TECHNICAL ASSISTANCE REPORT

CYPRUS

Managing Government Employment and Compensation

NOVEMBER 2024

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Fiscal Affairs Department

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Abbreviations and Acronyms

CPI	Consumer Price Inflation
CG	Central Government
COLA	Cost of living adjustment
CYSTAT	Statistical Service of Cyprus
EU	European Union
EUR	European Department
FAD	Fiscal Affairs Department
FTE	Full Time equivalent
GG	General Government
GDP	Gross Domestic Product
GFC	Global Financial Crisis
HPEs	Hourly Paid Employees
ISCED	International Standard Classification of Education
MOF	Ministry of Finance
MoE	Ministry of Education
MoH	Ministry of Health
NHS	National Health System
OECD	Organisation for Economic Development and Cooperation
PAPD	Public Administration and Personnel Department
PHPs	Public Health Providers
PPPs	Purchasing Power Parities
PPS	Purchasing Power Standards
SB	Stage Budget
SHSO	State Health Service Organization
SPEs	Semi Public Entities
US	United States
UK	United Kingdom
WEO	World Economic Outlook

Preface

At the request of the Permanent Secretary of the Ministry of Finance (MOF) of Cyprus, a capacity development mission from the International Monetary Fund's Fiscal Affairs Department (FAD) visited Nicosia during the period June 18 – July 1, 2024. The mission included Sébastien Walker (mission chief), Céline Thévenot (both FAD), Moheb Malak (EUR), and Christopher Bender (FAD expert). The purpose of the mission was to review the levels and composition of government employment and compensation and identify policy options to ensure adequate and sustainable compensation spending.

The mission had fruitful discussions with H.E. Makis Keravnos, Minister of Finance; George Panteli, MOF Permanent Secretary; Elena Azina, Public Administration and Personnel Department (PAPD), PAPD Director; Pavlina Mela, Senior PAPD Officer seconded to the MOF; Thoula Tryfonos, Chief PAPD Officer; Kleopatra Charalambous, Senior PAPD Officer, and Focal Point; Maria Loizou, Senior PAPD Officer; Dionysis Dionyssiou, Senior Economic Officer, Head of Directorate of Economic Policy and European Affairs, MoF; Nayia Pospori, Economic Officer A', MoF; Maria Matsi, Economic Officer A', MoF; Marilena Loukaidou, Statistics Officer A', Statistical Service of Cyprus, CYSTAT; Fani Lagou, Statistics Officer, CYSTAT; Charalambos Charalambous, Statistics Officer, CYSTAT; Maria Kiousi, Statistics Officer, CYSTAT; Vasilis Chailos, CYSTAT; Panagiota Michail, CYSTAT; Michalis Persianis, Chairman of the Fiscal Council; Marianna Manouchou, Director of Accounting Services, MoE; Irene Anaxagora, Administrative Officer A', MoE; Maria Ignatiou, Administrative Officer, MoE; Marilena Chrysostomou, Educational Planning Officer A', Primary Education, MoE; Achilleas Achilleos, Seconded to MoE, Secondary Education, MoE; Mairi Machaira, Seconded to MoE, Secondary Technical Education, MoE; Athina Pitsilidou, Senior Accountant, MoH; George Tziortzis, Senior Treasury Officer, MoH; Evagoras Tambouris, Nursing Services Director, MoH; Aggeliki Protopapa, Administrative Officer A', Nursing Services - MoH; Maria Michaelidou, Administrative Officer A', Medical and Public Health Services - MoH; Michael Tsangaris, Senior Accountant, MoJ; Stavros Christofi, Chief Administrative Officer, MoJ; Andreas Savva, Chief Superintendent, Police; Pantelis Komodromos, Acting Chief Superintendent, Police; Marios Hadjivasilliou, Superintendent A', Police.

The mission wishes to express its appreciation for the excellent collaboration and hospitality provided by officials and staff from the above institutions and to recognize Kleopatra Charalambous for her outstanding logistical support. The mission is also thankful for administrative assistance provided by Daine Hale and Yara Vásquez (both FAD).

Executive Summary

The Cypriot authorities seek to create fiscal space following a recent rise in spending on compensation of employees. The authorities wish to create fiscal space to meet long-term needs (such as those related climate change and demographic trends) and to maintain primary surpluses to reduce public debt. General government spending on the compensation of employees has been rising in recent years with the phasing out of containment measures implemented in the wake of the Global Financial Crisis and the European sovereign debt crisis and with the expansion of semi-public entities.[1] However, the structure of compensation dates from 1980, with revisions in 1996 and 2002, and the authorities are concerned that spending is crowding out other expenditures.

Cyprus's government workforce is moderate in size, but average compensation is high. In 2023, general government spending on compensation of employees was 12 percent of GDP. This is high compared to OECD countries and other advanced economies and EU countries. However, the number of general government employees as a share of the working-age population is lower than comparator averages. Taken together, this implies that average compensation in the Cypriot government is high.

Public-sector[2] workers in Cyprus earn 27 percent more, on average, than do their private sector counterparts, after accounting for education and other individual characteristics. The public-sector compensation premium is even higher for workers holding a university degree below master's level and for older employees. This follows from the structure of the pay system, which relies heavily on educational attainment and length of tenure. Step increases are granted every year, which is more frequent than in many countries, and are comparatively very large. In addition, compensation is automatically linked to inflation, which is rarely done elsewhere. A general lack of recruitment and retention challenges is further evidence that compensation levels are higher than needed for government employment to be competitive.

There is scope to improve the effectiveness of public service delivery. Generous pay for government employees has enabled the recruitment and retention of highly qualified personnel. However, measures of government effectiveness in Cyprus still lag other advanced economies. Moreover, relatively high pay might lead job applicants to apply for positions for which they are overqualified, resulting in a loss of human capital for the broader economy and disruptive internal turnover at the clerical level.

Resource management rules and practices hinder internal mobility and flexible staffing management. The ability to redeploy workers is especially important in a government employment system characterized by de facto lifetime employment. Moreover, flexibility could be seen as a fair quid pro quo of generous compensation. Strict hiring controls have helped contain employment levels but have limited the government's ability to manage recruitment in an agile manner. Resource management rules and practices are generally designed to protect workers at the cost of internal mobility and service delivery. The combination results in inefficiencies: unmet staffing needs in some areas, surplus staffing in

[1] Mainly public universities and autonomous agencies.

[2] The public sector includes the general government and state-owned enterprises. The sample includes men and women.

others, or skills mismatches; the education sector is an example of this. Addressing these rigidities would help to ensure a sustainable growth in employment when recruitment restrictions are eventually eased.

The mission projects that compensation spending will remain high as a share of GDP without reforms and/or very strong economic growth. While the mission's projections focus on the state budget level of government, its conclusions and policy recommendations are also generally applicable to the general government.[3] The mission's baseline assumes that: real GDP growth will continue to increase, reaching 3.1 percent by 2027 and will remain strong thereafter; GDP deflator growth will exceed consumer price inflation; the cost-of living-adjustment (COLA) will remain indexed at two-thirds of inflation; no other general pay increases will be granted; and government employment will grow in line with the working-age population. Under these assumptions, the mission projects that state budget compensation spending as a share of GDP will fall by roughly 0.1 percentage points of GDP each year, ignoring the roughly 0.5 percentage point increase in 2024—and associated 0.5 percentage point decrease in in 2027—attributable largely to the "retrospective" increase in contributions to the Social Insurance Fund. However, lower real GDP growth, consumer price inflation above GDP deflator growth (as in recent experience),[4] or different policies could cause compensation spending-to-GDP to rise.

To generate fiscal space, the priority is to contain growth in government compensation levels as opposed to employment levels. Although the size of the workforce is comparatively moderate, the authorities could gradually reduce it slightly to create modest fiscal space for other expenditure. This is best accomplished by identifying noncritical positions and abolishing them once they become vacant. Slowing the growth of pay, however, offers greater potential. This is best accomplished by (i) suspending COLAs for government employees or reducing their indexation coefficient to less than two-thirds of inflation and by (ii) increasing the time required for workers to move from one step to the next. COLA policies are best suited to managing average levels of compensation (to reduce the compensation premium vis-à-vis the private sector) while step increases are best suited to slowing the steep pay increases that are granted according to length-of-tenure. To create fiscal space sooner, the authorities could consider, as a last resort, reducing overtime or eliminating the 13th-month payment; however, these measures would be highly contentious. Applying certain measures only to new hires is a possibility, but the savings would take far longer to materialize, especially given low turnover in the government.

Cost-containment measures and gradual adjustments in the short term would enable a more in-depth reform of the compensation system in the medium term. International experience suggests that a full redesign of pay scales tends to increase personnel costs, even though there may be good reasons for such an exercise. Given the authorities' intention to contain compensation spending in the near term, it would be preferable to make gradual adjustments to the pay system within the existing pay scales, such as by lengthening the period to move up a step as proposed. Other gradual changes could include "uncombining" the combined pay scales, such that promotions are subject to a competitive process with fixed quotas instead of being granted automatically, which could also improve incentives for high performers. If pay levels are deemed insufficiently competitive to recruit and retain certain highly skilled workers, such as information technology professionals, these positions can be reclassified within the existing pay scales. In the medium term, once overall pay levels are more in line with the private

[3] This is the part of the public service that is directly managed by the Ministry of Finance and is included in its centralized payroll.

[4] Such an outcome could, for instance, arise from an upward shock to import prices.

sector, subtler issues with the pay system which will become clearer, such as recruitment and retention challenges in specific occupations or sectors. These issues could then be addressed with a more in-depth reform of the compensation system which could include greater pay differentiation.

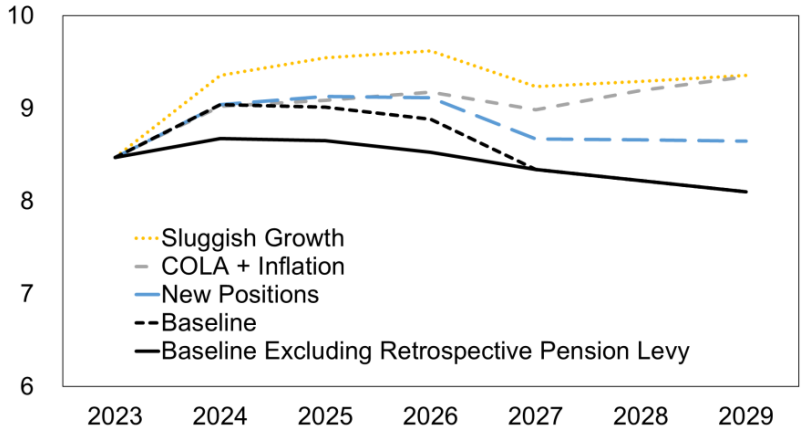
The remainder of this report is organized as follows. Section I reviews recent trends and developments. Section II analyzes salient issues with respect to employment and compensation and their frameworks. Section III summarizes possible measures, estimates their fiscal impact, and makes recommendations for structural reforms.

Table. State Budget Compensation Spending Baseline and Savings from Measures, 2023-2029
(percent of GDP)

	2023	2024	2025	2026	2027	2028	2029
Baseline Projection	**8.5**	**9.0**	**9.0**	**8.9**	**8.3**	**8.2**	**8.1**
Baseline Projection Excluding Retrospective Pension Levy	**8.5**	**8.7**	**8.7**	**8.5**	**8.3**	**8.2**	**8.1**
Savings relative to the baseline projection							
Employment							
Create No New Positions (2025-2029)			0.0	0.1	0.1	0.1	0.1
And Fill 80 Percent of Vacancies (2025-2027)			0.1	0.2	0.2	0.3	0.3
COLAs							
Suspend for One Year (2025)			0.1	0.1	0.1	0.1	0.1
Suspend for Two Years (2025-2026)			0.1	0.2	0.2	0.2	0.2
Suspend for Three Years (2025-2027)			0.1	0.2	0.3	0.3	0.3
Reduce to 50% of Inflation (2025-2029)			0.0	0.1	0.1	0.1	0.1
Step Increases							
Increase from One to Two Years (2025-2029)			0.1	0.3	0.4	0.5	0.6
Increase from One to Three Years (2025-2029)			0.2	0.3	0.5	0.6	0.8
Overtime							
Reduce to 75 Percent of 2023 Level (2024-2029)		0.2	0.2	0.1	0.1	0.1	0.1
Reduce to 50 Percent of 2023 Level (2024-2029)		0.3	0.3	0.3	0.3	0.3	0.3
Disallow 13th Month Payment Starting 2025							
For One Year			-	0.6	-	-	-
For Two Years			-	0.6	0.6	-	-
For Three Years			-	0.6	0.6	0.6	-

Source: IMF staff estimates.
Notes: Savings from measures are cumulative, not additive. For instance, if step increases are only granted every two years during the period 2025-2029, projected compensation spending in percent of GDP in 2029 would be 8 - 0.6 = 7.4. Savings from combinations of measures are mostly additive, but some combinations of measures would generate less savings, in total, than they generate individually because of interactions between variables.

Figure. State Budget Compensation Spending, Baseline and Risk Scenarios, 2023-2029
(percent of GDP)



Source: IMF staff estimates.

Main Recommendations

1. Compensation issues		
1.1	Uncombine combined pay scales and make promotions subject to a competitive process with fixed quotas	Short term
1.2	Conduct an in-depth analysis of compensation in the health sector with projections and stakeholder involvement to ensure the success of the sector's reform	Medium term
1.3	Fine-tune the compensation system once overall pay levels are more in line with the private sector	Medium term
2. Addressing skills mismatches		
2.1	Consider opening more positions to citizens of other countries and outsourcing certain functions to private companies	Short term
2.2	Conduct an in-depth review to assess how digitalization could be harnessed to modernize government processes	Medium term
3. Promoting flexibility		
3.1	Instill a mindset of mobility for staff. Promote openings online, help workers and managers identify transferable skills, include mobility within the criteria for promotions	Short term
3.2	Review and amend the framework for contractual employees to address the rigidities created by the process and allow more flexibility to meet staffing needs	Medium term
3.3	Review rules and regulations which hinder staff redeployment	Medium term
4. Improving the quality of labor relations		
4.1	Develop a framework for social dialogue with independent mediators, similar to the UK's Advisory, Conciliation, and Arbitration Service	Short term
4.2	Assess labor relations with international comparisons, to better understand interactions and options to reach a constructive consensus	Medium term
5. Assess potential pension system liabilities		
5.1	Assess the magnitude of potential unfunded liabilities associated with the benefits provided under the General Social Insurance Scheme and the now-closed legacy Government Employees Pension Scheme.	Medium term

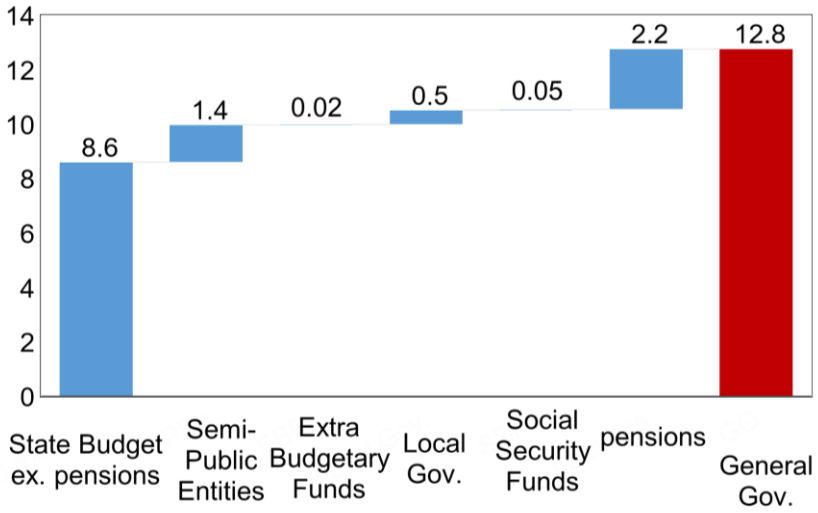
Note: "Short term" is understood to mean within 1-2 years and "medium term" is understood to mean within 3-5 years.

I. Background

1. The Cypriot authorities seek to create fiscal space to meet long-term needs (such as those related to climate change and demographic trends) and to maintain primary surpluses to reduce public debt. General government spending on the compensation of employees has been rising in recent years with the phasing out of containment measures implemented in the wake of the Global Financial Crisis and the European sovereign debt crisis and with the expansion of semi-public entities.[5] However, the structure of compensation dates from 1980, with revisions in 1996 and 2002, and the authorities are concerned that spending is crowding out other expenditures.

2. In 2023, Cyprus spent 12 percent of GDP on the compensation of employees (COE) in the general government (GG, Figure 1). Compensation spending in the state budget (SB), excluding pensions,[6] represents the main component of general government COE at 8.6 percent of GDP. Central government (CG) compensation (11.5 percent of GDP) includes 1.4 percent of GDP in compensation of semi-public entities (SPEs), mainly public universities and autonomous agencies, and extra budgetary funds. General government compensation includes the local government and social security funds, totaling 0.5 percent of GDP. COE in Cyprus also includes pension payments to government retirees by a dedicated pay-as-you-go scheme. These payments amount to 2.2 percent of GDP for the GG, of which 1.4 percent of GDP is attributable to the SB. Education and public administration dominate COE, each with a third of the total, followed by security and health (Figure 2).

Figure 1. Breakdown of General Government Compensation of Employees, 2023
(percent of GDP)



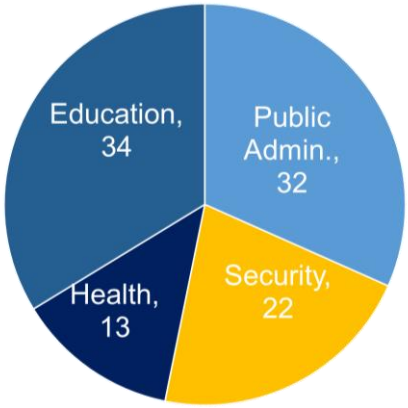
Source: Cypriot Authorities and IMF staff calculations.

Note: The fiscal year is the calendar year.

[5] Mainly public universities and autonomous agencies.

[6] State budget refers to the component of the public service that is directly managed by the Ministry of Finance and is included in its centralized payroll.

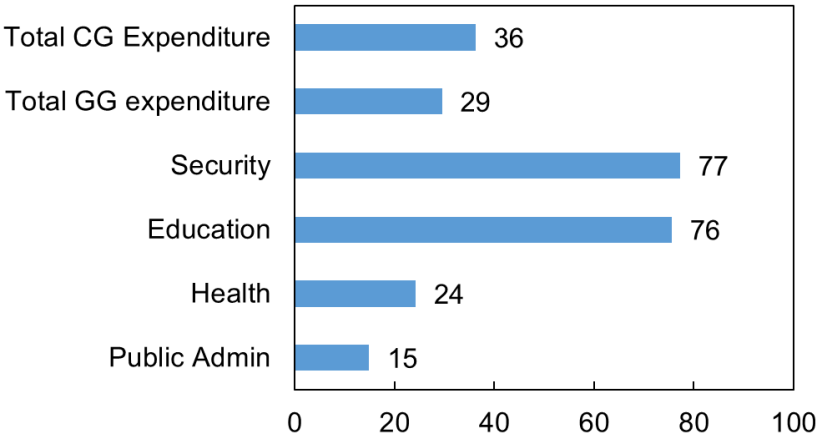
Figure 2. Functional Composition of General Government Compensation of Employees, 2022
(percent)



Source: CYSTAT.

3. Compensation spending accounts for roughly a third of general and central government expenditure (Figure 3). However, the share varies significantly by function of government. COE accounts for more than three quarters of expenditure on education and security, a quarter on health spending, and about 15 percent on public administration.

Figure 3. COE as a Share of Total Expenditure by Level of Government and by Sector, 2022
(percent)



Source: Cypriot Authorities and IMF staff calculations.

Note: Security, education, health, and public administration are at the GG level.

4. About 12 percent of the working-age population is employed by the public sector.[7] The majority (8.7 percent of working-age population) work in the SB with the rest in semi-public entities, local authorities, and SOEs (Figure 4). Among SB employees, 13 percent are hourly employees (HPEs),[8] while

[7] Public sector (also known as broad public sector in Cyprus) includes central government, local authorities, and publicly owned enterprises and companies.

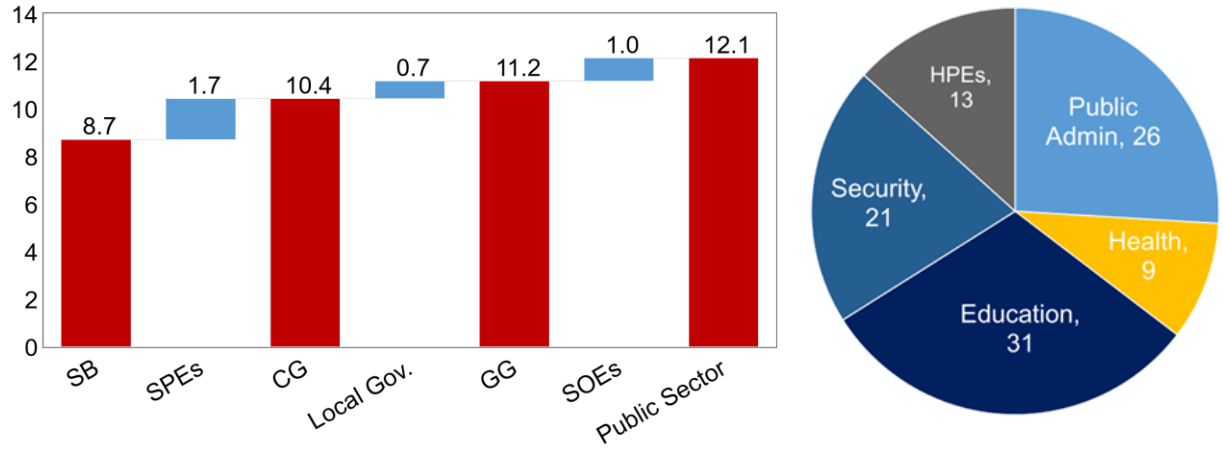
[8] Information on HPEs by sector are not available.

the remainder are permanent employees distributed across the government broadly in line with the functional distribution of COE spending.

Figure 4. Government Employment by Level of Government and Function, 2022
(percent of working-age population and percent of total)

a. By Level of Government
(percent of working-age population)

b. By Function
(percent of total)

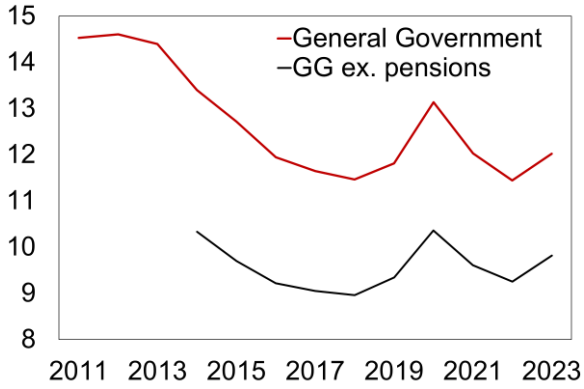


Source: Cypriot Authorities and IMF staff calculations.

Note: Security, education, health, and public administration are at the state budget level.

5. COE has generally fallen from its peak but has increased in recent years (Figure 5). GG spending on compensation peaked in 2012 at 14.6 percent of GDP—after a period of sustained increases in government employment and salaries in the early 2000s—followed by economic contraction in the wake of the Global Financial Crisis (GFC) and the European sovereign debt crisis. In the context of a comprehensive reform program in response to the crises, a slew of measures was introduced to cut compensation and employment and contain their future growth (Table 1). As a result, GG compensation spending declined as share of GDP until 2018. Since then, most crises-era measures expired or were phased out—although some have endured. More recently, COE has been rising, mainly driven by the phasing-out of crisis measures and the expansion of semi-public entities.

Figure 5. COE Expenditure, 2011-2023
(percent of GDP)



Source: Cypriot Authorities and IMF staff calculations.

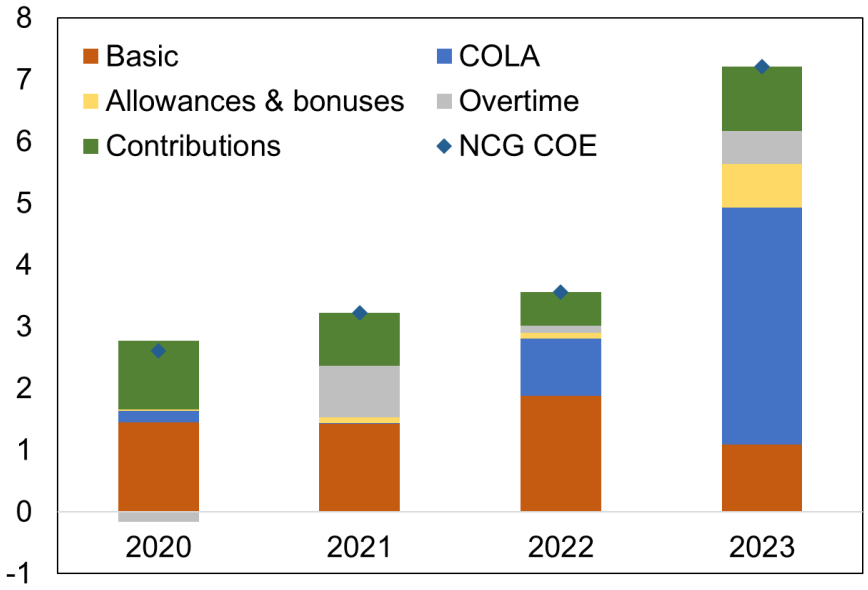
Table 1. COE Crises-Era Measures Introduced in 2012

List of measures	Detailed description	Expiry or phase out date[/1]
Freezing the creation of new posts	No new posts were created and an attrition based strategy was applied to the filling of posts that become vacant.	Modified in 2023[/2]
Freezing of annual increments	The annual step progression of government employees through the salary table was suspended.	2017
Suspension and recalibartion of COLA	COLA was suspended for the years 2012 – 2017 to resume in 2018 at a lower frequency of adjustment (twelve months instead of six months) and a partial indexation of 50 percent of past year's inflation instead of full indexation previously.	Modified in 2023[/3]
Introduction of reduced entry level salary scales	Employees hired starting 2012 received a 10 percent reduced salary relative to the starting salary of their salary scale for two years before advancing to the first step in their salary scale.	Ongoing
Salary reductions	Progressive salary reductions were introduced in December 2012 and gradually increased until 2014.	2023[/4]
Special contributions	A progressive special contribution was applied to taxable earnings	2017
Introduction of a medical care deduction	Was replaced by a general health system (GHS) contribution in 2019	Modified in 2019
Introduction of a gratituity contribution	Gratuity contribution by employees was introduced in 2014.	Modified in 2024
Several types of allowances were abolished		Ongoing
Some allowances were subjected to taxation		Ongoing

Sources: Cyprus Ministry of Finance and past Cyprus IMF Article IV reports.
1/ Refers to the first year when the measure no longer applied.
2/ The freeze initially applied to entry and promotion posts but has been limited to vacant first entry posts only since November 2023.
3/ An agreement was made between the government and the labor unions to increase COLA indexation to two-thirds of inflation up from 50 percent.
4/ The gradual phase out of the wage cuts started from July 2018 until December 2022.

6. Recent trends in compensation spending have largely been driven by cost-of-living adjustments and other non-base salary components. Compensation of government employees in Cyprus includes a base salary, cost-of-living adjustments (COLAs),[9] allowances and bonuses, overtime, and social contributions paid by the government as an employer. COLAs and other non-base salary components were the main driver of compensation spending growth in 2023 (Figure 6). Allowances and bonuses and overtime are moderate in size relative to the combined base salary and COLA, although they have been gradually increasing as a share of base salary + COLA (Figure 7). In addition, the government makes contributions for social security, the national health system (NHS), and other programs as an employer on behalf of government employees, which have also been gradually increasing relative to total pay. The increase in overtime is due, in part, to the gradual reduction of standard working hours for the police, while the increase in employer contributions is attributable to pension reforms and the introduction of the NHS.

Figure 6. Nominal Change in State Budget COE
(percent)



Source: Cypriot Authorities. IMF staff calculations.

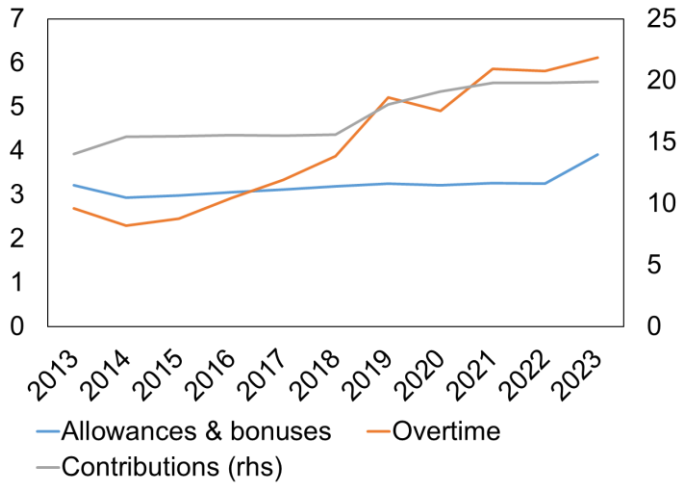
7. State budget employment has been broadly stable. While there have been fluctuations in state budget full-time equivalent (FTE) employment levels over the last decade,[10] these levels have been stable relative to the working-age population (Figure 8).[11] Strict employment ceilings defined by the Ministry of Finance for each ministry have imposed strict controls over public employment growth. Relatively high employment growth in 2023 was driven primarily by education and security, both in response to the influx of refugees.

[9] COLAs in Cyprus are not part of the base salary but treated as an additional component.

[10] General government employment data are not available on an FTE basis. On a non-FTE basis, general government employment growth has been driven by the expansion of semi-public entities such as public universities and the newly established State Health Service Organization (SHSO).

[11] Working-age population growth is slow but positive – see section III.

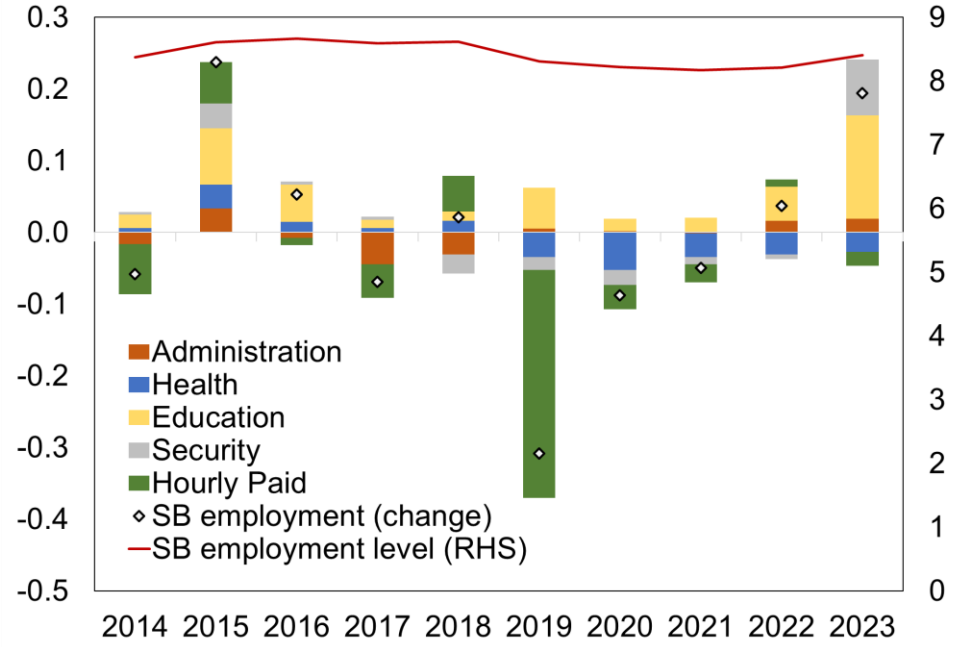
Figure 7. COE Non-Salary Components
(percent of base salary + COLA)



Source: Cypriot Authorities. IMF staff calculations.

Note: Based on State Budget compensation data. The denominator includes base salary and COLA.

Figure 8. Level and Change in State Budget Employment
(percent change and percent of working-age population)

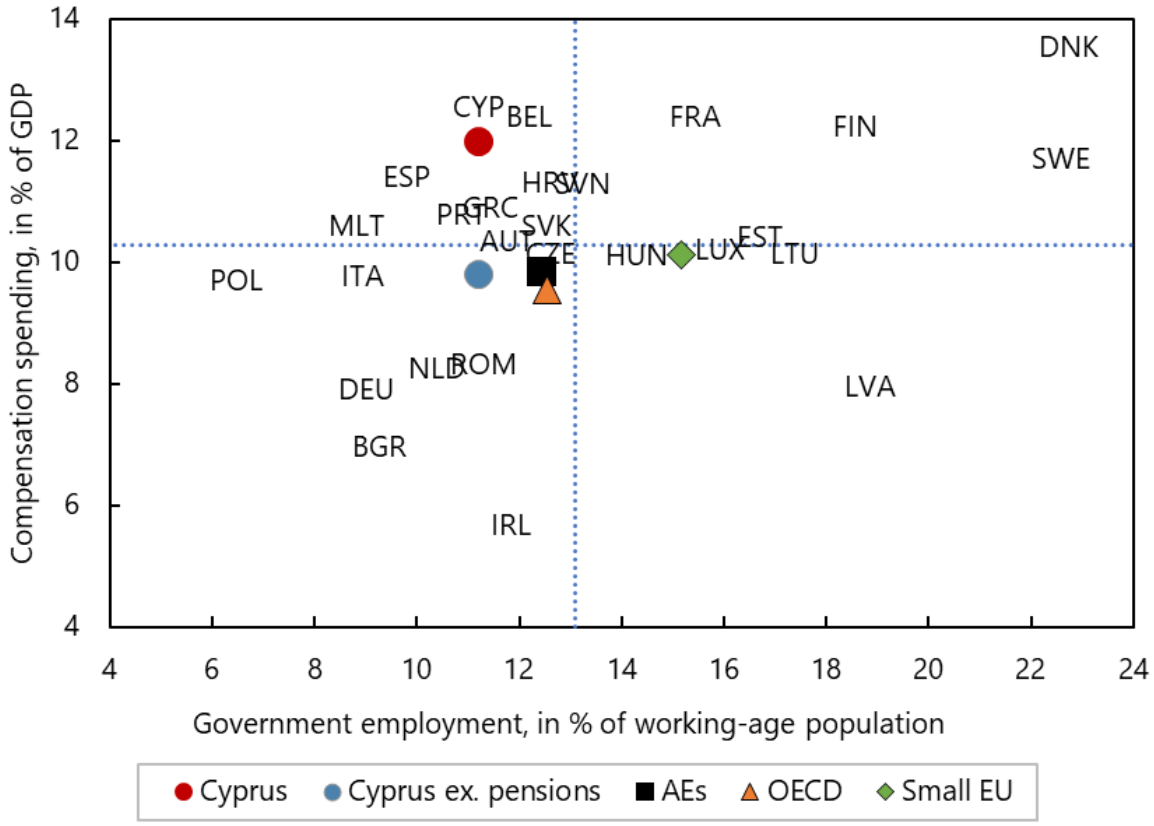


Source: Cypriot Authorities. IMF staff calculations.
Note: The figure shows FTE employment. The drop in SB hourly paid employees in 2019 reflects their transfer from public health providers (PHPs) to the SHSO. The diamond and bars all represent changes.

8. **Average compensation levels in Cyprus are high by any measure.** In 2023, Cyprus COE, as a share of GDP, was well above the averages for Advanced Economies (AEs), the European Union (EU), and OECD countries (Figure 9). On the other hand, employment relative to the working-age population was below peer group averages, especially when compared to small EU states which tend to have higher employment-to-working-age population ratios given diseconomies of scale in the provision of public

services. Taken together, these metrics suggest that average compensation is high. Given that Cyprus includes some pension payments in COE and given uncertainty regarding whether other countries do the same, Figure 9 also shows COE excluding these payments. According to this measure, COE in Cyprus was broadly in line with comparator groups, which, together with moderate employment levels, leads to a qualitatively similar conclusion regarding compensation levels. Government employees in Cyprus earn significantly more than the EU average whether adjusted for purchasing power or relative to GDP per capita (Figure 10). Furthermore, real growth in net compensation in public administration has been among the highest in Europe, increasing by 2.4 percent per annum since 2021 (Figure 11).

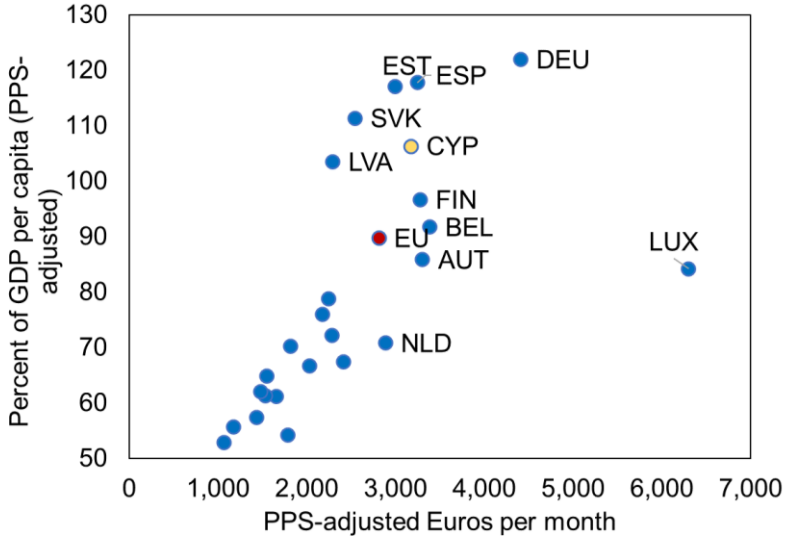
Figure 9. General Government Compensation Spending and Employment, Latest Available
(percent)



Source: IMF Expenditure Assessment Tool and Cypriot authorities.

Note: Cyprus data are for 2023. Dotted lines represent the EU average.

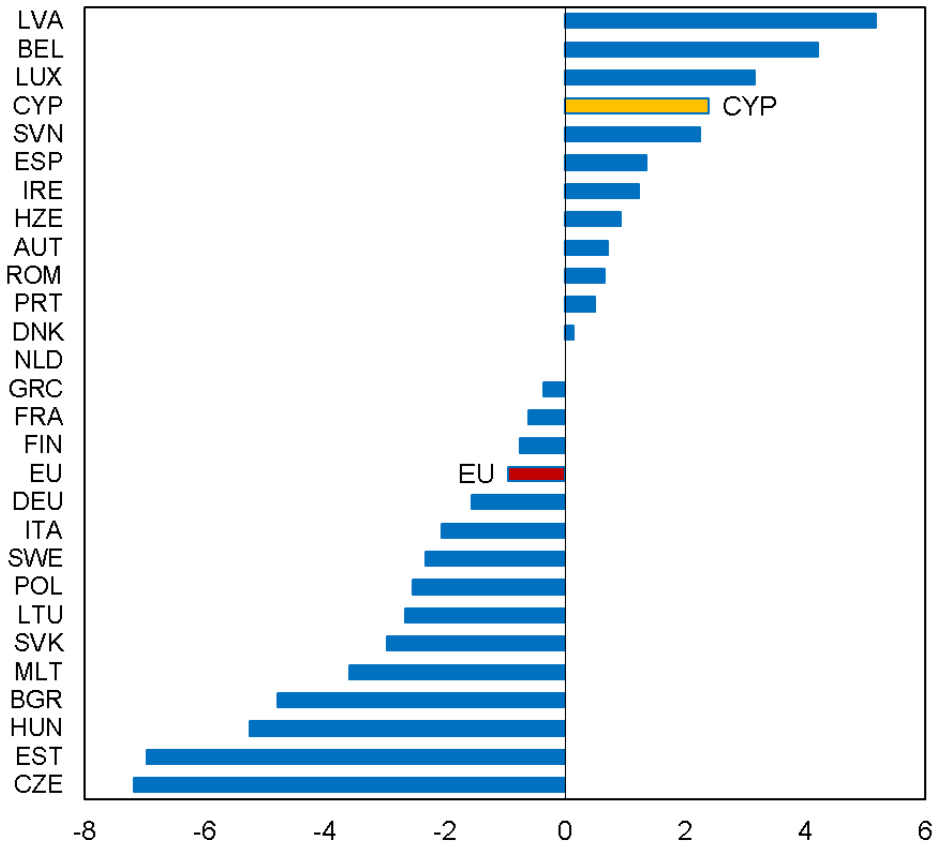
Figure 10. Average Compensation of National Civil Servants in Central Public Administration, 2023



Source: Eurostat.

Note: Purchasing Power Standard (PPS) is a unit of account created and used by statistical agencies such as Eurostat to facilitate cross-country comparisons of economic statistics. It is derived from purchasing power parity (PPP) calculations and is used to express data on a common basis that adjusts for differences in price levels.

Figure 11. Change in Real Net Average Compensation in Public Administration, 2021-2023
(percent per year)



Source: Eurostat.

II. Issues

A. Compensation

9. Public-sector[12] compensation in Cyprus is 27 percent higher than that in the private sector, other things being equal, a gap larger than in many other advanced economies. Given that government employees generally benefit from greater job and income security, more predictable working hours, and other non-monetary benefits than in the private sector, it is usually advised that the pay premium should be somewhat negative, for similar jobs. A regression analysis considering education and other individual characteristics suggests that public-sector employees earned an average compensation premium of 27 percent relative to comparable private-sector employees in 2021 in Cyprus (Figure 12.a and Annex 1). This figure is large in comparison with other countries Only Luxembourg and Spain exhibit wage premium above 20 percent.[13] The average among European countries is at 3.7, with a minimum at 17 percent in Norway. The compensation premium reaches 32 percent for workers with a bachelor's degree or at least some tertiary education ("bachelor's degree", Figure 12b).[14] The compensation premium increases steadily with age, going from 15 percent for 20- to 34-year-olds to 35 percent for workers aged 50 and older. The premium is broadly similar for men and women.

10. A public-sector pay premium exists in virtually all occupations. The 2018 structure of earnings survey shows that the compensation differential between publicly and privately controlled organizations in Cyprus is especially notable for those with a longer tenure (Figure 13). The only category where public compensation is below the private sector is for senior managers – a common feature in many public compensation systems. A forthcoming vintage of the structure of earnings survey should be available soon and could provide further insights.

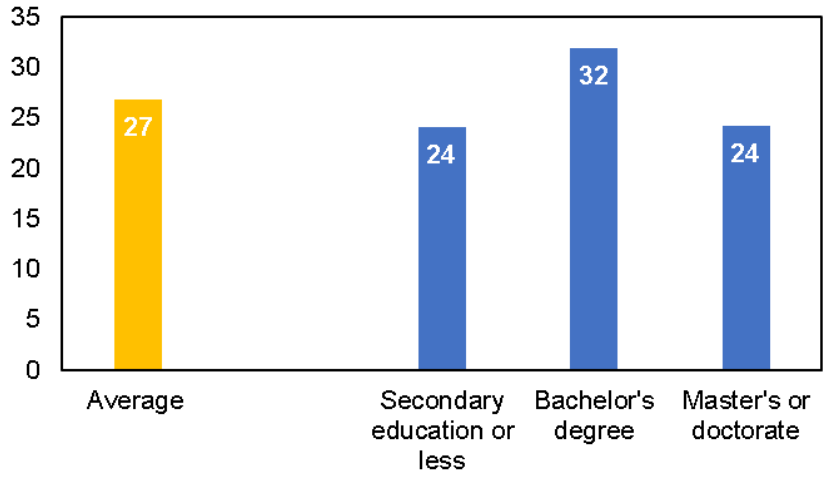
[12] Public sector (also known as broad public sector in Cyprus) includes central government, local authorities, and publicly owned enterprises and companies.

[13] IMF Board Paper "Managing Government Compensation and Employment" and IMF Government-Private Sector compensation Premium Dataset, 2023.

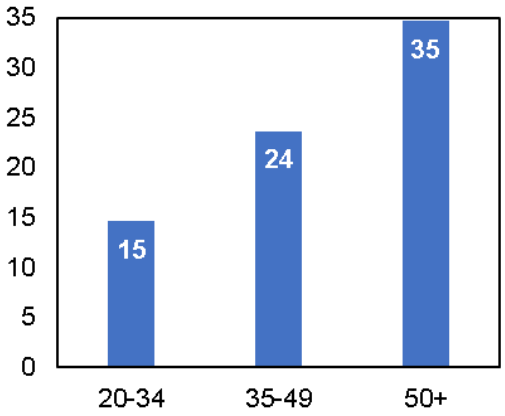
[14] Employees with a master's or doctoral degree *earn* more than those with a bachelor's degree on average; however, the *premium* for working in the public sector relative to the private sector is greater for those with a bachelor's degree.

Figure 12. Public-Sector Compensation Premium, 2021
(percent of private-sector compensation)

a. Average Premium and Premium by Educational Attainment



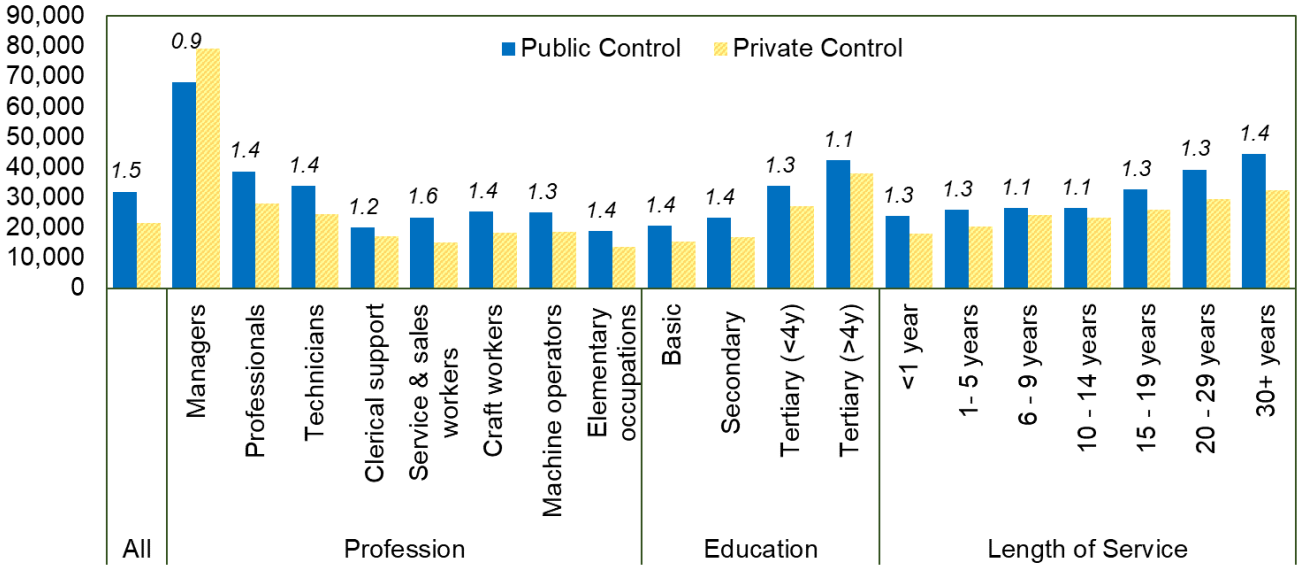
b. Premium by Age Group



Source: IMF staff estimates based on the 2022 EU Survey on Income and Living Conditions, which uses 2021 income data.

Note: Public sector (known as broad public sector in Cyprus) includes central government, local authorities, and publicly owned enterprises and companies. Estimates from a regression of hourly gross income on a public-sector dummy variable, education, age, age squared, gender, and district. All estimates are statically significant at the 1percent level using robust standard errors. Sample includes men and women and excludes self-employed workers, employees working less than 38 hours per week, workers under 20 or over 65 years of age, and those who have not been in full-time work for the last 12 months. "Secondary education or less" is up to ISCED 4 inclusive; "Bachelor's degree" is ISCED 5 to ISCED 6 inclusive; "Master's or doctorate" is ISCED 7 to ISCED 8 inclusive; educational codes are explained in the EU-SILC Methodological Guidelines. Further details are presented in Annex 1.

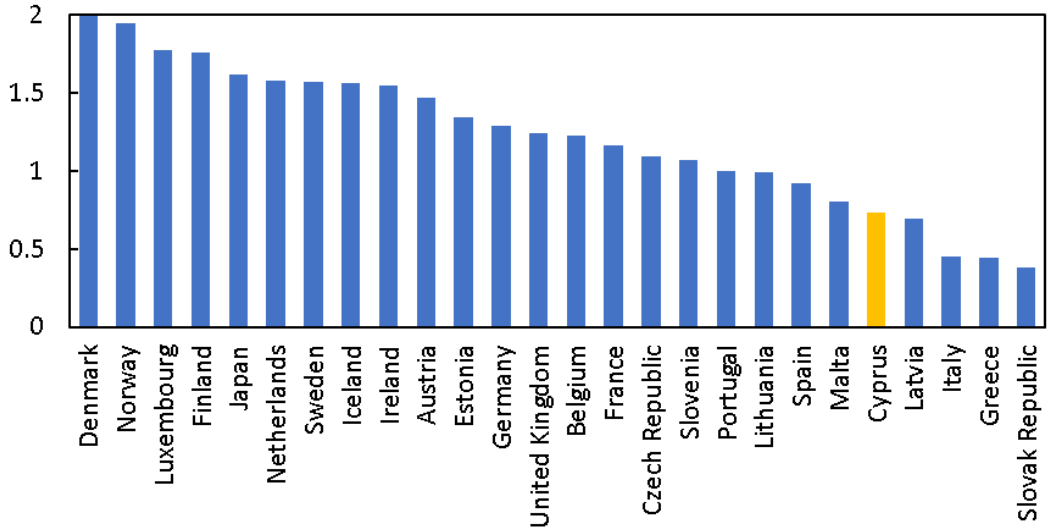
Figure 13. Mean Earnings by Occupation, Education, and Experience by Financial Control, 2018
(euros per year)



Source: CYSTAT, Structure of Earnings Survey, 2018.
Note: The figure above the bars is the public/private ratio.

11. High pay levels are not translating into high-quality public services. Generous pay for government employees has enabled the recruitment and retention of highly qualified personnel. However, the quality of public services is low compared to other advanced economies. An index combining several dimensions of the quality of public services shows that the overall performance of Cyprus's government sector is among the weakest in Europe (Figure 14). This suggests that the compensation system provides poor value for money.

Figure 14. Government Effectiveness, 2022
(index)



Sources: Kaufmann, Daniel, and Aart Kraay. 2023. "Worldwide Governance Indicators, 2023 Update." www.govindicators.org. Teorell, Jan, Aksel Sundström, Holmberg Sören, Rothstein Bo, Natalia Alvarado Pachon, Cem Mert Dalli, Rafael Lopez Valverde, and Paula Nilsson. 2024. The Quality of Government Standard Dataset, Version Jan24. University of Gothenburg. The Quality of Government Institute. https://doi.org/10.18157/QoGStdJan24.
Note: Government Effectiveness combines responses on the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies. The main focus of this index is on 'inputs' required for the government to be able to produce and implement good policies and deliver public goods.

12. The current pay system dates to the 1980s and strongly rewards length of tenure. The salary table is based on a combination of 16 scales[15], each of which is typically divided into 6 to 15 steps. Employees' positions in the salary table are determined by educational attainment and length of tenure, as is the case with many pay systems designed in the 1980s. Since then, many have moved to more flexible forms of pay-setting, especially merit-based pay or pay range systems for instance.[16] Every year, employees move up automatically from one step to the next within a salary scale. This is more frequent than in many countries (Box 1). Over time, some scales were considered to be too short, so additional steps have been added, for instance A8(i) and A8(ii) – they are identified with the suffixes (i) or (ii) (see

[15] A salary "scale" in Cyprus is usually known as "grade" in other countries, while "step" is sometimes known as "notch" in other countries.

[16] See for instance Mikkelsen, Ľ. S., Števove, K., & Dlesková, A. (2017). Remuneration and benefits in central government civil service in the EU Member States and European Commission (p. 47). Government Office of Slovakia; Marcinkowski, L., Butnaru, A., & Rabrenović, A. (2024). Salary systems in public administration and their reforms: Guidance for SIGMA partners.

Annex 3). This led the effective number of scales to increase from 16 to 36. For specific high-level positions (judges, senior managers), there are 10 fixed salaries.

Box 1. Examples of Related Issues in Selected Countries

This box gathers examples from other countries with respect to some policy parameters discussed in this section. They are not selected based on countries' performance but are intended as examples of other practices.

In Moldova, the base salary is defined by a single pay spine with slower progression over time. Base salaries in Moldova are determined by a 2018 law. Salaries are computed as a coefficient depending on the position multiplied by a common reference value reflecting general increases (see Annex 2). The reference value is established annually in the Budget Law. Civil servants below senior managerial level and other personnel go up by one salary class after two years of service in a position, then again after another three years, and every five years thereafter up to 20 years of service.

In Slovenia, the pay system is based on job families. In Slovenia, the Law on Public Servants establishes 16 positions within five categories of civil servants, plus senior management jobs. A salary ratio between different groups of jobs is given by the law. Reference jobs serve as a benchmark in order to ensure the internal fairness of the salary system in the entire public sector. The methodology is determined by a collective agreement. In addition to the base salary, the compensation comprises a performance-related component. Promotions are based on the annual performance rating and duration of service.

In France, the recruitment of short-term employees as an intermediate status allows more flexibility. In France, recruitment of permanent teachers is conducted by competitive examination. To meet temporary needs, local authorities can recruit contractual teachers in primary or secondary education for replacements or year-round positions, part-time or full-time. The contract is fixed for the duration of the need.

In Luxembourg, pay increases are conditioned on mandatory training to reach certain grades and horizontal mobility is encouraged. The base salary is computed by multiplying points, given in a pay table, by an index, which can be adjusted every year. Step increases happens every 3 years. Some step increases require training in addition to meeting the tenure requirements. For instance, after 12 years, employees need to attend a 12-day training in public management to reach the next level. Procedures to promote horizontal mobility (changing administration within central government) is encouraged; people can apply to positions corresponding to their grade and competencies in another department through a website gathering all job descriptions opened in real time.

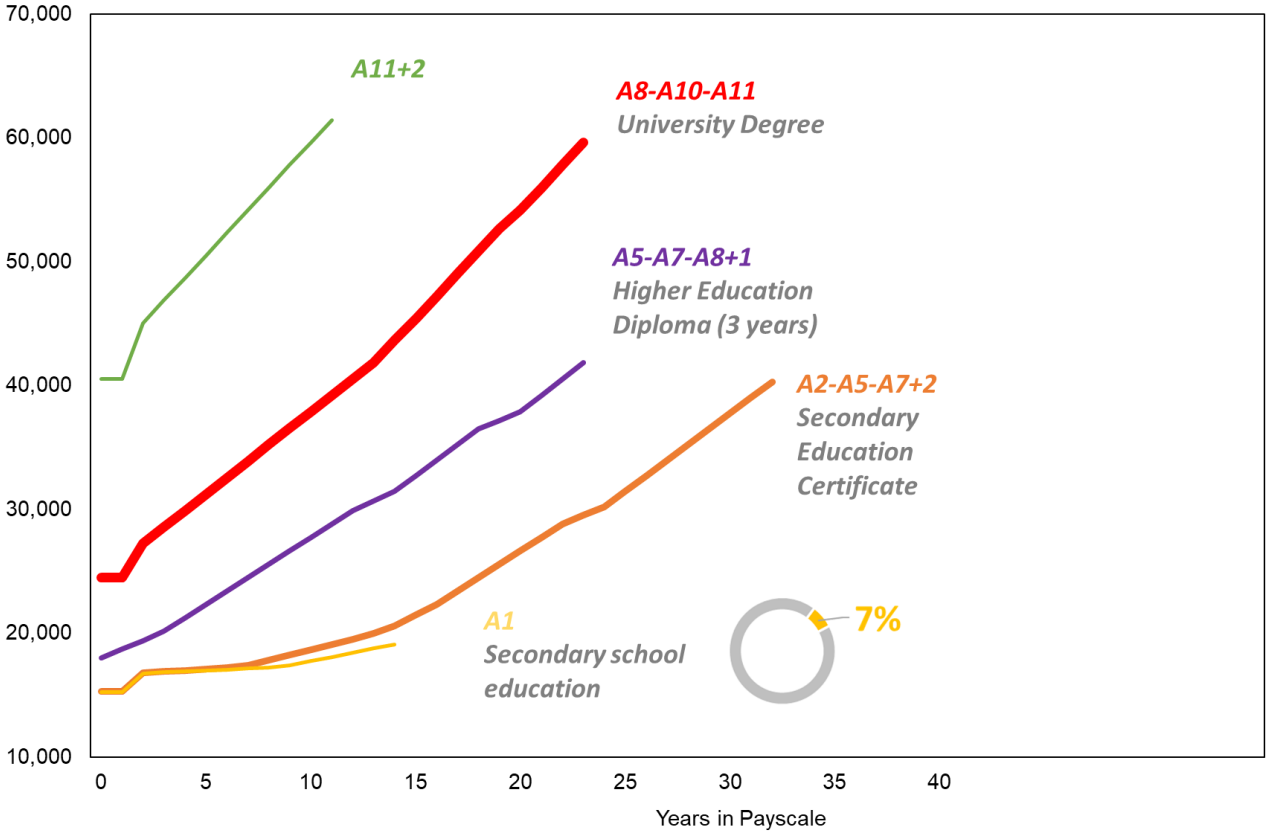
In the US and Canada, compensation increases every second or third year. In the US federal government, employees receive a horizontal automatic pay increase after 1 year at steps 1-3, 2 years at steps 4-6, and 3 years at steps 7-10. In the Canadian federal public service, employees advance to the next step in their pay range annually until they reach the maximum rate for their position. In the US, the increases are typically 3-4 percent per step, while in Canada they are around 2-3 percent on average.

Sources: Le recrutement contractuel | devenirenseignant.gouv.fr.
Conditions d'accès et procédures de recrutement — Portail de la fonction publique - Luxembourg (public.lu)
Le traitement — Portail de la fonction publique - Luxembourg (public.lu)
Petrovic, J. T., & Galic, B. M. (2023). Pay System of Civil Officers in Slovenia. Law Theory & Prac., 40, 43.
Ageing and Talent Management n European Administration OECD 2021.
https://fam.state.gov/FAM/03FAM/03FAM7380.html

13. Large step increases and combined salary scales leading to automatic promotions have made the link between pay and length of tenure even stronger. Base salary increases are granted every year through step increases, and the generous size of these step increases results in sharp rises in earnings with tenure (Figure 15). In many countries, step increases are granted less frequently, for

instance every two or even three years, and they are sometimes conditional (see Box 1). In addition, the system of combined scales, such as the salary scale A8-A10-A11, allows employees to move up pay scales automatically with time. For instance, employees in positions requiring a university degree, such as administrative officers or economic officers, start at scale A8, then automatically move up to A10 then A11 as time goes by.

Figure 15. Base Salary Scales of Employees in the Most Used Scales
(euros)

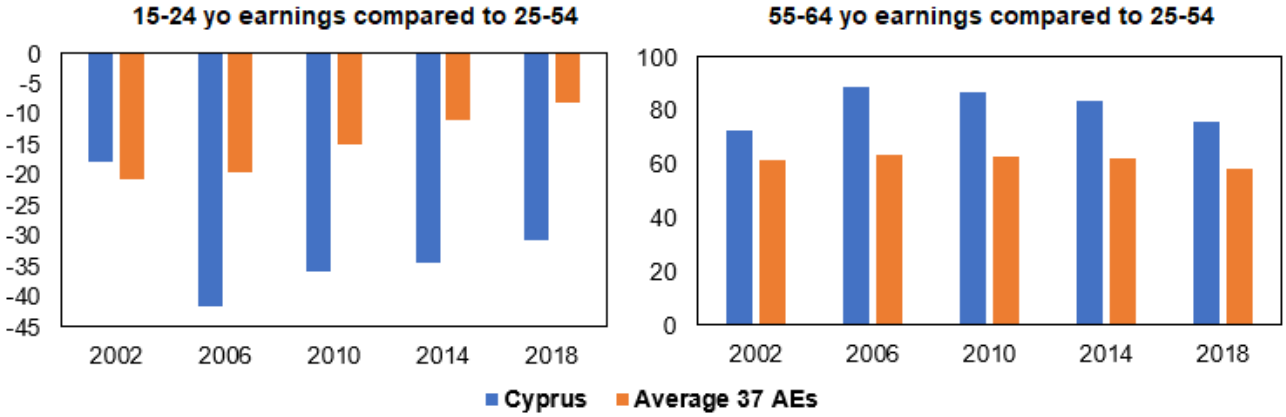


Source: Treasury Payroll Data and PAPD, IMF staff calculations.
Reading Note: This figure illustrates the compensation progression through salary scales and the number of people following the selected scales. People in positions requiring a university degree follow the A8-10-11 scale with automatic increases along the red line absent any promotion. In 2023, 32 percent of permanent employees are grouped on this scale.

14. The link between pay and length-of-tenure has become weaker in the private sector and in other countries. In many advanced economies, the age-earnings profile has become flatter over the past two decades. Combined public- and private-sector data have shown that differences in average earnings between age groups have tended to narrow and are smaller in other advanced economies than in Cyprus (Figure 16). One reason is that the technological change tends to blur the individual productivity gains over time. The median annual compensation in Cyprus's State Budget at age 25 is 17,800 euros, while it stands at 56,000 at age 60 – earnings more than triple over a working life (Figure 17).

Figure 16. Earnings by Age Group Compared to Workers Aged 25-54, Public and Private Sector, 2002-2018

(percent of 25-54-year-old earnings)

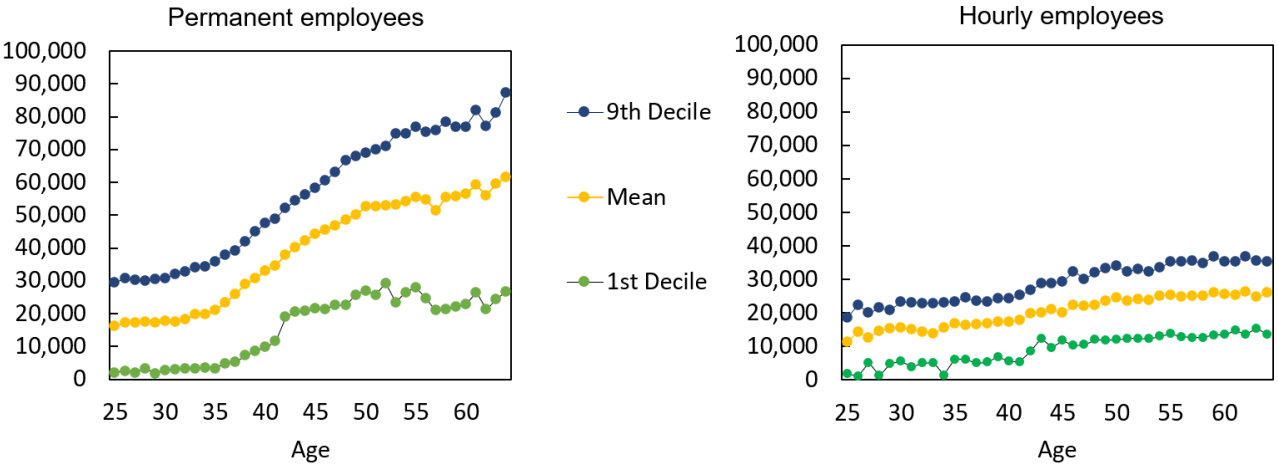


Note: OECD Data, average on 37 countries since 2006, 32 countries in 2002. IMF calculations. Figures show combined public and private sectors.

Reading Note: in the early 2000s, the difference in earnings between workers aged 55-64 and workers aged 25-54 was on average 20.8 percent of workers aged 25-54. In 2018, this ratio had fallen to 8 percent. Similarly, the difference in earnings of people aged 15-24 compared to those aged 25-54 age was 61 percent of earnings of those aged 25-54, and it is now at 58 percent.

Figure 17. Distribution of Annual Earnings by Age for Permanent and Hourly Employees, State Budget, 2023

(euros)



Source: Cypriot Authorities. IMF staff calculations.

Note: “Hourly paid employees” category is explained in the next Section.

Reading Note: 80 percent of permanent employees aged 25 earn between 2,100 and 29,408 euros per year in 2023. The average is 16,205 euros.

15. Cyprus is one of the few countries in the world where government employees’ compensation increases are automatically indexed to inflation. Since the establishment of the pay

system, government employees' compensation comprises a cost-of-living adjustment based on inflation.[17] An IMF survey conducted in 2023[18] on indexation practices has shown that government compensation is largely unindexed around the world with only a few countries indexing government pay to prices or other variables. Among 35 advanced economies included in the survey, only Belgium, Luxembourg, and Malta have some form of automatic indexation of government compensation. Other countries provide pay increases to keep up with the cost of living, but typically do not resort to automatic indexation – this has the advantage of allowing pay increases to reflect other considerations such as recruitment and retention needs or fiscal space.

16. Positions requiring the same degree follow a similar scale regardless of occupation or sector. All positions requiring a university degree, for instance, follow the A8 scale for entry positions (beginning of the career). When employees have reached the top of this scale (after 13 years), they move to the A10 and A11 scales. All positions requiring only a secondary education attainment are paid along the A2 scale, leading to scales A5 and A7[(ii)]. There is no distinction by occupation or sector, such that employees with scarce qualifications or skills are paid the same as those with readily available qualifications or skills, for a given length of tenure.

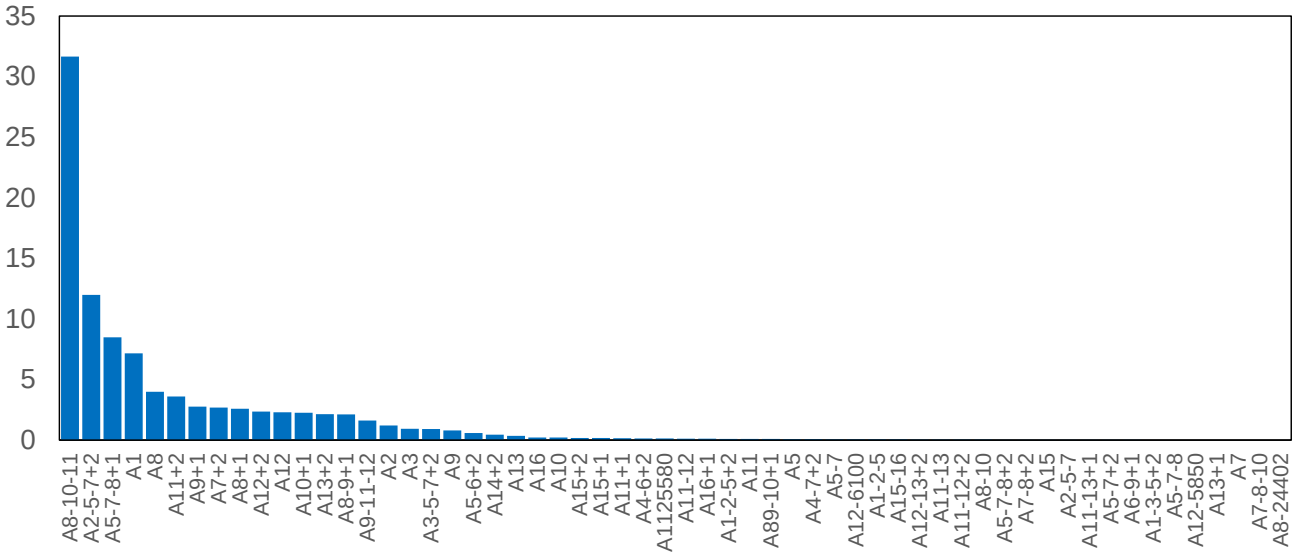
17. Most positions are concentrated in a small number of pay scales, which suggests room for greater pay differentiation. The A8-10-11 scale covers positions requiring a university degree and accounts for 32 percent of permanent employees (Figure 18). Another third or so of employees are concentrated across 5 scales.[19] By contrast, the 30 combined scales with the fewest employees include barely 1 percent of workers. Such features raise questions as to whether a single combined scale with so many employees as A8-10-11 might be too broad. For instance, employees in the A8-10-11 scale include archive officers, radiotherapists, air traffic control officers, dieticians, and tax officers. Another concern is whether the scales with very few employees are still needed. A complex salary table may be less transparent and more costly to administer.

[17] The salaries of employees of the public and broader public sector are adjusted every January by 66.7% (from 50% previously, following a renewed agreement in May 2023 among the social partners) of the year-on-year percentage change (only if positive) of the consumer price index (CPI), excluding any increases in consumption taxes, and only if GDP exhibits a positive rate of growth during the second and third quarters of the previous year.

[18] See "A Global Dataset on Current Practices" and "Inflation Indexation in Public Finance: A Global Dataset on Current Practices", IMF working Paper.

[19] A2-5-7+2; A5-7-8+1; A1; A8; A11+2.

Figure 18. Share of Employees by Pay Scale
(percent of permanent employees)



Source: Cypriot Authorities, IMF staff calculations.

B. Employment

18. Employee recruitment and retention patterns suggest that government employment is highly competitive, although there are isolated challenges with the recruitment and retention of some low-qualification positions. The number of voluntary departures is very low: only 20 resignations from permanent employees were reported in 2023. In general, there are no recruitment challenges. There is an exception to this pattern: in 2023, 300 vacancies for clerical staff were opened, but fewer than 300 candidates applied, and only 40 were ultimately hired. This may reflect the high level of education among younger cohorts in Cyprus, which ranks 24th out of 400 NUTS2 regions[20] in the whole European Union with respect to the share of 25-to-34-year-old holding a tertiary education degree (62 percent, compared to the EU average of 43 percent). This highlights a mismatch between the pool of candidates on the supply side, and the positions opened, on the demand side. More generally, the extremely low turnover rate and virtual non-existence of recruitment challenges suggest that government employment is highly competitive.

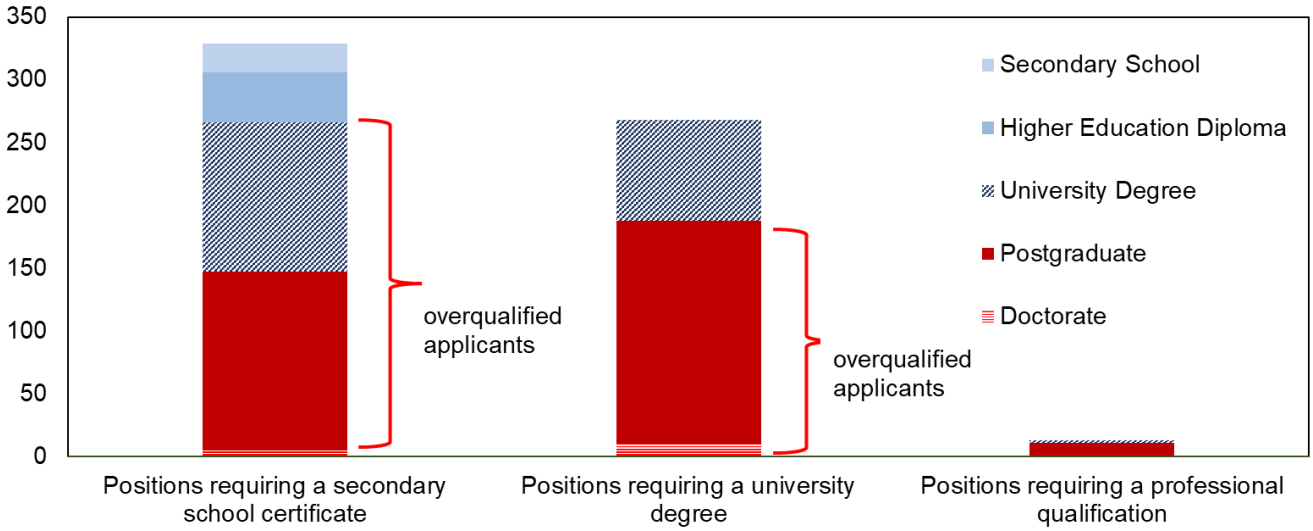
19. Many job openings attract large volumes of overqualified candidates, which raises fiscal and other concerns. Government employment systems providing comparatively generous employment conditions can become so attractive that overqualified candidates apply. This is likely to be the case in Cyprus. For instance, in 2022, 80 percent of new hires entering lower scale positions (entry levels A1-A2-A5+2-A6-A9+1) had a university degree or above (and 45 percent had a master's degree or a doctorate, Figure 19), while such positions only require secondary school certificates or higher education diplomas. This can be a sign of excessive compensation, which is a fiscal concern since funds used for this purpose cannot be used elsewhere. Another consequence can be a lack of motivation and a loss of human capital

[20] The NUTS classification (Nomenclature of territorial units for statistics) divides EU territory. NUTS 2 correspond to basic regions for the application of regional policies.

for the economy. Employees moving quickly to another position once they have permanent contracts can be a source of disruptive turnover. A case in point is new hires being hired as interchangeable staff and rapidly taking exams to move to other positions, which generates vacancies.

Figure 19. Educational attainment of Hires in Central Government by Level of Qualification of the Position, 2022

(persons)



Source: Cypriot Authorities. IMF staff calculations.

Note: 329 positions requiring a secondary school education were opened in 2022. 266 of them were filled by candidates holding a doctorate (5), a postgraduate education (142), or a university degree (119).

20. The set of contracts available offers little room for flexibility in employment type. Employees can be categorized into four distinct groups. (1) Permanent employees constitute the backbone of the public service. Workers in this category are hired through competitive examinations and are subject to a structured career progression system. (2) Casual (contract) employees are engaged on a temporary basis. Their recruitment is not subject to an examination.[21] If their employment is tied to specific projects or peak workload periods, their contract is temporary. However, if they are employed for work that is similar enough to those of permanent employees, they can initiate a legal procedure after 30 months of employment and become (3) indefinite (i.e., open-ended) contractual employees, following general labor legislation.[22] These indefinite positions give the right to similar step increases as permanent employees, but they do not give right to promotions. Redundant workers may need to be kept indefinitely if their skills are needed on a medium-term basis, but not permanently. (4) Hourly paid employees are typically engaged in blue collar roles or specialized services. They are compensated on an hourly basis, although in practice they often work full-time and are paid on a monthly basis. They follow separate pay scales. In 2023, 55 percent of employees were permanent employees, 11 percent were contractual

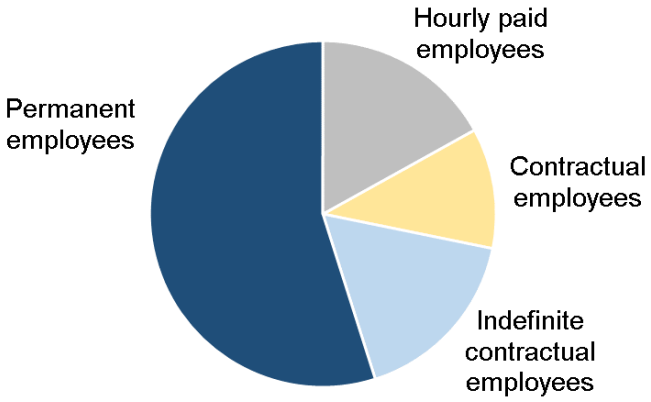
[21] The recruitment of casual employees is conducted by a nominated Committee at each Ministry/Independent Service, which sets the qualifications and the criteria needed for each recruitment process.

[22] Employees with fixed-term contract can become employees of indefinite duration, but not permanent public servants, after 30 months of service, based on the existing legal framework and specifically the harmonizing law, which incorporates in the national legal framework the European "Council Directive 1999/70/EC of 28 June 1999 concerning the framework agreement on fixed-term work concluded by ETUC, UNICE and CEEP".

employees, 17 percent were indefinite contract employees, and 17 percent were hourly employees (Figure 20).

Figure 20. Distribution of Central Government Employees by Type of Contract, 2023

(percent)



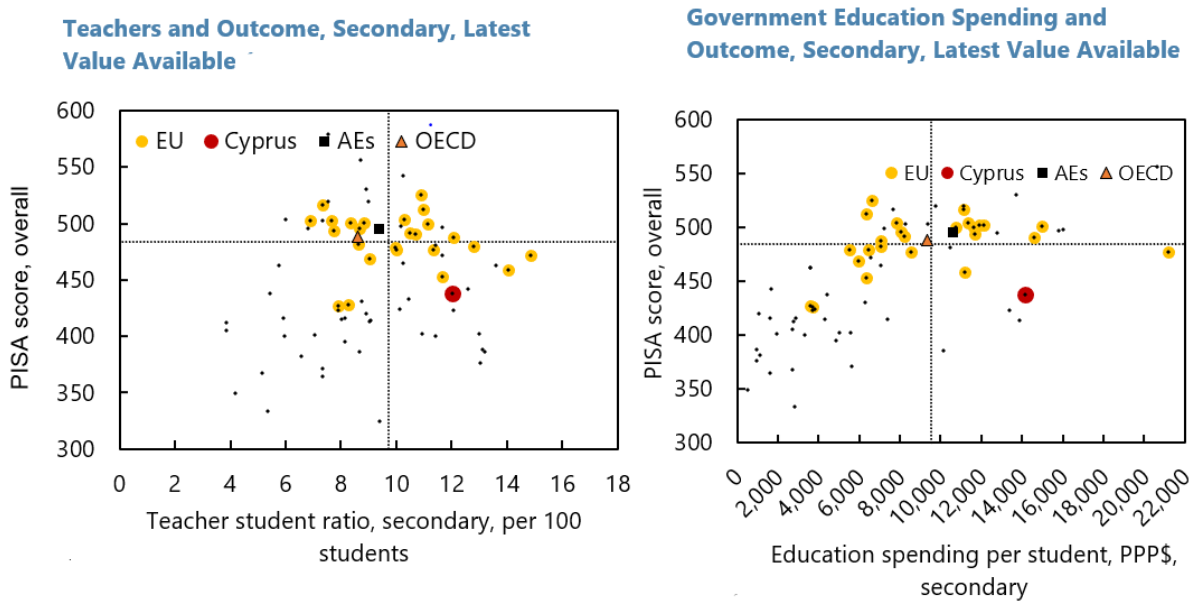
Source: Cypriot Authorities. IMF staff calculations.

21. The main tool used to meet the need for flexibility is overtime, while mobility is limited. Even in career-based employment systems such as Cyprus, being equipped with instruments to allow some flexibility in the workforce is necessary, especially in smaller countries. Flexibility can be improved internally through work intensity (overtime) or internal mobility (redeployment, secondment). Overtime is currently the most widely used tool to achieve flexibility, while internal mobility is limited. A mobility framework exists but it is scarcely used in practice.

22. An illustration of the need for flexibility is most evident in the education sector. Demographic trends, as in most of Europe, have resulted in a declining native student population. Some schools have very few pupils in rural areas[23] (although the average density in Cyprus remains comparable to the EU average). Refugee inflows in recent years have complicated the task of predicting class sizes and managing staffing and created needs for additional specialized resources with specific skills, such as intensive language classes and psychological support. Another challenge arises from reduced teaching hours for teachers with a certain number of years of tenure. Cyprus stands out as a country combining a relatively high teacher-to-student ratio and spending level per student with a relatively low performance on the PISA tests (Figure 21). The current system offers little options to meet the need for flexibility, especially due to the strong bargaining power of insiders in the current setting (strong role of trade unions). The Ministry of Education often resorts to hiring temporary staff to fill staffing gaps; however, such workers reach “indefinite” status after 30 months of employment.

[23] https://cyprus-mail.com/2024/06/26/just-one-pupil-left-at-cyprus-smallest-school/ accessed on June 28th, 2024.

Figure 21. Performance of Secondary Education in Cyprus and Peers, Latest Available Data



Source: IMF FAD Expenditure Assessment Tool (EAT), World Bank.
Note: Dashed lines are the average of the EU.

23. The health sector is in transition. In 2019, Cyprus began the shift from a model of dual public-private health care systems to a universal health insurance model—the National Health System (NHS). The NHS is designed to ensure universal access to healthcare services financed by contributions and general taxation in a competitive healthcare market. A central element of the reform is to transform public health providers (PHPs), previously part of the Ministry of Health, into autonomous, financially independent, and sustainable entities that can compete for healthcare services on par with the private sector. The SHSO, a semi-public entity consolidated under the central government, was established to manage PHPs—administratively and financially—with greater flexibility in setting compensation policies. Existing PHPs' staff, all of whom were previously state budget employees, are now seconded to SHSO, while new staff is directly hired by the organization. In addition, doctor's compensation was increased to align more closely with that of the private sector. However, several challenges remain, with respect to the compensation conditions of worker in both frameworks, related incentives, and organizational constraints, such as the need to organize shifts of staff in good conditions.

III. Reform Options

24. Containing the growth of compensation of government workers in Cyprus is both appropriate and equitable. Reestablishing greater parity in compensation between the government and private sector would create essential fiscal space for other types of expenditure, promote greater labor mobility between the sectors, and improve the allocation of human capital across the economy; these would benefit the whole population of Cyprus. This is best accomplished by managing the growth of compensation in the government sector to gradually bend the trajectory of government pay levels to converge with those in the private sector.

25. The establishment of medium-term objectives is essential to provide a framework for making year-to-year decisions based on resource availability as part of the budgeting process. This approach to managing government compensation spending has three key advantages. Most importantly, it provides flexibility by enabling changes to be shaped by year-by-year resource availability without compromising medium-term fiscal and human resource management objectives. Fiscal flexibility is particularly important for smaller economies which are highly vulnerable to exogenous economic forces. In addition, it enables changes in government employment and compensation policies to be made in a planned and incremental manner—which enables the trajectory of spending to be gradually bent toward strategic fiscal objectives and is typically less contentious. Finally, it allows the size and composition of the government workforce to be changed in a planned and targeted way while still relying on attrition.

26. Objectives should include explicit targets for the evolution of compensation spending as a share of GDP to create space for other expenditure, consistent with the authorities' priorities. Because compensation spending is the product of the number of workers and average compensation, the authorities' objectives should also include explicit medium-term targets for the *size of the workforce* and for *average pay levels*. In general, the wage bill as a share of GDP will remain roughly stable as long as: (i) the government workforce grows in line with the working-age population; and (ii) the compensation paid to government workers grows in line with the compensation paid to private sector workers. With respect to the former, the working-age population in Cyprus is growing very slowly (at about 0.3 percent per year), so fixing the size of the government workforce would generate some—but not a lot of—fiscal space for other types of expenditure. With respect to the latter, containing the growth of average government pay levels offers greater potential.

27. Short-term cost containment measures and gradual adjustments would enable a more in-depth reform of the compensation system in the medium term. International experience suggests that a full redesign of pay scales tends to increase personnel costs. Given the immediate need to contain compensation spending in Cyprus, it would be preferable to make gradual adjustments to the pay system within the existing pay scales, such as by lengthening the period to move up a step as proposed. Other gradual changes could include "uncombining" the combined pay scales, such that promotions are subject to a competitive process with fixed quotas instead of being granted automatically. This could also improve incentives for high performers. If pay levels are deemed insufficiently competitive to recruit and retain certain highly skilled workers, such as information technology professionals, these positions can be reclassified within the existing pay scales. In the medium term, once overall pay levels are more in line with the private sector, subtler issues with the pay system which will become clearer, such as recruitment

and retention challenges in specific occupations or sectors. These issues could then be addressed with a more in-depth reform of the compensation system.

A. Baseline Projection

28. Forecasts for the evolution of compensation spending over the medium term were developed by the mission using a Microsoft Excel-based projection model. The definition of compensation used in the mission's model aligns to the government payroll (i.e., to compensation, exclusive of pensions, as recorded in the state budget). In 2023, spending—inclusive of the contributions paid by the government as an *employer* for social levies (e.g., pensions and health insurance)—was about 2.5 billion euro or 8.5 percent of GDP. The model relies on individual-level payroll data which enabled distributions to be created for *workers-by-age*, mean *wages-by-age*, and mean *allowances-by-age*.[24] The computation of *wages-by-age* includes the base salary (or the hourly wage for nonpermanent employees); the "increase"; and cumulative cost-of-living adjustments (COLAs). Allowances include all nonwage compensation excluding overtime. Distributions were created separately by sector—education, health, uniformed forces, and all others—to enable the simulation of reforms that apply differently by sector and because retirement ages are lower for the police and military vis-à-vis other government workers. With the inclusion of overtime and social levies, the model reproduces compensation spending almost exactly in 2023, the first year of the modeling period. The three distributions for each of the four sectors are then projected forward to 2029 based on policy inputs and other variables. The purpose of the projection model is to facilitate an informed policy dialogue by enabling the authorities to: (i) estimate the trajectory of compensation spending as a share of GDP over the medium term; (ii) evaluate the implicit tradeoffs between employment and compensation; (iii) assess the fiscal implications of potential changes in government employment and compensation policies; and (iv) tailor packages of reforms to attain medium-term fiscal targets. A copy of the model will be provided to the authorities at the completion of the mission.

29. The mission used its projection model to create a baseline forecast for the evolution of compensation spending over a medium-term horizon. The mission's baseline incorporates: (i) the specified "retrospective" increase in contributions to be paid by the government as an employer to the Social Insurance Fund in 2024, 2025, and 2026, and (ii) the government's decision to create 921 new posts and abolish 341 existing posts in 2024. From 2025 onward, the mission's baseline assumes: (i) government employment in all sectors will grow in line with the rate of growth of the working-age population; (ii) COLAs will be awarded at the rate of two-thirds of prior-year inflation (as is currently the practice); and (iii) overtime as a share of wages will remain stable in all sectors. The impact of wage "drift"—i.e., the increase in average wages attributable to the step increases found in the salary table—was estimated using regression analysis. The mission's analysis suggests that wage drift for workers at the state budget level averages about 2.8 percent per year, which is high by international standards, although it varies by sector. Values for inflation and nominal and real GDP growth were sourced from the IMF's April 2024 World Economic Outlook (WEO) database. Compensation spending is expressed relative to GDP, as a proxy for the magnitude of the government's fiscal resources.

[24] The use of age distributions is advantageous because it enables an accurate estimation of workforce departures due to mortality using age-specific mortality rates, retirement, and turnover—although turnover in Cyprus is negligible.

30. Under the mission's assumptions, the compensation spending is expected to rise from 8.5 percent of GDP in 2023 to 9 percent this year and to decline very gradually by about 0.1 percentage points thereafter (Table 2). The roughly 0.5 percentage point increase in 2024—and associated 0.5 percentage point decrease in in 2027—of compensation spending as a share of GDP are attributable largely to the "retrospective" increase in contributions to the Social Insurance Fund, rather than to underlying structural issues. With this adjustment removed, compensation spending declines gradually from 2024 to 2029. Given that the mission's baseline assumes that the size of the government workforce will remain stable relative to the working-age population, compensation spending as a share of GDP declines because the combination of wage drift and COLAs causes average government compensation to rise at a rate that is slightly less than the anticipated rate of nominal GDP growth (which is robust under the WEO forecast).

Table 2. Headcounts, Compensation Spending, and Macroeconomic Assumptions, 2023-2029

	2023	2024	2025	2026	2027	2028	2029
Number of Workers	**56,205**	**56,928**	**57,127**	**57,327**	**57,528**	**57,729**	**57,930**
Compensation Spending (Percent of GDP)	**8.5**	**9.0**	**9.0**	**8.9**	**8.3**	**8.2**	**8.1**
Adjusted Compensation Spending (Percent of GDP)	**8.5**	**8.7**	**8.7**	**8.5**	**8.3**	**8.2**	**8.1**
Nominal GDP (Euro millions)	29,807	31,713	33,420	35,206	37,135	39,070	41,145
Nominal GDP Growth (Percent)	7.3	6.4	5.4	5.3	5.5	5.2	5.3
Real GDP Growth (Percent)	2.5	2.6	2.8	3.0	3.1	3.1	3.0
Inflation (Period Average, Percent)	3.9	2.2	2.0	2.0	2.0	2.0	2.0

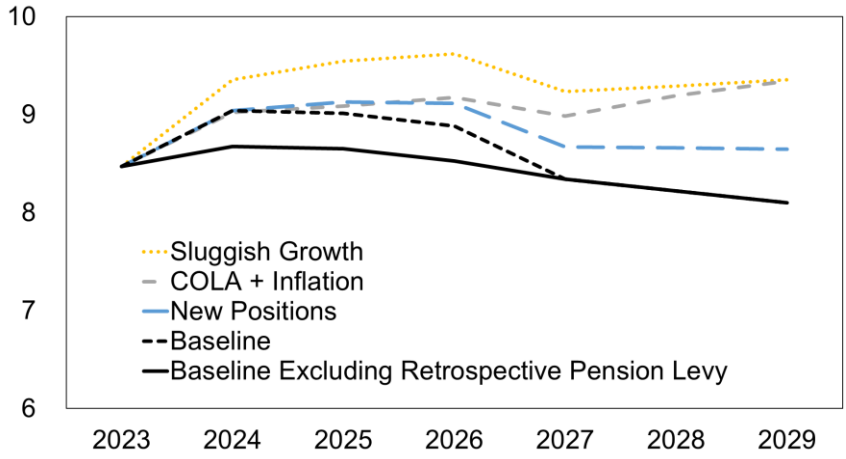
Source: IMF staff estimates.

Note: "adjusted compensation spending" is the mission's baseline projection with the retrospective increase in contributions to the Social Insurance Fund removed.

B. Fiscal Risks

31. The mission's baseline suggests that economic growth, on its own, will not create significant fiscal space for non-compensation expenditure—policy reforms will be needed. Moreover, the anticipated gradual downward trajectory of compensation spending as a share of GDP is not assured. Policies regarding the evolution of the government workforce and levels of compensation could deviate from the mission's baseline assumptions, and Cyprus' economy could evolve differently from the baseline projections. Figure 22 illustrates how compensation spending could evolve if: (i) the number of positions created each year from 2025 to 2029 is higher than is anticipated under the baseline by the number of new positions created this year (a scenario entitled *New Positions* in the figure which illustrates the fiscal consequences of allowing the government workforce to grow faster than the working-age population); (ii) beginning in 2025, COLAs are awarded at 100 percent of inflation—i.e., the policy reverts to previous practice—in combination with higher-than-assumed rates of inflation due to rising import prices (a scenario entitled *COLA + Inflation* which illustrates the consequences of allowing average compensation to grow faster in the government sector than it grows in the private sector); and (iii) beginning this year, real GDP grows by 2.0 percentage points less than the rate envisaged under the WEO forecast (a scenario entitled *Sluggish Growth* which illustrates the potential impact of macroeconomic risk).

Figure 22. State Budget Compensation Spending, Baseline and Risk Scenarios, 2023-2029
(percent of GDP)



Source: IMF staff estimates.

C. Options for Reform and Fiscal Impact

32. To generate fiscal space for non-personnel expenditure, the authorities can target government employment or compensation. As discussed previously, for countries not in crisis, reducing the wage bill as a share of GDP is best accomplished gradually in the context of a medium-term strategy that includes explicit targets for size of the workforce and for average pay levels. These targets can be used to frame year-to-year decisions as part of the budgeting process, thereby enabling the trajectory of the wage bill to be incrementally bent toward the authorities' medium-term targets while still accommodating variations in resource availability.

33. Although the size of the workforce in Cyprus is not comparatively large, the authorities could gradually reduce it slightly to create modest fiscal space for other expenditure priorities. Reducing the size of the workforce would be best accomplished by identifying noncritical positions and abolishing them once they become vacant (i.e., by relying on attrition). Noncritical positions can be identified by conducting functional reviews to identify areas of overlap in the government sector and to prioritize essential government services. Once completed, functional reviews provide a solid basis for making gradual changes in the staffing of ministries, departments, and agencies.

34. Containing the growth of government compensation, however, offers greater potential. The mission recommends that COLAs for government employees be suspended for long enough gradually to narrow the pay gap with the private sector. If suspending COLAs is not viable, the mission recommends that they be awarded at a rate equal to one-half or one-quarter of the rate of inflation for as long as is required to achieve the same objective. The magnitude of the compensation premium in Cyprus is large by international standards and has no justification on human resource grounds. If applied differentially across sectors or occupations (e.g., by awarding less generous COLAs to workers with the largest premiums, based on studies of private sector compensation), COLAs can also contribute to greater pay parity across the government sector, as well as between the government and the private sector. In addition to offering meaningful—and potentially enduring—fiscal relief, both outcomes would be more equitable.

35. In addition to using COLA policies to reduce the growth of average compensation, the mission urges the authorities to take steps to reduce the magnitude of wage drift. As discussed earlier, wage drift arises primarily from the system of steps embedded in the salary table, whereby salaries are automatically increased annually for most workers. At 2.8 percent per year, wage drift in Cyprus is very high by international standards and is one of the reasons why compensation spending has remained stubbornly high for so many years.[25] Reducing the impact of wage drift is best accomplished by increasing the time required for workers to move from one step to the next (i.e., from one year per step to two or three years). It merits emphasizing that limiting wage drift is about restoring the linkage between movement *across* the salary scale and the gains in productivity that accrue from length of tenure. Because productivity tends to increase more rapidly when workers are first appointed to a position, some countries award step increases every year initially and every two (or even three) years thereafter—an approach endorsed by the mission.

36. To create greater fiscal space for other expenditure sooner, the authorities could also, as a last resort, consider reducing overtime or eliminating the 13th month payment. Both options, however, would result in nominal wage cuts, which tend to be highly contentious—and existing levels of overtime may exist for legitimate human resource reasons.

37. Table 3 presents a menu of reform options and provides estimates for their savings relative the mission's baseline projection. The savings are *cumulative*, not additive, and are expressed in percent of GDP.[26] Savings from combinations of measures are mostly additive, but some combinations of measures would generate less savings, in total, than they generate individually because of interactions between variables.

[25] Over the long term, wage drift of 2.8 percent per year—in combination with COLAs fully indexed to inflation (as was the practice until recently)—will likely cause real pay levels to rise faster in the government than in the private sector—and is the primary reason why government workers in Cyprus earn so much more, on average, than do their private sector counterparts.

[26] Values of 0.2 in 2024 and 0.5 in 2025, for example, imply that a given reform measure is expected to save 0.2 percent of GDP in 2024 and an additional 0.3 percent of GDP in 2025, relative to the baseline projection.

Table 3. State Budget Compensation Spending Baseline and Savings from Measures, 2023-2029
(percent of GDP)

	2023	2024	2025	2026	2027	2028	2029
Baseline Projection	**8.5**	**9.0**	**9.0**	**8.9**	**8.3**	**8.2**	**8.1**
Baseline Projection Excluding Retrospective Pension Levy	**8.5**	**8.7**	**8.7**	**8.5**	**8.3**	**8.2**	**8.1**
Savings relative to the baseline projection							
Employment							
Create No New Positions (2025-2029)			0.0	0.1	0.1	0.1	0.1
And Fill 80 Percent of Vacancies (2025-2027)			0.1	0.2	0.2	0.3	0.3
COLAs							
Suspend for One Year (2025)			0.1	0.1	0.1	0.1	0.1
Suspend for Two Years (2025-2026)			0.1	0.2	0.2	0.2	0.2
Suspend for Three Years (2025-2027)			0.1	0.2	0.3	0.3	0.3
Reduce to 50% of Inflation (2025-2029)			0.0	0.1	0.1	0.1	0.1
Step Increases							
Increase from One to Two Years (2025-2029)			0.1	0.3	0.4	0.5	0.6
Increase from One to Three Years (2025-2029)			0.2	0.3	0.5	0.6	0.8
Overtime							
Reduce to 75 Percent of 2023 Level (2024-2029)		0.2	0.2	0.1	0.1	0.1	0.1
Reduce to 50 Percent of 2023 Level (2024-2029)		0.3	0.3	0.3	0.3	0.3	0.3
Disallow 13th Month Payment Starting 2025							
For One Year			-	0.6	-	-	-
For Two Years			-	0.6	0.6	-	-
For Three Years			-	0.6	0.6	0.6	-

Source: IMF staff estimates.

D. Areas for Further Study

38. The mission identified the following issues for further study:

- ***Fine-tuning the compensation system once overall pay levels are more in line with the private sector.*** The immediate issue identified with respect to the compensation system is the overly generous pay levels it generates for virtually all positions. Other imperfections currently appear to be of second-order importance, and international experience suggests that a full redesign of pay scales tends to increase personnel costs, even though there may be good reasons for such an exercise. In the medium term, once overall pay levels are more in line with the private sector, subtler issues with the pay system which will become clearer, such as recruitment and retention challenges in specific occupations or sectors. These issues could then be addressed with a more in-depth reform of the compensation system, which could include greater pay differentiation and *more competitive* pay for some positions.

- ***Flexibility to manage the government workforce.*** The mission recommends that existing laws and regulations be reviewed and amended, as needed, to give the authorities greater flexibility in managing the government workforce in the context of a career-based employment system with (virtually) guaranteed lifetime employment. Human resource needs inevitably change over time, sometimes on a short-term basis. Existing laws and regulations appear unduly to hamper the authorities' ability to match the skills and capabilities of the government workforce to evolving human resource needs. In particular, the mission recommends investigating and potentially amending the laws, regulations, and norms relating to: (i) the retention of contractual workers (to allow them to be hired for longer periods without leading to their indefinite employment); (ii) the rules and practices for the redeployment of workers across ministries, departments, and agencies, both functionally and geographically; and (iii) the secondment or permanent movement of workers to promote cross-training and facilitate greater interchangeability across the workforce. Changes could require tools to incentivize workers to be mobile and managers to support mobility, either throughout departments, positions, or locations. Another option could be to have a pool of short- term workers that can help ministries to match their temporary needs without committing to permanent or indefinite positions. The authorities may also wish to consider broader structural reforms to the public service system to promote greater labor mobility between the government and private sector given that turnover in Cyprus is very low by international standards.

- ***Addressing the specific needs of the education sector.*** Very small schools could be consolidated into larger facilities, which would also benefit pupils as far as socialization and teacher specialization is concerned. This could be supported by improving transport provision for students.[27] Developing systems with mobile/itinerant teachers and relying on distance/online learning for some subjects could help to meet specific staffing gaps.

- ***"Skills matching" across the government workforce.*** The mission notes the number of, and lack of suitably qualified applicants for, lower-skilled positions. This has resulted in the hiring of over-qualified applicants who then seek higher-skilled positions elsewhere in the government. High rates of internal turnover in such positions could be addressed by: (i) modernizing existing processes and reducing the number of lower-skilled positions, for instance by investing in digitalization to shift the need for lower-skilled workers to higher skilled positions; (ii) broadening the labor supply, for instance by expanding recruitment to less represented groups, such as migrants; and (iii) outsourcing some functions, where appropriate, to private service providers.

- ***Unified compensation spending in the health sector.*** Healthcare is gradually transitioning from being provided by medical staff paid directly by the government to a dual system combining staff seconded to the GHSO and staff employed directly by the GHSO. Consequently, the mission was unable comprehensively to evaluate compensation spending for the entire health sector. Given the importance of the sector—and the magnitude of its fiscal burden—further investigation is warranted.

[27] OECD (2021), "Delivering quality education in rural communities", in Delivering Quality Education and Health Care to All: Preparing Regions for Demographic Change, OECD Publishing, Paris, https://doi.org/10.1787/5ff868c8-en.

- ***Labor relations and social dialogue*.** The quality of labor relations is one of the key parameters of a well-functioning collective bargaining system. Developing a framework for social dialogue, which could include the use of independent and impartial publicly funded mediators to work toward constructive resolution of points of dispute between the government (as an employer) and unions (as a representative of workers) would be helpful. The UK's Advisory, Conciliation, and Arbitration Service[28] is an example of such a body. The mission believes such an approach may be appropriate in Cyprus where persistently high compensation spending has undermined the authorities' ability to accommodate other expenditure priorities.

- ***Unfunded pension liabilities*.** The mission recommends further study of the potential magnitude of unfunded liabilities associated with the benefits provided under the General Social Insurance Scheme—which covers both public and private sector workers—as well as the now-closed legacy Government Employees Pension Scheme.

[28] https://www.acas.org.uk.

Annex 1. Compensation Premium Estimation

This analysis is based on the 2022 EU Survey on Income and Living Conditions for Cyprus, which uses 2021 income data survey. Given data availability, this analysis distinguishes only between workers in the public sector[29] on the one hand and in the private sector on the other hand. This analysis uses data at the individual level and respondents are classed as public- or private-sector employees according to their main job if they have more than one.

A Mincer regression was used for this analysis. This approach estimates the compensation premium after controlling for certain observable differences between individuals.

The Mincer equation can be written as:

$$\ln(\text{income}_i) = \alpha + \delta\,\text{public}_i + \beta\,\text{secondary}_i + \mu\,\text{master\_doctorate}_i + \pi\,\text{female}_i + \gamma\,\text{age}_i + \rho\,\text{age}_i^2 + \theta\,\text{district}_i + \varepsilon_i.$$

In the above equation, the dependent variable is $\ln(\text{income})$, which is the natural logarithm of gross income per hour worked. Coefficient α is a constant. The dummy variable public takes the value 1 if the individual works in public sector and 0 if they work in the private sector, so the coefficient δ is the compensation premium for public-sector employees. The coefficients β and μ respectively reflect the difference in income associated with having completed secondary education or less or of having completed some a master's or doctoral degree relative to having completed a bachelor's degree or at least some tertiary education ("bachelor's degree"). The coefficient π reflects the earnings penalty associated with being female. The coefficient γ reflects the difference in earnings associated with an additional year of age, which serves as a proxy for experience and would be expected to be linked to higher incomes; the coefficient ρ on the square of age reflects any non-linear effect of age on earnings. The term district is a vector of dummy variables for four of the five districts in the sample.[30] Finally, ε is the error term, which captures the residual variation in income which the model cannot explain.

Income is what respondents report as their income, which should in principle include base salaries and wages, the COLA, allowances, and any other income they receive as an employee. To ensure that jobs considered are broadly comparable, the analysis excludes self-employed workers,[31] employees working less than 38 hours per week, workers under 20 or over 65 years of age, and those who have not been in full-time work for the last 12 months. "Secondary education or less" is ISCED 1 (or less, that is, no formal education) up to ISCED 4 inclusive; "Bachelor's degree" is ISCED 5 to ISCED 6 inclusive; "Master's or doctorate" is ISCED 7 to ISCED 8 inclusive; educational codes are explained in the EU-SILC Methodological Guidelines.

[29] Public sector (known as broad public sector in Cyprus) includes central government, local authorities, and publicly owned enterprises and companies.

[30] One of the districts must be omitted to avoid the "dummy variable trap" which arises from multicollinearity among the district dummy variables.

[31] Excluding self-employed workers should exclude informal workers, according to CYSTAT.

Regression results are reported in Table A1.1. The mission estimated the Mincer equation as specified above, shown in column (1); restricted the sample to men only and women only, shown in columns (2) and (3), respectively. The signs of the coefficients on control variables are generally as would be expected. Earnings are lower for those with secondary education or less and higher for those with a master's or doctorate, relative to those with a bachelor's degree. Women earn less than men, other things being equal, which is consistent with the gender inequality seen in most countries. Finally, income tends to increase with age (a proxy for experience), but the rate of increase slows down as age increases.

Table A1.1. Regression Results, Average Public-Sector Compensation Premium

	Men and women		Men only		Women only	
	(1)		(2)		(3)	
	Coeff.	Std. error	Coeff.	Std. error	Coeff.	Std. error
Public sector	0.269	0.017	0.253	0.023	0.290	0.028
Secondary education or less	-0.326	0.019	-0.312	0.025	-0.331	0.030
Master's or doctorate	0.289	0.025	0.289	0.036	0.291	0.035
Female	-0.254	0.016				
Age	0.067	0.005	0.068	0.007	0.066	0.008
Age squared	-0.001	0.000	-0.001	0.000	-0.001	0.000
Constant	0.710	0.108	0.638	0.141	0.560	0.169
N	2,760		1,564		1,196	
R^2	0.405		0.410		0.364	
District dummy variables	Yes				Yes	

Source: IMF staff estimates based on the 2022 EU Survey on Income and Living Conditions, which uses 2021 income data.

Note: Regressions are estimated by OLS. All coefficients shown are statistically significant at the 1 percent level using robust standard errors.

The coefficient for the public sector dummy variable suggests a substantial and strongly statistically significant compensation premium. The public-sector compensation premium is estimated to be 27 percent in the full sample. When the sample is restricted to men in the public and private sectors, the premium is somewhat lower at 25 percent. When the sample is restricted to women in the public and private sectors, the premium is somewhat higher at 29 percent. The slight difference in public-sector compensation premia between men and women is consistent with the greater inequality between men and women in the private sector than in the public sector, as observed in most countries.

The final regressions were run to assess how the public-sector compensation premium varies by education level. The functional form follows a similar specification as the regressions above but includes a set of interaction dummy variables between the public sector and the level of education.

$$\ln(\text{income}_i) = \alpha + \lambda_1(\text{public}_i \times \text{secondary}_i) + \lambda_2(\text{public}_i \times \text{bachelor}_i) + \lambda_3(\text{public}_i \times \text{master\_doctorate}_i) + \beta\ \text{secondary}_i + \mu\ \text{master\_doctorate}_i + \pi\ \text{female}_i + \gamma\ \text{age}_i + \rho\ \text{age}_i^2 + \theta\ \text{district}_i + \varepsilon_i.$$

In this regression, the coefficients reflecting the public-sector compensation premium for a given level of education are λ_1 for employees with secondary education or less, λ_2 for employees with a bachelor's degree, and λ_3 for employees with a master's or doctorate. Regression results are reported in Table A1.2, with column (4) showing the results for the combined men and women sample and columns (5) and (6) showing the results for the men-only and women-only samples, respectively.

Table A1.2. Regression Results, Public-Sector Compensation Premium by Education Level

	Men and women		Men only		Women only	
	(4)		(5)		(6)	
	Coeff.	Std. error	Coeff.	Std. error	Coeff.	Std. error
Public sector x secondary education or less	0.241	0.023	0.248	0.028	0.231	0.040
Public sector x bachelor's degree	0.319	0.032	0.313	0.044	0.334	0.045
Public sector x master's or doctorate	0.242	0.040	0.151	0.057	0.318	0.058
Secondary education or less	-0.305	0.022	-0.295	0.030	-0.303	0.035
Master's or doctorate	0.312	0.032	0.331	0.044	0.293	0.045
Female	-0.253	0.016				
Age	0.066	0.005	0.068	0.007	0.065	0.008
Age squared	-0.001	0.000	-0.001	0.000	-0.001	0.000
Constant	0.708	0.108	0.629	0.140	0.581	0.170
N	2,760		1,564		1,196	
R^2	0.405		0.412		0.365	
District dummy variables	Yes		Yes		Yes	

Source: IMF staff estimates based on the 2022 EU Survey on Income and Living Conditions, which uses 2021 income data.

Note: Regressions are estimated by OLS. All coefficients shown are statistically significant at the 1 percent level using robust standard errors.

The public-sector compensation premium is highest for workers with a bachelor's degree. The public-sector compensation premium reaches 32 percent for workers with a bachelor's degree in the men and women sample, compared with 24 percent for employees with secondary education or less and employees with a master's or doctorate. The results are broadly similar in the men-only and women-only samples. However, the compensation premium for women with a master's or doctorate is closer to that of women with a bachelor's degree.

The public-sector compensation premium increases steadily with age. Estimating a similar equation with age instead of education interaction terms indicates a 15 percent premium for 20- to 34-year-olds, a 24 percent premium for 35- to 49-year-olds, and a to 35 percent premium for workers aged 50 and older. (Results table omitted.)

Annex 2. Pay Table in Moldova

Table A2.1 Structure of the Pay Table in Moldova

Salary grade	Salary class	Salary coefficient	Salary grade	Salary class	Salary coefficient	Salary grade	Salary class	Salary coefficient	Salary grade	Salary class	Salary coefficient	Salary grade	Salary class	Salary coefficient
1	1	1.00	4	27	1.72	6	53	2.97	8	79	5.11	10	105	8.80
1	2	1.02	4	28	1.76	6	54	3.03	8	80	5.22	10	106	8.98
1	3	1.04	4	29	1.80	6	55	3.09	8	81	5.33	10	107	9.17
1	4	1.06	4	30	1.83	6	56	3.16	8	82	5.44	10	108	9.37
1	5	1.09	4	31	1.87	6	57	3.23	8	83	5.55	10	109	9.57
1	6	1.11	4	32	1.91	6	58	3.29	8	84	5.67	10	110	9.77
1	7	1.13	4	33	1.95	6	59	3.36	8	85	5.79	10	111	9.97
1	8	1.16	4	34	1.99	6	60	3.43	8	86	5.91	11	112	10.19
2	9	1.18	4	35	2.04	6	61	3.51	8	87	6.04	11	113	10.40
2	10	1.21	5	36	2.08	6	62	3.58	8	88	6.17	11	114	10.62
2	11	1.23	5	37	2.12	6	63	3.66	8	89	6.30	11	115	10.85
2	12	1.26	5	38	2.17	6	64	3.73	9	90	6.43	11	116	11.07
2	13	1.29	5	39	2.21	7	65	3.81	9	91	6.57	11	117	11.31
2	14	1.31	5	40	2.26	7	66	3.89	9	92	6.70	11	118	11.55
2	15	1.34	5	41	2.31	7	67	3.98	9	93	6.85	11	119	11.79
2	16	1.37	5	42	2.36	7	68	4.06	9	94	6.99	11	120	12.04
3	17	1.40	5	43	2.41	7	69	4.14	9	95	7.14	11	121	12.29
3	18	1.43	5	44	2.46	7	70	4.23	9	96	7.29	11	122	12.55
3	19	1.46	5	45	2.51	7	71	4.32	9	97	7.44	12	123	12.82
3	20	1.49	5	46	2.56	7	72	4.41	9	98	7.60	12	124	13.09
3	21	1.52	5	47	2.62	7	73	4.51	9	99	7.76	12	125	13.37
3	22	1.55	5	48	2.67	7	74	4.60	9	100	7.93	12	126	13.65
3	23	1.58	6	49	2.73	7	75	4.70	9	101	8.09	12	127	13.94
3	24	1.62	6	50	2.79	7	76	4.80	10	102	8.26	12	128	14.23
3	25	1.65	6	51	2.84	7	77	4.90	10	103	8.44	12	129	14.53
4	26	1.69	6	52	2.90	8	78	5.00	10	104	8.62	12	130	15.00

Source: Moldova Law 270.

Annex 3. Pay Scales in Cyprus

Table A3.1: Annual Gross Base Salary plus COLA by Scale and Augmented Scale

(euro)

	A1	A2	A3	A4	A5	A5 (ii)	A5 (iii)	A6	A6 (ii)	A7	A7 (ii)
Year 1	15,267	15,319	15,496	15,603	18,005	18,005	18,005	20,058	20,058	25,178	25,178
Year 2	15,267	15,319	15,496	15,603	18,705	18,705	18,705	20,058	20,058	26,436	26,436
Year 3	16,772	16,830	17,027	17,148	19,405	19,405	19,405	22,288	22,288	27,695	27,695
Year 4	16,845	16,922	17,141	17,398	20,197	20,197	20,197	23,440	23,440	28,953	28,953
Year 5	16,918	17,014	17,299	18,005	21,277	21,277	21,277	24,592	24,592	30,212	30,212
Year 6	16,991	17,106	17,779	18,612	22,356	22,356	22,356	25,744	25,744	31,470	31,470
Year 7	17,064	17,227	18,284	19,219	23,436	23,436	23,436	26,895	26,895	32,728	32,728
Year 8	17,140	17,433	18,789	19,827	24,515	24,515	24,515	28,047	28,047	33,987	33,987
Year 9	17,244	17,854	19,294	20,708	25,595	25,595	25,595	29,199	29,199	35,245	35,245
Year 10	17,424	18,275	19,799	21,644	26,674	26,674	26,674	30,351	30,351	36,504	36,504
Year 11	17,759	18,697	20,502	22,580	27,754	27,754	27,754	31,502	31,502	37,762	37,762
Year 12	18,095	19,118	21,280	23,516	28,833	28,833	28,833	32,654	32,654		39,021
Year 13	18,431	19,539	22,058	24,452	29,913	29,913	29,913	33,806	33,806		40,279
Year 14	18,767	19,974	22,837	25,388		30,992	30,992		34,957		
Year 15	19,102	20,615	23,615	26,324		32,071	32,071		36,109		
Year 16							33,151				

	A8	A8 (i)	A8 (ii)	A9	A9 (i)	A9 (ii)	A10	A10 (i)	A10 (ii)	A11	A11 (ii)	A11 (iii)
Year 1	24,511	24,511	24,511	30,425	30,425	30,425	38,114	38,114	38,114	40,544	40,544	40,544
Year 2	24,511	24,511	24,511	30,425	30,425	30,425	39,936	39,936	39,936	40,544	40,544	40,544
Year 3	27,237	27,237	27,237	33,810	33,810	33,810	41,758	41,758	41,758	45,052	45,052	45,052
Year 4	28,567	28,567	28,567	35,441	35,441	35,441	43,580	43,580	43,580	46,874	46,874	46,874
Year 5	29,898	29,898	29,898	37,072	37,072	37,072	45,402	45,402	45,402	48,696	48,696	48,696
Year 6	31,229	31,229	31,229	38,703	38,703	38,703	47,224	47,224	47,224	50,518	50,518	50,518
Year 7	32,559	32,559	32,559	40,334	40,334	40,334	49,046	49,046	49,046	52,340	52,340	52,340
Year 8	33,890	33,890	33,890	41,964	41,964	41,964	50,868	50,868	50,868	54,162	54,162	54,162
Year 9	35,221	35,221	35,221	43,595	43,595	43,595	52,690	52,690	52,690	55,984	55,984	55,984
Year 10	36,552	36,552	36,552	45,226	45,226	45,226		54,512	54,512	57,806	57,806	57,806
Year 11	37,882	37,882	37,882	46,857	46,857	46,857			56,334	59,628	59,628	59,628
Year 12	39,213	39,213	39,213		48,488	48,488					61,450	61,450
Year 13	40,544	40,544	40,544			50,119					63,272	63,272
Year 14	41,874	41,874	41,874									65,094
Year 15		43,205	43,205									
Year 16			44,536									

	A12	A12 (ii)	12 (ii) - 65?	A13	A13 (i)	A13 (ii)	A14	A14 (ii)	A15	A15(i)	A15(ii)	A16	A16(i)
Year 1	50,002	50,002	50,002	53,285	53,285	53,285	63,453	63,453	71,941	71,941	71,941	78,953	78,953
Year 2	52,339	52,339	52,339	53,285	53,285	53,285	66,185	66,185	74,854	74,854	74,854	81,866	81,866
Year 3	54,676	54,676	54,676	59,207	59,207	59,207	68,918	68,918	77,767	77,767	77,767	84,778	84,778
Year 4	57,012	57,012	57,012	61,544	61,544	61,544	71,650	71,650	80,679	80,679	80,679	87,691	87,691
Year 5	59,349	59,349	59,349	63,881	63,881	63,881	74,383	74,383	83,592	83,592	83,592	90,604	90,604
Year 6	61,686	61,686	61,686	66,217	66,217	66,217	77,115	77,115	86,505	86,505	86,505	93,516	93,516
Year 7	64,023	64,023	64,023	68,554	68,554	68,554	79,848	79,848		89,417	89,417		96,429
Year 8	66,360	66,360	66,360	70,891	70,891	70,891		82,580			92,330		
Year 9		68,696	68,696	73,228	73,228	73,228		85,313					
Year 10		71,033	71,033		75,564	75,564							
Year 11			73,112			77,901							

Source: Cypriot Authorities, IMF Staff calculations.