstrated that cities benefit from new revenue opportunities and have more resources to diversify their social care. However, because many rural raions face difficulties in raising significant local taxes, they may decide to cut their social services budget.

While the central MoSP is responsible for social service policy design and oversight, administration of the services is almost fully decentralized. Although the MoSP is the lead ministry for national social care policies, subnational authorities bear the core responsibility for making local social services policy and for delivering the actual services.

Local governments have social protection departments (SPDs) to oversee social benefits and social services, and although the local SPDs are relatively large, they are overwhelmed with tasks related to reporting and social assistance benefits administration, with only a few posts devoted to social service management. For an oblast, the team overseeing social services directly usually consists of six to 18 employees (about 10 to 30 percent of the average SPD staff). At the raion level, the focus on social assistance is even stronger, with more units handling administration of benefits and data processing, rather than specific vulnerabilities (gender, disability, etc.).

Local authorities own and manage most social services facilities, which means the roles of purchaser and provider are combined. Provision of social services in the best interest of the client and ensuring the best value for money requires that these roles be split institutionally to eliminate conflict of interests. In Ukraine, most social service providers are owned by and under the direct financial and managerial control of the public administration. While local administrations are responsible for budget allocations, service providers are responsible for identifying clients, delivering services, and monitoring the quality of their own services, which perpetuates any conflicts of interest. Lack of separation between the functions of referral/case management and service provision makes it much more difficult to orient the system to the client's best interest. When they serve as both case managers and service providers, facilities and their social workers have no incentives to redirect clients to alternative services even when there is a need to do so.

Moreover, the role of local administrations may come down to simply distributing funds in compliance with sectoral norms and limitations. Since most public providers have a status of "budget institution," their spending choices are strictly defined by government regulations that prescribe provider staffing norms and salary scales. Thus, allocation of funds is defined by the existing infrastructure and spending norms rather than competitive selection of providers based on cost-effective solutions or client needs. Efficiency requirements are not clear, and possibilities for opening new services are strictly limited.

The combination of purchaser-provider roles is one of the major reasons for spending inefficiencies and regional inequality in access to services. Since budget allocations follow existing infrastructure rather than client needs, the resulting composition of the social care budget does not reflect time and spatial evolution

[49] Residential schools for children with special education needs continue to be funded on per-client basis, which is a formidable barrier to de-institutionalization.

in demand. This approach perpetuates the domination of residential facilities and affects allocation efficiency since spending decisions are not responsive to evolving client needs.

Splitting the purchaser-provider roles could create an opportunity for social service commissioning. Effective allocation and use of financial resources will be challenging as long as service providers' facilities are directly managed by the local authorities that distribute the budget. An alternative approach is for local governments, as purchasers, to commission social services from providers that ensure the most cost-efficient fit to the assessed social service needs of the community. This would both encourage competition between potential providers and increase accountability.

Existing service commissioning mechanisms are not used much. Ukrainian legislation gives local governments a range of options to commission social services. Ukraine's Law on Public Procurement sets out procedures for competitive procurement of services. Also, a specific mechanism was introduced in 2013 to commission social care services from non-state providers. However, commissioning has not been used widely for various reasons, such as a lack of funding to maintain current public providers, a shortage of providers, and little local government capacity to implement a new model of service delivery. New measures are urgently needed to establish contractual relations between local authorities and their service providers to increase their efficiency and accountability.

Years of institutional and financial stimulation of state-owned providers has undermined the development of non-governmental organizations. Nongovernmental providers are underrepresented and unfairly discriminated against, especially in less developed areas. Gradual introduction of competitive service commissioning is required to correct these supply-side distortions. It is therefore important to invest specifically in stimulating the growth of non-state service providers via training, start-up support, and setting up opportunities for association, information, and knowledge exchange.

The current allocation of resources by type of beneficiary group is guided by general types of social vulnerabilities in Ukraine. Most of the funds are allocated to services for the elderly and disabled, the two groups whose share is the largest and growing. Spending on services to children without parental care is gradually declining as a share of GDP, which tracks the shrinking child population. Spending on vulnerable youth is on the rise, which corresponds to the increasing vulnerability of this age group in terms of employment, housing stress, violence, and substance abuse.

However, regulatory rigidity, conflicts of interest, and lack of means to deliver client-oriented services make it difficult to transform resource envelopes into improved outcomes for beneficiaries. Continued government domination of residential care is an obstacle to developing services for persons with mild disabilities and for economically active senior citizens. Services for women, youth, and children do not reflect spatial allocation of the main risks. The core objective of reform, therefore, is not so much to redirect substantial resources among programs but instead to instil sufficient flexibility in the delivery model so that the system can self-adjust to address pockets of risks and changes in demand.

Resources for services that do not require specialized medical assistance should be provided to lower-level governments. Social care services are a function where the guaranteed minimum benefit is defined in broad terms and assumes a significant degree of local preference in terms of both the kind of services communities need and how they are delivered. This is somewhat different from health care, where policy objectives imply universal access to a package of services. It means that the bulk of responsibility for, and a significant degree of autonomy in, local social service policy and delivery needs to be delegated to local governments of cities, municipalities, and the amalgamated territorial communities that are supposed to replace the current raions.

## Reform Options

Given the challenging economy that has hit the poor and vulnerable hard, social policy objectives may need

to be rethought to create a better balance between public affordability and the scope of welfare. Ukraine will have to find a balance between the expectations of what welfare spending can achieve and how much to spend given limited public resources. Targeting assistance based on income and wealth status is a critical challenge. While the share of targeted programs is growing, each has its own eligibility rules and targeting methodologies; it has been shown that the targeting of these programs is not accurate. A unified approach is required to enable large investments in improving the quality of information, more effective administrative cross-checks, identity verification, monitoring analytics, and data-sharing protocols for agencies, including tax services, civil registries, the social security fund, and property registries.

Several social assistance benefits may be either consolidated, reformulated, or expanded to contain spending and improve support to the neediest households. The costly child birth grant does not meet core safety net principles, and the resources could be better utilized if reallocated to programs such as the GMI and for improved funding of reformed social care services. Specifically:

- The GMI program requires more adequate benefit indexation as well as further scale-up to cover all the eligible population. The GMI program has the potential to become the main anti-poverty program as part of a modern welfare system in Ukraine. Unlike other social assistance programs, a major share of its budget resources is directed to the poorest. This program has the essential features of a modern safety net to be emulated by other programs, some of which might be consolidated with the GMI. However, GMI funding needs to become flexible enough that the program can expand during times of economic hardship and contract when employment is high.
- The targeting of HUS could be improved, and in the long term it should be part of a package of benefits provided to low income and vulnerable households. However, in the short term, HUS may be given budget priority for administrative improvements, such as maintaining and improving the management information system (MIS), streamlining procedures, and investing in human resources. The program has grown to reach around 40 percent of all households and has been essential in protecting households from energy-related poverty. Among long-term factors that will determine HUS success from a welfare perspective are the pace of implementing improvements to HUS administration and income verification procedures, and more transparent financial management to replace an opaque system of inter-institutional settlements that results in waste, fraud and errors.
- Going forward, targeting design needs to be updated to ensure adequate but progressive levels of support, higher coverage for the poorest, and reduction in transfers going to richer households. While the share of targeted programs is growing, and programs have their own eligibility rules and targeting methodologies, they are not achieving the needed targeting accuracy. Therefore, it is recommended that Ukraine invest in a common targeting approach that takes advantage of economies of scale made possible by a common targeting platform. The unified approach would enable large investment that would result in better-quality information, more effective cross-checks, verification, data sourcing, analytics, and data sharing protocols between agencies.
- The social welfare MIS requires major improvements to support social welfare delivery. The social welfare landscape in most countries is somewhat complicated, with multiple programs managed by multiple agencies. While that is true in Ukraine as well, what is more unusual is the fact that there is no MIS to integrate different parts of the delivery chain for social benefits. Although social benefits differ by target group and purpose, usually their delivery is based on similar business processes: intake and registration, assessment, enrollment, determination of benefits or service strategy, the service or payment transaction, case management, and monitoring outcomes, with grievance redress procedures available throughout. The current implementation of social assistance needs an IT system that covers all the business processes in the social benefit delivery chain; in Ukraine IT tools for benefits processing are used ad hoc, are fragmented, do not facilitate

data exchange, and vary in productivity across regions. Furthermore, a MIS would provide reliable and timely data for monitoring, management and control.

In terms of Social Care and Services provision the current input-based regulations need to be replaced with results-oriented quality management framework. Laws that regulate inter-governmental responsibilities—primarily the Budget Code—need to be modified to replace input-based funding of specific facilities with a functional definition of social care. Furthermore, budget expenditure by program classification should reflect the functional objectives of programs and the types of services provided, rather than the type of facilities they fund. These changes could be coordinated with the current reforms in healthcare financing that are linked closely to the long-term care component.

- To become an effective purchaser of services, local governments could build their capacity to:
  - Assess local social care needs and barriers to honoring national social inclusion priorities on the ground. This would require strengthening the current methodology for assessing social service needs to better capture needs not covered by service providers.
  - Draw up multi-year local social service commissioning plans based on assessment of local needs.
  - Commission services in terms of local strategic plans by contracting services to various providers, including nongovernmental organizations, and conclude multi-year agreements with providers of long-term care.
  - Implement, delegate, or outsource case management so that service options are chosen in the client's best interest rather than in the interest of service providers. This entails addressing conflicts of interest by separating case management and service provision tasks or introducing external checks. Since providers perform most client management directly, some provider capacities, staff, and related resources should shift to the local SPD.
- Providers could be given stronger legal and financial autonomy. Most of the providers are "budget facilities" owned by local councils and funded directly from local budgets. These could be converted into local nonprofit enterprises that remain under communal ownership. However, they might switch to contracting with local governments rather than enjoying direct and automatic funding. This would give the facilities more flexibility to manage their budgets and make them more responsible for efficient use of funds. A similar transformation is already underway in the health sector.
- The MoSP could strengthen its role as a policy maker. The MoSP could draft broad, national, medium-term social care policy priorities and accompanying results indicators, as well as establish structures for managing service quality. National social care priorities and resource allocations could be coordinated to achieve broader social inclusion, social cohesion, and a social security agenda. These strategic benchmarks could be used for (a) negotiating the resource package for local budgets for social care functions; and (b) developing local social inclusion strategies and social service commissioning plans.
- Reforms must be carefully phased since they are likely to face challenges. As a priority, the road map should address the limited capacities of local authorities. In raion and city SPDs, only a few staff deal with social service management, and the oblast staff are primarily concerned with management of residential providers. These resources could commission social services. A possible source for staffing might be specialists from local health departments, which may shrink because of healthcare reform. However, understaffing and lack of capacity are likely to remain a challenge, along with the lack of knowledge and skills. Introducing the new service-commissioning model will require significant investment in drafting developing guidelines and training staff at all levels. Given the minimal administrative and technical capacities of the emerging amalgamated communities,

their governments would require major support as they establish basic public administration functions, such as providing social services.

Most of the fiscal savings in amount of about 1.4 percent of GDP would originate from optimizing categorical social assistance benefits.

# Chapter 7 Accelerated Decentralization for Better Service Delivery

Ukraine is highly decentralized in terms of service delivery, yet most of local revenues remain skewed toward central government transfers, and this reduces incentives to improve local service delivery. Subnational spending, including on social security, accounts for 31 percent of consolidated government spending. While public spending in Ukraine is equalized to a considerable extent by the transfer system, at a local level there is weak accountability for service delivery and performance. The purpose of this chapter is to analyze the impact of decentralization to improve local accountability and service delivery.

## High dependence on central government transfers

Although in fiscal terms Ukraine is highly decentralized (figure 7.1 and box 7.1), administrative decentralization is lagging. This places Ukraine in the company of countries like Austria, Poland, and Italy, while it is considerably more fiscally decentralized than Romania and Bulgaria. Most subnational spending occurs at the second tier, with raions and cities subordinated to oblasts. In 2015, second-tier governments accounted for 65 percent of total subnational spending; top-tier subnational governments (Kyiv and the oblasts) accounted for 27 percent,[50] and third-tier governments for the remaining 8 percent (figure 7.1).

**Box 7.1. Territorial-Administrative Structure of Ukraine**

Ukraine has three tiers of subnational government. The top tier consists of 24 oblasts (provinces), the Autonomous Republic of Crimea, and two cities with special status, Kyiv and Sevastopol. [1] The second tier consists of 490 districts (raions) and 182 cities subordinated to oblasts. (Kyiv has the status of both an oblast and a city.) The third tier consists of 278 cities within raions and about 11,000 villages (hromadas). Ukraine is now working on voluntary consolidation of hromadas.

Ukraine local governments are a mix of self-governing and deconcentrated central government units. According to Article 118 of the Constitution, "the executive power in oblasts, raions, and in the cities of Kyiv and Sevastopol is exercised by local state administrations." Executives at these levels are appointed by the president upon the recommendation of the cabinet and are accountable to the president. To that extent, oblast and raion governments operate as deconcentrated agencies of the central government rather than being accountable to local constituencies. Article 141 of the Constitution does specify that oblasts and raions, as well as cities and villages, shall have councils composed of deputies elected for five-year terms based on universal, equal, and direct suffrage. But neither the councils nor their elected heads (in oblasts and raions) have much power.[2] However, executives of cities within oblasts are directly elected. Villages and towns within raions also have directly elected heads, who lead the executive body of the council and preside at its meetings. But it is the appointed executives in oblasts, raions, and Kyiv, along with elected executives in cities subordinate to oblast, who exercise power within Ukraine's system of subnational government.

[1] As of this writing, Sevastopol and the AR of Crimea are occupied by Russia and two oblasts, Donetsk and Luhansk, are subject to military conflict. The 2015 reforms make special provision for these jurisdictions.

[2] In theory, an oblast or raion council may express no confidence in the head of its administration, and the president may require the individual to resign. This has occurred only occasionally.

Most subnational governments' (SNGs) spending is devoted to the social sectors. Local governments in Ukraine bear the full cost of running schools, hospitals, and social welfare facilities—including the wages associated with these services (figure 7.2). In addition, social assistance–related cash benefits, which in other countries are usually fully administered by central government, in Ukraine are also passed through

[50] Kyiv alone accounted for 10 percent of the total.

local government budgets. In 2015, 78 percent of total subnational spending went to education, health, and social protection.[51] Spending on housing, including subsidies to cover the arrears of utility companies, accounted for another 6 percent.

**Figure 7.1. Public Sector Spending by Tier**

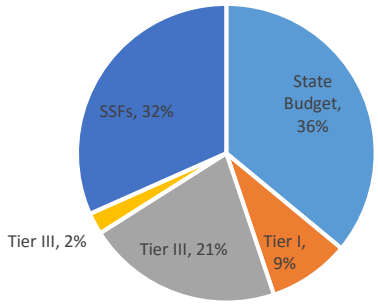
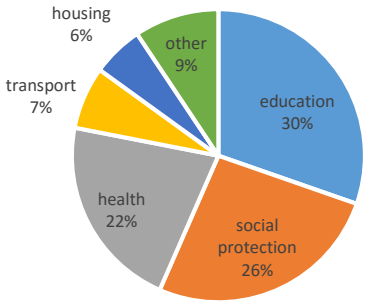



**Figure 7.2. Subnational Expenditure by Function**




*Source*: Budget execution reports.

Spending on economic infrastructure, such as roads, accounts for only 7 percent of the total. Despite notable progress in capital spending, which was scaled up from just 0.9 percent of GDP in 2014 to 1.6 percent in 2015, it is still low for a lower-middle-income country and given Ukraine's transitional status and growing needs for investments. At the same time, spending on goods and services has soared, outpacing GDP growth. Ukraine considerably underinvests through local government and is below the trend if the share of local government in GDP is controlled for.

The composition of subnational revenues shows heavy dependence on central government transfers (table 7.1). Starting in 2015, the transfer system has been based on five separate transfers.[52] The two largest transfers are earmarked for education and health and a third for training civil servants; the fourth is aimed at equalization, but is much more limited than the former equalization transfer; the fifth transfer, termed the stabilization grant, is intended to partially compensate jurisdictions that will lose revenues under the new system. The fifth transfer is intended to be transitional, and phased out over three years.

[51] Most of this spending consists of cash transfers to eligible households and individuals, although some goes to residential facilities for the disabled, and subsidies to public companies, such as transport companies, to cover centrally mandated subsidies to vulnerable populations.

[52] Until 2015, the largest transfer was an equalization grant distributed on a gap-filling basis: for each oblast, raion, and oblast- subordinated city, the gap was calculated as the difference between projected spending needs and projected revenue. Expenditures were projected on the basis of complicated formulas intended to indicate the cost of nine specific government services, among them education, health, and social protection. While for most sectors the formula used to estimate expenditures was based on demographic variables (such as population or number of students), expenditures on social services were estimated based on the number of clients currently registered with service providers. Revenues were forecast based on the expected yields of certain taxes, the largest of which was the jurisdiction's share of the PIT. The equalization grant allocated to each jurisdiction was determined by multiplying its gap by a fixed percentage, the "alpha factor": ranging from 60 to 100 percent. In practice—particularly after 2006—alpha factors varied among jurisdictions (reportedly due to political considerations). Equalization transfers were also supplemented by ad hoc grants.

**Table 7.1. Subnational Revenues, Hrv Millions, and as a Share of Total Revenues**

| | Hrv Millions | | Share of Total Revenues | |
|---|---|---|---|---|
| | 2014 | 2015 | 2014 | 2015 |
| TAXES | 87,333 | 98,218 | 37.7% | 33.4% |
| *of which*: | | | | |
| PIT | 62,557 | 59,198 | 27.0% | 20.1% |
| CIT | 259 | 4,276 | 0.1% | 1.5% |
| Excise | 158 | 7,684 | 0.1% | 2.6% |
| Single | 7,413 | 10,975 | 3.2% | 3.7% |
| Land tax | 12,083 | 0 | 5.2% | 0.0% |
| Residential property tax | 44 | 16,011 | 0.0% | 5.4% |
| TRANSFERS | 130,682 | 173,979 | 56.4% | 59.1% |
| *of which*: | | | | |
| Budget Subsidies | 66,434 | 7,276 | 28.7% | 2.5% |
| --equalization | 60,480 | 5,261 | 26.1% | 1.8% |
| Subventions | 66,247 | 166,703 | 28.6% | 56.6% |
| --social protection | 40,838 | 41,892 | 17.6% | 14.2% |
| --utility tariff subsidies | 6,172 | 17,994 | 2.7% | 6.1% |
| --education | 0 | 44,085 | 0.0% | 15.0% |
| --health | 0 | 46,177 | 0.0% | 15.7% |
| --general utility subsidies | 12,42 | 4,685 | 0.0% | 1.6% |
| NONTAX REVENUES | 12,244 | 20,129 | 5.3% | 6.8% |
| CAPITAL RECEIPTS, SPECIAL FUNDS | 1,509 | 2,112 | 0.7% | 0.7% |
| TOTAL | 231,768 | 294,438 | 100.0% | 100.0% |

The second largest revenue item of local governments are shared central level taxes: personal and corporate income taxes**.** In 2015, there were several changes to the of local government tax base that attempted to reinforce the revenue base without changing its heavy dependence on transfers. The PIT remains a major source of local revenues, but now goes mainly to raions and cities (table 7.2). Tier 1 governments are now entitled to 10 percent of CIT revenues collected in their jurisdictions. Two additional local taxes were introduced, a 5 percent tax on retail sales of excisable goods—fuel, tobacco, and alcoholic beverages—and a tax on residential properties.[53]

**Table 7.2. PIT Allocations to SNG Tiers, Pre- and Post-Reform**

| Kyiv-50% (40%) | Oblasts-25%(15%) | |
|---|---|---|
| | Oblast-subordinated cities -75% (60%) | Raions-50% (60%) |
| | | Villages-25% (0%) |

*Note*: Post-reform figures shown in parentheses. Numbers represent percentage each tier is allowed to retain.

There are few local taxes and they generated an insignificant share of local revenues. A single tax, which accounted for 3 percent of total revenues in 2014, is imposed on sole proprietorships and companies. The land tax is imposed at rates set by national legislation. For agricultural and forested land, the rate is just 0.1 percent of assessed value. All other land, including urban, is taxed at a rate of 1 percent, unless the land is not valued, in which case tax is calculated as a set amount per square meter.[54] Revenues from the land tax accounted for only 1 percent of total revenues in 2014. In addition to these two local taxes, subnational governments were permitted to impose numerous minor fees. These taxes have produced modest yields: the excise tax raised Hrv 7.7 billion in 2015, almost 3 percent of total subnational revenues, and the

[53] The residential property tax was introduced into the Tax Code (Article 265) in 2013 but did not go into effect until 2015.

[54] According to the Tax Code, land tax assessments are adjusted annually based on the consumer price index. Properties that have not been officially valued are taxed based on their area in square meters and the population of the jurisdiction where they are located. Land in settlements with fewer than 3,000 people, for instance, are taxed Hrv 0.3 per square meter; and in jurisdictions with populations of over 1 million are taxed Hrv 4.28 per square meter. The latter rate is tripled in Kyiv, Simferopol, Sevastopol and oblast-subordinated cities.

residential property tax raised Hrv 16 billion. Meanwhile, the share of taxes in SNG revenues decreased from about 37 to 33 percent between 2014 and 2015.

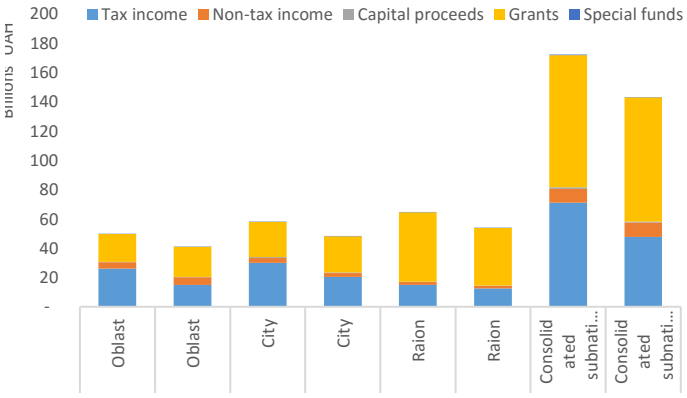
Although the 2015 local revenue reform caused only modest changes in total subnational revenues, it did change their structure. These changes—lower subnational share of the PIT, introduction of the CIT and the residential property tax, and changes in the transfer system—affected jurisdictions differently (table 7.3). Kyiv generally benefitted, especially compared to the aggregate figure for all other jurisdictions. The changes reduced Kyiv's PIT revenues by 20 percent but reduced that of all other regions (in the aggregate) by 25 percent. Kyiv also captured a disproportionate share of the new subnational taxes. With just under 7 percent of Ukraine's population (excluding the AR of Crimea and Sevastopol), Kyiv captured 38 percent of the shared CIT, 24 percent of the tax on residential property, and 13 percent of the excise tax.

**Table 7.3. Structure of SNG Tax Revenue, Before and After Reform, Hrv Millions**

| | With Reform | Without Reform |
|---|---|---|
| PIT | 59,199 | 78,261 |
| Kyiv | 8,043 | 10,053 |
| Others | 51,156 | 68,208 |
| CIT | 4,276 | … |
| Excise | 7,684 | … |
| Single | 10,975 | 10,975 |
| Land | 14,831 | 14,831 |
| Residential | 745.7 | 0 |
| TOTAL | 97,710 | 104,067 |

Between 2013 and 2015, the composition of subnational revenues became more skewed toward central government transfers, which currently finance about 60 percent of SNG services, up from 52.4 percent in 2013 (figure 7.3). Reliance on grant financing appears to be the greatest among rural local governments (raions and subordinated jurisdictions), where central government transfers provide more than 75 percent of revenues. Although declining in real terms, the composition of raion revenues appears to be unaffected by the changes in tax sharing and intergovernmental transfers, at least in the aggregate.

**Figure 7.3. SNG Revenue Structure, Percent**




*Source*: BOOST data.
*Note*: Labels represent shares of revenue component in total revenues (consolidated) of subnational jurisdictions.

Several problems with local taxes undermine the sustainability of the revenue base and alignment of local revenues with service provision:

- The CIT is ill-suited to be a source of subnational revenues. A basic principle of subnational taxation is that the burden of local services in one jurisdiction should not be imposed on the taxpayers of other jurisdictions; thus, the cost of services provided by Kyiv should be borne by the citizens of Kyiv. Depending on economic conditions, the CIT burden is shifted backward onto shareholders and

workers or forward onto consumers. There is no reason to think that a firm's shareholders all live in the jurisdiction where the firm pays its CIT. The same is true for a firm's employees and the consumers of its products.[55] The allocation of a share of the CIT to regional governments in effect allows the citizens of Kyiv and other headquarters cities to shift the costs of their local services onto taxpayers in other, generally poorer jurisdictions.

- International experience suggests that the PIT is a much better local tax, but in Ukraine its administration has problems. The PIT is a direct tax: theoretically it is collected from and borne by the citizens of the same jurisdiction. However, this rule does not fully apply in Ukraine. Most PIT is collected at source and there is no universal declaration by individual taxpayers. As a result, in multi-jurisdictional metropolitan areas, PIT revenues are not aligned with services rendered. For example, the taxpayers of Brovary or Boryspil (Kyivska Oblast) may be subsidizing the residents of neighboring Kyiv, where their employer is located.
- Inadequate property tax administration and revenues are skewed to wealthier jurisdictions. In 2015, the new residential property tax accounted for only 0.25 percent of total subnational revenues—equivalent to only 0.1 percent of GDP. One reason for its low yields is that the base of the tax is narrow; it does not apply to industrial and commercial properties or land, but is imposed only on residential apartments and single-family homes. Another is that the tax rate is in most cases low. While the rate is set by the village, settlement, or city council, it is subject to ceilings set out in national legislation. The maximum tax on an apartment of up to 240 square meters ($m^2$) or a single-family home of up to 500 $m^2$ is only 1 percent of the official monthly minimum wage per $m^2$. Given the current minimum wage and exchange rate, this is equivalent to USD 0.55/$m^2$, or USD 132 for an apartment of 240 $m^2$. The rate on larger apartments and homes is steeper, 2.7 percent of the minimum wage/$m^2$, but apartments less than 120 $m^2$meters and single-family homes less than 240 $m^2$ are totally exempt. The third reason for the low property tax yields is the quality of tax administration. Reportedly, only about 20 percent of taxable properties are on the tax rolls. The current rolls are based on electronic ownership files provided by the Ministry of Justice. Oblast governments reportedly have more complete records, but these are not used because they are not electronic. As a result, many properties are not taxed at all. In addition, the highly progressive nature of the tax and the exemption of smaller properties effectively strips rural and less wealthy areas from property tax revenues.

## The transfer system is effective in equalizing revenues, but weak at accountability for service delivery

Regional variation in per capita revenues is very low under both pre- and post-2015 systems. The previous structure of subnational finance was very successful at reducing disparities in per capita budget resources, at least at the level of aggregated oblasts. Figure 7.4 shows variations in per capita revenues as of 2014 by oblast (including all its subordinate jurisdictions). Except for the city of Kyiv, per capita revenues of all the jurisdictions are virtually identical. While per capita tax revenues vary widely, these variations are offset by variations in per capita budget subsidies (per capita revenues from subventions do not vary significantly). The correlation of per capita budget subsidies with per capita tax revenues was highly negative. As a result, while the coefficient of variation (CoV) in per capita tax revenues was .37 and in budget subsidies was .32, in total revenues per capita it was only .11.

[55] This is particularly true of multi-branch firms, which may have operations throughout Ukraine but pay the CIT in Kyiv.

**Figure 7.4. Variation in Per Capita Revenues by Oblast and Source, 2014**

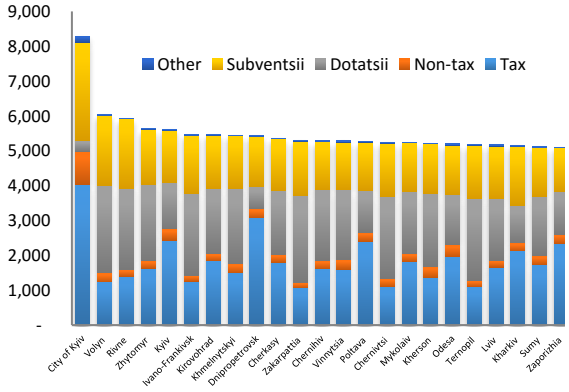
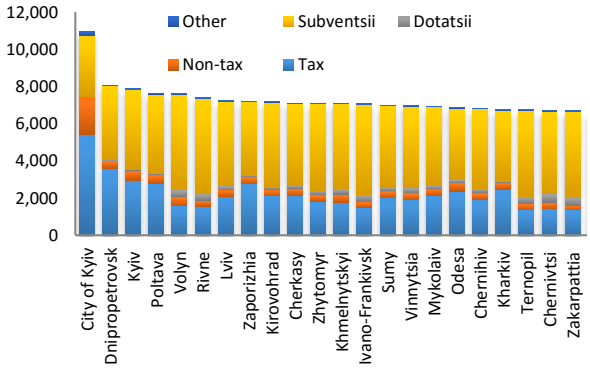



**Figure 7.5. Variation in Per Capita Revenues by Oblast and Source, 2015**




*Source*: BOOST data.

Figure 7.4 and 7.5 illustrate variations in oblast per capita revenues priot to and in the first post-reform year. Except for the city of Kyiv, per capita revenues of all the jurisdictions shown again are virtually identical. Although per capita tax revenues vary widely, the variations are offset by variations in per capita budget subsidies. The CoV in per capita tax revenues was .40 and in budget subsidy was 0.56; in total revenues per capita, it was only 0.12.

Public spending in Ukraine is equalized to a considerable extent by the transfer system (figures 7.6). This is particularly evident for raions: before the reform (2013) and after (2015), the CoV of 0.4 before central government transfers and the CoV of about 0.2 when all subsidies and subventions are accounted for in the cities, where the CoV, although high, was still declining in response to the redistributive policies of the central government. In contrast, per capita pre-transfer revenues of oblast governments seem to be more dispersed, reflecting high inequality in terms of regional revenue-generating capacity.

**Figure 7.6. Equalization Effects of Transfers, Coefficient, 2013 and 2015**

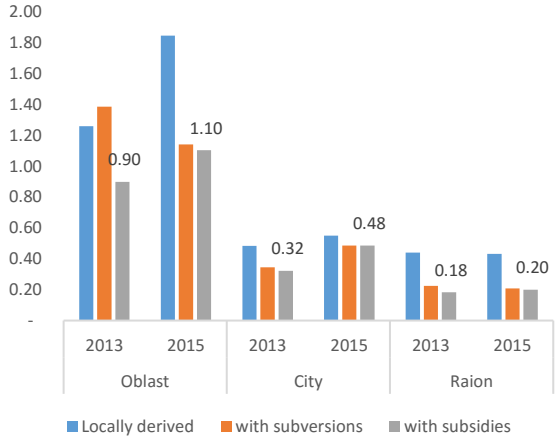
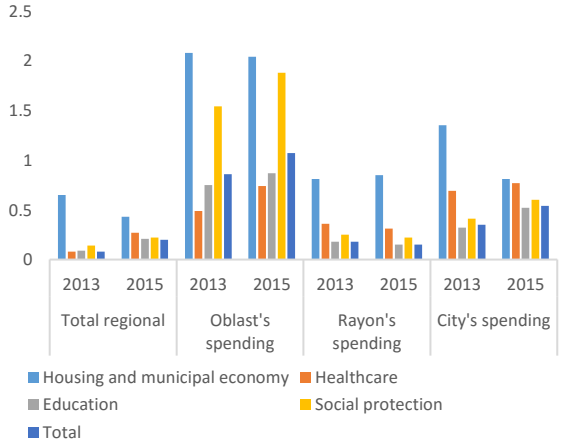



**Figure 7.7. Spending Variations by Function and SNG Type, 2013 and 2015**



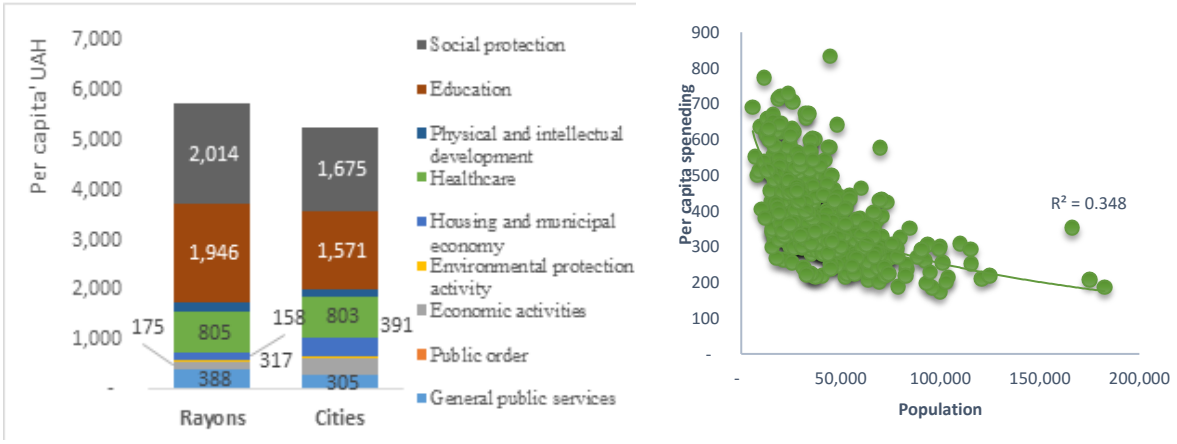

*Note*: For consistency, all tiers of SNG exclude the budgets of Sevastopol City, AR of Crimea, regions of Donetska and Lugansk.

The observed interregional equality in public spending is explained primarily by expenditures for education and social protection and moderately by healthcare expenditures. While spending disparities between raions and cities, as well as within cities, are more pronounced, they are not that high compared to other decentralized multi-tier economies. For raions, the observed intraregional disparities are particularly low figure 7.7).

The incentives for efficient provision of social care services improved after the 2015 transfers reform, but structural problems persist. The 2014 Budget Code amendments shifted funding from equalizing estimated expenditure per potential client, defined as those registered in existing facilities, to equalizing revenues. This removed incentives to boost the clientele of residential facilities and gives flexibility in allocating funds to social services based on client needs. At the same time, the combined roles of purchaser and provider and delivery at raion level is hindering efficiency gains (See the social care chapter for details).

An additional efficiency-related phenomenon in service delivery is diseconomies of scale. Per capita expenditures tend to be higher in raions than in cities, primarily because per capita on spending on social protection and education is about 25 percent higher in raions than spending in sub-oblast cities. Notably, both raions and cities spend about the same per capita on health care. This spending pattern, however, seems to be at odds with the demographic composition of the population, because elderly people tend to be concentrated in rural (raion) areas of the country. Furthermore, raions are spending more per capita on public services than cities. Raions also seem to be less efficient than cities. For instance, in general public administration, for which raion per capita spending is on average about 25 percent higher than in cities, there is a clear indication of diseconomies of scale in that per capita spending is lower in larger localities (figure 7.8).

**Figure 7.8. Per Capita Spending, Raions and Sub-Oblast Cities, 2015**




*Source*: BOOST data.

Finally, in the current system of devolved central government mandates and low citizen engagement in many local jurisdictions, local finance is not accountable for service delivery and performance. The Accounting Chamber is a supreme audit institution established in 1998. It has historically focused on audit central budget expenditures. It was authorized to audit central budget revenue in 2014, but local finances remain unchecked. Moreover, the focus on input planning and controls and the limited engagement of citizens does not promote accountability of local spending to local residents.

## Amalgamation to Deliver Services Better

The government started the reform of amalgamation of local communities as a part of the decentralization process to improve local accountability and service delivery. Determining the territorial and administrative organization of different tiers of government to support subsidiarity, local accountability, and sound subnational fiscal management were the main tenets of administrative reform set out in the Concept for Reform of the Local Government and Territorial Organization (April 2014), but political sensitivity has prevented their realization. The voluntary amalgamation of the local communities launched in 2015 (see box 7.2 for details) is a significant component of that reform. According to the Ministry of Regional Development, 794 former jurisdictions have been amalgamated into 159 communities. Inter-community cooperation, launched in 2014, provided numerous opportunities to improve the quality and accessibility

of services provided by local governments. As set out in the Law on Voluntary Amalgamation of Territorial Communities, the reform allows hromadas to come together as government units that would have the same status as raions and oblast-subordinated cities. Geographically, these would resemble Polish gminas in the sense that they would incorporate several villages and the rural areas between them. Like oblast-subordinated cities, their mayors would be elected; villages lose their elected governments. The interests of individual villages are to be subsumed in the interests of an amalgamated community (AC) that becomes an administrative center. The significant difference between ACs and raion administration is that raions have both an elected council and an administration subordinated to the president, while ACs have only elected authority.

**Box 7.2. Village Amalgamation in Ukraine.**

Amalgamation is voluntary, at least at this stage. Communities may initiate an amalgamation process if their territory is (1) contiguous, (2) located within one oblast, and (3) has certain historical, natural, ethnic, cultural, or other unifying characteristics. The process may be initiated by community members or local authorities but is subject to public consultations and approval by each of the local councils affected. Amalgamation plans may also be subject to local referendums and must also be approved by the oblast council.

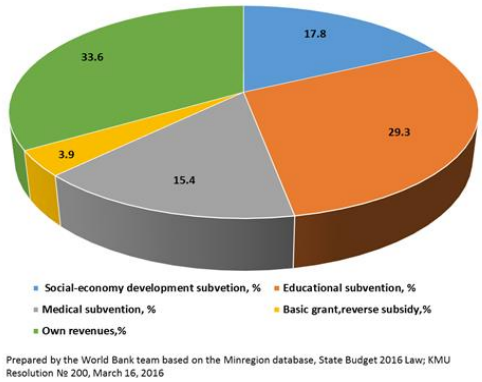
To encourage amalgamation, every oblast is required to draft a "perspective plan" for creating effective territorial communities, to be approved by the respective oblast council and Ukraine's Cabinet of Ministers. Perspective plans are to be developed according to a methodology proposed by the Ministry of Regional Development and approved by a cabinet resolution in April 2015. As originally conceived, the plans would identify the largest villages or raion-subordinated cities within each raion. These would be declared centers of the new ACs. All hromadas within 25 kilometers of that center would then be targeted for amalgamation with it. If no center could be identified, the hromada with the most children within a cluster of hromadas would be the designated center.

The reform has yet to substantially impact service delivery, and it may not achieve its objectives as ACs are too small to take over raion functions. In particular, the transfer of ownership of former raion-owned assets has yet to be completed and personnel have yet to be reassigned. ACs are now responsible for regular and specialized schools, orphanages, postgraduate education for teachers, primary health care, first medico-sanitary aid, social protection, and other services. As result, the ACs transfer the additional funds they receive to their former raion to pay for services the raion is still providing. Going forward, small ACs are unlikely to achieve economy of scale in service delivery. Despite the Ministry of Regional Development' s guidelines, many of the amalgamations approved so far consist of only two to four hromadas and the average AC contains only five. These ACs will take over functions currently performed by raions, including responsibility for rationalizing school networks and health care facilities. Such small ACs may undermine the government's efforts to rationalize education and health care facilities. Some may not be big enough to support an efficiently sized secondary school, let alone a hospital. Efforts to close such facilities in a new AC are likely to encounter fierce resistance from their elected mayors. For example, transferring health subvention to communities has deepened the fragmentation of budget resources. It added new regional funding pools, bringing the total to 793 separate budgets in 2016 (See healthcare chapter for details).

Economies of scale of village functions was one of the core arguments for the reform, but there is little empirical support for it. For example, the operation of kindergartens was a principal service provided by villages, but unless parents are willing to see local kindergartens closed and their children bused to a hub kindergarten elsewhere, amalgamation will not reduce the costs of providing this service. There is a slightly more persuasive case to be made in the case of fire protection or solid waste disposal (although not collection) where there are indisputable economies of scale. But village governments can benefit from these economies without amalgamating. The Ukrainian law on inter-municipal cooperation permits villages to enter into joint service agreements, in which a third party provides a service that is jointly owned or contracted by all of them. The same is true of professional staff. It is important to note, however, that these arrangements have not been widely used. According to the Ministry of Regional Development (MRD), 170 villages have signed 47 agreements. The main areas of inter-municipal cooperation are joint investments in improving communal and social services (15 agreements in each), ecology and energy-efficiency activities (7), renovation of local roads (6), and fire prevention (4).

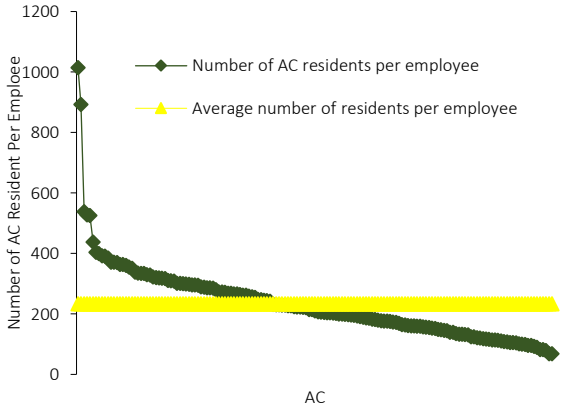
Spending on public administration is small and the impact of amalgamation may be equally minimal. It is true that villages spend a considerable proportion of their budgets on administration, which is the second largest item of expenditure among villages and raion-subordinated towns, totaling Hrv 3.9 billion in 2014. But this represents only 0.24 percent of GDP—not a large proportion. And does this really represent waste? Village governments perform legitimate administrative functions, such as registration of property transactions and vital statistics. And even if it does represent wasteful administrative expense, it is not obvious that amalgamation will eliminate it. (Reportedly, most of the mayors running for election in the amalgamated communities have promised to keep a branch office open in each of the former villages.) As illustrated, the MRD statistic shows a large difference in the number of AC residents, from 1014 to 62 per local employee (figure 7.10).

**Figure 7.9. Revenue Structure of Amalgamated Communities, 2016**




*Source*: BOOST data.

**Figure 7.10. Number of Amalgamated Communities Residents Per Employee**




*Source*: MRD with the assistance of the Swiss-Ukrainian project "Decentralization Support in Ukraine" technical support from the Swedish-Ukrainian project "Decentralization Support in Ukraine."

Fiscal decentralization reform significantly increased Aca' fiscal sources compared to villages, but low fiscal autonomy of ACs has not created incentives for better accountability and service delivery. ACs have direct inter-budgetary relations with the central budget and the value of taxes and fees for the AC budgets is much higher. ACs receive 60 percent of the PIT collected rather than the 25 percent villages received before the reform (now villages have no PIT). ACs received state duties, local excises, the CIT of local enterprises and other sources, as do oblast-subordinated cities. But, all these revenue sources are only 33.6 percent of the total revenues of AC budgets in. Thus, the main part, 66.4 percent, consists of transfers from the state to AC budgets, which is 7.4 percent more than the 2015 average for local budgets. In fact, in 15 of the 159 ACs the share of state budget transfers is less than 50 percent for 2016 and 72 ACs will receive more than 75 percent. In 11 ACs, the share will from 90.0 to 93.6 percent.

Moreover, there were few if any incentives for rationalizing education and healthcare networks or creating an enabling environment for efficient delivery of services. The new local revenues and revenue-sharing arrangements do not align resources with services. The CIT, for example, is not a suitable source of SNG revenue; and the narrow tax base for property tax (i.e., high $m^2$- area thresholds and exclusion of industrial and commercial property) will limit its yield.

Local communities have the same infrastructure investment needs as oblast-subordinated cities, but even ACs are not allowed to borrow. According to the Budget Code of Ukraine (article 16), only Kyiv and cities of local subordination have a right to borrow from the market (rather than from an international financial institution).

## Reform Options

The government has recognized the importance to service delivery of improving the intergovernmental fiscal and administrative system. The main tenets of reform are outlined in the government Concept for Reform of the Local Government and Territorial Organization (April 2014). The government is discussing constitutional principles to determine the territorial and administrative organization of different tiers of government that would support subsidiarity, local accountability, and sound SNG fiscal management. However, future amalgamation may fall short of expectations for service delivery and local accountability without a change in approach. The main goal of decentralization, which is to determine the territorial and administrative organization of different tiers of government to support subsidiarity, local accountability, and sound SNG fiscal management, is difficult to reach by voluntary amalgamation of communities as presently designed. A change in approach is required to achieve efficient service delivery:

- Review practices and guidelines for voluntary amalgamation of local units to prevent micro- or excessive amalgamations and offer incentives for amalgamation and inter-municipal cooperation;
- Consider raion-based structures with elected executives as opposed to current system of appointments by central government.

To provide incentives of local governments to improve service delivery, the government may consider the following reform options:

- Fine-tune intra-budgetary transfers system by (i) lowering transfer coefficients to create more incentives for rationalizing school and hospital networks; (ii) cease tying funding to facilities for healthcare; (iii) creating a funding system that not only equalizes well but also adapts to changing demographic conditions and demand (e.g., pilot inpatient output-based funding);
- Strengthen local revenue base by taking measures that may include: (i) abolishing sharing of CIT, which does not align resources with services; (ii) ensuring that the PIT is attributed to the jurisdiction where the taxpayer resides; and (iii) revamping the property tax system to broaden the base by removing exemptions and giving local governments more flexibility to set rates, and ensuring that all real estate is accounted for and taxed;
- Make local governments more accountable, including more discretion to plan and manage their budgets. Additional measures to strengthen accountability may include: (i) granting the Accounting Chamber the right to audit local budgets, and (ii) providing easily accessible comprehensive budget information to encourage citizens to participate in all phases of the budget process.

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