

► Strengthening Social Protection for Workers in Georgia

Report II

Actuarial assessment of the proposed
unemployment insurance scheme



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First published 2023



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ISBN: 978-92-2-039938-5 (print)

ISBN: 978-92-2-039939-2 (web PDF)

Also available in Georgian: დასაქმებულთა სოციალური დაცვის გაძლიერება საქართველოში. ანგარიში II: უმუშევრობის დაზღვევის შემოთავაზებული სქემის აქტუარიული შეფასება

ISBN: 978-92-2-039940-8 (print)

ISBN: 978-92-2-039941-5 (web PDF)

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Printed in Hungary

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► Acronyms

COVID-19	infectious disease caused by SARS-CoV-2 coronavirus
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GEL	Georgian Lari
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GEOSTAT	National Statistics Office of Georgia
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GDP	Gross Domestic Product
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ILO	International Labour Organization
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ISSA	International Social Security Association
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PAYG	Pay-as-you-go
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Summary

This report focuses on the actuarial cost assessment for a proposed unemployment insurance scheme in Georgia. Three design options of the prospective unemployment insurance scheme, formulated in consultation with the key stakeholders, are presented in Table S.1.

► **Table S.1. Summary of three design options of unemployment insurance for Georgia**

	Option A	Option B	Option C
Coverage	Mandatory coverage for all employees in the private and public sectors		
Contribution requirement for benefit eligibility	6 months in the 12-month period preceding the employment termination	12 months in the 24-month period preceding the employment termination	12 months in the 36-month period preceding the employment termination
Eligible reasons for termination of employment and continuation of benefits	• Involuntary termination of employment • Able and available for work and actively searching for a job		
Contributory earnings	• The minimum contributory earnings: the subsistence minimum • The maximum contributory earnings: 1.5 times the national average earnings	• The minimum contributory earnings: the subsistence minimum • The maximum contributory earnings: 2 times the national average earnings	• The minimum contributory earnings: the subsistence minimum • The maximum contributory earnings: 2.5 times the national average earnings
Unemployment benefit	• The unemployment benefit is paid for a maximum duration of 4 months • The benefit is 50% of the average contributory earnings over 6 months preceding the employment termination • The minimum benefit is set at the subsistence minimum	• The unemployment benefit is paid for a maximum duration of 6 months • For the first 3 months, the benefit is 60% of the average contributory earnings over 12 months preceding the employment termination • For the remaining 3 months, the benefit is 40% of the average contributory earnings • The minimum benefit is set at the subsistence minimum	• The unemployment benefit is paid for a maximum duration of 9 months • For the first 3 months, the benefit is 65% of the average contributory earnings over 12 months preceding the employment termination • For the following 3 months, the benefit is 45% of the average contributory earnings • For the remaining 3 months, the benefit is the subsistence minimum • The minimum benefit is set at the subsistence minimum
Waiting period	7 days		

Source: ILO staff compilation.

All design options provide mandatory coverage for all paid employees from all sectors, including both the private and public sectors. It has been assumed that the self-employed workers are not covered by the proposed unemployment insurance scheme.

In all design options, the minimum threshold of contributory earnings is set equal to the subsistence minimum. The maximum contributory earnings is set at 1.5 times the national average earnings in Georgia for Option A, 2 times for Option B, and 2.5 times for Option C.

In terms of benefits:

- Under **Option A**, the unemployment benefit is calculated as 50 percent of the average contributory earnings declared in the 6-month period preceding the employment termination. The benefit is paid for a maximum duration of 4 months to all those who have accrued a minimum of 6 months of contributions to the scheme in the 12-month period preceding the involuntary termination.
- Under **Option B**, the unemployment benefit is calculated as 60 percent of the average contributory earnings declared in the 12-month period preceding the employment termination during the first 3 months of benefits and 40 percent for the remaining 3 months of benefit. The benefit is paid for a maximum duration of 6 months to all those who have accrued a minimum of 12 months of contributions to the scheme in the 24-month period preceding the involuntary termination.
- Under **Option C**, the unemployment benefit is calculated as 65 percent of the average contributory earnings declared in the 12-month period preceding the employment termination for the first 3 months, 45 percent for the following 3 months and the subsistence minimum prevailing in Georgia for the remaining 3 months. The benefit is paid for a maximum duration of 9 months to all those who have accrued a minimum of 12 months of contributions to the scheme in the 36-month period preceding the involuntary termination.

All design options consider a waiting period of seven days as well as a minimum benefit equivalent to the subsistence minimum prevailing in Georgia.

In general, short-term benefit schemes, such as unemployment insurance schemes, retain a contingency reserve in order to absorb unexpected increases in benefits. In this actuarial assessment, the contribution rate is determined so that the scheme will retain a contingency reserve equivalent to at least one year's expenditure at the end of a 10-year projection period.

Table S.2 presents the recommended contribution rates under the three options. The key findings of the financial projections are presented as follows:

- **Option A:** A net contribution rate of 0.94 percent (0.64 percent for the benefit expenditure and 0.30 percent for the administrative expenditure) would be necessary to meet the expenditure over the projection period. A contingency loading of

0.16 percent is added in order to accumulate a contingency reserve equivalent to at least one year's expenditure at the end of the projection period. The recommended total contribution rate for Option A is 1.1 percent, to be divided equally between employers and workers at 0.55 percent each.

- **Option B:** A net contribution rate of 1.21 percent (0.91 percent for the benefit expenditure and 0.30 percent for the administrative expenditure) would be necessary to meet the expenditure over the projection period. A contingency loading of 0.19 percent is added in order to accumulate a contingency reserve equivalent to at least one year's expenditure at the end of the projection period. The recommended total contribution rate for Option B is 1.4 percent, to be divided equally between employers and workers at 0.7 percent each.
- **Option C:** A net contribution rate of 1.47 percent (1.17 percent for the benefit expenditure and 0.30 percent for the administrative expenditure) would be necessary to meet the expenditure over the projection period. A contingency loading of 0.23 percent is added in order to accumulate a contingency reserve equivalent to at least one year's expenditure at the end of the projection period. The recommended total contribution rate for Option C is 1.7 percent, to be divided equally between employers and workers at 0.85 percent each.

► **Table S.2. Contribution rates for unemployment insurance under three options (as % of contributory earnings)**

		Option A	Option B	Option C
Net contribution rate	A = B + C	0.94	1.21	1.47
Benefit	B	0.64	0.91	1.17
Administrative expenditure	C	0.30	0.30	0.30
Contingency loading	D	0.16	0.19	0.23
Total contribution rate	E = A + D	1.1	1.4	1.7
Recommended rate for employers	E / 2	0.55	0.7	0.85
Recommended rate for workers	E / 2	0.55	0.7	0.85

Source: ILO calculations.

Relatively low levels of contribution rate presented in this assessment could be the consequence of the scheme's prudent designs in terms of coverage, qualifying condition, benefit level and duration. It is nonetheless recommended that Georgia starts with a simple unemployment insurance scheme at least in the implementation stage. Subject to the post-implementation review, consideration should be given to possibilities to extend protection to loss of earnings due to partial unemployment, such as part-time workers who are actually seeking full-time work, and the temporary suspension or reduction of earnings due to short-term employment, such as casual or seasonal workers.

Unemployment is a short-term contingency which is difficult to predict with the same degree of accuracy as for other social security contingencies. Therefore, the contribution rate of an unemployment insurance scheme should be reviewed more frequently than for other social security schemes. The ISSA-ILO Guidelines for Actuarial Work¹ suggest that unemployment insurance schemes carry out actuarial reviews on an annual basis in order to revise the contribution rate according to a predefined contribution-setting mechanism.

1 ILO, ISSA 2016.

Introduction

The present report is a sequel to the first report.² The report focuses on the actuarial cost assessment for a proposed unemployment insurance scheme in Georgia.

In Georgia, the consultation and policy making process relating to a prospective unemployment insurance scheme has already started. In consultation with the key stakeholders, three design options of the prospective unemployment insurance scheme have been formulated.

The main purpose of this actuarial assessment is to evaluate the contribution rates which ensure the financial sustainability of the scheme for a future period under the three design options. It is expected to provide crucial information in deciding on the scheme design in the policy-making process.

The report is organized as follows: **Chapter 1** presents the characteristics of the design options and policy considerations. **Chapter 2** presents the methods of the actuarial assessment and describes the assumptions underlying the actuarial projections. **Chapter 3** presents the main results of the actuarial projections and the estimated contribution rates of the proposed unemployment insurance options, including sensitivity tests under alternative scenarios.

The report was prepared by Alexandre Landry, FSA, ACIA, ILO actuarial consultant. This final report was completed under the supervision of Kenichi Hirose, Senior Social Protection Specialist of the ILO Decent Work Technical Support Team and Country Office for Central and Eastern Europe (ILO DWT/CO–Budapest). Comments were provided by the Social Protection Department of the ILO Geneva, and Prof. Audrius Bitinas, the team leader of the European Union project “Strengthening Social Protection in Georgia” implemented by the Expertise France and the Czech Development Agency.

The ILO would like to thank GEOSTAT and the Revenue Service of Georgia for their collaboration and assistance throughout the data collection phase of the project.

² ILO, 2023. *Strengthening Social Protection for Workers in Georgia, Report I: Proposal for social insurance schemes against employment injury and unemployment.*

1. Design options for a proposed unemployment insurance scheme

This chapter describes the characteristics of the design options of a proposed unemployment insurance design for Georgia. It is recommended that Georgia should implement a simple unemployment insurance scheme at least in the initial stage, and consider the expansion of its scope once the scheme is proven to be efficient and sustainable in the future review. Table 1.1 summarizes the key parameters of the three unemployment insurance design options. The remaining sections discuss each of the key parameters of the three design options.

► **Table 1.1. Summary of three design options of unemployment insurance for Georgia**

	Option A	Option B	Option C
Coverage	Mandatory coverage for all employees in the private and public sectors		
Contribution requirement for benefit eligibility	6 months in the 12-month period preceding the employment termination	12 months in the 24-month period preceding the employment termination	12 months in the 36-month period preceding the employment termination
Eligible reasons for termination of employment and continuation of benefits	• Involuntary termination of employment • Able and available for work and actively searching for a job		
Contributory earnings	• The minimum contributory earnings: the subsistence minimum • The maximum contributory earnings: 1.5 times the national average earnings	• The minimum contributory earnings: the subsistence minimum • The maximum contributory earnings: 2 times the national average earnings	• The minimum contributory earnings: the subsistence minimum • The maximum contributory earnings: 2.5 times the national average earnings
Unemployment benefit	• The unemployment benefit is paid for a maximum duration of 4 months • The benefit is 50% of the average contributory earnings over 6 months preceding the employment termination • The minimum benefit is set at the subsistence minimum	• The unemployment benefit is paid for a maximum duration of 6 months • For the first 3 months, the benefit is 60% of the average contributory earnings over 12 months preceding the employment termination • For the remaining 3 months, the benefit is 40% of the average contributory earnings • The minimum benefit is set at the subsistence minimum	• The unemployment benefit is paid for a maximum duration of 9 months • For the first 3 months, the benefit is 65% of the average contributory earnings over 12 months preceding the employment termination • For the following 3 months, the benefit is 45% of the average contributory earnings • For the remaining 3 months, the benefit is the subsistence minimum • The minimum benefit is set at the subsistence minimum
Waiting period	7 days		

Source: ILO staff compilation.

► 1.1. Coverage

In line with the provisions of the Convention No. 102, all design options provide mandatory coverage for all paid employees from all sectors, including both the private and public sectors. It has been assumed that the self-employed workers are not covered by the proposed unemployment insurance scheme.

The debate concerning the inclusion of the self-employed in unemployment insurance schemes relates to the understanding of the nature of their employment relation and the challenges for social security organizations to ensure compliance. On the one hand, self-employed workers may be conceived in a similar way as employers, and therefore deemed not in need of unemployment protection in case of termination of activities. On the other hand, a growing number of self-employed population work in practice under quasi-dependent employment relations and relies on one or several employers. Thus, excluding the self-employed from the unemployment insurance scheme could further aggravate their working conditions and generate even stronger incentives for employers to rely on bogus self-employment to conduct activities which would normally require the hiring of a dependent employee.

To date, however, unemployment insurance schemes worldwide provide very limited coverage for the self-employed. Where coverage is provided, it usually takes the form of voluntary affiliation. Allowing members to be covered on a voluntary basis is likely to encourage a pool of high-risk workers and discourage a pool of low-risk workers to join the scheme, increasing the overall cost of the unemployment insurance scheme. Covering workers on a voluntary basis should normally be avoided, or at least be done in a more constraining way to avoid a greater risk of adverse selection for the unemployment insurance scheme.

Due to the challenges of covering the self-employed in an unemployment insurance scheme, it is advisable to start the implementation with workers engaged in an employment relationship, and then gradually expand coverage to other forms of employment. Therefore, in the present actuarial assessment, all design options have not included the self-employed. However, due considerations could be given to extend the scope of coverage once the scheme is proven to be efficient and sustainable.

► 1.2. Qualifying period

The eligibility of unemployment benefits is subject to the completion of a qualifying period. However, ILO Conventions Nos. 102 and 168 require that such qualifying periods should not be longer than what is considered necessary to prevent abuse. Countries often require either 6 or 12 months of contributions in the previous 12 to 24 months.

Under Option A, a terminated worker is required to have made at least 6 months of contribution to the unemployment insurance scheme over the 12-month period prior to termination. Under Option B, a terminated worker is required to have made at least 12 months of contribution to the unemployment insurance scheme over the 24-month period prior to termination. To allow for a more flexibility, under Option C, a terminated worker is required to have made at least 12 months of contribution to the unemployment insurance scheme over the 36-month period prior to termination.

It should be noted that insured workers do not need to have a continuous contribution period to meet qualifying conditions. This enables the scheme to provide a possibility of coverage to part-time and seasonal workers. It is also worth noting that any subsequent filing for unemployment benefit excludes contribution period used to assess previous benefits entitlements.

► 1.3. Conditions for receiving benefits

In addition to the contribution requirement for benefit eligibility, the termination of employment has to be involuntary. In most countries, those who leave their job voluntarily are not eligible for unemployment benefits. In countries where the voluntarily unemployed are allowed to receive unemployment benefits, the benefits are limited compared with the involuntary case (e.g. lower benefit rate, shorter benefit duration, longer waiting period).

To remain eligible for unemployment benefits, the unemployed persons are required to be able and available for work and actively searching for a job. The unemployed persons are required to be registered to an employment agency and report to it on a regular basis. The refusal of an adequate job offer, or a training opportunity may result in the loss of the benefit. However, the criteria for the loss of the unemployment benefit in case of the refusal for work or trainings, shall be indicated in the legislation and should depend on the proper activities of the State Employment Support Agency.³

ILO Convention No. 102 recommends a minimum replacement rate of 45 percent of previous earnings for at least 3 months within a period of 12 months. ILO Convention No. 168 sets a higher standard, at 50 percent of earnings for 6 months during each spell of unemployment, or 9 months over any period of 24 months. Most countries set a replacement rate between 50 to 60 percent of previous contributory earnings for the full benefit duration. In the case of Georgia, the balance between the unemployment benefit and the existing severance allowance should also be taken into account.

³ For example, in Lithuania, the refusal to take a job offer or to participate in trainings is sanctioned from July 2022. The person will lose the status of beneficiary if she or he refuses the offered suitable job twice in 12 months without a solid reason. If the Employment Service offers two suitable positions in shorter period, for example, in six or eight months, and the person refuses the offer, that person will lose the status of beneficiary after refusal of the second appropriate work offer.

The benefit duration must reflect the characteristics of unemployment, and potential re-employment opportunities in the country. Benefit duration is usually tied to the qualifying conditions and is often graded according to the length of insured employment prior to unemployment. Most countries set a benefit duration of between 3 and 12 months.

- Under **Option A**, the scheme provides a monthly benefit at 50 percent of the average contributory earnings calculated over the 6-month period prior to the involuntary termination, for a maximum of 4 months.
- Under **Option B**, the scheme provides a monthly benefit at 60 percent of the average contributory earnings calculated over the 12-month period prior to the involuntary termination for the first 3 months, and 40 percent for the following 3 months. The benefit is payable for a maximum of 6 months.
- Under **Option C**, the scheme provides a monthly benefit at 65 percent of the average contributory earnings calculated over the 12-month period prior to the involuntary termination for the first 3 months, and 45 percent for the following 3 months. After 6 months, the scheme would provide a monthly benefit equivalent to the subsistence minimum prevailing in Georgia for a maximum of 3 months. The benefit is payable for a maximum of 9 months.

The minimum unemployment benefit is set at the subsistence minimum prevailing in Georgia in all design options.

► 1.4. Waiting period

Both ILO Convention Nos. 102 and 168 recognize a waiting period no longer than seven days. Most countries require an initial waiting period of seven days from the last paid day. A waiting period generally aims to deter individuals from initiating small or frivolous claims; eliminate the costs of administering claims for very short periods of unemployment; establish the status of unemployment; and provide time for reviewing claimants' applications and establishing their right to benefits.

Under all three design options, a waiting period of seven days is assumed. The waiting period to claim the benefit should not be understood as the prescription period to claim the benefit nor as the deadline for the unemployment insurance scheme to pay the first benefit.

► 1.5. Contributory earnings

Contributions are calculated as a percentage of contributory earnings. The contributory earnings are the salary of individual insured workers subject to minimum and maximum thresholds. In all design options, the minimum threshold of contributory earnings is set

equal to the subsistence minimum. The low level of the minimum contributory earnings ensures that the unemployment insurance scheme does not exclude low-income and vulnerable workers who are typically the most affected by a job termination.

The maximum threshold (ceiling) of contributory earnings should be high enough to ensure that the unemployment benefits are adequate in relation to the previous earnings. The maximum contributory earnings is set at 1.5 times the national average earnings in Georgia for Option A, 2 times for Option B, and 2.5 times for Option C.

► 1.6. Relation with the severance allowance

The Labour Code of Georgia provides the severance allowance for the termination of employment by employers. As per Article 48 of the Labour Code, where an employment agreement is terminated by an employer, the employer shall notify the employee in writing at least 30 calendar days in advance. In such case, the employee shall be granted severance allowance in the amount of at least one month's remuneration. If the employer decides to notify the employee less than 30 calendar days in advance, but at least three calendar days in advance, the employee shall be granted severance allowance in the amount of at least two month's remuneration.

As per Article 49 of Georgia's Labour Code, a collective redundancy⁴ shall be deemed to be the termination of employment agreements by an employer for 30 calendar days on a basis that is not conditioned by an employee's behavior, or by the expiry of the employment agreements. Although collective redundancies usually involve discussions and negotiations between employees' associations or representatives and employers, the Labour Code does not legally oblige the employer to pay severance allowance to terminated employees.

Severance allowance and unemployment benefit serve two different purposes, the first being a recognition of the years of service and the second an income security in case of loss of earnings. The relevant ILO international labour standards include the Employment Termination Convention No.158 and the Employment Promotion and Protection against Unemployment Convention No.168. In many countries they can be partly complementary since both instruments provide financial resources to terminated employees. However, severance allowance does not apply in terminations related to collective redundancies in Georgia. Severance allowance and unemployment benefit are also distinguished by the fact that one falls under the labour law and is not pre-funded, while the other rests, in most countries, on social insurance law and is guaranteed by the State. Overall, severance allowance is a much less reliable and effective instrument than unemployment

⁴ Refers to the termination of at least 10 employees in an organisation in which the number of employees is more than 20 but less than 100, or at least 10% of employees in an organisation in which the number of employees is more than 100.

benefit in protecting workers against the financial impact of job loss. Its actual payment could depend on the employer's financial capacity, and on workers' capacity to enforce payment, which could often be problematic.

When protected persons have received severance pay directly from their employer or from any other source, the ILO Convention No. 168 permits the suspension of the unemployment benefit to which they would be entitled or the reduction of the severance pay as a function of the total amount of the unemployment benefit. It has been assumed that after the implementation of the unemployment insurance scheme, the existing severance allowance should be scaled down to provide benefits for the involuntary unemployed workers who do not meet the qualifying period for unemployment benefits. As the new unemployment insurance scheme is expected to cover a large majority of involuntary terminations of employment, the severance allowance will remain as a complementary measure.

2. Methodology and key assumptions

This chapter presents the methods of the actuarial assessment and describe the assumptions underlying the actuarial projections.

► 2.1. Methods of actuarial assessment

This actuarial assessment follows a methodology developed by the Actuarial Services Unit of the ILO for reviewing the financial situation of unemployment insurance schemes. The main determinants of unemployment benefits are the coverage, the extent and duration of unemployment amongst the protected groups. In this assessment, the numbers of insured workers and beneficiaries, and the amounts of contributory earnings and benefit expenditure are estimated by the actuarial model based on the latest statistics obtained from GEOSTAT and the Revenue Service of Georgia.

In this cost assessment, a projection period of 10 years, starting in 2023, has been chosen. The assumed implementation date of the scheme being on 1 January 2023, the fund is projected until 31 December 2032. Such projection period not only allows the drawing of conclusions on the sustainability of the scheme, but also contributes to providing a picture of the scheme's sensitivity to assumptions or changes to benefits.

Actuarial projections are made year-by-year in the following manner:

- The contribution income is estimated from the projected active insured workers (by age, sex and sector), their projected contribution densities, and their projected contributory earnings.
- The number of new beneficiaries is estimated from the projected active insured workers (by age, sex and sector), their projected contribution densities, and their projected likelihood of receiving a benefit from the scheme (derived from employment termination rates, involuntary termination rates and eligibility rates).
- The benefit expenditure of the scheme is estimated from the projected new beneficiaries of the scheme (by age, sex and sector), their projected contributory earnings, and their projected benefit duration.

Based on these actuarial projections, necessary contribution rates are calculated which ensure the financial sustainability of the scheme. Based on the projections of the scheme's income and expenditure, the recommended contribution rates are determined so that contributions can adequately cover the expenditure throughout the projection period

and the scheme can accumulate a certain contingency reserve at the end of the projection period. To ascertain the validity of the recommended contribution rates, sensitivity tests are performed to check how the results reacts to alternative assumptions.

► 2.2. Demographic assumptions

The projection of the general population is used as a framework for the scheme's members and beneficiaries. Population projections require assumptions on mortality, fertility and migration.

- The initial general population of Georgia as of 2021 is estimated to 3,728,600 persons. The last population census produced in Georgia dates from 2014. Since then, GEOSTAT has produced every year national population estimates based on the data on births, deaths and migration in the country.⁵
- Estimated and projected mortality rates of the general population of Georgia have been determined using the United Nations World Population Prospects, 2022 Revision and calibrated based on the data obtained from GEOSTAT on life expectancy and deaths in the country. The future mortality improvement pattern has been determined so that it matches as closely as possible the UN medium projection over the projection period.
- The life expectancy at birth is assumed to increase from 67.5 years in 2021 to 71.4 years in 2032 for men and from 75.4 years in 2021 to 80.1 years in 2032 for women. Note that an increase in mortality was observed by GEOSTAT as a result of the COVID-19 in 2021.
- Based on statistics from GEOSTAT, net migration rates have remained negative every year in Georgia between 2015 and 2021, except in 2020. For the cost assessment, the net migration rate, estimated at -0.7 percent in 2021, is assumed to decrease gradually to -0.27 percent by 2023 (similar to the level observed prior to COVID-19). The net migration rate is then projected to vary between -0.27 and -0.28 percent every year between 2024 and 2032.
- It is assumed that the total fertility rate⁶ will increase to 2.02 children per woman in 2022 and to 2.05 children per woman in 2023. Then, from 2024 onwards, the total fertility rate will decrease gradually to reach an ultimate level of 1.95 children per woman in 2032. The projected ratio of male births to female births was assumed constant at 1.08 over the projection period.

⁵ GEOSTAT population estimates are based on data obtained on registered births and deaths in the country (from the Public Service Development Agency) as well as on immigrants and emigrants (from the Ministry of Internal Affairs of Georgia).

⁶ Note that the fertility assumption will not affect the working-age population for the 10-year projection.

The total population is projected to decrease from approximately 3.7 million to 3.5 million between years 2021 and 2032, resulting in an average annual growth rate of about –0.5 percent.

Table 2.1 presents the estimated evolution of the working-age population, defined as the population aged 15 years and over, between 2021 and 2032. The working-age population is projected to decrease from about 3.0 million to approximately 2.9 million between 2021 and 2032, resulting in an average annual growth rate of about –0.2 percent.

► **Table 2.1. Projected working-age population of Georgia by age, selected years**

Age	2021	2025	2029	2032
15–19	204,901	231,049	256,722	263,729
20–24	216,001	195,453	213,627	237,140
25–29	237,401	210,819	187,933	188,743
30–34	273,301	236,960	207,406	190,259
35–39	263,501	268,547	240,026	212,575
40–44	242,700	253,408	262,582	252,711
45–49	234,900	233,969	243,567	252,165
50–54	229,300	225,756	226,033	230,178
55–59	251,999	222,081	214,835	216,612
60–64	241,299	236,013	213,271	200,658
65–69	198,399	211,362	215,350	205,751
70–74	151,698	161,524	178,207	185,825
75–79	82,199	106,148	123,759	133,235
80–84	92,598	51,029	64,347	78,747
85+	43,599	51,953	44,004	42,513
Total 15+	2,963,797	2,896,070	2,891,668	2,890,841

Source: GEOSTAT (2021) and ILO projections (2025, 2029 and 2032).

► 2.3. Macroeconomic assumptions

Table 2.2 presents the main economic indicators pertaining to the base scenario. The latest economic forecasts published by the International Monetary Fund's World Economic Outlook and the Economist Intelligence Unit⁷ have been used as the starting point for the base economic scenario. The base scenario also incorporates economic indicators published by GEOSTAT. The views of the ILO on the future development of

⁷ International Monetary Fund's World Economic Outlook, October 2022 Edition, and Economist Intelligence Unit, December 2022.

the economy in the short, medium and long terms have also been reflected in the base scenario. The base scenario assumes that the economy continued to recover from the COVID-19 pandemic from year 2022.

According to GEOSTAT, the economy of Georgia shrank by 6.8 percent in 2020 before experiencing a 11.5 percent real growth in 2021. The real GDP growth rate is estimated to 8.9 percent in year 2022.⁸ The base scenario assumes that the medium-term growth will remain robust and among the strongest in the region on the back of strong tourism. The real GDP growth is projected to 5.6 percent in year 2023 and 5.1 percent in year 2024. The real GDP growth is then assumed to reduce gradually to 3.9 percent in 2032.

The sustained economic growth expected during the first few years of the projection period will contribute to the progressive reduction of unemployment in Georgia. The unemployment rate, which was 20.6 percent in 2021, is projected to decrease to 18.2 percent in 2022. The unemployment rate is projected to decrease gradually over the projection period, reaching 16.9 percent in 2032. The anticipated reduction in the unemployment rate is due to the sustained economic growth and the gradual ageing of the population. The productivity growth rates are computed from the assumed real GDP growth rates and employment growth rates.

In the base scenario, the annual inflation rate is estimated at 11.9 percent in 2022, 6.5 percent in 2023 and 5.3 percent in 2024. The annual inflation rate is projected to reduce gradually thereafter, reaching 3.0 percent from 2030 onwards.

► **Table 2.2. Macroeconomic assumptions, base scenario, 2022–2032 (in percent)**

Year	Real GDP growth rate	Employment growth rate	Productivity growth rate	Annual inflation rate	Unemployment rate
2022	8.9	3.1	5.6	11.9	18.2
2023	5.5	0.6	4.9	6.5	17.9
2024	5.1	0.4	4.7	5.3	17.8
2025	4.9	0.4	4.5	4.6	17.8
2026	4.8	0.2	4.5	4.1	17.3
2027	4.5	0.0	4.5	3.8	17.0
2028	4.3	–0.2	4.5	3.5	16.9
2029	4.2	–0.3	4.4	3.2	16.9
2030	4.0	–0.3	4.3	3.0	16.9
2031	3.9	–0.3	4.2	3.0	16.9
2032	3.9	–0.3	4.1	3.0	16.9

Source: ILO projections based on publications from GEOSTAT, International Monetary Fund and Economist Intelligence Unit.

⁸ Economist Intelligence Unit, December 2022.

Table 2.3 presents the working-age population, labour force and employed population by sex in selected years.

► **Table 2.3. Projected labour market indicators by sex, selected years (in thousands)**

	2022	2023	2024	2025	2028	2032
Working-age population	2,935	2,915	2,902	2,896	2,892	2,891
Men	1,384	1,373	1,367	1,364	1,362	1,363
Women	1,551	1,542	1,535	1,532	1,530	1,527
Labour force participation rate (%)	51.7	52.1	52.5	52.8	52.4	51.9
Men	63.4	63.8	64.2	64.4	64.1	63.7
Women	41.2	41.7	42.1	42.5	42.0	41.3
Labour force population	1,516	1,519	1,524	1,530	1,515	1,499
Men	877	877	877	878	873	868
Women	639	643	647	652	642	631
Employed population	1,240	1,247	1,253	1,258	1,259	1,246
Men	702	706	708	711	715	712
Women	538	542	544	547	544	534
Unemployed population	276	272	271	272	256	253
Men	175	171	169	167	158	156
Women	101	101	103	105	98	97
Unemployment rate (%)	18.2	17.9	17.8	17.8	16.9	16.9
Men	20.0	19.5	19.2	19.1	18.1	18.0
Women	15.8	15.7	15.9	16.1	15.3	15.4

Source: ILO projections based on publications from GEOSTAT, International Monetary Fund and Economist Intelligence Unit.

► 2.4. Scheme-specific assumptions

The actuarial model focusses on the main characteristics of the scheme's future active members and beneficiaries. More precisely, the model takes into account the specific characteristics of the future active members of the scheme, determined with reference to the scheme provisions, as well as the main characteristics of the members at risk of becoming unemployed. The model assumes that the projected beneficiaries will have a similar profile as the active insured workers of the scheme of the same age, sex and sector. Detailed explanations are given as follows.

Active insured workers

The profile of the active insured workers of the unemployment insurance scheme, disaggregated by age, sex and sector, has been assessed based on the data from the Revenue Service of Georgia for 2022. The number of active insured workers is projected to increase in line with the employed population, by age and sex, over the projection period.

Table 2.4 presents the average number of monthly active insured workers in year 2022, by age, sex and sector.

► **Table 2.4. Number of active insured workers, by sex, age and sector, 2022**

Age	Private sector			Public sector		
	Men	Women	Total	Men	Women	Total
15–19	6,306	6,039	12,345	249	114	363
20–24	32,703	33,370	66,073	3,291	2,231	5,522
25–29	43,188	42,736	85,924	7,389	6,523	13,912
30–34	48,155	45,907	94,062	11,200	10,285	21,484
35–39	43,155	44,030	87,185	12,394	12,134	24,528
40–44	35,659	39,536	75,195	11,729	13,358	25,088
45–49	32,602	34,381	66,983	10,527	14,378	24,906
50–54	29,865	29,312	59,177	8,651	13,518	22,169
55–59	29,936	27,165	57,102	7,383	12,967	20,350
60–64	27,451	21,858	49,309	6,257	10,919	17,176
65–69	17,297	13,814	31,111	4,134	6,649	10,783
Total	346,316	338,150	684,466	83,205	103,075	186,280

Source: ILO estimates based on data from Revenue Service of Georgia for year 2022 with adjustments to reflect the density of contributions. Excludes members with monthly salary below the subsistence minimum.

Density of contribution

The density of contribution refers to the number of months during which active members contribute to the scheme in a year. The densities of contribution are used to project the contribution income of the scheme, as well as to assess the ratio of members who would meet the contribution requirement for benefit eligibility. The densities of contribution by age, sex and sector have been estimated based on the data obtained by the Revenue Service of Georgia in 2022.

Table 2.5 presents the densities of contribution by age, sex and sector. These values are assumed unchanged throughout the projection period.

► **Table 2.5. Average density of contribution, by sex, age and sector, 2022 (in month)**

Age	Private sector			Public sector		
	Men	Women	Total	Men	Women	Total
15–19	4.41	4.75	4.56	2.61	2.78	2.65
20–24	6.84	7.48	7.15	7.06	6.13	6.69
25–29	7.96	8.65	8.28	9.09	8.99	9.04
30–34	8.48	9.12	8.78	10.10	9.79	9.95
35–39	8.61	9.22	8.91	10.42	10.16	10.29
40–44	8.65	9.30	8.98	10.58	10.34	10.45
45–49	8.75	9.35	9.05	10.66	10.51	10.57
50–54	8.89	9.42	9.15	10.63	10.60	10.61
55–59	8.98	9.52	9.23	10.54	10.60	10.58
60–64	9.20	9.61	9.38	10.44	10.63	10.56
65–69	9.21	9.77	9.45	10.47	10.65	10.58
Total	8.31	8.91	8.60	10.08	10.15	10.12

Source: ILO estimates based on individual data obtained from Revenue Service of Georgia for year 2022.

Contributory earnings

Table 2.6 presents the distribution of active insured workers' average monthly earnings, by age, sex and sector. The average monthly earning is estimated at about GEL 1,900 in 2022.

► **Table 2.6. Average monthly earnings by sex, age and sector, 2022 (in GEL)**

Age	Private sector			Public sector		
	Men	Women	Total	Men	Women	Total
15–19	881	734	809	781	716	760
20–24	1,429	1,114	1,270	1,258	1,083	1,187
25–29	2,084	1,560	1,823	1,632	1,487	1,564
30–34	2,620	1,848	2,243	1,927	1,718	1,827
35–39	2,906	1,864	2,380	2,057	1,649	1,855
40–44	3,035	1,743	2,356	2,174	1,658	1,899
45–49	2,963	1,615	2,271	2,064	1,664	1,833
50–54	2,471	1,479	1,979	1,885	1,580	1,699
55–59	2,211	1,278	1,767	1,681	1,497	1,564
60–64	1,906	1,145	1,568	1,553	1,393	1,451
65–69	1,687	1,047	1,403	1,433	1,318	1,362
Total	2,368	1,529	1,954	1,864	1,559	1,695

Source: ILO estimates based on data from Revenue Service of Georgia for year 2022 with adjustments to reflect the density of contributions. Excludes members with monthly salary below the subsistence minimum.

The annual increase in the remuneration of an active person normally consists of three components: changes in the cost of living (measured by the Consumer Price Index), the productivity increase, and the increase in personal productivity for work experience and seniority. Under normal circumstances, real wages may grow at a rate more or less similar to productivity. For the purposes of this cost assessment, annual real wage growth was assumed at 2.0 percent over the projection period. This rate is lower than the productivity growth rates assumed over the projection period but is closer to what was observed by GEOSTAT in the recent years.

The subsistence minimum

The subsistence minimum reflects goods and services which ensure the minimum physiological and social needs according to the level of the socio-economic development of the country. In this study, the subsistence minimum, estimated at GEL 256 per month in 2022, is assumed to increase in line with the salary growth rate assumption.

Termination rates

The termination rates by age and sex are estimated based on the Labour Force Surveys in years 2017 to 2021 by taking into account the distribution of unemployed persons who have previously been employed and who have been unemployed for less than a year, excluding those who were previously self-employed as well as those who terminated their job for reasons such as retirement, illness or disability.

Terminations rates by age and sex have been kept constant throughout the projection period. The number of terminations in a year is obtained by applying the resulting termination rates, by age and sex, on the projected number of active insured workers in the year, by age and sex.

Table 2.7 presents the assumed termination rates over the projection period by age and sex.

► **Table 2.7. Assumed termination rates by sex and age (in percent)**

Age	Men	Women
20	0.31	0.28
25	0.25	0.17
30	0.17	0.11
35	0.14	0.10
40	0.14	0.09
45	0.13	0.07
50	0.09	0.07
55	0.09	0.07
60	0.09	0.05

Source: ILO estimates based on Labour Force Survey microdata obtained by GEOSTAT for years 2017 to 2021.

Share of involuntary terminations

Table 2.8 presents the reasons of job terminations, by sex and age, for the unemployed with previous employment for the period 2017-2021. According to the Labour Force Survey, involuntary terminations accounted for about 45 percent of all job terminations during 2017–2021 (excluding terminations for reasons such as illness, disability, death or retirement and after redistribution of unknowns). It is observed that involuntary terminations remained reasonably stable over the period 2017–2021, and therefore was not significantly affected by the COVID-19 pandemic.

In this valuation, it is assumed that the involuntary terminations would be 40 percent higher than observed in the Labour Force Surveys 2017–2021. This assumption incorporates the fact that the risk of collusion between employees and employers may be more frequent once the unemployment insurance scheme is implemented. This assumption is also consistent with the experience observed in other countries having an unemployment insurance scheme in place.

Table 2.8. Assumed ratio of involuntary job terminations by sex and age (in percent)

Sex	Age group				
	15–24	25–34	35–44	45–54	55 and over
Men	61.8	62.9	65.1	67.6	69.7
Women	43.1	44.5	47.6	51.2	53.7

Note: Involuntary terminations refer to reasons such as “Dismissed”, “Contract of limited duration” or “Enterprise closure” in the Labour Force Survey.

Source: ILO estimates based on Labour Force Survey microdata obtained by GEOSTAT for years 2017 to 2021, excluding terminations for reasons such as illness, disability, death or retirement, after redistribution of “unknowns”.

Duration of benefits

Under the three design options, the maximum duration of unemployment benefits varies between 3 and 9 months. In this valuation, the unemployment duration is estimated from the data (disaggregated by age and sex) on unemployment duration among unemployed persons previously employed in Georgia. The microdata based on the Labour Force Surveys 2017-2021 have been obtained from GEOSTAT.

Table 2.9 presents the assumed unemployment duration density distribution among unemployed persons previously employed. About 25 percent of all unemployed with previous employment are unemployed for less than 3 months. About 55 percent of all unemployed with previous employment in Georgia are unemployed for less than 12 months. For example, this implies the following:

- Assuming a waiting period of 7 calendar days, male and female beneficiaries will receive, on average, respectively about 10.7 and 11.6 weeks of benefits if the unemployment benefit can be paid for a maximum of 3 months;
- Assuming a waiting period of 7 calendar days, male and female beneficiaries will receive, on average, respectively about 15.9 and 18.8 weeks of benefits if the unemployment benefit can be paid for a maximum of 6 months; and
- Assuming a waiting period of 7 calendar days, male and female beneficiaries will receive, on average, respectively about 20.2 and 23.5 weeks of benefits if the unemployment benefit can be paid for a maximum of 9 months.

► **Table 2.9. Distribution of the unemployment duration by sex (in percent)**

Sex	Unemployment duration (months)					
	0–3	3–6	6–9	9–12	12–24	24 and over
Men	26.0	12.9	9.6	8.0	17.4	26.1
Women	22.4	14.5	9.2	6.7	18.5	28.7

Source: ILO estimates based on Labour Force Survey microdata obtained by GEOSTAT for years 2017 to 2021, after redistribution of “unknowns”.

Administrative expenses

The administrative expenses of unemployment insurance schemes can vary between 5 and 15 percent of the benefit expenditure. In the base scenario, it was assumed that administrative expenses would be equal to 0.30 percent of the total contributory earnings. This rate excludes any additional cost that could be allocated for employment promotion programmes.

It is important to note that initial expenses in setting up the mechanisms of a new scheme may be significant. However, part or all of these initial expenses may be met from other financing sources, and further clarification would be needed for a more detailed analysis of scheme costs.

Rate of return on the contingency reserve

Short-term benefits schemes, such as unemployment insurance schemes, require higher level of liquidity than long-term ones. Additionally, they have short-term investments as compared to long-term benefits schemes and therefore tend to experience lower investment returns. As a base scenario, it was simply assumed that the reserve fund would generate a zero real return over the projection period. This means that the reserve will just maintain its real value against inflation. Since the reserve is projected to remain relatively low, this assumption is not considered very sensitive.

3. Key results of the actuarial assessment

This chapter presents the main results of the actuarial projections of the key indicators of the unemployment insurance scheme and the estimated contribution rates that will ensure the financial sustainability of the scheme under the three design options.

For the purpose of the cost assessment, a projection period of 10 years has been assumed. Namely, assuming that the implementation the scheme is 2023, the scheme operations are projected until 2032.

► 3.1. Demographic and financial projections

Table 3.1 compares the average number of monthly contributors and the average monthly contributory earnings over the projection period for Options A, B and C. As the three options assume the same coverage, the average number of monthly contributors is common. The difference in the contributory earnings reflects an effect of different assumptions on the maximum contributory earnings.

► **Table 3.1. Projected number of contributors and contributory earnings under three options, 2023–2032**

Year	Number of contributors (monthly average)	Average contributory earning (per month, in GEL)			Total contributory earnings (per year, in millions of GEL)		
		Option A	Option B	Option C	Option A	Option B	Option C
2023	875,773	1,563	1,674	1,745	16,431	17,589	18,338
2024	878,759	1,677	1,795	1,871	17,681	18,927	19,732
2025	881,273	1,785	1,911	1,992	18,882	20,209	21,068
2026	881,617	1,894	2,027	2,113	20,035	21,443	22,353
2027	880,253	2,002	2,143	2,234	21,151	22,635	23,595
2028	877,186	2,111	2,258	2,354	22,218	23,772	24,778
2029	873,572	2,218	2,373	2,473	23,253	24,874	25,924
2030	870,546	2,327	2,488	2,593	24,305	25,993	27,086
2031	868,044	2,441	2,609	2,718	25,422	27,179	28,316
2032	865,893	2,560	2,736	2,850	26,603	28,433	29,616

Source: ILO calculations.

Table 3.2 presents the annual number of job terminations and the number of eligible claims under three options. The following observations are made:

- The estimated number of employment termination cases is around 108,500 per year on average. Of these the estimated number of involuntary cases is around 62,000 per year or 57.2 percent of the total number of terminated employments.
- Under **Option A**, the scheme will reach its maturity in the second year of implementation. From then on, it is projected that about 72 percent of involuntary terminated members, or 44,700 on average, will meet the eligibility requirement of the scheme and receive the benefit for 3.05 months on average.
- Under **Option B**, the scheme will reach its maturity in the third year of implementation. From then on, it is projected that about 81 percent of involuntary terminated members, or 50,400 on average, will meet the eligibility requirement of the scheme and receive the benefit for 3.86 months on average.
- Under **Option C**, the scheme will reach its maturity in the fourth year of implementation. From then on, it is projected that about 93 percent of involuntary terminated members, or 57,800 on average, will meet the eligibility requirement of the scheme and receive the benefit for 4.88 months on average.

It should be observed that no benefit payment is to be paid in the first half of 2023 under Option A since this option requires 6 months of contribution over the 12-month period preceding the involuntary termination. Similarly, no benefit payment is to be paid in 2023 under Options B and C since they require 12 months of contribution to qualify for an unemployment benefit.

► **Table 3.2. Projected number of job terminations and eligible claims under three options, 2023–2032**

Year	Number of job terminations		Eligibility rate (in %)			Number of new beneficiaries		
	Total	Involuntary	Option A	Option B	Option C	Option A	Option B	Option C
2023	106,705	61,087	36.5	—	—	22,295	—	—
2024	107,415	61,462	72.8	61.5	61.5	44,722	37,798	37,798
2025	108,183	61,865	72.5	81.8	87.7	44,837	50,616	54,248
2026	108,420	62,011	72.3	81.6	93.4	44,846	50,593	57,905
2027	108,581	62,100	72.1	81.3	93.2	44,799	50,506	57,872
2028	108,646	62,122	72.0	81.1	93.0	44,699	50,360	57,782
2029	108,747	62,155	71.8	80.8	92.9	44,606	50,226	57,711
2030	109,011	62,272	71.6	80.6	92.7	44,573	50,167	57,730
2031	109,382	62,446	71.4	80.3	92.6	44,587	50,165	57,813
2032	109,803	62,644	71.2	80.1	92.5	44,628	50,199	57,933

Source: ILO calculations.

Table 3.3 compares the average number of monthly beneficiaries, the average and total benefit and the PAYG (pay-as-you-go) cost rate of the benefit under three design options.⁹

The PAYG cost rate represents the benefit expenditures of the unemployment insurance scheme as a percentage of the total contributory earnings of the same year. Hence it is considered as a net contribution rate required to finance the benefit expenditure from the same year's contributory base. It is projected that the PAYG cost rate will reach up to 0.68 percent under Option A, 1.05 percent under Option B, and 1.39 percent under Option C.

► **Table 3.3. Projected number of beneficiaries, average benefit, benefit expenditure and PAYG cost rate under three options, 2023–2032**

Year	Number of beneficiaries (per month)	Average benefit (GEL per month)	Total benefit expenditure (in millions GEL)	PAYG cost rate (as % of contributory earnings)
Option A				
2023	4,130	824	40.8	0.25
2024	11,365	876	119.4	0.68
2025	11,395	934	127.7	0.68
2026	11,399	991	135.5	0.68
2027	11,388	1,048	143.2	0.68
2028	11,364	1,104	150.6	0.68
2029	11,339	1,161	157.9	0.68
2030	11,329	1,217	165.4	0.68
2031	11,331	1,276	173.4	0.68
2032	11,340	1,337	182.0	0.68
Option B				
2023	—	—	—	—
2024	10,094	1,026	124.3	0.66
2025	15,599	1,079	202.1	1.00
2026	16,296	1,143	223.4	1.04
2027	16,269	1,209	235.9	1.04
2028	16,223	1,274	248.0	1.04
2029	16,178	1,339	259.9	1.04
2030	16,155	1,404	272.1	1.05
2031	16,151	1,471	285.1	1.05
2032	16,160	1,542	299.0	1.05

⁹ For the supplementary analysis, see Appendix which presents actuarial projections for private sector and public sector separately.

Year	Number of beneficiaries (per month)	Average benefit (GEL per month)	Total benefit expenditure (in millions GEL)	PAYG cost rate (as % of contributory earnings)
Option C				
2023	—	—	—	—
2024	12,108	982	142.7	0.72
2025	20,654	1,028	254.9	1.21
2026	23,240	1,083	302.2	1.35
2027	23,541	1,144	323.2	1.37
2028	23,508	1,206	340.1	1.37
2029	23,476	1,267	356.8	1.38
2030	23,476	1,327	373.9	1.38
2031	23,504	1,391	392.2	1.39
2032	23,550	1,457	411.7	1.39

Source: ILO calculations.

► 3.2. Estimated contribution rates

In general, short-term benefit schemes, such as unemployment insurance schemes, retain a contingency reserve in order to absorb unexpected increases in benefits. Studies have shown that abrupt changes in contribution rates are detrimental to job creation and retention, and should therefore be avoided during a recession. This leads to the necessity to establish sufficient contingency reserves to allow contribution rates to remain stable when economic downturns occur. However, holding substantial reserves may be vulnerable to diversion for other purposes (for instance, active labour market programmes which should usually be financed by the budget of ministries in charge of labour, job creation and education).

In this actuarial assessment, the contribution rate is determined so that the scheme will retain a contingency reserve equivalent to at least one year's expenditure at the end of the 10-year projection period.

Table 3.4 presents the recommended contribution rates under three options. The key findings of the financial projections are presented as follows:

- **Option A:** A net contribution rate of 0.94 percent (0.64 percent for the benefit expenditure and 0.30 percent for the administrative expenditure) would be necessary to meet the expenditure over the projection period. A contingency loading of 0.16 percent is added in order to accumulate a contingency reserve equivalent to at least one year's expenditure at the end of the projection period. The recommended total contribution rate for Option A is 1.1 percent, to be divided equally between employers and workers at 0.55 percent each.

- **Option B:** A net contribution rate of 1.21 percent (0.91 percent for the benefit expenditure and 0.30 percent for the administrative expenditure) would be necessary to meet the expenditure over the projection period. A contingency loading of 0.19 percent is added in order to accumulate a contingency reserve equivalent to at least one year's expenditure at the end of the projection period. The recommended total contribution rate for Option B is 1.4 percent, to be divided equally between employers and workers at 0.7 percent each.
- **Option C:** A net contribution rate of 1.47 percent (1.17 percent for the benefit expenditure and 0.30 percent for the administrative expenditure) would be necessary to meet the expenditure over the projection period. A contingency loading of 0.23 percent is added in order to accumulate a contingency reserve equivalent to at least one year's expenditure at the end of the projection period. The recommended total contribution rate for Option C is 1.7 percent, to be divided equally between employers and workers at 0.85 percent each.

► **Table 3.4. Contribution rates for unemployment insurance under three options (as % of contributory earnings)**

		Option A	Option B	Option C
Net contribution rate	A = B + C	0.94	1.21	1.47
Benefit	B	0.64	0.91	1.17
Administrative expenditure	C	0.30	0.30	0.30
Contingency loading	D	0.16	0.19	0.23
Total contribution rate	E = A + D	1.1	1.4	1.7
Recommended rate for employers	E / 2	0.55	0.7	0.85
Recommended rate for workers	E / 2	0.55	0.7	0.85

Source: ILO calculations.

► 3.3. Sensitivity tests

To assess the effects of different assumptions on the contribution rates, various sensitivity tests have been performed. Table 3.5 presents the results of the sensitivity tests. The table presents the net contribution rates (the rates necessary to meet the benefit and administrative expenditure) under different assumptions for each option.

The sensitivity tests show that a perturbation in one assumption does not undermine the scheme's sustainability with the recommended contribution rate. For almost all cases, possible deviations are estimated to fit within the contingency loading. This confirms the robustness of the recommended contribution rates.

► **Table 3.5. Results of the sensitivity tests under three options (as % of contributory earnings)**

Assumptions	Option A	Option B	Option C
Base scenario	0.94	1.21	1.47
Termination rates			
• Termination rates +25%	1.10	1.43	1.76
• Termination rates +10%	1.00	1.30	1.59
• Termination rates -10%	0.87	1.12	1.35
• Termination rates -25%	0.78	0.98	1.18
Benefit duration			
• 100% more at maximum	1.09	1.47	1.81
• 50% more at maximum	1.03	1.35	1.65
• 25% more at maximum	0.98	1.28	1.56
• 25% less at maximum	0.89	1.14	1.37
Investment return			
• Investment return +2.0%	0.93	1.19	1.45
• Investment return -2.0%	0.95	1.22	1.49
Administrative expenses			
• Admin. expenses +0.05%	0.99	1.26	1.52
• Admin. expenses -0.05%	0.89	1.16	1.42

Source: ILO calculations.

► 3.4. Concluding remarks

The contribution rate of unemployment insurance reflects the underlying assumptions concerning the employment termination and re-employment in the labour market, and the policy parameters in the design of the unemployment benefit. Relatively low levels of contribution rate presented in this assessment could be the consequence of the scheme's prudent designs in terms of coverage, qualifying condition, benefit level and duration.

It is recommended that Georgia starts with a simple unemployment insurance scheme at least in the implementation stage. As evidenced in the international practice, when the scheme is proved to be fully operational after few years of implementation, consideration should be given to possibilities to extend protection to loss of earnings due to partial unemployment, such as part-time workers who are actually seeking full-time work, and to extend the coverage to the self-employed workers.

Unemployment is a short-term contingency which is difficult to predict with the same degree of accuracy as for other social security contingencies. Therefore, the contribution

rate of an unemployment insurance scheme should be reviewed more frequently than for other social security schemes. The ISSA-ILO Guidelines for Actuarial Work¹⁰ suggest that unemployment insurance schemes carry out actuarial reviews on an annual basis in order to revise the contribution rate according to a predefined contribution-setting mechanism.

Assessing the cost of an unemployment scheme requires extensive data. It is important to continue collecting data on the membership and beneficiaries for an improved actuarial work that will provide more accurate guidance for policy makers.

It is hoped that this actuarial assessment will inform the policy makers on the financial impact of the proposed unemployment insurance scheme within a reasonable margin, and enable them to make a rational decision on the scheme design. The ILO is committed to provide continuous actuarial support for evaluating the contribution rates once the more detailed scheme design has been specified.

10 ILO, ISSA 2016

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Appendix:

Actuarial projection results by sector

The supplementary analysis in this Appendix was conducted in response to the question raised by the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs concerning the difference between private and public sectors as public sector workers generally enjoy more job security than private sector workers.

A technical remark is in order. The projection results in Chapter 3 are based on combined termination rates for both private and public sector workers. The projection results in this Appendix assume distinct termination rates for private and public sectors workers. To reflect the difference between private and public sectors, it has been assumed that the termination rates for private sector workers are five times higher than those for public sector workers. In the absence of the data for Georgia, this is an exogenous assumption derived from international experiences.

Tables A.1 to A.3 present the average number of monthly beneficiaries, the average and total benefit by sector for three design options. It should be noted that due to the above-explained additional assumption, the sector-specific figures may not add up precisely with the combined figures presented in Chapter 3.

It is observed that the private sector accounts for nearly 80 percent of the contributors and 95 percent of involuntary termination of employment cases. Taking into account the difference in wage level and in contribution density, it follows that if one considers only the private sector workers then the necessary contribution rate would be 15 to 20 percent higher than the combined results presented in Table 3.4.

► **Table A.1. Projected number of beneficiaries, average benefit and benefit expenditure by sector, Option A, 2023–2032**

Year	Number of beneficiaries (per month)	Average benefit (GEL per month)	Total benefit expenditure (in millions GEL)
Private sector			
2023	3,757	808	36.4
2024	10,342	859	106.6
2025	10,376	915	114.0
2026	10,382	971	121.0
2027	10,377	1,026	127.8
2028	10,362	1,081	134.5
2029	10,351	1,136	141.1
2030	10,355	1,190	147.9
2031	10,372	1,248	155.3
2032	10,398	1,308	163.2
Public sector			
2023	251	884	2.7
2024	691	941	7.8
2025	691	1,005	8.3
2026	691	1,068	8.9
2027	689	1,131	9.3
2028	685	1,194	9.8
2029	681	1,257	10.3
2030	677	1,320	10.7
2031	673	1,385	11.2
2032	670	1,453	11.7

Source: ILO calculations.

► **Table A.2. Projected number of beneficiaries, average benefit and benefit expenditure by sector, Option B, 2023–2032**

Year	Number of beneficiaries (per month)	Average benefit (GEL per month)	Total benefit expenditure (in millions GEL)
Private sector			
2023	—	—	—
2024	9,110	1,015	110.9
2025	14,309	1,069	183.6
2026	14,973	1,131	203.2
2027	14,952	1,196	214.6
2028	14,920	1,260	225.6
2029	14,893	1,324	236.5
2030	14,889	1,387	247.8
2031	14,905	1,453	259.9
2032	14,936	1,523	272.9
Public sector			
2023	—	—	—
2024	634	1,066	8.1
2025	912	1,125	12.3
2026	954	1,192	13.7
2027	951	1,263	14.4
2028	946	1,334	15.2
2029	940	1,405	15.8
2030	934	1,475	16.5
2031	929	1,548	17.3
2032	924	1,624	18.0

Source: ILO calculations.

► **Table A.3. Projected number of beneficiaries, average benefit and benefit expenditure by sector, Option C, 2023–2032**

Year	Number of beneficiaries (per month)	Average benefit (GEL per month)	Total benefit expenditure (in millions GEL)
Private sector			
2023	—	—	—
2024	10,928	977	128.1
2025	19,137	1,024	235.0
2026	21,794	1,078	281.9
2027	22,120	1,138	302.0
2028	22,107	1,198	317.9
2029	22,101	1,258	333.6
2030	22,129	1,318	350.0
2031	22,187	1,380	367.5
2032	22,263	1,446	386.2
Public sector			
2023	—	—	—
2024	760	1,000	9.1
2025	1,152	1,053	14.6
2026	1,244	1,114	16.6
2027	1,259	1,179	17.8
2028	1,252	1,245	18.7
2029	1,245	1,310	19.6
2030	1,238	1,376	20.4
2031	1,231	1,443	21.3
2032	1,226	1,514	22.3

Source: ILO calculations.

The report presents the key results of the actuarial assessment of a proposed unemployment insurance scheme in Georgia. In consultation with the key stakeholders, three design options of the prospective unemployment insurance scheme have been formulated. The main purpose of this actuarial assessment is to evaluate the contribution rates which ensure the financial sustainability of the scheme under the three design options.

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