

Towards Better Adequacy & Sustainability: A Review of Pension Systems & Pension Reforms in Eastern Partnership Countries

Henrik Huitfeldt

DISCUSSION PAPER 131 | OCTOBER 2020

EUROPEAN ECONOMY



European Economy Discussion Papers are written by the staff of the European Commission's Directorate-General for Economic and Financial Affairs, or by experts working in association with them, to inform discussion on economic policy and to stimulate debate.

DISCLAIMER

The views expressed in this document are solely those of the author(s) and do not necessarily represent the official views of the European Commission.

This manuscript was completed before the economic impact of the COVID-19 pandemic reached Europe.

Authorised for publication by Elena Flores, Director for International economic and financial relations, global governance.

LEGAL NOTICE

Neither the European Commission nor any person acting on behalf of the European Commission is responsible for the use that might be made of the information contained in this publication.

This paper exists in English only and can be downloaded from
https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en.

Luxembourg: Publications Office of the European Union, 2020

PDF ISBN 978-92-76-11199-3 ISSN 2443-8022 doi:10.2765/972935 KC-BD-19-018-EN-N

© European Union, 2020

Non-commercial reproduction is authorised provided the source is acknowledged. For any use or reproduction of material that is not under the EU copyright, permission must be sought directly from the copyright holders.

CREDIT

Cover photography: © iStock.com/shironosov

Towards Better Adequacy and Sustainability

A Review of Pension Systems and Pension Reforms in Eastern Partnership Countries

Henrik Huitfeldt

Abstract

This discussion paper reviews the state of play of pension systems and recent reforms in the Eastern Partnership countries and discusses outstanding challenges and options for further reforms. Pension systems in the Eastern Partnership countries are confronted with changing demographics and an ageing population, decreasing formal employment, and a legacy from the Soviet Union with persistent features such as low statutory retirement ages and exemptions and privileges for many different categories of workers. This led to significant difficulties of the pension systems in the region to provide for adequacy of pension benefits and fiscal sustainability. Following the 2008 economic and financial crisis, discussions on more comprehensive pension reforms have gained renewed interest and some reforms have been launched. However, recent reforms have often only addressed parts of the challenges of the pension systems. The focus has been on improving the financial sustainability of the mandatory public pension schemes, often by raising the statutory retirement age. More comprehensive pension reforms, including structural reforms to broaden the base of contributors, would be needed to create sustainable systems with the ability to provide fair and adequate pensions to the old-age population.

JEL Classification: I31, I38, J11, J14.

Keywords: pension systems, pension reform, Eastern Partnership countries, demographic challenge, labour market, fiscal sustainability.

Acknowledgements: I would like to thank Giulia Filippeschi who provided significant input on earlier versions of this paper, Joern Griesse for comprehensively reviewing the paper and providing a range of constructive suggestions, Pedro Carpintero for assistance with statistics and formatting, and Elena Flores, Annika Eriksgaard-Melander, Per Eckefeldt, Karolina Gralek, Dino Pinelli, Luca Oriani Vieyra and the ECFIN Editorial Board for their useful comments.

Contact: Henrik Huitfeldt, European Commission, Directorate-General for Economic and Financial Affairs, henrik.huitfeldt@ec.europa.eu.

CONTENTS

1. Introduction	5
2. Pension Systems - conceptual framework.....	5
3. Demographic and labour market developments in Eastern Partnership countries	7
3.1. Demographic Trends	7
3.2. Labour market developments.....	9
3.3. Pension system dependency ratio	11
4. Pension systems in Eastern Partnership countries.....	12
4.1. The common starting point	12
4.2. Current schemes – the basics.....	13
4.3. Current schemes – a comparison along policy variables.....	15
4.3.1. Retirement age	15
4.3.2. Early retirement options and privileged schemes	16
4.3.3. Contribution rates	16
4.3.4. Indexation and valorisation.....	17
4.3.5. Link between contributions and pension benefits.....	17
5. Outcomes	18
5.1. Adequacy.....	18
5.2. Sustainability	19
6. Options for pension reform.....	22
6.1. Parametric pension reform: balancing sustainability and adequacy	22
6.2. Systemic reforms	23
6.3. Accompanying pension reforms with wider structural reforms.....	24
7. Conclusions.....	25

LIST OF TABLES

Table 1. World Bank multi-pillar pension conceptual framework.....	6
Table 2. Population estimates 1990, 2020 and 2050.....	7
Table 3. Key demographic indicators	9
Table 4. Key labour market indicators	10
Table 5. Overview of the different pillars of the pension systems in place in Eastern Partnership countries	13
Table 6. Overview of recent pension reforms in Eastern Partnership countries	14
Table 7. Pre-reform/post-reform statutory retirement ages in Eastern Partnership countries	15
Table 8. Overview of social contributions in Eastern Partnership countries in 2019.....	17
Table 9. Overview of social pensions in Eastern Partnership countries in 2018	19

LIST OF FIGURES

Figure 1. Old-age dependency ratio (ratio of population aged 65+ per 100 population 15-64) in Eastern Partnership countries 1950-2050	8
Figure 2. Evolution of key demographic indicators in Eastern Partnership countries.....	9
Figure 3. Evolution of the employment rates in Eastern Partnership countries 1991-2017	10
Figure 4. Shares of formal and informal employment, unemployment and inactivity in working-age population*	11
Figure 5. Pension system dependency ratios in Eastern Partnership countries*	12
Figure 6. Average gross replacement rates in Eastern Partnership countries*	18
Figure 7. Total public expenditures on old-age pensions (% of GDP) 2013-2018.....	20
Figure 8. Estimation of future public expenditures on old-age pensions (% of GDP) 2020-2050.....	21

REFERENCES

1. INTRODUCTION

The Eastern Partnership countries (i.e. Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) have been facing three major challenges to their pension systems since independence. Firstly, as most countries in the EU and elsewhere, they are confronted with changing demographics and an ageing population. The share of the population over 65 years compared to the working-age population (15-64 years) has on average increased from 13% in 1991 to 18% in 2017 and is forecast to reach 37% in 2050 (the only exception is Azerbaijan that has a younger population). Secondly, since independence, formal employment and, as a consequence, contributions to public pension systems have decreased dramatically. In 2018, on average only 37% of the working-age population was formally employed in the Eastern Partnership countries. Thirdly, the legacy from the Soviet Union lingers on, with features persisting such as low statutory retirement ages and exemptions and privileges for many different categories of workers.

These factors have led to pension systems that are characterised by low adequacy (low pension benefits) and weak fiscal sustainability. The debate of the need for reform has been ongoing since independence, but only limited progress towards higher adequacy and sustainability has been achieved in the first decades. A renewed wave of reforms started after the global financial and economic crisis in 2007-2008. These reforms have been more ambitious and included broader changes to the pension systems in several of the Eastern Partnership countries.

This discussion paper reviews the state of play of pension systems and recent reforms in the Eastern Partnership countries and discusses outstanding challenges and options for further reforms. The paper is organised as follows. Section 2 outlines the main features and trends of the global debate on pension systems and reforms. Section 3 discusses demographic and labour market developments in Eastern Partnership countries. Section 4 describes the broad evolution of the pension systems in Eastern Partnership countries since independence. Section 5 looks into the characteristics of the pension systems and challenges for reforms in more detail. Section 6 discusses options for further reforms. Section 7 concludes.

2. PENSION SYSTEMS - CONCEPTUAL FRAMEWORK

This paper uses the concepts of adequacy and sustainability as the main analytical dimensions to assess the structure and needs of the pension system in the Eastern Partnership countries. Adequacy measures the capacity of a pension system to provide reasonable living standards post-retirement, preventing old-age poverty and ensuring the possibility of smoothing consumption between different periods of life. The sustainability element ensures the long-term functioning and financial soundness of the pension system and is defined as the long-term capacity of a system to be in balance or close to balance. Striking a balance between these two objectives is often considered as the main challenge for designing or reforming a pension system.

Pension systems depend on country-specific characteristics such as demographic, labour market, and political conditions. For example within the EU, while having similar objectives, different EU member states have often very different pension systems in place. This makes it difficult to develop a blueprint for reform that will be applicable for all countries. A variety of demographic variables such as the birth rate, life expectancy and migration trends have a direct impact on pension systems. In addition, the size of social security contributions depends on the participation in the labour market, including

the existence of informal employment, social security contribution rates and wage developments. Hence, these need to be considered when analysing pension systems.

Following the World Bank Pension Conceptual Framework (World Bank (1994), World Bank (2008)), pension systems can be organised within different pillars (see Table 1 below).

Table 1. **World Bank multi-pillar pension conceptual framework**

	Pillar 0	Pillar 1	Pillar 2	Pillar 3
Characteristics	Non-contributory social pensions	Mandatory public unfunded (pay-as-you-go) scheme	Mandatory funded scheme	Voluntary funded scheme
Objectives	Prevent old-age poverty	Life-cycle consumption smoothing	Strengthening fiscal sustainability of the pension system while providing additional life-cycle consumption smoothing	Providing incentives for additional savings for retirement
Challenges	Needs to be financed from general budgetary resources	Fiscal sustainability sensitive to demographic, labour market and political developments	Depends on a well-functioning financial sector. Transition costs at introduction.	Mostly relevant for higher income groups

Note: The World Bank Framework also includes a fourth pillar consisting of informal support or non-pecuniary formal social programmes that will not be discussed in this paper.

Source: World Bank (1994), World Bank (2008).

Pillar 0 provides for a basic living standard to the old-age population regardless of previous employment and contribution history.

Pillar 1 is based on mandatory contributions from employed individuals with the objective to smooth consumption over the life cycle. This pillar is often constructed as a pay-as-you-go (PAYG) model, where contributions from the employed population are used to pay for the pension benefits of pensioners in the same period. Traditionally, PAYG systems have been based on a ‘defined benefits’ model, that is, it offers benefits that are not actuarially tied to contributions. More recent reforms of PAYG systems have often been aiming at strengthening the link between contributions and benefits. In a ‘defined contribution’ model, pension benefits are proportional to the amount of contributions given during the working life thereby also strengthening the incentives to (formal) employment.

Pillar 2 consists of a mandatory individual savings account to which each worker is obliged to contribute part of her/his income. This could be matched by contributions from employers and/or the government. The funds of the savings account, which could be both publicly or privately managed, are invested in assets and the accumulated funds are paid out to the worker after retirement. A transition from a Pillar 1 based system to a Pillar 2 system also includes transition costs, as current workers need to contribute to fund both current pensions and their own future pensions.

Pillar 3 is a voluntary private funded pension scheme that could be accompanied with financial incentives with the aim to encourage savings by the population.

In this paper, the framework described above will be used to analyse the pension systems and pension reforms in the Eastern Partnership countries.

3. DEMOGRAPHIC AND LABOUR MARKET DEVELOPMENTS IN EASTERN PARTNERSHIP COUNTRIES

The number of contributors to pension systems and the number of potential beneficiaries depends directly on demographic and labour market developments. These factors have a large effect on how a pension system should be designed and reformed in order to be sustainable, while also ensuring adequate income at old age. This section will take a closer look into demographic trends and labour market developments in the Eastern Partnership countries.

3.1. DEMOGRAPHIC TRENDS

Most of the Eastern Partnership countries are confronted with an ageing population that is leading to an increase in the old-age dependency ratio (the number of retired people compared to the working-age population). This demographic trend puts pressure on pension systems that, if left unaddressed, will lead to problems with fiscal sustainability and/or the adequacy of benefits (World Bank (2014)).

In 2020, the old-age dependency ratio, defined as the share of the population 65 years and above compared to the working-age population (15-64 years), is projected to be on average around 22%¹ in Eastern Partnership countries (see Table 2). Thus, for each person 65 years and above, on average there are about five people at working age.

Significant differences exist between the Eastern Partnership countries. Azerbaijan appears to be the least vulnerable to demographic challenges with an old-age dependency ratio of only 9.7%. On the other hand, Ukraine, Belarus and Georgia are already facing a more serious demographic situation with an old-age dependency ratio above 20%. The ageing of the population will continue to evolve and the Eastern Partnership countries are projected to have an old-age dependency ratio of around 40% by 2050 (with the exception of Azerbaijan). Although clearly alarming in itself, this could be compared with the situation in EU countries where an old-age dependency ratio of 32% in 2020 is projected to increase to 50% in 2050.

Table 2. Population estimates 1990, 2020 and 2050

	EU	Armenia	Azerbaijan	Belarus	Georgia	Moldova***	Ukraine
Total Population (million)							
1990	418.0	3.5	7.2	10.2	5.4	4.4	51.5
2020	449.2	3.0	10.1	9.4	4.0	4.0	43.7
2050	445.4	2.8	11.1	8.6	3.5	3.4	35.2
Share of >64 years (%)							
1990	13.7**	5.6	4.6	10.7	9.3	8.3	12.0
2020	20.8	11.8	6.7	15.6	15.3	12.5	16.9
2050	29.3	21.4	17.5	24	21.8	23	25.5
Share of 15-64 years (%)							
1990	66.8**	64.3	62.2	66.4	65.8	63.8	66.8
2020	64.1	67.4	69.7	67.2	64.5	71.6	67.1
2050	56.1	62.3	65.6	60.1	60.5	64.2	60.3
Old-age dependency ratio (%)*							
1990	20.6**	8.8	7.5	16.1	14.1	13.0	18.0
2020	32.5	17.5	9.7	23.2	23.6	17.4	25.3
2050	52.3	34.3	26.7	39.9	36.0	35.9	42.3

Source: United Nations (Department of Economic and Social Affairs, Population Division) (2019). European Commission (DG ECFIN) (2018), Eurostat.

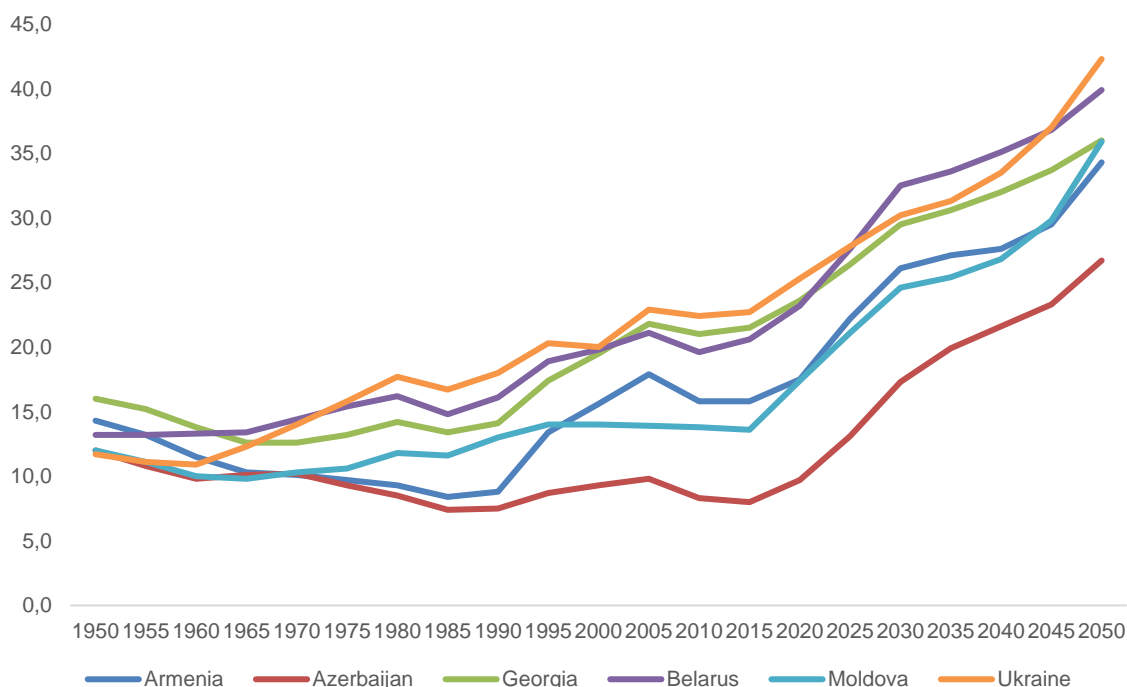
* Share of old-age population (>64) in working-age population (15-64 years).

**For 1990, EU refers to EU27 (including UK, but without Croatia)

¹ Weighted average.

*** Note that official population figures in Moldova have recently been significantly revised downwards and is not taken into consideration in the UN estimates.

Figure 1. **Old-age dependency ratio (ratio of population aged 65+ per 100 population 15-64) in Eastern Partnership countries 1950-2050**



Source: United Nations (Department of Economic and Social Affairs, Population Division) (2019).

Three major factors are behind the ageing of the population and the increase in old-age dependency ratios in Eastern Partnership countries.

Firstly, life expectancy is increasing in all countries in the region (see Figure 2). However, life expectancy at birth is increasing faster than life expectancy at retirement age (defined as age 65). This indicates that mortality rates for older people have decreased at a slower pace than mortality rates for younger people since independence. There is still scope for mortality rates to continue their downward trend, especially for older men. Although a welcome sign of [e.g. improved health care] that would further increase life expectancy, it would at the same time worsen the old-age dependency ratios.

Secondly, birth rates decreased sharply in the 1990s and have since stabilised at low levels in all countries (see Figure 2). This has been a major factor driving the increase in old-age dependency ratios in the last decade as smaller cohorts of young people enter working age and will continue to play a major role in the future.

Thirdly, several countries in the region have been facing large emigration during the last decades (see Table 3). This trend is likely to continue, as wage differentials remain high between Eastern Partnership countries and EU countries. In addition, the liberalisation of visa requirements in Georgia, Moldova and Ukraine made migration to the EU easier. In recent years, out-migration from Ukraine has increased dramatically (further fuelled also by the armed conflict in eastern Ukraine). Since 2015, the number of residence permits of Ukrainian citizens in EU countries (mostly Poland) has been above 500,000 a year (Eurostat (2019)). The total stock of Ukrainian migrants is estimated to between 2.2 and 2.7 million (Pienkowski (2020)). As migration is more common for younger people entering the labour market, this factor leads to a corresponding decrease of the working-age population and an increase in old-age dependency ratios.

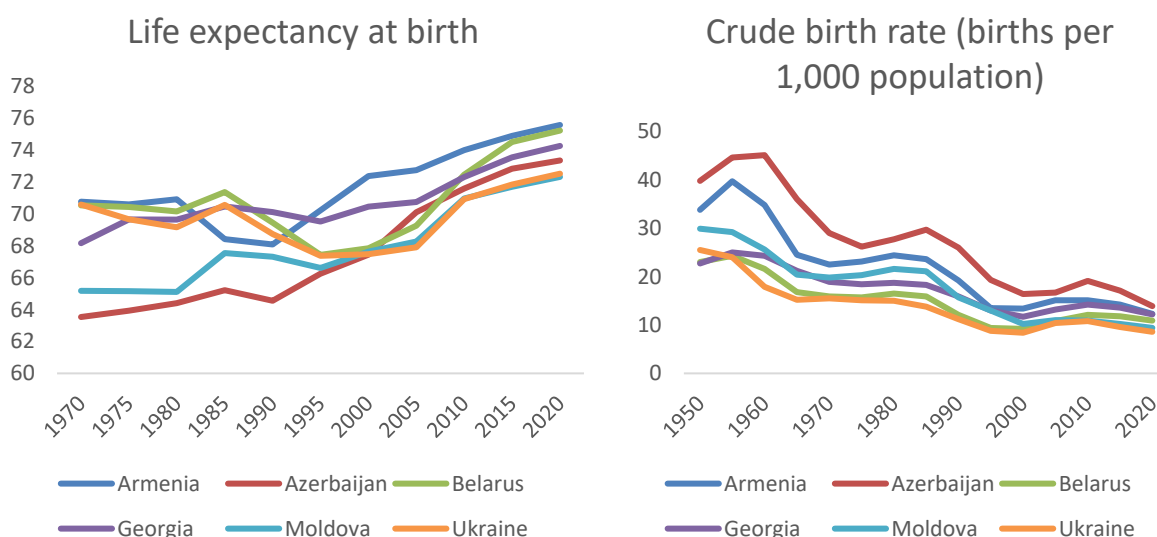
Table 3. **Key demographic indicators**

	EU	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
Life expectancy at birth							
1990	74.2*	68.1	64.6	69.4	70.1	67.3	68.7
2015	80.5	74.9	72.8	74.5	73.5	71.7	71.8
Life expectancy at retirement age (65 years)							
1990	n.a.	14.4	14.6	14.2	15.0	13.2	14.0
2015	19.7	15.8	14.8	16.0	15.4	14.3	15.1
Crude birth rates (births per 1,000 population)							
1990	12.2	19.2	26.0	12.1	15.9	15.7	11.2
2015	9.7	14.2	17.1	11.8	13.6	10.2	9.6
Average net migration rate 1990-2015 (per 1,000 population)							
	n.a.	-11.8	-0.6	0.5	-13.2	-3.0	-0.4

Source: United Nations (Department of Economic and Social Affairs, Population Division) (2019). Eurostat.

*EU28 (including the UK)

Figure 2. **Evolution of key demographic indicators in Eastern Partnership countries**



Source: United Nations (Department of Economic and Social Affairs, Population Division) (2019).

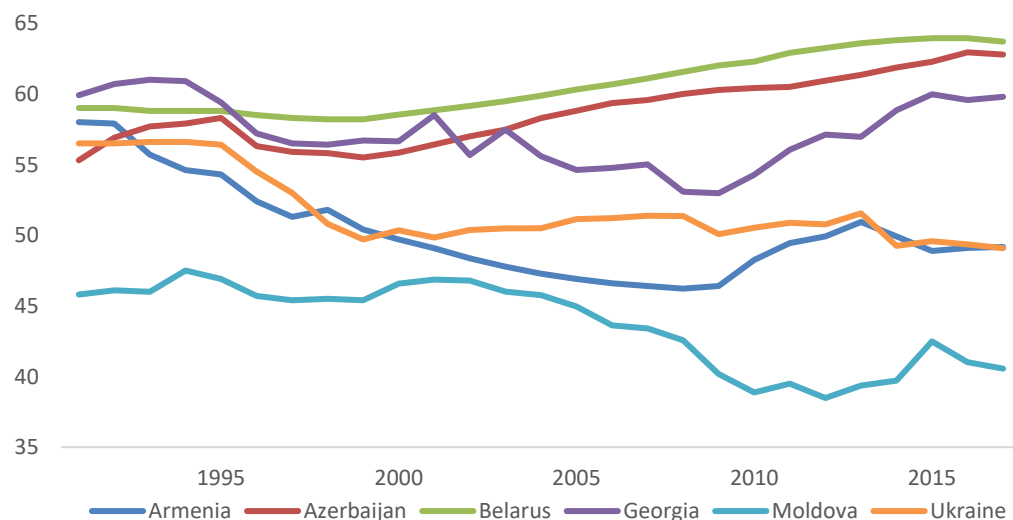
3.2. LABOUR MARKET DEVELOPMENTS

In addition to the demographic structure of a country, labour market characteristics influence the functioning of pension systems. In the PAYG model, pensions are, in principle, a function of social contributions. A low level of labour force participation, high shares of informal employment or high unemployment reduce the total size of contributions, thus, threatening the adequacy of the system or burdening the budget to fill the gap which potentially undermines the sustainability.

The economic collapse in the 1990s resulted in deindustrialisation and the emergence of high shares of informal employment in all Eastern Partnership countries (apart from Belarus, which to some extent has retained its economic model of state-owned enterprises). This led to a significant decline in formal employment and in social contributions. The situation was further amplified by a large number of people seeking early retirement.

These economies have only been recovering slowly since the 1990s and employment is yet to pick up in all countries (see Figure 3). The employment rate for the working-age population (15-64 years)² differs significantly between the Eastern Partnership countries (see Table 4).³ Belarus has an employment rate that is well above the EU average of 68% (see Table 4). Azerbaijan also recorded an employment rate higher than EU countries, however a very large share is in the form of informal employment. The other Eastern Partnership countries have lower employment rates. Armenia and Georgia are also facing relatively high-recorded unemployment. Moldova is an outlier with an employment rate of only 47%, which is due to a larger importance of subsistence (and seasonal) agriculture and a high share of temporary work-related migration⁴.

Figure 3. Evolution of the employment rates in Eastern Partnership countries 1991-2017 (% of working-age population, 15-64 years old)



* Employment to population ratio for persons 15 years and above.

Source: ILOSTAT, ILO modelled estimates, November 2018, <https://ilostat.ilo.org/data/>.

Table 4. Key labour market indicators in 2018

	EU	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
Employment rate (% of total population 15-64 years)*	68.6	52.0	72.1	78.4	60.6	46.1	61.6
Informal employment (share of total employment)	14.9**	45.2	68.2	8.2	64.0	36.2	21.6
Unemployment rate (% of labour force 15-64 years)*	7.0	18.4	5.0	5.5	13.9	3.1	8.9

Source: Own calculations based on data from national statistical offices. Data from 2018 with the exception of Armenia and Belarus that are from 2017.

* Belarus 15-59 years.

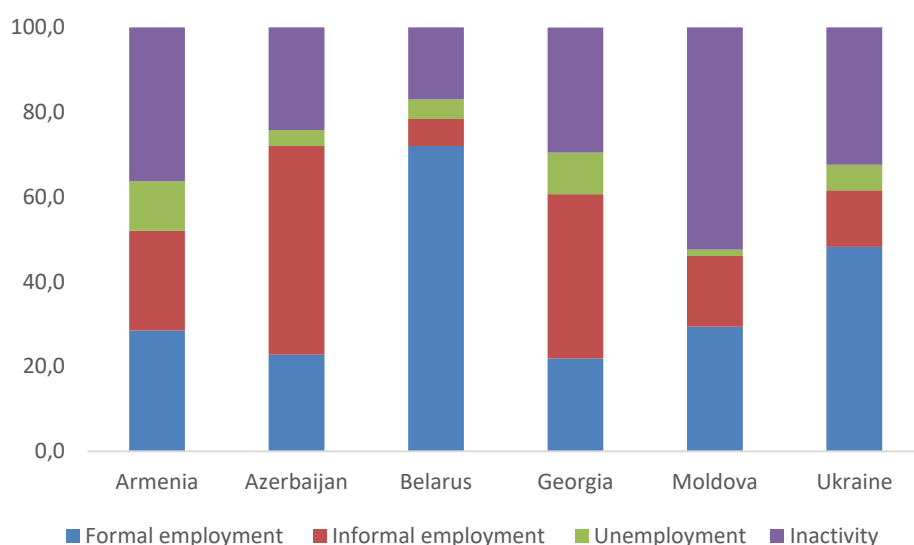
** Estimated based on ILO (2018a)

² Note that this indicator differs from the indicator used in Figure 3 that covers the total population 15 years and above. Long time series for the employment rate of the working-age population (15-64 years) are not available.

³ Note that key labour market indicators are difficult to measure in countries with large informal agricultural sectors as the definition between employment in agriculture, unemployment and inactivity may be blurred and differences between countries influenced by design features of labour force surveys.

⁴ In Moldovan labour force surveys, persons that temporarily work abroad (less than 12 months) are recorded as inactive.

Figure 4. **Shares of formal and informal employment, unemployment and inactivity in working-age population***



* Working-age population is defined as 15-64 years in Armenia, Azerbaijan, Georgia, Moldova, and Ukraine 15-59 years in Belarus. Data from 2018 with the exception of Armenia and Belarus that are from 2017.

Source: Own calculations based on data from national statistical offices.

Informal employment is widespread in the Eastern Partnership countries, with the exception of Belarus⁵. Underemployment in different forms such as seasonal employment is also especially common among people that are working informally. The large occurrence of informal employment and underemployment significantly limits the contributions made to the pension system. It should be noted, however, that in some countries such as Azerbaijan, some categories of informally employed for example in the agricultural sector may also be contributing to the pension system⁶.

The employment rate for older people is relatively high in Eastern Partnership countries even beyond the retirement age and often receipt of pension benefits is combined with informal employment. For example, in Ukraine the share of employed persons in informal employment is more than the 50% higher for the age group 60-70 years old than for the age group 50-59 years (ILO, 2018b). A similar pattern emerges in the other countries where information is available (Moldova, Armenia). Incentive structures for retirement play a major role as older people may lose eligibility to pension benefits if work is declared officially.

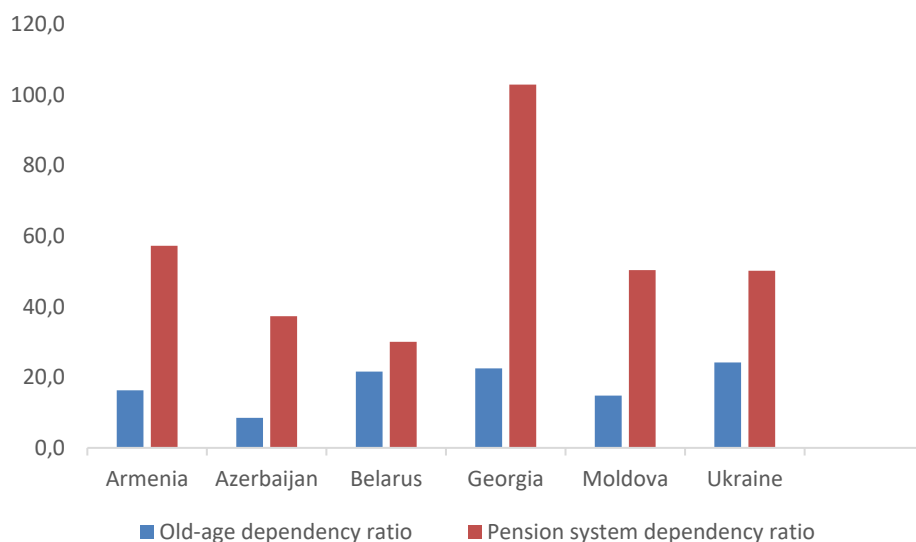
3.3. PENSION SYSTEM DEPENDENCY RATIO

The pension system dependency ratio, defined as the share of pensioners over contributors, depends on demographic and labour market characteristics and design features of the pension systems. A rough calculation of the pension system dependency ratio is presented in Figure 5 using the ratio of the old-age population (above 64 years) to the number of formally employed as a proxy. While the pension system dependency ratio varies considerably across countries, it is above 50% (meaning that there are just two contributors for each pensioner) for all countries except for Azerbaijan and Belarus (see Figure 5). Interestingly, in Georgia, the number of pensioners is even higher than the number of contributors.

⁵ Note that the statistics on informal employment are not fully comparable between countries as different definitions are used.

⁶ In Azerbaijan, persons using agriculture land (with the exception of those who have created a legal person and members of the family farm business) pay 6 percent of the minimum monthly national salary as a mandatory contribution for each family member from 15 years until pension age.

Figure 5. Pension system dependency ratios in Eastern Partnership countries*



*Old-age dependency ratio is calculated as the share of old-age population (>64) in working-age population (15-64 years). The pension system dependency ratio is estimated as the old-age population (>64) divided by the number of people in formal employment. Data from 2018 with the exception of Armenia and Belarus that are from 2017.

Source: Own calculations based on statistics from national authorities and United Nations (Department of Economic and Social Affairs, Population Division) (2019).

4. PENSION SYSTEMS IN EASTERN PARTNERSHIP COUNTRIES

4.1. THE COMMON STARTING POINT

Having been part of the Soviet Union, all Eastern Partnership countries initially inherited the Soviet pension model after their independence. The Soviet pension model functioned to a large extent as a PAYG scheme. State-owned enterprises (SOEs) transferred social contributions directly to the State Security Fund, which then was used to provide pensions.

Before the break-up of the Soviet Union, the statutory retirement age was set at 60 for men and 55 for women, with a minimum requirement of 20 years of service for men and 15 years for women. Exceptions, in the form of a lower retirement age and/or higher pensions, were made for particularly heavy and physically consuming working categories such as mining, hazardous and heavy industrial jobs, or intensive textile occupations.⁷ In addition, a number of groups in the society, such as politicians and war veterans, among others, were granted privileges in the form of early retirement options and higher pensions.

The first years following the break-up of the Soviet Union in the early 1990s were marked by a sharp economic recession, which had negative implications on the sustainability and the adequacy of the Soviet pension model. As the focus in the 1990s was mainly on macroeconomic stabilisation, pension reforms were rather incremental during that period. The economic boom in 2000-2007 led to further postponement of comprehensive pension reforms as the immediate financial pressure of the pension systems was low. However, as several Eastern Partnership countries were heavily hit by the global financial and economic crisis, the financial shortcomings of the pension models became evident and generated a new momentum for much-needed reforms.

⁷Such special pensions are also common in some Central and Eastern EU countries, see the 2018 Ageing Report (European Commission (DG ECFIN) (2018)), Box II.1.2.

4.2. CURRENT SCHEMES – THE BASICS

All Eastern Partnership countries, with the exception of Georgia, have established PAYG pension systems financed by contributions from current employees and/or employers. Georgia instead primarily runs a basic non-contributory Pillar 0 scheme. Mandatory funded second pillars have been (or are about to be) introduced in several countries (see Table 5 and Table 6).

Table 5. Overview of the different pillars of the pension systems in place in Eastern Partnership countries

	Pillar 0	Pillar 1	Pillar 2	Pillar 3
Armenia	yes	yes	yes	yes
Azerbaijan	yes	yes	yes, but not implemented	yes, but not implemented
Belarus	yes	yes	no	no
Georgia	yes	no	yes	no
Moldova	no	yes	no	yes, but not developed
Ukraine	yes	yes	yes, but not implemented	yes

Source: Information from national authorities and the International Social Security Association (www.issa.int).

Armenia has a multi-pillar system similar to many EU countries. A social pension is ensured for all individuals who have reached 65 years. A Pillar 1 PAYG pension scheme exists for all workers, which is funded by contributions included in the general income tax. Individuals with 25 years of contributions can retire at 63 years of age. In 2014, Armenia launched a mandatory funded scheme (Pillar 2) after long and politically sensitive discussions. Individuals have to contribute 5% of incomes, which is being matched by the government with an additional 5%. However, following widespread protests against the introduction of the mandatory funded pension scheme, it was not introduced for private sector workers until 2018. In addition, the participant contribution rate has been temporarily lowered to 2.5% with 7.5% for the government. The split will return to normal (5% and 5%) by 2021 in conjunction with cuts in income tax rates. In addition, authorities encourage the use of a voluntary Pillar 3 individual account. Tax incentives are provided for contributions of up to 5% of incomes.

The pension system in **Azerbaijan** consists of a social pension (Pillar 0) complemented with a PAYG Pillar 1 system for individuals with at least 25 years of contributions. Azerbaijan embarked on a pension reform in 2017 and the ‘defined benefits’ PAYG is being transformed into a ‘defined contribution’ system (where future benefits will depend fully on contributions) based on notional individual accounts. A minimum amount of contributions (AZN 15,840, about EUR 8,100) would be necessary to be entitled to a pension. Those who have not accumulated this minimum amount, but have at least 25 years of contributions, will receive a minimum pension. In addition, the statutory retirement age will be gradually increased to 65 years for both men and women (up from 63 and 60) until 2021 and 2027, respectively. Employees contribute 10% of their income, while employers provide 15% (until 2019, it was 3% for employees and 22% for employers). Neither mandatory nor voluntary private pension funds are in place.

Belarus’ pension system is based on a PAYG system financed by 28% contributions of wages paid by employers and 1% by employees. In 2016, Belarus approved a parametric pension reform that envisages increasing the statutory retirement age for both men and women by 3 years to respectively 63 and 58 in 2022 (the retirement age is increasing by 6 months for both men and women each year between 2017 and 2022). The same increase by 3 years also applies to various early retirement options. A social pension is provided to all men above 65 years and all women above 60 years that are

not eligible for pensions from the PAYG scheme. Neither mandatory nor voluntary private pension funds are in place.

Following the cancellation of the remnant Soviet pension system in 1995, **Georgia** differs from the other Eastern Partnership countries as its pension model until 2018 only consisted of a universal (Pillar 0) pension financed by the budget with no link to earnings or working history. Pensions are provided to all men above 65 years and to all women above 60 years. A funded Pillar 2 scheme was introduced in 2018 that is mandatory for workers below 40 years. Workers above 40 years are being auto-enrolled with the possibility to opt out within 5 months. A contribution rate of 6% of income is being shared by employees, employers and government with 2% each. The reform in 2018 also included the introduction of an automatic indexation of basic pensions based on consumer prices to increase the adequacy of benefits and decrease the uncertainty and arbitrariness of the scheme.

Moldova's pension system is based on a PAYG system for all individuals above the statutory retirement age. A reform approved at the end of 2016 gradually increases the retirement age to 63 years for both men and women by 2019 and 2028 respectively (up from 62 years for men and 57 years for women). Employees contribute to the fund with 6% of their income, while employers provide 18% (reduced from 23% in 2018) of the payroll in social insurance. The number of years of contributions necessary to receive a full pension was gradually increased to reach 34 years by 2018 for men and by 2024 for women. The reform also included an adjustment of the formula for calculating pension benefits to provide for a stronger link between contributions and benefits. A number of different social assistance programmes aims to reduce old-age poverty for individuals with no or limited access to the pension system. An introduction of a mandatory Pillar 2 scheme has been discussed and is included in the national development strategy. A legal framework related to private pension funds exists, but the system is not developed.

Ukraine's pension system is based on a PAYG scheme complemented with social pensions to old-age individuals not eligible for labour pensions. In 2017, a comprehensive pension reform was approved that aims at both improving the financial sustainability of the current system and strengthening its adequacy. In 2018, the statutory retirement age for men and women was 60 and 58 years, respectively. The retirement age of women will be increased to 60 by 2021. Following the reform, the statutory retirement age will be linked to the years of contributions. As of 2028, 35 years of contributions will be necessary to be eligible to retire at the standard retirement age of 60 years, while those with fewer years of contributions will be able to retire only at a later stage. In 2017, the employers' social contribution rate was halved to 22% from 44% and, as a consequence, the formula for calculating benefits was revised to provide for less generous benefits for new retirees. However, at the same time, automatic annual benefit indexation based on a combination of wage and price developments was introduced to avoid a future erosion of pensions (as happened following the crisis in 2014). A legislative framework for a mandatory funded Pillar 2 pension scheme exists, but has not yet been implemented. A Pillar 3 of private voluntary pension funds exists with tax incentives for contributions and future benefit payments, but voluntary pension savings remains small.

Table 6. Overview of recent pension reforms in Eastern Partnership countries

Armenia	Introduction of a mandatory funded pillar. (2014 and 2018)
Azerbaijan	Transition to notional individual accounts. Increase in statutory retirement age. (2017)
Belarus	Increase in statutory retirement age. (2016)
Georgia	Introduction of a mandatory funded pillar. Automatic indexation mechanism. (2017 and 2019)

Moldova Increase in statutory retirement age. Strengthening of link between contribution and benefits. Decreased contribution rates. (2017)

Ukraine Years of service requirements. Automatic indexation mechanism. Decreased contribution rate. (2017)

Source: Information from national authorities.

4.3. CURRENT SCHEMES – A COMPARISON ALONG POLICY VARIABLES

Each country differs in terms of variables that policy-makers can set when designing pension systems such as the retirement age, early retirement options, contribution rate, indexation and link between contributions and benefits. Different policy choices of these variables result in different outcomes on adequacy and sustainability.

4.3.1. Retirement age

Before the latest wave of pension reforms, statutory retirement ages were much lower in Eastern Partnership countries than in EU countries (see Table 7). Women had also often a significantly lower statutory retirement age than men. In addition, the existence of numerous possibilities for early retirement has resulted in an even larger gap in the effective retirement age between Eastern Partnership and EU countries.

For many years, the Eastern Partnership countries have maintained low statutory retirement ages despite increasing life expectancy and worsening old-age dependency ratios. This has been one of the main factors giving rise to concerns about the fiscal sustainability of the pension systems. Recently, however, many countries in the region have launched reforms to increase the statutory retirement age and to approximate it between men and women. These reforms have often also been accompanied by an increase in the number of years of contributions necessary to be entitled to a full old-age pension.

In Moldova, the statutory retirement age will be raised gradually from 62 years for men and 57 years for women to reach 63 years for both men (in 2019) and women (in 2028). Similarly, in Azerbaijan, the statutory retirement age will increase by half a year annually to reach 65 years for both men (by 2020) and women (by 2027). Belarus has also recently increased the statutory retirement age for both men and women by 3 years to 63 and 57 years respectively. Ukraine, one of the countries having a relatively low statutory retirement age, has opted for another approach, raising the number of years of contributions required to be eligible to retire.

These reforms, coupled with measures to reduce incentives for early retirement (see next section), should help to reduce the share of pensioners to workers and improve the sustainability of pension systems.

Table 7. Pre-reform/post-reform statutory retirement ages in Eastern Partnership countries

	EU*	Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine
Pre-reform retirement age							
Men	64.8	63	62	60	65	62	60
Women	63.7	63	60	55	60	57	58
Post-reform retirement		Armenia	Azerbaijan	Belarus	Georgia	Moldova	Ukraine

age							
Men	n.a.	63	65	63	65	63	60
Women	n.a.	63	65	58	60	63	60

* Average of EU Member States in 2016.

Source: National legislation, European Commission (DG ECFIN) (2018).

4.3.2. Early retirement options and privileged schemes

The number of pensioners compared to the population over 60 years reaches almost 100% in all the Eastern Partnership countries, with figures close or above 120% in Ukraine, Azerbaijan and Belarus. These figures reflect the wide coverage of the pension systems and the low statutory retirement ages for women, but also generous and widely used early retirement schemes.

The common use of early retirement, largely a legacy of the former Soviet model, continued with the transition when it was used as a labour market shock absorber during economic downturns. In addition, weak oversight by the authorities over the variety of early retirement schemes has also contributed to proliferation of such pensioners. This, in turn, intensified the fiscal challenges under the existing pension models.

Many countries in the region allow for early retirement for those working under unhealthy or hazardous conditions. Moreover, in line with the former Soviet system, mothers that have raised five or more children are often eligible for early retirement. Moldova, for example, allows retirement at 54 and 49 years of age for men and women, respectively, with at least 10 years for men and 7.5 years for women of work in hazardous conditions. In Ukraine, the minimum retirement age falls to 55 or 50 years, if at least 10 years have been spent in hazardous occupations of different levels of risk. In Azerbaijan, the minimum retirement age is set at 57 years for men and 52 years for women for employees with at least 12.6 years for men and 10 years for women in unhealthy or hazardous working conditions. In addition, years spent in higher education, military or raising small children are also often considered as years of contribution.

Moreover, a large number of privileged groups enjoy higher benefits and early retirement schemes, aside from workers in hazardous jobs. Ukraine represents an extreme case, where a wide set of workers is allowed early retirement, including those working in education, healthcare, aviation, sport, art, public transportation, social security and others. Similar features are present in the pension schemes of other countries in the region with the exception of Georgia. In Moldova, employees of civil aviation, members of parliament and prosecutors have privileged conditions for retirement. The situation in Armenia is similar, with people engaged in the sphere of culture, civil service employees, civil aviation workers, prosecutors and investigative committees as well as professional athletes, being allowed to retire earlier.

4.3.3. Contribution rates

Another characteristic shared by the Eastern Partnership countries is the relatively high rate of social contributions (at a similar level as in many EU member states). Coupled with weak tax enforcement and a limited link between contribution and benefits (in a number of countries, minimum pensions do not differ substantially from average pensions), this has acted as an incentive for workers to either work informally (or in non-standard employment relationships) or to underreport their wages. A decrease in the social contributions rate has been included in recent reforms in some Eastern Partnership countries with the objective to improve compliance (see Table 8). In Ukraine, the employers' contribution rate was halved from 44% of the payroll to 22% in 2017. In Moldova, the rate paid by employers was decreased from 23% to 18% in 2018 (employees pay an additional 6%). These reforms may risk the sustainability of the pension systems and need to be accompanied with other measures that would broaden the base of contributors to the pension systems.

Special arrangements for contributions for self-employed and workers in agriculture exist in several countries. For example, in Moldova, the self-employed pay an annual flat-rate contribution of MDL 7,512 (EUR 382) and agricultural landowners pay MDL 1,920 (EUR 98). In Azerbaijan, agricultural workers pay 6% of the minimum wage.

Table 8. **Overview of social contributions in Eastern Partnership countries in 2019**

Armenia	No specific pension contributions. Instead included in general income tax. Employee: 23%, 28% or 36%, depending on the level of income.
Azerbaijan	Employee: 10%, employer: 15% (changed from 3% and 22% respectively in non-oil, non-public sectors in 2019).
Belarus	Employee: 1%, employer: 28% on up to five times the national average wage.
Georgia	No pension contributions. Only basic social pension.
Moldova	Employee: 6% employer: 18%.
Ukraine	Employer: 22% (up to a maximum of 15 times the legal minimum wage).

Source: Information from national authorities.

4.3.4. Indexation and valorisation

Indexation and valorisation of pension benefits over time is a method to adjust present or future benefits to changes in the cost of living and/or the country's living standard (average wage). In many Eastern Partnership countries, pension-level adjustment has not been automatic and pensions are adjusted in a discretionary manner. As a result, pension benefits often lagged behind in periods of economic instability, undermining pension adequacy. On the other hand, the discretionary adjustment of benefits could also provide a political temptation to raise pensions more than actuarial figures would permit.

Recent reforms have in some cases included a strengthening of the indexation of pension benefits, typically by introducing automatic adjustment based on price or wage developments. Georgia and Moldova index pension benefits based on consumer price developments, while Azerbaijan and Belarus index benefits based on changes in average wages. Ukraine uses a combination of the two. Armenia still does not automatically adjust pension benefits. In periods of low and stable inflation, indexation based on price developments is likely to be less favourable as wages tend to grow faster than prices. This may also lead to inequalities between younger and older pensioners, as pensions will lose their value over time in relation to wages. In situations with high inflation, the result may be the opposite.

4.3.5. Link between contributions and pension benefits

As discussed in Section 2, the pension system could be designed more or less actuarially fair and with more or less intergenerational redistribution ('defined contributions' vs. 'defined benefits'). Until recent reforms, all Eastern Partnership countries had a weak link between the level of individual contributions and the future pension benefits. Often, benefits have been linked to the number of years contributing to the system, rather than the size of individual contributions. The number of years necessary to be eligible for a full old-age pension has also been low.

Georgia provides a universal pension benefit to all old-aged individuals, regardless of years of employment. In Armenia, benefits of the PAYG Pillar 1 depend directly on the number of years of contributions (and not the size of contributions). Belarus, Moldova and Ukraine have some link

between contributions and benefits, which also has been somewhat strengthened by recent reforms, while in Azerbaijan, a ‘defined contribution’ model was introduced in 2017 with a direct link between contributions and benefits.

5. OUTCOMES

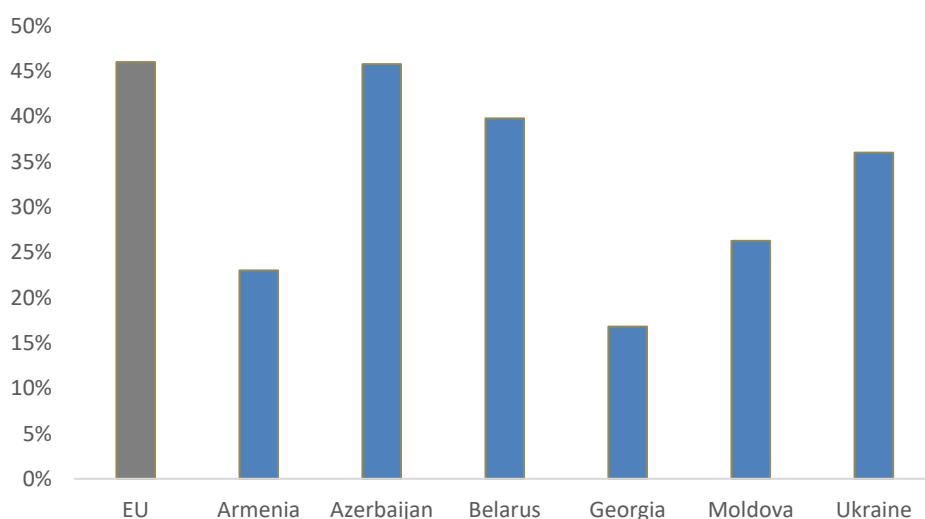
5.1. ADEQUACY

Pension adequacy is defined in terms of two different objectives: (i) effective replacement of the working-age wage; and (ii) incidence of poverty among the retired. This section will look at whether the pension systems in Eastern Partnership countries are effectively achieving these two objectives.

Since the beginning of the transition, coverage has been close to universal in Eastern Partnership countries, with social insurance and assistance programmes covering most of the elderly population. The attention has mainly been focused on providing the broadest possible coverage. By contrast, most of the Eastern Partnership countries have not yet put in place a system to ensure sustainable living standards throughout retirement. The average old-age replacement rate (the average pension compared to the average wage) ranges from 17% in Georgia to 46% in Azerbaijan (see Figure 6). In addition to Georgia, which has only social pensions, Armenia and Moldova show particularly low figures with replacement rates of about 25%.

Moreover, as reported average wages are likely to be underestimated given the large underreporting of wages present in the region, the “real” replacement rate is likely to be even lower. As a result, many pensioners depend on other sources of income and, as discussed in Section 3, many old-age people continue to work in informal jobs after retirement. Nevertheless, pensions play an important role to prevent poverty for some parts of the old-age population, especially for people with low incomes, as their individual replacement rate is higher, and for people dependent on household farming as a pecuniary complement.

Figure 6. **Average gross replacement rates in Eastern Partnership countries***



* Calculated as the average public pensions relative to average earnings. Latest available data (2017 or 2018).

Source: Authors' calculations, national statistics services. European Commission (DG ECFIN) (2018).

The near-universality of pension benefits has allowed a large share of old-age individuals to receive at least a basic pension. However, these benefits are often low and ensure only minimum living standards

(Table 9). This is particularly the case in Armenia, Azerbaijan and Moldova⁸, where the social pension benefits do not alone allow keeping recipients out of poverty. The data show wide differences across countries with respect to the amount of pension benefits received, as well as the share of population receiving social benefits.

Table 9. **Overview of social pensions in Eastern Partnership countries in 2018**

Country	Local currency	EUR	% of \$1.90 poverty line (equivalent to EUR 50)	Age of eligibility (men / women)
Armenia	AMD 16,000	29	58	65 / 65
Azerbaijan	AZN 60	31	64	67 / 62
Belarus	BYN 103	42	84	65 / 60
Georgia	GEL 180	59	118	65 / 60
Moldova	MDL 154	8	16	62 / 57
Ukraine	UAH 1,490	47	94	65 / 65

Source: International Social Security Association (www.issa.int). Own calculations.

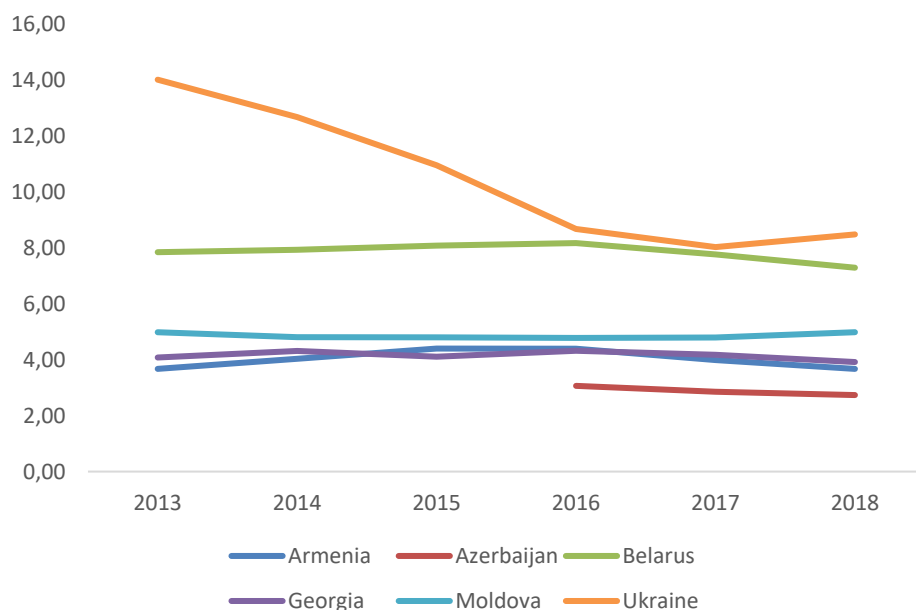
To summarise, the adequacy of pension systems is generally low in Eastern Partnership countries. However, systems have been set up and reforms are being designed based on expectations of citizens that governments should play a role in providing basic welfare for all. As such, they form an important part of the social contract in the region and given the nearly universal coverage, they still play an important role in keeping many older people out of poverty.

5.2. SUSTAINABILITY

Pensions represent by far the biggest social security expenditure item for the Eastern Partnership countries. In addition to old-age pensions, pension funds generally also administer disability and survival pensions (and a larger number of specific categories with special privileges). Total expenditure on old-age pensions varies across Eastern Partnership countries, but is significantly lower than the EU average of 9.3% of GDP (European Commission (DG ECFIN) (2018)) in most countries (see Figure 7). Ukraine and Belarus are countries spending the highest amount on old-age pension benefits with about 8% of GDP followed by Moldova.

⁸ In Moldova, the social pension can be combined with other social assistance programmes, but the share of social assistance in total social protection spending (including both social assistance and social insurance) for elderly people is still only 4.5% (World Bank (2017)).

Figure 7. **Total public expenditures on old-age pensions (% of GDP) 2013-2018**



Source: Author's calculations based on statistics from national authorities.

Pension systems in the region are commonly running deficits and rely often on transfers from the general budget (in addition to Armenia and Georgia where expenditure for pensions is paid directly from the state budget). The size of transfers from the state budget has been decreasing in recent years in all Eastern Partnership countries following reforms with the objective to strengthen the sustainability of pension systems.

Ukraine was spending around 13% of GDP on pensions in 2013. A lack of indexation of pensions following the economic crisis in 2014-2015 and recent pension system reforms have brought down expenditure to below 10% of GDP, but as a consequence the adequacy of pensions has further eroded. As the 2016 pension reform also included a decrease in employers' social contribution rate by half (from 44% to 22% of payroll), the Ukrainian Pension Fund is, however, still running deficits. Government transfers to cover deficits of the pension fund have declined from 6.0% of GDP in 2016 to 4.2% in 2018.

In **Belarus**, old-age pension expenditure has decreased from 8.2% of GDP in 2016 to 7.1% in 2018 following the parametric reforms in 2016 that raised the statutory retirement age and increased the requirements for years of contributions. The pension system in Belarus has been moving towards a balance of contributions and expenditure, thus, transfers from the state budget have been halved since 2016 down to 0.7% of GDP.

In **Moldova**, expenditure on old-age pensions has been stable just below 5% of GDP in the last 5 years. The size of budget transfers to cover social insurance expenditure has been decreasing to 0.59% of GDP following the 2017 pension reform and strong overall growth in social contributions. The decrease in the social contribution rate by employers from 23% to 18% in 2018 is, however, again likely to increase the need for budgetary transfers to cover social insurance expenditure.

In **Georgia**, expenditure for universal pension benefits has been relatively stable at around 4% of GDP in the period 2013-2018. As noted, these benefits are fully budget-funded.

In **Azerbaijan**, expenditure on pensions has been decreasing recently following the ambitious reforms introduced in 2017, which have linked benefits more closely to contributions and increased the statutory retirement age. In 2018, pension expenditure was 4.3% of GDP, while old-age pension

expenditure stood at 2.7% of GDP. Still, almost 40% of pension expenditure is funded directly from the general budget.

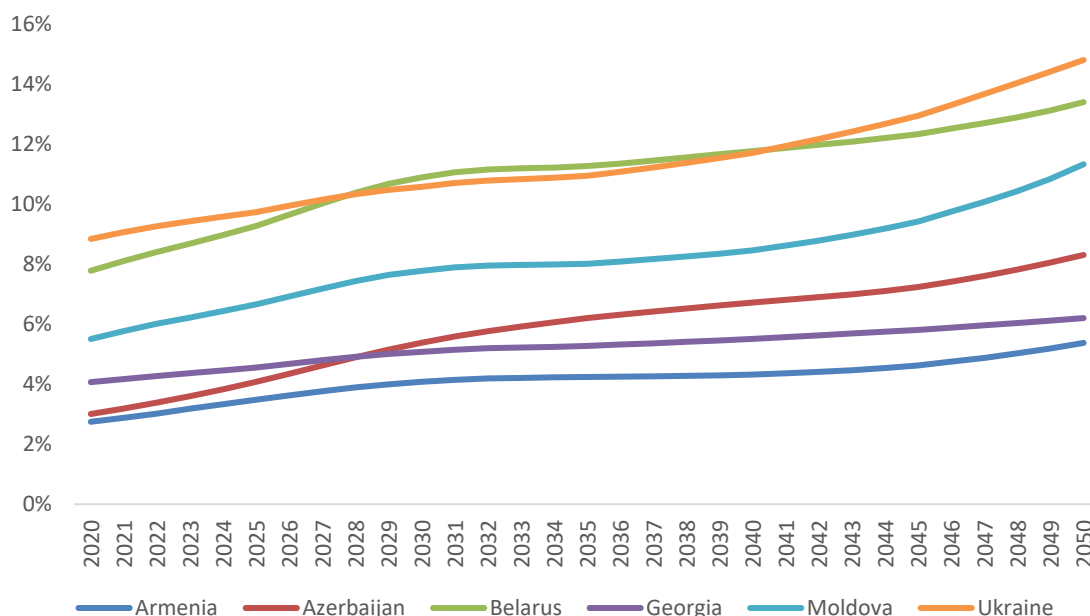
In **Armenia**, pension expenditure has been relatively low, reaching 3.7% of GDP in 2018. With the introduction of the mandatory funded pension scheme in 2018, both government and individual contributions for pensions will increase. In 2018, before the scheme was fully introduced, the state contributed 0.8% of GDP into the mandatory Pillar 2 pension funds.

The problem of sustainability will become increasingly pressing with changes in the demographic structure of the countries. Without further reforms, pension systems could become a destabilising factor for public finances in the region. This risk is further exacerbated by the low adequacy levels that need to be improved to meet expectations from the population.

To illustrate how demographics are likely to impact the sustainability of the pension systems in the absence of reforms, we construct a simple model where we use population forecasts to estimate future expenditures and revenues. We use the forecasts of the population 65 years and above as an approximation for the number of pensioners and the population forecasts for 15-64-year-olds for the number of people that will contribute to the pension systems.

In this model, the share of old-age expenditures to GDP will increase due to (i) an increasing number of pensioners and (ii) a smaller increase in GDP than in pension indexation (because the decrease in the working-age population will reduce GDP, but not pension indexation, as the latter is linked to wage growth and hence productivity growth). On the other hand, in this simple model, the share of pension revenues to GDP will remain constant as both pension revenues and GDP will decrease with the same rate (both will decrease due to a shrinking working-age population and increase due to growth in productivity, as wages are assumed to grow in line with productivity). The results are presented in Figure 8.

Figure 8. Estimation of future public expenditures on old-age pensions (% of GDP) 2020-2050



Source: Author's calculations using United Nations World Population Prospects, the 2019 revision (United Nations (Department of Economic and Social Affairs, Population Division) (2019)).

Due to demographic changes, the financial sustainability of the pension systems will deteriorate on average by 4.6% of GDP between 2020 and 2050. The situation is more problematic in Azerbaijan,

Belarus, Moldova, and Ukraine where the financial sustainability will deteriorate by between 5.3% and 6.0% of GDP. The impact of the demographic changes is significantly lower in Armenia and Georgia.

6. OPTIONS FOR PENSION REFORM

Overall, reform options should aim at finding an equilibrium between ensuring financial sustainability of the pension systems and providing an adequate income for elderly people past their working life. This can be achieved by a combination of parametric, systemic and accompanying wider structural economic reforms that take into account the specifics of the different countries. For example, in Ukraine and Azerbaijan, there is a need for continued efforts to limit the budgetary transfers necessary to balance the system. In Armenia and Moldova, the focus would need to be on increasing the replacement rate without jeopardising the sustainability of the system. In Georgia, the need seems to be to shift the focus from universality towards a more systemic approach.

6.1. PARAMETRIC PENSION REFORM: BALANCING SUSTAINABILITY AND ADEQUACY

Parametric pension reform would typically include different kind of measures aiming at: (i) decreasing the number of beneficiaries or increasing the number of contributors; (ii) adjusting the size of pension benefits; or (iii) adjusting the rate of social contributions.

The most realistic reform options to balance both the sustainability and adequacy objectives would consist of measures aiming at either increasing the number of contributors to a pension system or decreasing the number of beneficiaries. This could most directly be achieved through an increase in the statutory retirement age and a decrease in the number of early retirement possibilities.

Most of the countries are already taking steps to increase the statutory retirement age. An increase in the statutory retirement age is not a popular reform and needs to be implemented with care. However, increasing the retirement age is probably the least painful and most appropriate solution to achieve immediate gains and to ensure inter-generational fairness given the increased life expectancy. A less drastic, but potentially effective, way to increase the effective retirement age would be to offer workers a choice when to retire, by providing incentives to retire at a later stage of life.

Incentivising work by providing a stronger link between contributions and benefits upon retirement could also have positive effects on the overall size of contributions. Until the last wave of reforms, most countries in the region had systems that linked pension benefits to the number of years of contributions rather than the amount contributed. While this allowed responding to underemployment and providing basic pensions to a vast majority of the population, it created limited incentives to work more and/or declare incomes correctly and did not provide actuarial fairness. Reforms to create a stronger link between benefits and contributions are on the way in some countries (most notably in Azerbaijan, which has recently introduced a system with notional individual pension accounts).

A decrease in the number of pension beneficiaries could also be achieved through a reduction in the number of privileged groups and the possibilities for early retirement. Despite efforts moving in the direction of reducing the number of privileged groups in recent reforms, many exceptions remain, and scope exists to decrease the number of exceptions further.

The average replacement rate in the Eastern Partnership countries stands at about 30%, which is well below the 46% for EU countries (see Figure 6). De facto, pension benefits provide only a tenuous link between living standards at working and pension age. In addition, only a small difference exists

between minimum and average pensions. As a result, workers have only limited incentives to declare their income correctly. While directly raising pension benefits without an increase in revenues is difficult given the current budget constraints, a proper indexing of benefits to price or wage developments could be a first necessary condition to create a more predictable and “fair” evolution of pension benefits (by which also pensioners would be sharing the benefits of economic growth).

An alternative could be to reduce the amount of pension benefits that working pensioners are entitled to. One of the main characteristics of the region is the high presence of working pensioners among the retired population. Many people continue working often at the same workplace beyond the statutory retirement age receiving both salaries and old-age pensions. A reduction of the incentives to combine receipt of pension benefits and work could bring immediate fiscal savings, while having a more moderate impact on the living standards of the beneficiaries. The most direct way of achieving this would be to increase the statutory retirement age. Other measures risk creating disincentives to stay working in formal jobs. Furthermore, work past retirement is in many cases driven by the need to ensure basic living needs that a pension alone is not sufficient to cover. Thus, pension cuts for this specific group of people could exacerbate the adequacy problem.

An increase in the social contribution rate would have a direct effect on the balance of social systems, triggering an immediate increase in revenues. At the same time, given that contribution rates in the region are already relatively high in an international comparison, this does not seem among the most appropriate reform options in the region. A further increase might lead to an increase in informal employment. Instead, several countries such as Moldova and Ukraine have recently decreased the social contribution rate with the objective to stimulate a transition into formal employment. However, early assessments are pointing at only limited effects on employment from the cut in the social contributions rate, partially due to insufficient compensatory measures to broaden the tax base and strengthen tax administration (IMF (2019) and World Bank (2018)).

6.2. SYSTEMIC REFORMS

In the long term, an introduction of more developed multi-pillar systems could provide for both more adequacy and sustainability of pension systems.

A fully funded system would allow individuals to plan their retirement, reducing uncertainty of long-term benefits. A shift towards fully funded pension systems built on individual savings accounts could result in an incentive for countries to make efforts to develop the functioning of financial markets. A transition towards fully funded systems may also increase the national savings rate. Given that most Eastern Partnership countries are running current-account deficits, increased national savings would contribute to macroeconomic stabilisation.

On the other hand, an introduction of a fully funded system would generate (potentially high) transition costs, the ‘double taxation’ problem, as current contributions (or the state budget) would need to cover benefits for both present and future pensioners. The introduction of a funded pension system requires a prudent long-term fiscal and macroeconomic policy to ensure sufficient fiscal space to cover the transition costs. Furthermore, in order to have a well-functioning fully-funded model, a strengthening of the tax and social security administrations would be needed to introduce a reliable system for managing contributions and benefits. Effective financial regulations and institutions must be put in place for the supervision of pension funds. In addition, functioning capital markets with financial actors that have the capacity to manage and invest private savings with adequate risks would be necessary.

Experiences from the introduction of mandatory funded Pillar 2 schemes in EU countries have been mixed, at best. In particular, in several of the countries in Central and Eastern Europe that introduced funded schemes before and after the year 2000, many of the prerequisites for an efficient transition to a funded system were not met. Following the financial and economic crisis in 2008, many of these

countries revoked or significantly altered mandatory funded pillars, including Hungary, Poland and Slovakia. These decisions were primarily caused by fiscal consolidation needs (to avoid excessive deficit and reduce government debt growth in line with the EU's fiscal framework⁹), but also other problematic issues existed such as that some schemes were burdened with high administrative costs and with limited options for investments (Bielawska et al (2017)).

The experiences from the earlier reformers in Central and Eastern Europe provide important lessons for the introduction of mandatory funded schemes in the Eastern Partnership countries. In particular, to follow a gradual approach ensuring that the prerequisites for an effective funded system would be progressively strengthened. To prevent reform reversals, it would also be important to ensure that they are built on a broad societal consensus and a strong internal coherence (Szekely and Ward-Warmedlinger (2018)).

Mandatory funded schemes have recently been introduced in some Eastern Partnership countries (Armenia and Georgia) and advanced discussions are being held in some others (Moldova and Ukraine). These reforms have been accompanied with political disagreements and lengthy discussions. In Ukraine, a law was actually adopted in 2004, but has not yet been implemented. In Armenia, following large demonstrations, the legislation on the introduction of a mandatory funded pillar adopted in 2014 was not implemented for private sector workers until 2018.

6.3. ACCOMPANYING PENSION REFORMS WITH WIDER STRUCTURAL REFORMS

One way to strengthen the financial sustainability of pension systems would be to increase the share of the working-age population that is contributing to the pension system. The number of contributors to the old-age pension system is low in the Eastern Partnership countries. Estimated as the number of people in formal employment, it is below 30% of the working age population in all countries, with the exception of Belarus and Ukraine (see Figure 4 above). An increase in the rate of (formal) employment would immediately boost the balances of pension systems, although it should be noted that an increase in contributions would also lead to increasing claims to future benefits given the link between contributions and benefits.

The size of individual contributions to the pension system is also negatively influenced by underreporting of wages. It is a common phenomenon in many countries in the region that employees receive only part of their salary officially, while another part is paid in envelopes in cash. In addition, self-employment modalities for workers that in reality work full-time for one employer are often used to minimise payments of taxes and social contributions.

Low formal employment and underreporting of wages limit the potential of contributions to the pension system and measures to broaden the tax (and the social contribution) base would be an essential component of broader pension reforms in the Eastern Partnership countries. This would include measures to improve the functioning of the labour market, but also measures to strengthen tax administration, for example through a focus on voluntary tax compliance and more risk-based tax control.

Furthermore, increases in the retirement age could usefully be complemented with labour-market reforms, including life-long learning and upskilling, to ensure increased employment opportunities and employability of older workers. Such active labour market policies would reduce the risk that an increase in the retirement age primarily raises unemployment or poverty.

⁹ The reform of the EU Stability and Growth Pact in 2011 removed disincentives for systemic pension reforms (see further European Commission (DG ECFIN) (2019)).

7. CONCLUSIONS

This discussion paper reviewed the state of play of pension systems and recent reforms in the Eastern Partnership countries and discussed outstanding challenges and options for further reforms. Reforms of the pension systems in the Eastern Partnership countries have been lagging behind. Pension systems have therefore been characterised by low adequacy and low fiscal sustainability, grappling to cope with demographic changes, which furthermore are set to become more challenging in the future. In the last decade, discussions on more comprehensive pension reforms have gained renewed interest and some reforms have been launched.

However, recent reforms have often only addressed parts of the challenges of the pension systems. More comprehensive reforms would be needed to create sustainable pension systems with the ability to provide fair and adequate pensions to the old-age population.

Key features of a long-term agenda for pension reform in Eastern Partnership countries would include:

- A continuation of parametric reforms to: i) achieve a balance of time spent working and spent in retirement in view of expected continued gains in life expectancy; and ii) strengthen the fairness of the system, including a further strengthening of the link between benefits and contributions.
- An assessment and testing of instruments to introduce complementary funded mandatory schemes. However, they need to be combined with institutional and financial sector strengthening to be successful. Similarly, Pillar 3 voluntary pension schemes could be further developed, but need to be accompanied by strong regulatory frameworks and with an aim to achieve broad coverage.
- A broadening of the base of contributors to the system by introducing structural reforms to strengthen the economy, to improve the functioning of the labour market, including encouraging formal employment, and strengthen tax administration. Without these structural reforms, long-term sustainable and adequate pension systems would not be possible to achieve.

Pensions are a fundamental part of the social contract in societies, also in the Eastern Partnership countries. To provide stability over time and to be sustainable in the long-term, pension reforms would need to be discussed with all segments of society. Decisions are best taken in consensus or with the broadest possible support.

Sharing of experiences from EU member states from reforms of pension systems could play an increasingly important role in Eastern Partnership countries. This would also include experiences on how to manage pension reforms and on how to organise transparent and inclusive public discussions.

REFERENCES

Bielawska, K., A. Chłoń-Domińczak, and D. Stańko (2017), *Retreat from mandatory pension funds in countries of the Eastern and Central Europe in result of financial and fiscal crisis: causes and effects*, unpublished paper, <https://www.aeaweb.org/conference/2018/preliminary/paper/RS2ZtRF2>.

European Commission (DG ECFIN) (2018), 'The 2018 Ageing Report Economic & Budgetary Projections for the 28 EU Member States (2016-2070)', *European Economy*, Institutional Paper 079, May 2018, https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en.

European Commission (DG ECFIN) (2019) "Vade Mecum on the Stability and Growth Pact - 2019 edition", *European Economy*, Institutional Paper 101, April 2019, https://ec.europa.eu/info/sites/info/files/economy-finance/ip101_en.pdf.

Eurostat (2019), 'Residence permits for non-EU citizens: First residence permits issued in the EU Member States remain above 3 million in 2018', *Eurostat Newsrelease*, 164/2019, 25 October 2019, <https://ec.europa.eu/eurostat/documents/2995521/10189082/3-25102019-AP-EN.pdf/95e08bc8-476d-1f7d-a519-300bdec438cb>.

ILO (2018a), *Women and men in the informal economy: A statistical picture (third edition)*, International Labour Office, Geneva.

ILO (2018b), *Undeclared Work in Ukraine: Nature, Scope and Measures to Tackle It*, Working Paper within the EU-ILO Project Enhancing the labour administration capacity to improve working conditions and tackle undeclared work, International Labour Office, Geneva.

IMF (2019), *Fourth and Fifth Reviews under the Extended Credit Facility and Extended Fund Facility Arrangements, Completion of the Inflation Consultation, and Request for Extension of the Arrangements and Rephrasing of Access*, IMF Country Report No. 19/305, September 2019, Washington D.C.

Pienkowski, J. (2020), 'The impact of Labour Migration on the Ukrainian Economy', *European Economy*, Discussion Paper 123, European Commission, DG ECFIN, https://ec.europa.eu/info/publications/impact-labour-migration-ukrainian-economy_en.

Szekely I. and M. Ward-Warmedlinger, (2018), 'Reform Reversal in Former Transition Economies (FTEs) of the European Union: Areas, Circumstances and Motivations', IZA Discussion Paper No. 142, IZA – Institute of Labor Economics.

United Nations (Department of Economic and Social Affairs, Population Division) (2019), *World Population Prospects: The 2019 Revision*, <https://population.un.org/wpp/>.

World Bank (1994), *Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth*, World Bank, Oxford University Press. Washington D.C.

World Bank (2008), 'The World Bank Pension Conceptual Framework', *Pension Reform Primer Notes*, World Bank, Washington D.C.

World Bank (2014), *The Inverting Pyramid: Pension Systems Facing Demographic Challenges in Europe and Central Asia*, World Bank, Washington D.C.

World Bank (2017), *A Human-Rights Based Approach to the Economic Security of Older People in Moldova*, World Bank, Washington D.C.

World Bank (2018), *Ukraine Public Finance Review 2: Towards a More Effective and Fiscally Sustainable Public Sector for Ukraine*, November 2018, World Bank, Washington D.C.

EUROPEAN ECONOMY DISCUSSION PAPERS

European Economy Discussion Papers can be accessed and downloaded free of charge from the following address:

[https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en?field_eurovoc_taxonomy_target_id_selective=All&field_core_nal_countries_tid_selective=All&field_core_date_published_value\[value\]\[year\]=All&field_core_tags_tid_i18n=22617](https://ec.europa.eu/info/publications/economic-and-financial-affairs-publications_en?field_eurovoc_taxonomy_target_id_selective=All&field_core_nal_countries_tid_selective=All&field_core_date_published_value[value][year]=All&field_core_tags_tid_i18n=22617).

Titles published before July 2015 under the Economic Papers series can be accessed and downloaded free of charge from:

http://ec.europa.eu/economy_finance/publications/economic_paper/index_en.htm.

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct Information Centres. You can find the address of the centre nearest you at: <http://europa.eu/contact>.

On the phone or by e-mail

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696 or
- by electronic mail via: <http://europa.eu/contact>.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website at: <http://europa.eu>.

EU Publications

You can download or order free and priced EU publications from EU Bookshop at: <http://publications.europa.eu/bookshop>. Multiple copies of free publications may be obtained by contacting Europe Direct or your local information centre (see <http://europa.eu/contact>).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex at: <http://eur-lex.europa.eu>.

Open data from the EU

The EU Open Data Portal (<http://data.europa.eu/euodp/en/data>) provides access to datasets from the EU. Data can be downloaded and reused for free, both for commercial and non-commercial purposes.

