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Republic of Armenia
Public Expenditure Review

Expanding the Fiscal Envelope

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Europe and Central Asia Region

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Currency Unit = Armenian Dram (AMD)
US$1 = 413.900 AMD

GOVERNMENT FISCAL YEAR
January 1- December 31

ACRONYMS AND ABBREVIATIONS

ALMP	Active Labor Market Policies
AMD	Armenian Dram
CIT	Corporate Income Tax
CS	Civil Service
CSC	Civil Service Council
ECA	Europe and Central Asia
FBP	Family Benefits Program
GDP	Gross Domestic Product
HRM	Human Resource Management
ILCS	Integrated Living Conditions Survey
IMF	International Monetary Fund
MTEF	Medium-term expenditure framework
NILSR	National Institute for Labor and Social Research
OECD	Organization for Economic Cooperation and Development
PAYG	Pay-as-you-go
PER	Public Expenditure Review
PIT	Personal Income Tax
SIGMA	Support for Improved Governance and Management
UB	Unemployment Benefit
VAT	Value Added Tax

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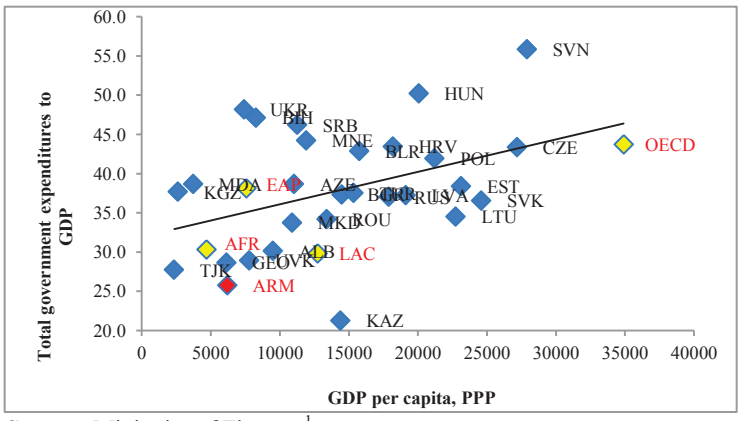
1. Executive Summary

A. INTRODUCTION

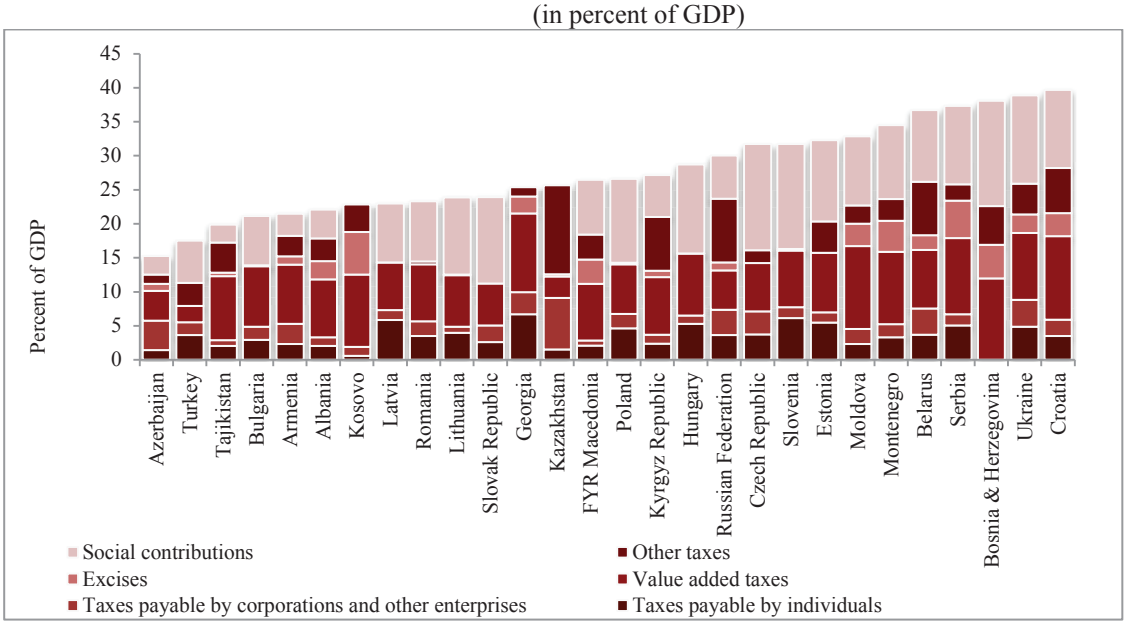
1. **Compared to other governments in ECA, the Armenian government's budget is small**. Its spending constitutes a smaller share of GDP than that of most other countries in Eastern Europe and Central Asia (ECA), Africa (AFR), Latin America and the Caribbean (LAC), East Asia and the Pacific (EAP) and the countries of the Organization for Economic Cooperation and Development (OECD), even when taking per capita income into account (Figure 1). Armenia's tax-to-GDP ratio is also one of the lowest in the ECA region (Figure 2).

Figure 1. Government Expenditure and GDP Per Capita, ECA and World Regions, 2013
(in percent of GDP, and PPP US$ per capita)



Sources: Ministries of Finance.[1]

Figure 2. Tax Revenue, ECA Region, 2012
(in percent of GDP)



Sources: Ministries of Finance.

2. **Its small revenue and spending envelopes limit the government's ability to influence the economy, even while its influence through laws, rules, and regulations is significant.** Automatic

[1] This and the following charts have been produced with the BOOST database combining data from Ministries of Finance, the IMF, and other sources. Support of the ECA regional BOOST initiative, financed by trust funds from Bank-Netherlands Partnership Program and the ECA Public Financial Management Multi-Donor Trust Fund, is gratefully acknowledged.

stabilizers—stable public demand and expansion of social protection spending—protected to some extent countries with 'big' governments from the fall-out of the global financial crisis. In Armenia, the fiscal response to the crisis in 2009, and consolidation in the following years were mostly based on discretionary changes in public spending and led to a big increase in public debt. The tight fiscal envelope for spending on public services and investments in human capital and infrastructure and the government's ability to influence the economy and its development path in the medium term are also limited.

3. **The government has an important role to play to reduce poverty and boost shared prosperity, and needs fiscal space to do so.** Its role is to correct market failures and provide public goods. This includes providing risk insurance and social safety nets, because markets do not provide them for vulnerable groups who lack collateral and access to credit. Poverty reduction, for example through direct cash transfers from the Family Benefits Program, is a public good, because people generally prefer to live in countries with low poverty. Many infrastructure investments will not be provided adequately by private investors, such as rural roads, because they would find it difficult to charge for their use, and investments in human capital are difficult for poor people, because they cannot access credit without collateral. Notions of fairness and equal opportunity justify some bias in fiscal activities toward income redistribution.

4. **Public policy has to navigate many trade-offs**. Thus, while public spending can contribute to improving the country's productive capital, taxation alters private initiative and distorts markets. Given that the fiscal envelope can be widened through higher taxation as well as faster GDP growth, this is not a trivial consideration. In addition, political systems express different preferences for bigger or smaller governments. Cross-country comparisons are therefore weak guides for public policy.

B. OVERVIEW

5. **This Public Expenditure Review (PER) analyzes and provides recommendations for the different dimensions of expanding the fiscal envelope.** There are three ways of creating fiscal space: the first is higher tax revenue mobilization (through better administration and enforcement of existing taxes, higher tax rates, or new taxes on previously untaxed goods and services or incomes), second, lower spending on less productive programs, and third, an increase in the effectiveness of spending, i.e. a higher output of the things the government wants (efficient administration, human capital, services for the population) for a given level of spending.

6. **This report builds on the analyses and recommendations of the previous PER.**[2] It provided analyses and recommendations for the government to increase efficiency of all aspects of public finances—tax policy, tax administration and public expenditures. It highlighted Armenia's limited fiscal envelope, and pointed out that key areas, such as education, health and road transport, had been consistently underfunded. It suggested that revenue needed to be significantly improved, and the government would have to revisit its expenditure priorities to create the spending headroom needed to at least maintain the spending level in these areas. Coming out of the recession following the global financial crisis, it suggested that tax revenue increases, not expenditures, should bear the brunt of the required fiscal consolidation to secure growth and maintain debt at sustainable levels.

[2] World Bank (2012).

Box 1. Policy Recommendations and the Reforms from the 2013 Public Expenditure Review

On the revenue side, the report highlighted areas in which significant improvements were possible, and some were subsequently implemented. A new mining sector taxation regime was created with significantly higher government revenue from royalty. In 2012, the presumptive regime for excises was transformed into ad valorem taxation, and small businesses below the VAT registration threshold pay a turn-over tax since 2013. Customs moved to a 'green channel' operation and risk-based inspections. The revenue-to-GDP ratio improved significantly during 2011-13 (see Section 2). The report also argued that a better system needed to be built to evaluate tax exemptions, and some of them needed to be removed. It suggested tax administration reforms and action against tax avoidance and corruption, in particular a move to risk-based auditing of corporate tax returns to make best use of limited auditing capacity in the State Revenue Commission (SRC). A World Bank funded project is enhancing the SRC's ICT infrastructure and analytical capacity.

On the expenditure side, the report acknowledged that there were few clear opportunities for saving. It examined the wage bill, health, education and road transport expenditure to assess the scope for improving efficiency or eliminating specific types of spending. While there was clear evidence that efficiency could be increased, some measures supportive of growth could increase expenditure rather than reduce it. Overall, it cautioned against cutting spending that supports investment in human and physical capital and that maintains the safety net against impoverishment. It highlighted the following issues in its main chapters.

- Health outcomes and the relatively high level of out-of-pocket expenditure for health care make this a candidate for greater public spending rather than less. A key priority—the expansion of the health poverty program by equalizing eligibility with the Family Benefit Program—was implemented with the 2014 budget. A core set of essential, generic pharmaceuticals should also be made accessible to everyone at low cost by expanding the basic benefit package.
- Education spending in Armenia is inefficient, with rural schools producing inferior results at higher cost. The rural 'mini-schools' produce the worst educational outcomes. We recommended (i) a thorough assessment of educational quality and opportunities provided by rural schools; (ii) review and reform the current per capita financing formula; (iii) consider consolidating small rural schools into hub schools; and (iv) address the issues of low quality of teaching in rural areas (for example a rotation of younger teachers and appropriate incentives).
- Too little is spent to maintain and rehabilitate roads and the situation is not sustainable. The road maintenance budget has increased steadily in the last few years. In addition, reforms should include modification of road standards to reflect traffic, use of efficient contracts (such as performance-based contracts that include rehabilitation and maintenance) and allocation of sufficient funds to maintain the part of the network that is used most.
- The public sector wage structure should be reviewed and reformed. The government started implementing reforms to the public sector remuneration systems in 2013, starting with a harmonization of public sector wage scales.

Source: World Bank (2012) and staff evaluations.

7. **The current report focuses on a few of these areas and deepens the analysis.** It looks at some very specific aspects of revenue mobilization, and ways to improve the efficiency of spending. On revenue, it looks at tax exemptions. It presents a detailed fiscal incidence analysis for Armenia. It supplements the analysis of major spending programs in the previous PER—health, education, roads—with a review of the social protection system; and it accompanied and informed during its research phase the government's program for reforming the public sector wage structure, and presented key aspects and recommendations for further steps. The structure of the report is presented below.

- Section 3 analyzes a number of tax exemptions and loopholes. We propose the removal of specific tax exemptions, and estimate their revenue potential, and recommend institutional changes to the way tax exemptions are evaluated and prioritized together with other public spending priorities.
- In Section 4, we analyze ways to improve the impact out of every Armenian dram raised and spent. We investigate the impact of fiscal activities (both revenue and expenditure measures) on the distribution of disposable incomes.
- We then evaluate in detail the social protection system's performance in Section 5. We suggest streamlining the social protection system, with a new targeting mechanism, coordination between programs, and less emphasis on the childbirth grant, which likely has low impact.
- Section 6 accompanies the reforms of Armenia's public service remuneration system. We put the system into context, and give pointers for future reforms.

8. **Good performance of fiscal policy in recent years gives rise to hopes that the improvements recommended in this report will be implemented over time.** Armenia's government has steadily worked to increase revenue mobilization, both through tax policy and through changes to its tax administration. Revenue and expenditure are on the right path with regard to reducing poverty and increasing shared prosperity. The Armenian Family Benefits Program is one of the better targeted programs of this kind in the world. Public sector reforms have moved the Armenian administration far off the Soviet model, and managed to install a relatively efficient, professional system with undue political interferences. However, in all these areas there remains a lot of potential for further improvements, and this report aims to make a contribution highlighting possible solutions. The following section summarizes some of the specific results and main messages.

9. **However, recent proposed changes to key pieces of legislation pertaining to audits of financial statements of companies, and tax audits give rise to concerns over possible negative fiscal and other impacts.** Changes to the audit laws would make audits of financial statements optional, which could increase companies' ability to conceal profits in order to avoid paying taxes. It would also reduce transparency of businesses, and thereby their ability to access capital. The proposed 'voluntary' fee-based tax audits by the State Revenue Commission open the door for fraudulent and harassing practices, and may contravene other legislation which bans public entities from offering fee-based services.

C. MAIN MESSAGES

Tax Expenditures

10. **The previous PER concluded that the right reforms could significantly increase revenue.** Reforms in tax administration, tax policy, and tax laws were estimated to potentially improve revenue in Armenia by 2.3-5.8 percent of GDP from the 2010 base. In fact, tax revenue improved by 3.2 percentage points of GDP during 2010-13, partly because of a new mining sector taxation regime, and revamped excise and VAT taxation, which were proposed in the World Bank report, and partly because of improvements in tax administration. Despite this impressive performance, tax expenditures still present an area with a large revenue potential.

Table 1. Combined impact of Removal of Tax Privileges
(in percent of GDP)

Tax expenditure	Lower bound	Upper bound
Direct taxes on agriculture	0.38	0.57
Tax on interest on government bonds	0.07	0.07
Tax on dividends	0.12	0.12
VAT on financial services	0.31	0.36
Total	0.98	1.12

Source: Authors' estimates.

11. **At last count,[3] Armenia has granted 237 tax exemptions, allowances, credits, preferential tax rates, and tax deferrals.** While many of them are entirely justified, some inevitable, and some others derived from the difficulties of administering taxes, we look in detail into some specific exemptions from VAT, personal and corporate income taxes as examples of the foregone revenue and other economic and social considerations of tax expenditures. The examples are corporate and income taxes on agricultural activities, tax on interest on government bonds, tax on dividends, and VAT on financial services. The removal of these specific exemptions would likely increase revenue by about 1 percent of GDP (Table 1).

12. **While these are specific examples, this report suggests a broader reform of the way in which tax expenditures are designed and evaluated.** The government's ability to make informed decisions about tax expenditures is currently limited by a lack of information and capacity. It should therefore implement the following measures.

- Create a unit (within the tax policy department) in charge of tax expenditures;
- Develop capacity to estimate the revenue loss of tax expenditures, including an appropriate database;
- Analyze the economic and social impact of tax expenditures with a focus on relevance, effectiveness and efficiency;
- Set a timetable and target date to begin presenting tax expenditures with the annual state budget;
- Ensure there are no open-ended tax reliefs and each relief is time-bound;
- Develop modalities for engaging interested parties and the public at large to get a buy-in for the removal of tax privileges.

Fiscal Incidence

13. **Household survey and administrative data is used for incidence analysis, a description of who benefits when the government spends money and who loses when the government imposes taxes.** We analyze the impact of the main taxes (VAT, excises and personal income tax), and the benefits from the main public spending programs (health, education, social protection). The section shows that targeting for most social expenditures and taxes is quite good in Armenia, but redistribution is quite small—because of the government's small footprint. Tax incidence is in line with what one would expect: direct taxes are progressive, while indirect taxes are slightly regressive. Expenditures like education and health care which should be universal are spread evenly across the population (though coverage is less than universal in most cases), while those meant to be targeted toward the poor and disadvantaged by-and-large are. The contributory pensions are not the best-targeted social expenditures, but they have by far the largest budget.

14. **Fiscal activities in their entirety reduce inequality in Armenia.** This is the result of comparing Gini coefficients for market income and final income, which differs from the former by the taxes, transfers, and expenditure benefits shown in the first section. The Gini coefficient improves from 0.469 to 0.357 based on household data for 2011. The headcount poverty incidence for people living in poverty (less than US$2.50 per day) improves from 39.3 to 30.9 percent. For the highest poverty line (less than US$4 per day), however, the effect of taxes overwhelms the effects of transfers, leaving poverty slightly higher post-fiscal activities than at market income. While we use incomes per capita, and international

[3] Provided by State Revenue Commission.

"dollar-a-day" poverty lines, the effect of transfers and taxes on poverty and inequality estimated here will be quite close to the same effect estimated with the NSS welfare measure.

15. **Whether a greater impact on the distribution of income is desirable is a question for policy makers and voters.** Large redistribution requires both good targeting and significant expenditures. Armenia has the former, but with the exception of contributory pensions, not the latter. If a greater influence on the distribution of income were sought in Armenia, the best candidate on the expenditure side of the budget would be the family benefit, which is more concentrated among the poor than any other social expenditure. On the revenue side, most recent discussion of tax reform revolves around indirect taxes. These taxes are significantly less progressive than direct taxes, and the poorest households only rarely pay direct taxes in Armenia. From an equity perspective, then, it would be preferable to consider tax reforms to increase direct taxes either by raising rates or by drawing more workers into the formal economy.

The Social Protection System

16. **Social policy faces the trade-off between social welfare nets and private responsibility.** Most people agree that governments have a role to play in insurance against unforeseen shocks, or reducing abject poverty. However, as with taxation, social safety nets change private incentives and could increase risk-taking, or reduce efforts to find employment. We describe the pension system, which is by far the largest item in the Armenian government's social protection budget, the controversial pension reform, the family benefits program (FBP), which provides unconditional cash transfers to eligible households, active labor market policies, which replaced unemployment insurance in 2014, the childbirth grant, which is intended to promote demographic growth, and a number of smaller programs.

17. **Armenia's social protection system performs fairly well in terms of ensuring minimum living standards and promoting human capital accumulation and employment.** There is still significant room for improvement of the coverage and targeting of social assistance programs.

- Targeting of the FBP can be further improved. With further study and over the medium term, Armenia could move from a means testing system to a proxy-means testing scheme, which would allow for different benefits or levels of benefits for different recipients depending on their characteristics.
- While international evidence regarding the impacts of programs similar to the childbirth grant is mixed and the likely results may not be enough to justify the costs to the budget, possible work disincentives deserve further attention. Mitigating policies could be a further promotion of child care services.
- The new active labor market policies (ALMP) introduced in 2014 go into the right direction of increasing participants' incentives and capacity to become employed, they could become costly if widely used by jobseekers. Training programs are costly, while the return on the investment might be low if they are not accompanied by job creation. International evidence on the impact of training programs is mixed, while the analysis in this chapter shows some potential for a positive effect.

The Public Sector Remuneration System

18. **The availability and quality of public services depend partly on the extent to which the public wage bill is affordable, attracts and retains high-caliber cadre, and is fair within to maintain motivation and incentivize performance.** Governments attract and retain the skilled staff they need by

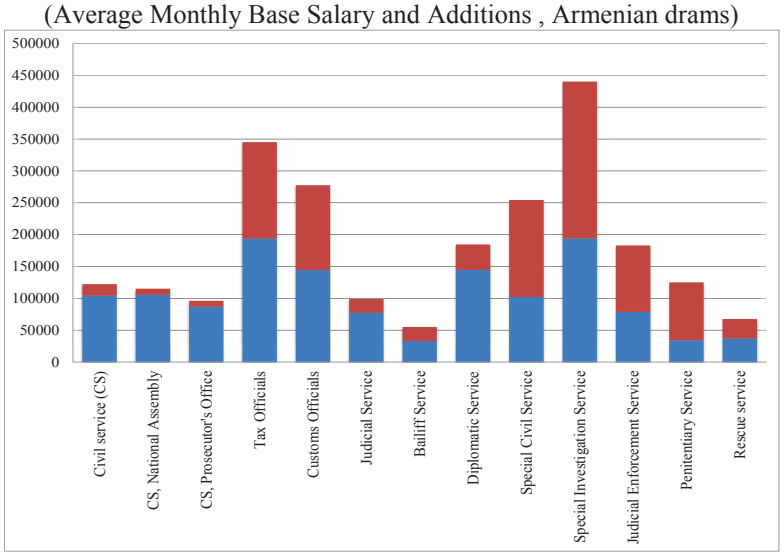
offering competitive, transparent compensation that is appropriate for the array of jobs and workers, thereby contributing to productivity at worker- and entity-level.

19. **The Armenian government's wage bill is affordable, but the public sector has difficulties in recruiting and retaining experienced staff, and inequities have crept into the system of remuneration over time.** On commonly used indicators of size and affordability, Armenia is on the low to middle end of the ranking of countries in the ECA region. Armenia spends a much smaller percentage of its GDP than most ECA countries on public salaries. Limited data from the private sector indicate that public service managers' salaries lag behind. Application statistics also show a low level of interest in public sector jobs.

20. **Compensation is certainly important to achieving a well-performing cadre, but it is not the only factor**. Prior to a limited set of reforms aimed at streamlining wage schedules in 2014, the public services used an intricate set of pay regimes with few systematic linkages among them (Figure 3). Discretionary bonus payments supplement—and for some services and positions, outweigh—base salaries. The system lacked transparency, gave too much discretionary power to managers, and spurred questions of fairness. However, broader human resource management policy and practices also have considerable room for improvement. Better job descriptions could be used for a more competitive and discerning recruitment process, abolishing the current 'attestations', strengthening the performance appraisal system, and tailoring training.

Figure 3. Public Service Compensation in Different Services, 2012

(Average Monthly Base Salary and Additions , Armenian drams)



Source: National Institute for Labor and Social Research, Ministry of Labor, and World Bank calculations.
Note: Additions comprise regular allowances plus variable bonuses that are paid periodically throughout the year.

21. **As the government continues to implement its revised policy and new legislation, it faces a number of challenges.** These can be grouped broadly by the major themes emerging from this section.

- *Flexibility and discretion.* Despite some cautious restraints, the challenge of how to rein in overly discretionary practices continues. This would entail monitoring how bonus practices evolve under the new salary structure, reducing managerial latitude, and revamping performance appraisal processes.

- *Sequencing.* The government embarked on reforms of the compensation framework and pay levels, while leaving job evaluation and re-grading for the future. It would be preferable to start with a single, important cadre such as the civil service as a pilot.
- *Managing job evaluation and classification*. A central body with appropriate authority is needed to validate the grading decisions made by individual entities.
- *Simulating fiscal impacts of re-grading.* The decision to award across-the-board salary increases in the coming years will have knock-on effects on any subsequent re-grading exercise, because the costs of 'grandfathering'. Armenia's payroll system currently cannot easily generate the needed data, and IT expertise and funds will need to be allocated to generate reports for use in fiscal impact projections.

Table 2. Main Recommendations

Area	Recommendations	Likely Impacts
Analysis of Tax Exemptions	• Remove exemptions on corporate and income taxes on commercial agricultural activities, tax on interest on government bonds, tax on dividends, and VAT on financial services	Increased tax collection by 1 percent of GDP
	• Create a unit (within the tax policy department) in charge of tax expenditures; • Develop capacity to estimate the revenue loss of tax expenditures, including an appropriate database; • Analyze the economic and social impact of tax expenditures with a focus on relevance, effectiveness and efficiency; • Set a timetable and target date to begin presenting tax expenditures with the annual state budget; • Ensure there are no open-ended tax reliefs and each relief is time-bound; • Develop modalities for engaging interested parties and the public at large to get a buy-in for the removal of tax privileges.	More informed prioritization of tax exemptions together with prioritization of all government spending.
Fiscal Incidence	• Review extent of redistribution and decide if more should be achieved.	Informed decision making about inequality.
	• The best candidate for increasing redistribution to the poor is the family benefit program, because of its targeting.	Efficient poverty reduction.
	• From an equity perspective, it would be preferable to consider tax reforms to increase direct taxes either by raising rates or by drawing more workers into the formal economy.	Higher revenue without adverse poverty effects.

Area	Recommendations	Likely Impacts
Social Protection System	• Explore moving from means-testing to proxy means-testing, which would allow for different benefits or levels of benefits for different recipients depending on their characteristics.	More efficient targeting of social assistance with better coverage.
	• Consider making participation in employment programs mandatory for those receiving social assistance to maximize employment.	Higher labor force participation.
	• Monitor fiscal costs of active labor market policies and childbirth grant, and their effects. The likely results may not be enough to justify the costs to the budget.	Fiscal sustainability of social protection.
Public Remuneration System	• *Flexibility and discretion:* rein in overly discretionary practices through better monitoring of bonus practices, reducing managerial latitude, and revamping performance appraisal processes.	A well designed public remuneration system.
	• *Sequencing:* start job evaluations and re-grading exercise with a single, important cadre such as the civil service as a pilot.	
	• *Managing job evaluation and classification*: create a central body with appropriate authority to validate the grading decisions made by individual entities.	
	• *Simulating fiscal impacts of re-grading:* enhance payroll system to generate data, and develop the IT expertise to generate reports for use in fiscal impact projections.	

2. Quantifying Fiscal Activities[4]

22. **Armenia's budget deficit expanded significantly in the aftermath of the global financial crisis, but the government has consolidated its budget rapidly since then.** The crisis ended a period of double-digit growth and fiscal consolidation, which culminated in a small budget surplus in 2007. When the economy contracted by 14 percent in 2009, the government increased spending by 7 percentage points of GDP to 30.2 percent of GDP. Since then, strong fiscal adjustments were made leading to deficits of less than 2 percent of GDP in 2012-13.

23. **This section presents developments of the fiscal balance, revenue and expenditure.** It highlights the rapid fiscal adjustment, both in ramping up spending in the wake of the global financial crisis in 2009, and in fiscal consolidation after the crisis. It highlights good revenue performance in recent years, which have seen rising tax-to-GDP ratios, and allowed an increase in the expenditure-to-GDP ratio in 2013 for the first time since 2009.

A. Budget Balance

24. **Fiscal expansion in 2009 happened mainly because of deliberate fiscal stimulus measures.** Some of this expansion went into shoring up the social protection system, in particular unemployment benefits and cash transfers to the needy. The deliberate stimulus included financing for companies, which were cut off from commercial financing (Figure 4). Despite the slowdown, revenue remained at about 22 percent of GDP, which means revenue showed neutral buoyancy with regard to GDP growth.[5] The pace of consolidation exceeded the budget targets in 2012-13, largely due to delays in foreign-funded infrastructure projects, and good performance in revenue mobilization. Revenue reached 25.1 percent of GDP in 2013, a new record. This allowed for some increase in overall expenditure for the first time since 2009.

Figure 4. Expenditure, Revenue, and Budget Balance, Consolidated Government
(in percent of GDP)

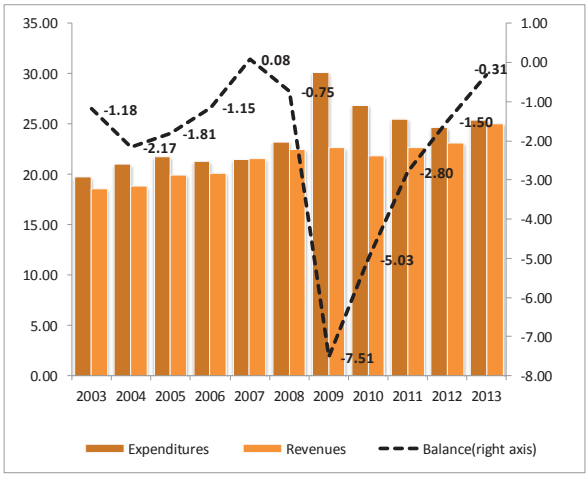
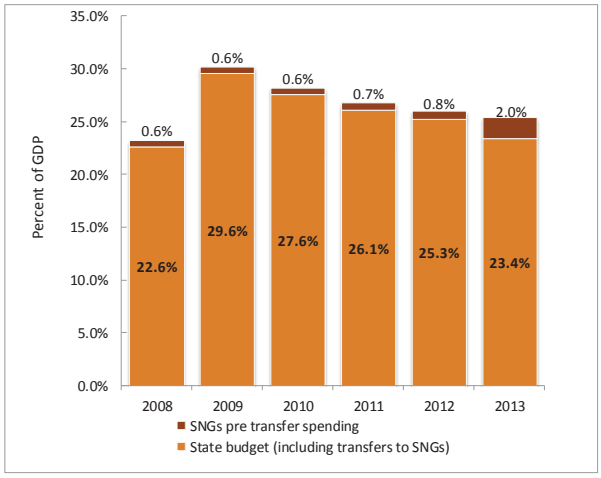


Figure 5. Central and Subnational Budget Expenditures
(in percent of GDP)



Source: Ministries of Finance.

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[4] This section benefited greatly from data analysis by Irina Capita and Elena Bondarenko.

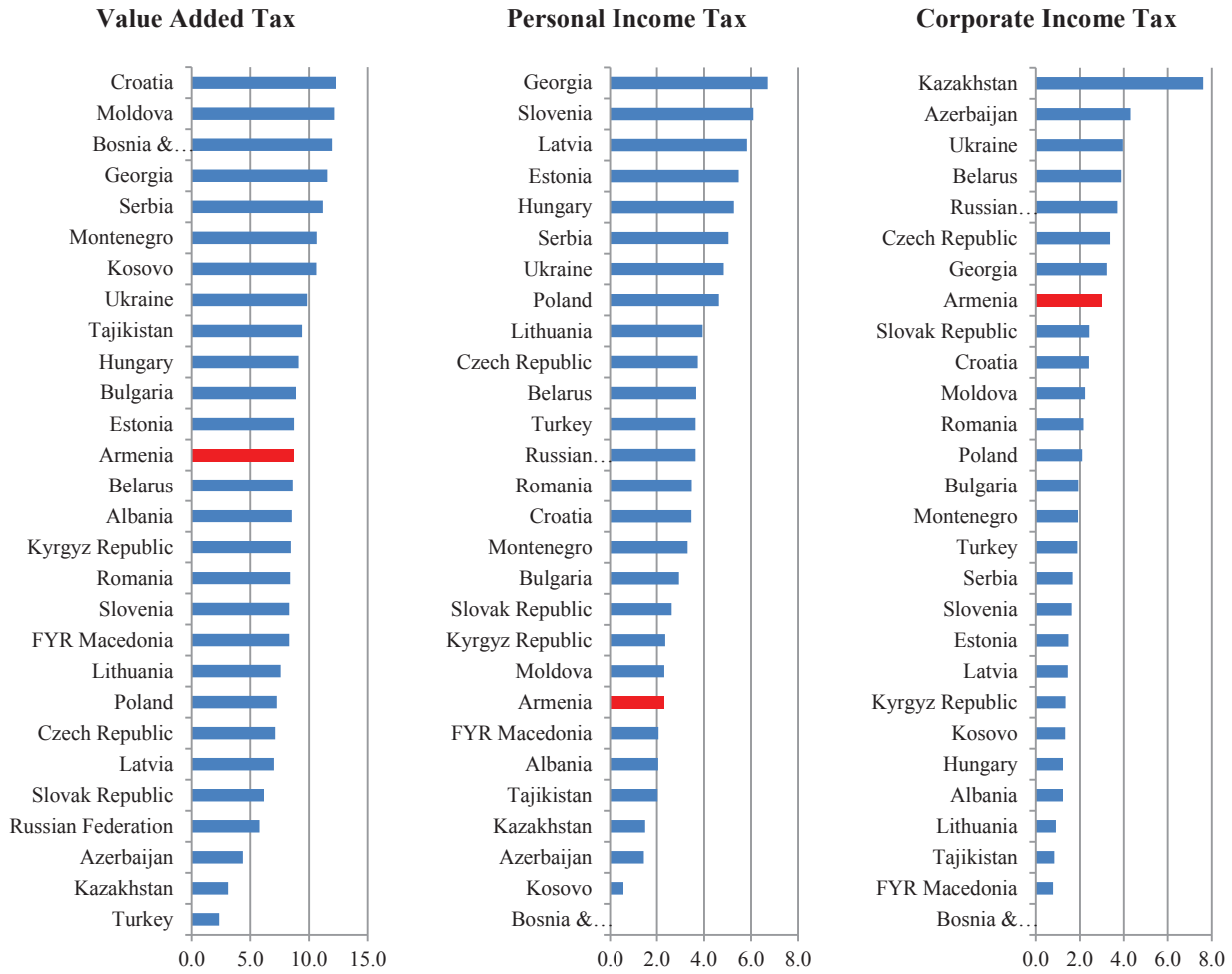
[5] In absolute terms, revenue declined significantly, because of the decline in real GDP of 14 percent.

25. **Armenia's fiscal activities are highly centralized, although revenues of subnational governments have been increasing recently.** Subnational entities accounted for about 3 percent of the consolidated budget expenditure in 2012. Transfers from the central budget have been declining, while own-source revenue has been increasing since 2009 (Figure 5). In fact, own-source revenue more than tripled to 2 percent of GDP in 2013, from 0.6 percent of GDP in 2009.

B. REVENUE

26. **Revenue mobilization improved since 2009, but continues to be below regional and international averages.** While official grants and non-tax revenue declined, tax revenue increased to 22.8 percent of GDP in 2013, from 20.8 percent of GDP in 2009. However, there is still room for improvement: collections remain 4-6 percentage points of GDP below regional and international averages, and Armenia had the fifth lowest overall revenue-to-GDP ratio in the ECA region in 2012 (Figure 6).

Figure 6. Value-Added, Personal Income, and Corporate Income Tax Collections in the ECA Region, 2013
(in percent of GDP)



Sources: Ministries of Finance.

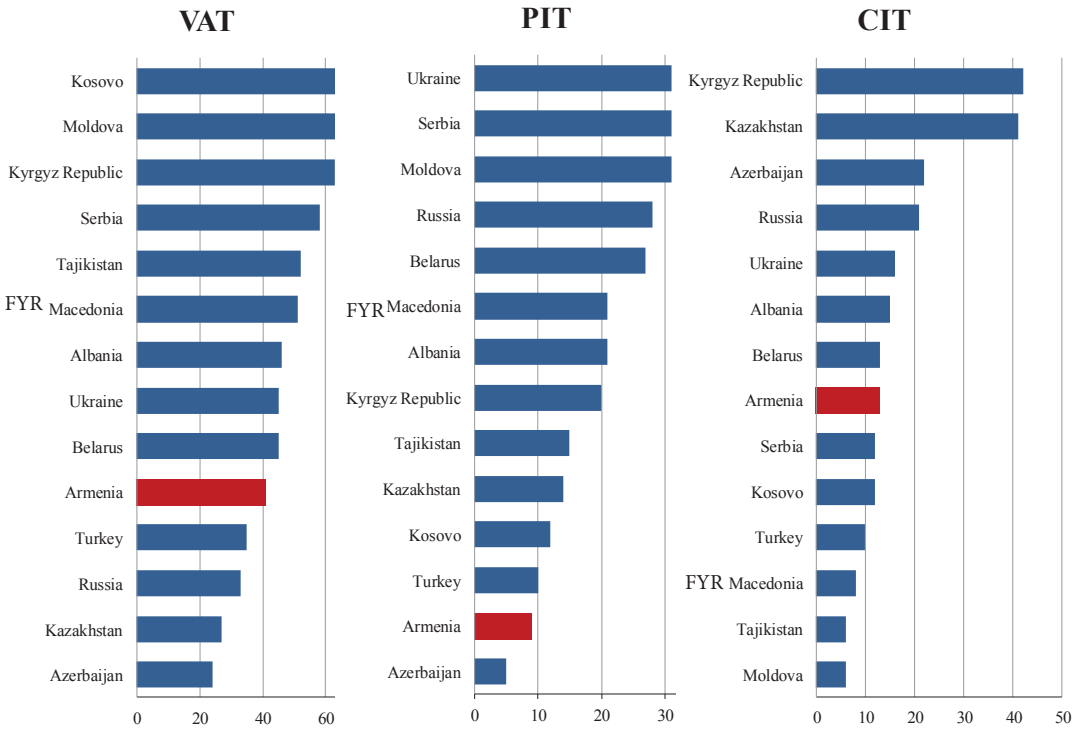
27. **Armenia's tax system consists primarily of a value-added tax (VAT), a company income tax (CIT), excises and customs duties, and personal income tax (PIT).**[6] While the rates at which economic activities and physical persons are taxed are not low, revenue mobilization from these taxes is. There are significant leakages stemming from both weaknesses in tax administration and tax policy, including in particular, tax reliefs. Tax productivity, which is the ratio of actual to potential or theoretical tax revenue, is lower than in most ECA countries, although Armenia's corporate income tax is relatively efficient (Figure 7). Revenue mobilization and recent measures to improve it are presented in more detail below.

- **Value-added tax:** A flat rate of 20 percent is imposed on goods and services, but there are many exemptions. In 2012, VAT collection amounted to 9.3 percent of GDP, against a theoretical level of 17.7 percent of GDP, if all private consumption shown in the national accounts were taxed. Nevertheless, the VAT accounts for more than 50 percent of tax revenue. The increase in the threshold for VAT registration in 2009 (to a turnover of US$153,000) has undermined data and compliance verification, since purchases and sales between large firms and smaller firms are no longer reported by both parties. IMF and World Bank studies estimate this threshold to be too high. In 2013, a turn-over tax of 3.5 percent was introduced for companies below the VAT threshold, which increased revenue but did not solve the reporting problem. In 2014, the government allowed companies to pay a lower turn-over tax if they produce purchase receipts for inputs. The latter will correct to some extent the problem of data and compliance verification, which started when the VAT threshold was raised.
- **Personal income tax:** The tax structure was amended in 2013 to eliminate personal deductions together with the 3 percent social security paid by employees. The new tax structure consists of three brackets of 24.4, 26 and 36 percent. In addition, the pay system for the military and security forces has been modified to a gross basis effective January 1, 2013. Armenians face some of the highest tax rates on personal income in the ECA region. Azerbaijan (14 and 25 percent) and Ukraine (15 and 17 percent) are among ECA countries with progressive taxation, while most other countries maintain a flat PIT, ranging from 10 percent (Albania, Bosnia & Herzegovina, Bulgaria, FYR Macedonia and Kyrgyz Republic) to 20 percent (Georgia). Tax productivity has been low, reflecting administrative weaknesses as well as tax exemptions, including in particular on income from agriculture. Revenue from personal income taxes amount to 2.3 percent of GDP in 2012, compared with an ECA average of 3.4 percent of GDP, despite the relatively high rates in Armenia. Revenue as a share of GDP has been gradually increasing from 0.8 percent of GDP in 2003. Revenue surged to 5.6 percent of GDP in 2013 when social security contributions were folded into the income tax.
- **Corporate income tax:** Armenia's corporate tax rate has been 20 percent since 2008. It is among the highest in the region, although similar rates are observed in Azerbaijan, Bulgaria, Slovak Republic and Ukraine (19-20 percent). In contrast, countries with the lowest CIT tax rates are Montenegro (9 percent), Albania (10 percent), Bosnia-Herzegovina (10 percent) and FYR Macedonia (10 percent). Corporate income tax revenue in Armenia amounted to 3 percent of GDP in 2012, which was above the average of 2.3 percent for the ECA region.
- **Mining sector:** Taxes on Armenia's mining sector were low by international standards before amendments in 2011. Prior to the amendments, the effective tax rate had declined over several years, even though the volume and prices of mineral exports had increased. Starting in January 2012, the fiscal regime for the mining sector was overhauled and a new royalty structure replaced a natural resource user fee and a profit-based royalty. The new variable royalty structure, which went into effect on January 1, 2012, consists of a sliding rate depending on earning-before interest and tax to sales value. Helped by the measures introduced in 2012 and

[6] The VAT rate is 20 percent, CIT is 24.4 to 36 percent, PIT has brackets of 24.4, 26 and 36 percent.

actions to strengthen tax administration the ratio of tax revenue to GDP increased in 2012 by 1.5 percentage points of GDP to 18.2 percent (Table 3).

Figure 7. Tax Productivity, 2012
(in percent of GDP)



Source: World Bank (2013).

Table 3. State Budget Tax Revenues in 2008-2012,
(in percent of GDP)

	2008	2009	2010	2011	2012	2013 Proj.
Tax revenues	19.7	19.3	19.6	20.0	21.4	22.9
Value added tax	8.9	8.1	8.7	8.7	9.3	9.4
Enterprise profit tax	2.4	2.6	2.2	2.6	3	2.9
Personal Income tax	1.5	1.9	2.1	2.2	2.3	6
Excise tax	1.3	1.4	1.4	1	1.2	1.2
Customs duty	1	0.8	0.8	1	1.1	1.1
Presumptive tax	0.6	0.8	0.6	0.5	0.4	0.3
Environmental tax	0.3	0.2	0.3	0.3	0.7	0.8
Simplified tax	0.2	0	0	0	0	0
Social Contributions	2.9	3.3	3.0	3.3	3.2	0.4
Other taxes	0.6	0.3	0.3	0.4	0.3	0.7

Source: Ministry of Finance.

C. EXPENDITURE

28. **Fiscal expansion in 2009 benefited the social safety net and extended financing to cash-strapped companies.** Social security outlays and general economic relations (including lending to companies) expanded by 1.8-1.9 percentage points of GDP each (Figure 8). Fiscal consolidation since then can be observed across all outlays, except general public services, mainly because of interest payments on the expanding public debt. Categories of defense, public order, security and juridical work have been allocated a relatively stable share of GDP. Real sector expenditure (economic relations), as well as welfare-enhancing spending (healthcare, education and social security), contracted the most. In fact, education and health care outlays have decreased in total by approximately 1 percentage point of GDP since 2009. In the case of education, the share of GDP spent from the budget is now lower than before the crisis.

29. **Capital expenditures (fixed assets) are disproportionately affected by fiscal consolidation and are now lower than before the crisis.** The economic classification of budgetary spending shows that acquisition of fixed assets took the biggest hit in the post-crisis adjustment (Figure 9), which is similar to what happened in many other ECA countries. Spending on social allowances and pensions have declined, but are still higher than pre-crisis levels, which is in line with the incomplete recovery of unemployment and poverty figures from the crisis. Payments for labor have decreased slightly since 2009, while acquisition of services and goods (which hide a portion of labor costs) have expanded during the crisis and post-crisis periods implying overall positive impact on wage policy.

Figure 8. Government Expenditure, Functional Classification, 2006-12
(in percent of GDP)

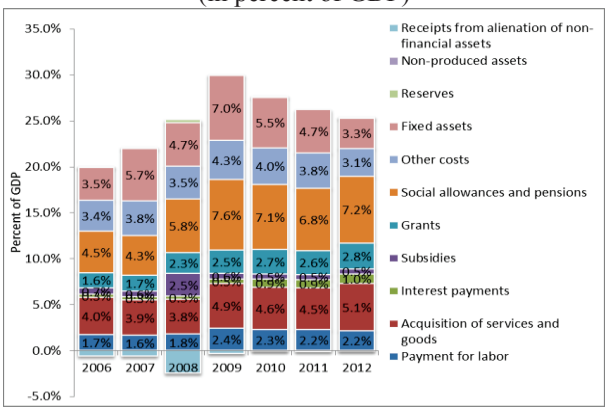
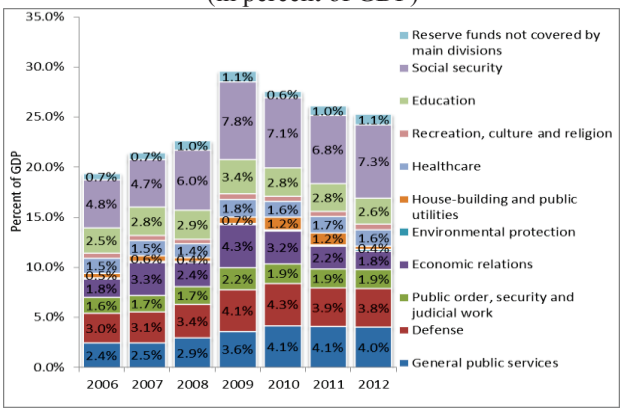


Figure 9. Government Expenditure, Economic Classification, 2006-12
(in percent of GDP)



Source: Ministry of Finance.

30. **Capital expenditure has seen a precipitous decline as a share of GDP since the crisis.** Capital injections into the real sector of the economy have decreased to less than one third of their 2009 level and are only half of what they were before the crisis (Figure 10). Construction and reconstruction of buildings receives only half the amount of funding in 2012 compared with 2009; Capital spending on defense and general public services were among the least affected with only a slight decrease year-to-year. On the other hand, public capital expenditures on social security picked up in 2012 due to the acquisition of buildings for habitation securing and environmental protection outlays grew steadily during 2009-12 (Figure 11).

Figure 10. Capital Expenditure, Economic Classification, 2006-12
(in percent of GDP)

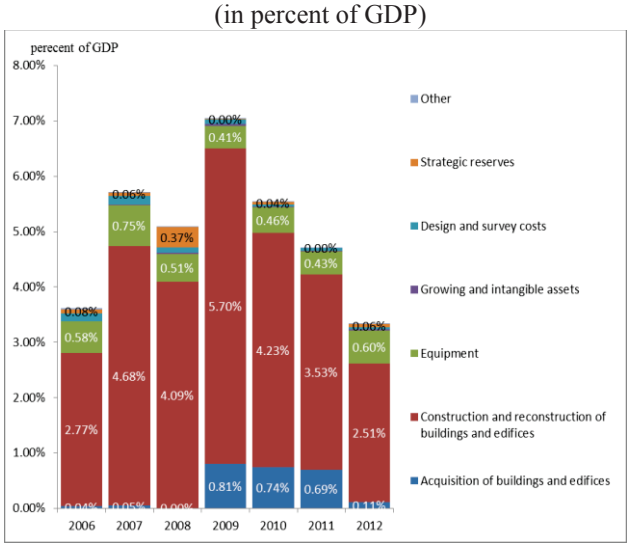
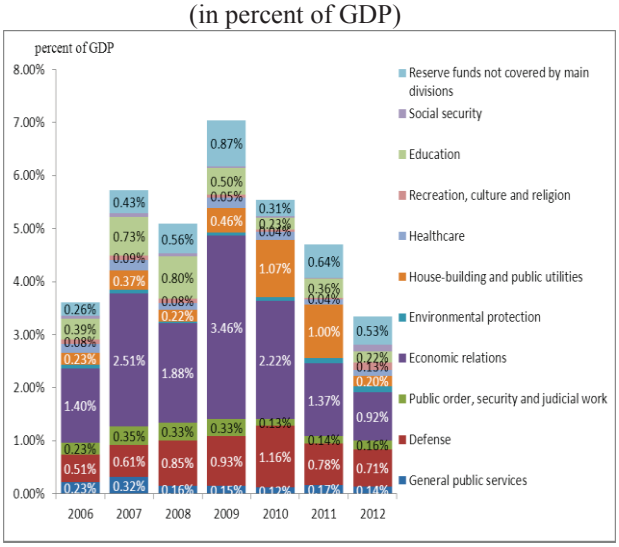


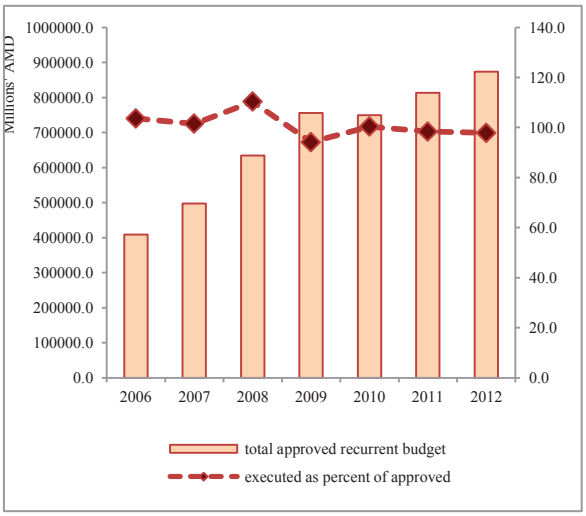
Figure 11. Capital Expenditure, Functional Classification, 2006-12
(in percent of GDP)

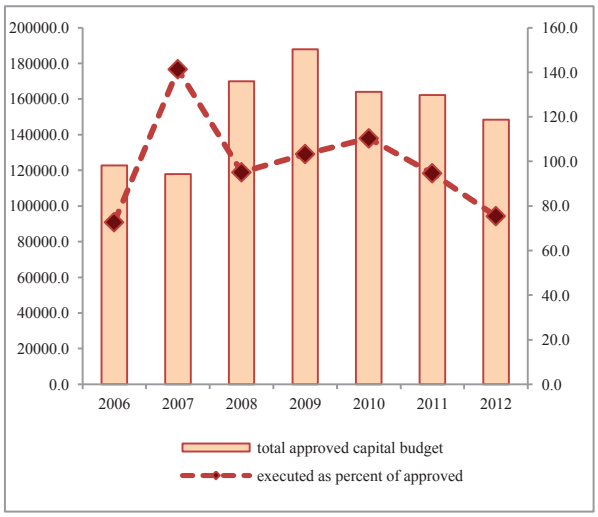


Source: Ministry of Finance.

31. **Some of the decline in capital spending is unplanned.** While the recurrent budget is consistently implemented to nearly 100 percent, overruns and shortfalls in implementation are more common in capital spending (Figure 12). Shortfalls were particularly pronounced in 2012, when less than 80 percent of the budget was executed mainly because of delays in foreign financed investment projects. Preliminary data shows a similar situation for 2013.

Figure 12. Government Spending, 2006-12
(amounts in AMD million and deviation from budgeted amounts in percent)





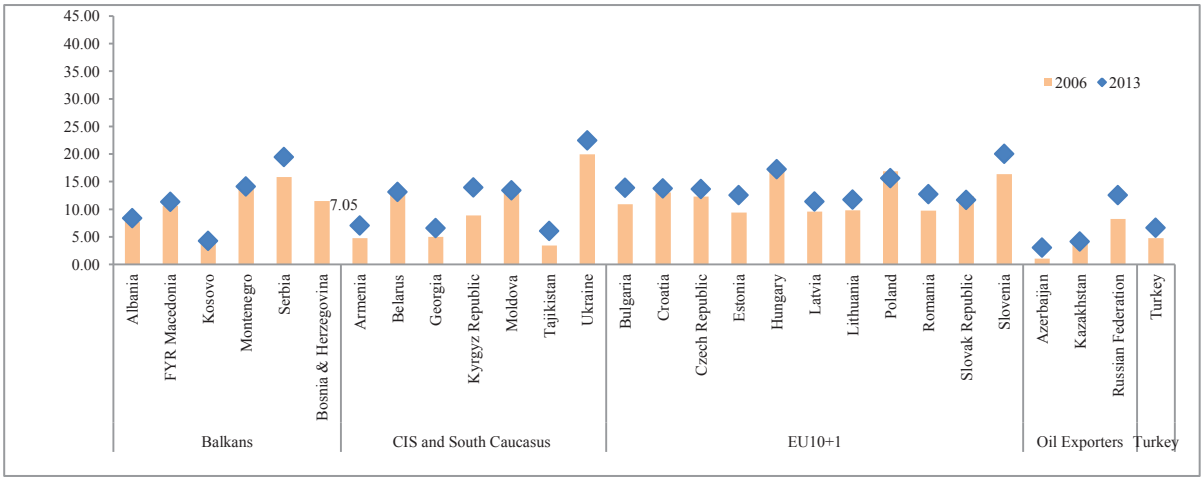
Source: Ministry of Finance and World Bank staff estimates.

32. **General public expenditure was primarily driven by increasing outlays for interest payments and at the same time lower personnel expenses and capital spending.** Higher interest payments resulted from higher borrowing during the crisis and post-crisis years. Personnel expenses contracted relative to GDP following a salary freeze after 2009, which was only lifted in 2014. Capital expenditure declined in percent of GDP during 2009-12, as well as payments to sub-national entities.

33. **Along with the overall relatively small fiscal envelope, social protection spending in Armenia is also at the lower end of the spectrum in the ECA region.** It is below the average of CIS countries and ranks fifth lowest in the ECA region. Social protection spending increased during and after the global crisis in most countries (Figure 13). It amounted to about 7 percent of GDP in Armenia in 2012 compared with 4.8 percent of GDP in 2006. The average for the CIS countries is 12 percent of GDP in 2012, an increase from 9.8 percent in 2006.

Figure 13. Budgetary Spending on Social Protection, ECA Region, 2012

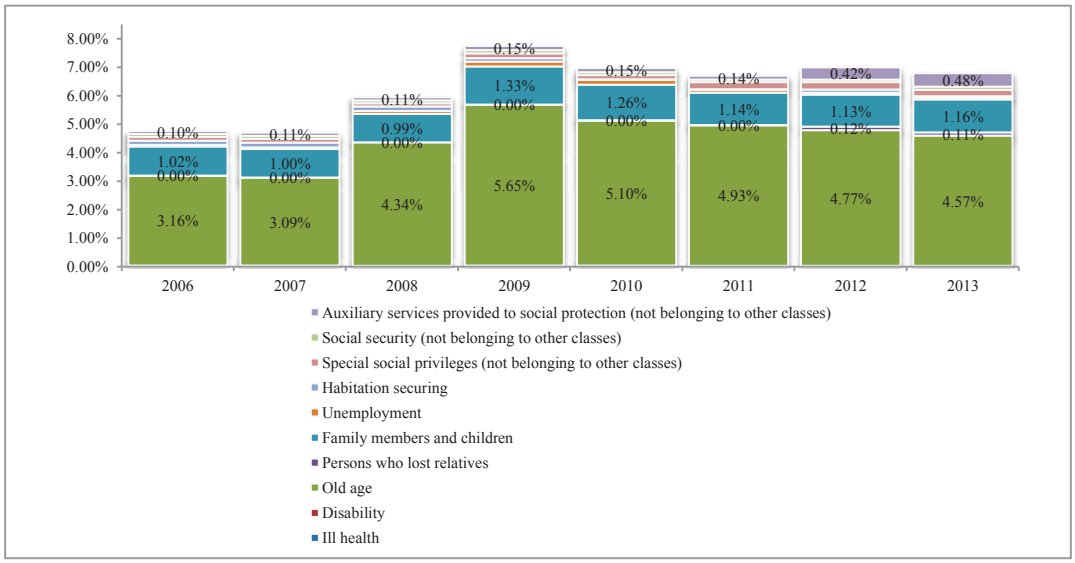
(in percent of GDP)



Source: Ministries of Finance.

34. **The bulk of social protection spending is directed to pensions and family benefits.** They accounted for approximately 84 percent of social protection spending in 2012 (Figure 14). Although social security expenditure has been growing in nominal terms since 2009, different dynamics in spending patterns were observed year-to-year. Thus, spending on old age and family functions, unemployment benefits have been steadily decreasing as a share of GDP since the crisis (also these areas took the bulk of the sector adjustment), while expenditure on special social privileges has been growing over the same period, and spending on other social protection areas picked up in 2012 totaling 0.79 percent of GDP. This category covers spending on habitation securing, auxiliary services provided to social protection, and allowances to people who lost their relatives.

Figure 14. Functional composition of Spending on Social Protection Relative to GDP, 2006-12
(in percent of GDP)



Source: Ministry of Finance.

35. **In the social services, health care expenditure has been stable for the past 2 years, but education expenditure contracted significantly.** Health expenditure averaged 1.65 percent of GDP, after decreasing in 2010 (Table 4). On average, 40.3 percent and 35.9 percent of health spending in Armenia went to hospital and outpatient services, respectively. Research and development expenditure related to health care, which was very small compared to other health care areas before the crisis, has now disappeared. Education expenditure has contracted by approximately 0.84 percent of GDP over the period of 2009-12 with spending on general secondary education and auxiliary services provided to education bearing almost the entire sector adjustments, 0.43 and 0.27 percent of GDP, respectively (Table 4). The economic composition of expenditures shows that acquisition of goods and services (which hides the labor cost in the respective areas) reduced by 0.43 percent of GDP and budget cuts for capital expenditures explained the rest 0.28 percent of GDP.

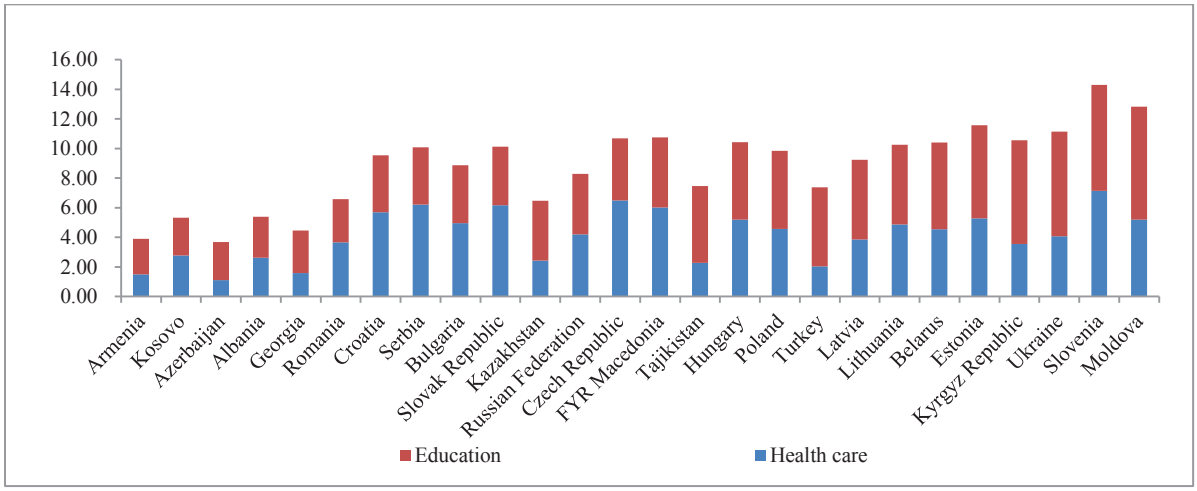
Table 4. Health and Education Expenditure, 2009-12
(in percent of category spending, unless stated otherwise)

	2009	2010	2011	2012	2013
Health (in percent of GDP)	1.8	1.6	1.7	1.6	1.5
Medical goods, devices and equipment	6.3	6.9	6.4	5.9	4.2
Outpatient services	36.4	35.9	35.6	35.9	36.2
Hospital services	38.5	38.2	42.5	42.1	42.3
Public health care services	5.1	4.9	4.7	4.8	5.0
Health care (not belonging to other classes)	13.8	14.1	10.8	11.4	12.3
Education (in percent of GDP)	3.4	2.8	2.8	2.6	2.4
Pre-school and general elementary education	18.1	22.3	23.4	21.6	23.0
General secondary education	48.5	48.3	42.6	47.7	46.8
Primary vocational and secondary vocational education	4.4	4.8	4.8	5.2	6.0
Higher education	7.0	7.6	7.3	7.4	7.7
Education not classified by levels	2.9	3.2	3.4	3.4	3.8
Auxiliary services provided to education	18.7	13.2	18.1	14.2	12.2
Education (not belonging to other classes)	0.5	0.5	0.5	0.5	0.5

Source: Ministry of Finance.

36. **Most other countries in ECA spend a lot more on health and education**. While the Armenian government allocated 4.2 percent of GDP to health and education in 2012, ECA countries spent on average 8.9 percent of their GDP on health and education in the same year (Figure 15). In fact, only Azerbaijan spent less on these two social sectors than Armenia. While health spending was similar in Georgia, Armenia made a significantly smaller contribution to education than its northern neighbor.

Figure 15. Public Health and Education Spending in ECA Countries, 2013
(in percent of GDP)



Sources: Ministries of Finance.

D. CONCLUSIONS

37. **This section has set the stage for the detailed analyses of aspects that define the fiscal envelope.** We have documented that Armenia's government has a small footprint in the economy, which means its revenue-to-GDP and expenditure-to-GDP ratios are low compared to other countries in ECA. In particular, Armenia's government spends relatively little on social sectors and social protection, which has implications for growth, because of low investment in human capital, and poverty, because of low spending on lifting people out of poverty. Of course, public policy has to weigh the trade-offs between the benefits that higher spending would bring, and the costs of taxation. Dynamic GDP growth increases the fiscal envelope more effectively than any revenue measures. However, while we leave the considerations of growth enhancing policies to another report, the next chapters will highlight areas in which improvements could be made to the effectiveness of existing revenue and expenditure measures.

3. Counting Tax Expenditures[7]

A. Overview

38. **Over the years, Armenia introduced a large number of tax reliefs for economic, social, sectoral, and even special reliefs aimed at supporting a specific activity or enterprise.** The prevailing sentiment has been that these reliefs, or privileges in the Armenian terminology, have no budgetary or economic consequences, and unlike spending items in the budget they do not need to be costed or presented in the state budget. The following issues arise with regard to tax expenditures.

- How can the government evaluate the revenue impact of tax expenditures? Different methodologies exist for estimating how much revenue is missed because of certain tax expenditures, which differ greatly in their data requirements. We will introduce some simple methods by using concrete examples.
- How can tax expenditures be integrated better with the regular budget cycle? Other countries have introduced systems and reporting requirements which create transparency with regard to the revenue and other impacts of exemptions, and make sure that tax expenditures are discussed and prioritized together with all other forms of expenditure.
- What would be the impact of removing a few key tax exemptions, both on revenue and on the economy more generally? We focus on some of the most prominent tax privileges, which include income and profits taxes on the agricultural sector, tax on interest on government securities, tax on dividends, and VAT on financial services.

39. **At last count,[8] Armenia has granted 237 tax exemptions, allowances, credits, preferential tax rates, and tax deferrals.** While many of them are entirely justified, some inevitable, and some others derived from the difficulties of administering taxes, we look in detail into some specific exemptions from VAT, personal and corporate income taxes as examples of the foregone revenue and other economic and social considerations of tax expenditures. The examples are corporate and income taxes on agricultural activities, tax on interest on government bonds, tax on dividends, and VAT on financial services. The removal of these specific exemptions would likely increase revenue by about 1 percent of GDP (Table 5).

40. **While these are specific examples, this report suggests a broader reform of the way in which tax expenditures are designed and evaluated.** The government's ability to make informed decisions about tax expenditures is currently limited by a lack of information and capacity. It should therefore implement the following measures.

- Create a unit (within the tax policy department) in charge of tax expenditures;
- Ensure there are no open-ended tax reliefs and each relief is time-bound;
- Develop capacity to estimate the revenue loss of tax expenditures, including an appropriate database;
- Analyze the economic and social impact of tax expenditures with a focus on relevance, effectiveness and efficiency;

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[7] This section was prepared on the basis of a background note by Menachem Katz and Artsvi Khachatryan.

[8] Provided by State Revenue Commission.

- Set a timetable and target date to begin presenting tax expenditures with the annual state budget;
- Develop modalities for engaging interested parties and the public at large to get a buy-in for the removal of tax privileges.

41. **The chapter is structured as follows.** The next section defines tax expenditures; section C presents methodologies used to evaluate revenue impacts, and section D analyzes revenue and other economic impacts of specific tax expenditures in Armenia.

B. WHAT ARE TAX EXPENDITURES[9]

42. **In broad terms, tax expenditures are concessions that fall outside a tax norm or benchmark.** The tax norm includes the rate structure, accounting conventions, deductibility of compulsory payments, provisions to facilitate tax administration, and international fiscal obligations. Tax expenditures may take a number of forms: exemptions, allowances, credits, preferential tax rates, tax deferrals, and so forth. Tax expenditure reporting measures the revenue that these deviations impart from the tax norm (OECD 1996). Advanced economies have been reporting tax expenditures since 1959. Most of the negative aspects of tax expenditures are related to their potential ineffectiveness, inefficiency, and inequity as follows:

- *Ineffectiveness*: some tax expenditures are insufficient to override underlying economic forces or are offset by other domestic or foreign tax provisions.
- *Inefficiency*: many tax expenditure schemes are a response to various interest groups rather than to actual needs. Such tax expenditure schemes would result in loss of efficiency by favoring some sectors and projects but not others, thus altering the relative profitability of projects and weakening overall investment.
- *Inequity*: Tax expenditure schemes tend to be regressive in modifying tax burdens across taxpayers, both vertically and horizontally. In particular, nonrefundable tax expenditure schemes, which most governments have applied, exclude non-taxpayers—who are among the poorest groups in society—from receiving benefits.

43. **Tax expenditures have other, broader pernicious effects.** They erode the revenue base, which limits the scope for tax rate reductions, provide open-ended government spending, which makes it more difficult to estimate tax revenue, add complexity to tax laws, increasing the cost of enforcing them, and facilitating rent seeking, and make the size of government elusive. Because tax expenditures are often substitutes for direct spending, simply pursuing the objectives of direct spending programs through tax expenditures could reduce the apparent size of government.

C. ESTIMATION METHODOLOGY

44. **The costs of tax expenditures are estimated, on either a cash or accrual basis, by three approaches: revenue forgone, revenue gain and outlay equivalent.** The measurements are the main components of a tax expenditure report. The revenue forgone method is an ex post calculation of the loss in revenue incurred by government. It does not take into account taxpayers' behavioral responses. Thus, for example, the cost of a tax credit is simply the amount of the tax credit. Accordingly, the cost of a tax allowance considered as tax expenditure will be the product of the total deduction and the marginal tax rate. The revenue gain method is an ex ante calculation of the additional revenue that would accrue from repealing tax expenditures. Taxpayers' behavioral responses are included. Implementing this method

[9] See OECD (2010) and World Bank (2004).

requires a good understanding of taxpayer behavior and data on the critical elasticities. Such calculation is not an easy task. The third approach is the outlay equivalent method. It calculates the outlay that would have resulted in a similar gain for the taxpayer as the considered tax expenditure.

45. **It is desirable to evaluate the performance of tax expenditure measures according to the following three criteria.**

- *Relevance*. Is the tax measure consistent with policy priorities, and does it realistically address an actual need?
- *Effectiveness*. Is the tax expenditure measure meeting its objectives effectively, within budget, and without unwanted outcomes?
- *Efficiency*. Is the tax measure the most appropriate and efficient means to achieve objectives, relative to alternative design and delivery approaches?

46. Tax evaluations seek to provide objective, fact-based assessments of the effects of tax measures on resource allocation and income distribution by using economic theory and quantitative methods to analyze economy- wide benefits and costs from tax expenditure measures.

D. ARMENIA'S TAX EXPENDITURES

47. **Armenia has a long list of tax exemptions, which are most often referred to as 'tax privileges'.** They began to be granted from the second half of the 1990's and have since proliferated. Today, there are 237 tax and customs privileges which are classified as sectoral privileges, privileges promoting investment, deducted income as privileges, privileges of social nature, privileges to promote science, and other privileges including privileges of customs payments. This section focuses on some of the most prominent 'privileges' which include the agricultural sector, diesel, interest on government securities, dividends, and financial services. Given the complexity of estimating tax expenditures and data limitations, we adopt the first and simplest estimation method out of the three methods used by the OECD—the revenue forgone method.

Agricultural Sector Tax Privileges

48. **Income and profits generated from agriculture are exempted from both income tax and profit tax.** When defining the taxable income, the gross income for the taxpayers dealing with agricultural production is deducted by the amount of the income gained from sale of agricultural products, as well as by the amount of incomes received from other activities, provided the share of the incomes in the income earned from the agricultural and other activity does not exceed 10 percent. Taxpayers engaged in production of agricultural products are exempt of the payment of profit tax on the part of the income from sale of agricultural product, as well as the income received from realization of fixed assets and other assets, and other incomes, provided the share of the latter does not exceed 10 percent of the gross income.

Box 2. Good Practice Principles for Tax Expenditure Administration

To create transparency and allow for an informed debate, the government should periodically compile an inventory of tax expenditures and report on their nature, legal basis, expected and actual effects, and past and likely future fiscal costs. In managing public finances, the government must be aware of its tax expenditures and take them into account in its fiscal projections, budget plans, and policy considerations. The tax expenditure report should list tax expenditures in force and, discuss their objectives, expected and actual effects, legal basis and characteristics, and past and likely future fiscal costs. There is no uniform practice for tax expenditure reports. Their purpose, legal status, relationship with the government budgetary framework, frequency, and format vary across countries.

Annual budget documents should discuss tax expenditures and their fiscal costs and likely socioeconomic effects in the context of the government's overall fiscal policy analysis. Building on the comprehensive report of tax expenditures discussed above, the government should internalize the analysis of the existing tax expenditures in its policy decision-making. Government policy priorities tend to evolve, so the relative contribution of the existing tax expenditures to these priorities evolves accordingly. As in the case of direct spending, the government may need to modify or to discontinue tax expenditures that have become misaligned with government priorities. Similarly, as the tax system is evolving, its position between neutrality and incentives is changing. Country experience suggests that analysis may be easier and more effectively done if explicit sunset clauses and evaluations of effects are required directly in the tax expenditure provisions.

Before deciding on new tax expenditure, the government should clearly specify its objective, policy priorities, and weigh alternative instruments. Because launching new tax expenditure involves no cash being spent, discipline and hard budget constraints are more difficult to establish. A good mechanism for scrutiny is needed to ensure that revenue lost is not wasted and that incentives are not distorted to the detriment of the country's economic performance or social equity.

New tax expenditure should be approved in the context of the annual budget process. In addition to bringing existing expenditures into the budget evaluation process (which was suggested above), the annual budget process would also provide an effective scrutiny mechanism for newly proposed tax expenditure programs. As part of the budget process, proposals for launching new or renewed tax expenditure programs could be weighed against proposals for budget expenditures or for extending government guarantees. Moreover, internalizing the decision-making about tax expenditures and contingent liabilities in the budget process would also promote cash neutrality in government decision-making— that is, impartiality with respect to whether actual cash is spent or whether cash-based budget deficit is affected when a new program is launched. An important feature of this approach is that extending the scope of the budget process beyond budget expenditures would encourage decision-makers to recognize the expected fiscal cost of alternative government programs, even without the implementation of comprehensive, accrual-based accounting and budgeting systems.

Sources: Menachem Katz and Gor Khachatryan, on the basis of OECD (2010) and World Bank (2004).

49. **VAT is levied on businesses with sales exceeding AMD 58.35 million (about US$153,000).** Sales of veterinary medicines, chemicals used in agricultural production, fertilizer, and agricultural plants and seeds are exempted; sales of agricultural goods produced in Armenia are exempted from the VAT. Only a small amount of VAT was paid by agricultural companies in the past two years (Table 5).

Table 5.VAT Paid by Agricultural Companies,
(in thousand AMD)

NN	Name of Company	Paid VAT for period 2011-13	Activity domain
1	Bariq CJSC	16.7	Mixed agriculture
2	VTV Agro LLC	4.5	Mixed agriculture
3	Hayq-Arar LLC	2,998.8	Mixed agriculture
4	Seed Agency SNCO	501.3	Mixed agriculture
5	Service Center in the Field of Veterinary Sanitary, Food Safety and Phyto-sanitary SNCO	1,044.6	Mixed agriculture

Source: SRC.

50. **Income and profit taxation would be applied only to commercial farms.** A recent census of the agricultural sector in Armenia estimated that about 95 percent of the agricultural production is produced by 340,000 agricultural households (farms) in the rural areas.[10] The average size of these farms is 1.2 hectares. There also exist around 100,000 units in the urban areas, which may have agricultural production in their gardens. Around 100 companies are dealing with agricultural trade. A rough estimate is that 50 percent of the units produce only for home consumption, 30 percent only for the market and 20 percent both for home consumption and for the market. The tax base for agricultural income and profits is therefore 5.7 percent of GDP (30 percent of the 19 percent of GDP that is agricultural output).[11]

51. **The tax exemption of agriculture may discourage an expansion of labor-intensive food processing.** The current system of exemptions provides an incentive to large farmers to continue to focus on primary agriculture and avoid expanding to processing of agricultural produce, which tends to have a higher value added and generate more employment. In 2012, food manufacturing accounted for 3.4 percent of GDP while the shares of beverages and tobacco products were 3.8 and 2.4 percent of GDP, respectively. Employment in these three sub-sectors remains low—the combined employment in food processing, beverages and tobacco manufacturing represents 1.1 percent of total employment.

52. **The impacts of removal of tax privileges on agricultural income and profits could provide important additional revenue and other benefits.** The estimated revenue forgone ranges between 0.4 and 0.6 percent of GDP. The effect on income distribution and poverty would be limited, because only the top 30 percent of farms would be affected. On the other hand, the removal of the income and profit tax privilege is likely to encourage commercial farmers to expand operations to food processing, thus help create higher value added and possibly more employment.

53. **The removal of tax privileges on commercial agriculture would be resisted by large farmers.** A robust public information campaign would be needed to highlight that small-scale commercial farming and subsistence agriculture—which commands sympathy in the population—would continue to be exempt from direct taxation, impacts on food prices would be low, while benefits could be expected from stronger incentives for food processing.

Taxing Interest on Government Securities

54. **Currently, interest income on government securities is exempted from PIT and CIT, while other interest income is subject to a 10 percent tax, typically deducted at source.** In this case, the tax base is interest on government bonds, which is readily available from the NSS for historic data and from the Ministry of Finance for the current budget; applying a 10 percent tax on the interest yields 0.07 of one percent of GDP.

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[10] See National Statistical Service, Republic of Armenia and Statistics Denmark: Mission Report on Agricultural Census, March 2011.

[11] To estimate the tax base, information is needed about the composition of commercial agriculture between companies and individual farmers. If we assume that all commercial farms are companies and apply the current 20 percent rate on profits, which we assume to be 50 percent of the total value added (the remaining 50 percent we attribute to wages[11]), we obtain 0.6 percent of GDP in tax expenditure. As a minimum, the same tax amount can be obtained by assuming that all commercial farms are individuals (physical persons) who are subject to personal income tax. If instead the share of profits is only 33 percent and the remaining 67 percent are attributable to wages and land (both of which can also be subject to tax but are not included in the calculation here), we obtain 0.4 percent of GDP in tax expenditure.

55. **As a result of the tax, the attractiveness of government bonds would decline but the playing field in the bond market will be leveled**. This is the case in most OECD and emerging economies, which tax interest income on government securities. Most government bond holders are financial institutions and therefore the removal of the tax privilege would not have an adverse impact on the vulnerable. The tax would be easy to collect; deducted at source when interest on government bonds is paid.

56. **Taxing dividends could be seen as unequal treatment of tax payers.** The government granted tax-exempt status to (mostly foreign) buyers of Armenia's 2013 issue of Eurobonds.

Taxing Dividends

57. **Currently dividend income is exempted from tax whereas interest income other than from government securities is subject to a 10 percent tax.** The tax base is obtained from the SRC, which collects detailed data from companies including data on dividends. Applying a 10 percent tax on dividends yields 0.12 percentage points of GDP. It should be noted that most advanced economies impose a tax on dividends (in the US, for instance, the tax on dividends is 15 percent).

58. **A tax on dividends would be resisted by powerful vested interests who are to a large extent equity stockholders.** Since equity stocks are held by high-income brackets a tax is unlikely to have a negative effect on vulnerable groups. The tax could have a slightly negative impact on the fledgling capital market.

VAT on Financial Services

59. **Financial services in Armenia, with few exceptions, are exempt from VAT**. This includes financial operations and services performed by banks, specialized participants of securities markets, payment organizations; and insurance and reinsurance operations, including the services provided by insurance brokers and agents related thereto. This area is complex both conceptually and administratively and involves the definition of value added in financial services. Financial services and insurance pose unique challenges to the design of a VAT, which is generally imposed on explicit prices charged in market transactions. When a bank charges explicit fees for its services, such as ATM, the value of those services is the fees charged, and the fees fit into the VAT system. A bank, however, renders many of its services as an intermediary, such as in bringing together depositors and borrowers and in conducting foreign exchange transactions.[12]

60. **Among OECD and emerging economies different countries have adopted different approaches to taxing financial transactions.** In the EU, with the exception of the taxation of specified fee-based services such as safety deposit box fees and financial advisory services and the zero rating of exported financial services, banks generally do not charge VAT on their financial services and do not recover VAT paid on their business inputs used in rendering those exempt services. Canada follows the EU principles but taxes an extensive list of fee-based services. Argentina has attempted to tax gross interest as a measure to control inflation but keeps modifying its treatment of taxing financial services. Israel has adopted a different approach whereby the value added in financial services is defined as the sum of wages and profits in the sector.[13]

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[12] Three recent papers discuss the analytical and practical issues relating to VAT on financial services: Alan Schenk (2009); Institute of Fiscal Studies (2011); and Thornton Matheson (IMF Working Paper 2011).

[13] The 2011 IMF report on the taxation of the financial sector called for a tax on profits plus wages, which it called a 'financial activities tax' (FAT), noting explicitly its potential to substitute for VAT on financial services.

61. **In view of the above, we apply two approaches to estimating tax expenditures in the financial sector in Armenia, the fees and charges, or, non-interest income approach, and wages plus profits approach.** The financial sector in Armenia consists of 21 commercial banks, which hold some 90 percent of total assets of the financial sector, and non-bank financial institutions which consist of credit organizations, insurance companies, and securities' brokers, which hold the remaining 10 percent of assets. We use CBA primary data[14] on the financial sector supplemented by KPMG data on the banking system[15].

- *Non-Interest Income approach***.** The non-interest income is basically the income stemming from fees and charges. Applying a 20 percent VAT on non-interest Income of insurance companies, credit organizations and banks and then subtracting actual paid VAT by the sector yields 0.31 percent of GDP in 2012 (Table 6).

- *Wages and Profit approach***.** Based on financial sector's operating or non-interest expenses we estimate wages (about 25 percent taken from NSS's report of the expenditure structure in the financial services sector) and adding to profit, we apply a 20 percent VAT rate and then subtract paid VAT and profit taxes in order to avoid double taxation (Table 7). The resulting yield is 0.36 percent of GDP in 2012. As can be seen, the outcomes under the two approaches are not very different—the tax expenditure is in the range of 0.31-0.36 percent of GDP.

Table 6. Estimation of Potential Revenue by using
Non-Income Approach, (million AMD)

	2010	2011	2012
Insurance companies	0	1,158	1,300
Credit Organizations	4,148	6,184	6,307
Banking sector	40,664	48,585	56,651
Total non-interest income of financial organizations	44,812	55,928	64,258
Actual VAT paid by financial organizations	1,909	2,100	1,979
Non-interest income excluding paid VAT	42,903	53,828	62,279
Estimates of potential revenue, (if VAT 20% applied)	8,581	10,766	12,456
Potential revenue as percent of GDP	0.25	0.29	0.31
GDP	3,460,203	3,776,443	3,981,507

Source: CBA, staff calculation.

[14] CBA, Statistical Bulletin of the Central Bank of Armenia 2011; and Financial System of the Republic of Armenia in Q4, 2012; KPMG Armenia Banking Sector Overview, 2012 4th Quarter, non-audited.

[15] It should be noted that a few data details for credit organizations and insurance companies for 2012 are still not available and we used some estimates. However, these are not likely to affect the outcome significantly.

Table 7. Estimation of Potential Revenue by Using Wages and Profit Approach
(in million AMD)

	2010	2011	2012
Non-interest expense of Insurance companies	3,321	2,931	3,000
Non-interest expense of Credit Organizations	5,798	8,059	10,866
Non-interest expense of Banking sector	69,352	81,592	87,799
Total non-interest expense of financial organizations	78,471	92,582	101,665
Estimates of wages in non-interest expense (assumed about 25%)	19,618	23,146	25,416
Pre-tax profit of Insurance companies	-976	2,990	3,000
Pre-tax profit of Credit Organizations	5,354	6,125	6,200
Pre-tax profit of Banking sector	38,897	42,852	53,760
Total pre-tax profit of financial organizations	43,275	51,966	62,960
Wages and Profit	62,893	75,112	88,376
Paid VAT	*1,909*	*2,100*	*1,979*
Paid profit tax	*9,796*	*11,181*	*13,888*
Wages and Profits (excluding VAT and Profit tax)	*51,187*	*61,831*	*72,509*
Potential revenue (if 20 % VAT applied)	10,237	12,366	14,502
Potential revenue as % of GDP	0.30	0.33	0.36
GDP, mln. AMD	3,460,203	3,776,443	3,981,507

Source: CBA, KPMG, staff calculation.

E. CONCLUSIONS

62. **We looked in detail into some specific exemptions from VAT, personal and corporate income taxes as examples of the foregone revenue and other economic and social considerations of tax expenditures.** The examples are corporate and income taxes on agricultural activities, tax on interest on government bonds, tax on dividends, and VAT on financial services. The removal of these specific exemptions would likely increase revenue by about 1 percent of GDP.

63. **Removing tax exemptions is likely to face resistance from those who will then have to pay taxes.** We highlight examples of unequal treatment and distortions created by tax exemptions, which would add to the benefits of removing them. Careful public awareness campaigns can usually help to overcome resistance, or counterbalance the resistance of few with the opinions of the many.

64. **To improve awareness and allow a more informed debate, this report suggests a broader reform of the way in which tax expenditures are designed and evaluated.** The government's ability to make informed decisions about tax expenditures is currently limited by a lack of information and capacity. It should therefore implement the following measures.

- Create a unit (within the tax policy department) in charge of tax expenditures;
- Ensure there are no open-ended tax reliefs and each relief is time-bound;
- Develop capacity to estimate the revenue loss of tax expenditures, including an appropriate database;

- Analyze the economic and social impact of tax expenditures with a focus on relevance, effectiveness and efficiency;
- Set a timetable and target date to begin presenting tax expenditures with the annual state budget;
- Develop modalities for engaging interested parties and the public at large to get a buy-in for the removal of tax privileges.

4. Measuring Fiscal Incidence[16]

A. Overview

65. **This chapter presents the results of incidence analysis, a description of who benefits when the government spends money and who loses when the government imposes taxes.** The aim is to get a comprehensive picture of the redistributive effect of as many tax and expenditure items as possible.[17] For Armenia, the inputs to our analysis are responses to the Integrated Living Conditions Survey (ILCS) of 2011, and budgetary data for the same year. The analysis' central questions are:

- How much redistribution and poverty reduction is being accomplished through social spending, subsidies and taxes?
- How progressive are revenue collection and government spending?
- Within the limits of fiscal prudence, what could be done to increase redistribution and poverty reduction through changes in taxation and spending?

66. **Fiscal activities in their entirety reduce inequality in Armenia.** This is the result of comparing Gini coefficients for market income and final income, which differs from the former by the taxes, transfers, and expenditure benefits shown in the first section. The Gini coefficient improves from 0.469 to 0.357. The headcount poverty incidence for people living in poverty (less than US$2.50 per day) improves from 39.3 to 30.9 percent. For the highest poverty line (less than US$4 per day), however, the effect of taxes overwhelms the effects of transfers, leaving poverty slightly higher post-fiscal activities than at market income. While we use incomes per capita, and international "dollar-a-day" poverty lines, the effect of transfers and taxes on poverty and inequality estimated here will be quite close to the same effect estimated with the NSS welfare measure.

67. **There is a lot of discussion over the extent to which governments redistribute resources, especially to the most disadvantaged members of society.** While there is considerable disagreement over both the extent and the means to effect such redistribution, most people agree that society is better off if poverty can be reduced, and all governments do, in fact, redistribute income with their tax and expenditure policies.[18] However, redistribution is only one of many criteria that matter when making public policy. The results of this study are meant as one input to public policy making, which should be weighed with other goals before deciding that a tax or expenditure is desirable.

68. **If a greater influence on the distribution of income were sought in Armenia, the best candidate on the expenditure side of the budget would be the family benefit, which is more concentrated among the poor than any other social expenditure.** On the revenue side, most recent

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[16] This section is based on a background paper prepared by Stephen Younger and Artsvi Khachatryan.

[17] The analysis presented here is a summary of one of a set of parallel papers coordinated by the Commitment to Equity (CEQ) Project and the World Bank. Each paper uses an incidence analysis that is standardized as much as possible across countries and time so as to make the results of all the analyses comparable. For background on CEQ, see http://www.commitmentoequity.org or Lustig, et.al. 2013. The results presented here are a subset of a much wider set of distributional indicators calculated for the CEQ study. A spreadsheet with all the results is available on the CEQ website.

[18] Poverty reduction is a classic public good: even if people agree that society is better off when inequality and poverty are reduced, the private sector will not spend time and money to achieve this.

discussion of tax reform revolves around indirect taxes. These taxes are significantly less progressive than direct taxes, and the poorest households only rarely pay direct taxes in Armenia. From an equity perspective, then, it would be preferable to consider tax reforms to increase direct taxes either by raising rates or by drawing more workers into the formal economy.

69. **The section is structured as follows.** It first presents the different taxes and expenditure line items included, and then the extent to which each one of them scores with regard to the redistribution indicator we use, which is the concentration coefficient. We then turn to evaluating the redistributive effects of fiscal activities in their entirety by comparing Gini coefficients for household income before and after fiscal impacts.

B. REVENUE AND EXPENDITURE

70. **Overall, Armenia's tax revenues amount to only 23 percent of GDP, a fact that limits government's ability to affect the distribution of income.** The most important taxes are: value-added tax (VAT), which provides 36 percent of government revenue; personal income tax and social security contributions, which together provide 23 percent of revenue; enterprise profit tax, which contributes 11 percent; and excise duties on cigarettes, alcohol, and petroleum products, which amount to 4 percent of revenue (Table 8).

71. **The household survey data does not allow us to consider all of these revenue sources in our analysis.** For example, the ILCS data does not show who owns most enterprises, nor who pays 'other taxes' or 'state duties'. Presumptive taxes are levied on specific types of small businesses. We can identify the self-employed, including informal sector, in the ILCS, but not the specific type of business they run. Thus, corporate income tax is the most important tax that has to be omitted from this analysis. However, our analysis will account for 69 percent of tax revenues.

Table 8. Government Revenues, Armenia, 2011
(in million AMD and in percent of GDP)

	Revenues and Grants	Included in analysis?	share of revenue	share of GDP
	(in million AMD)		(in percent of GDP)	
Total	906,072		100	24
Tax revenues	647,808		71	17
Value added tax	328,483	yes	36	9
Enterprise profit tax	97,842	no	11	3
Personal Income tax	81,211	yes	9	2
Excise tax /1	39,405	yes	4	1
Customs duty	36,289	yes	4	1
Presumptive tax	20,742	no	2	1
Environmental tax	12,200	no	1	0
Simplified tax	(50)	no	0	0
Property Tax	11,794	no	1	0
Land Tax	4,429	no	1	0
Other taxes	15,464	no	2	0
State duties	25,703	no	3	1
Social security payments	123,450	yes	14	3
Non-tax revenues	69,371	no	8	1
Grants	39,740	no	4	1

Source: Ministry of Finance, National Statistical Service.
Notes: /1 includes presumptive tax on cigarettes.

72. **Data limitations also pose challenges when trying to link expenditures to specific beneficiaries.** Governments spend significant amounts of their budgets on genuine public goods – national defense, law enforcement, and public administration – that, by their nature, are not attributable to individuals. The areas in which we can identify specific beneficiaries are social expenditures: transfer payments, health, and education gives a breakdown of social expenditures in Armenia in 2011. Overall, these social expenditures account for only 42.5 percent of total expenditures, and the items that we can identify in the ILCS are 36.6 percent of expenditures. Health and education spending are noticeably low in Armenia. The large share of old age pensions also stands out, reflecting Armenia's relatively mature population structure. Old age pensions are mostly contributory pensions, i.e. pensions paid to retirees who paid social security taxes when they were working. These account for AMD 159 billion of the AMD 188 billion spent on pensions. The other large social expenditure is family members and children. This includes Armenia's only means-tested, unconditional transfer, the family benefit (AMD 29 billion); one-time payments to mothers upon childbirth (AMD 4 billion); and a variety of childcare services for participants in the social security system. It is noteworthy that both unemployment and disability pensions are quite small compared to the other social expenditures.

Table 9. State (National) and Local Government Social Expenditures, 2011
(in million AMD and in percent)

		Included in analysis?	Share of expenditures	Share of GDP
	(in AMD millions)		(in percent)	
Total Expenditures	1,013,500			26.8
Health	63,491		5.9	1.7
Outpatient Services	22,551	yes	2.1	0.6
Inpatient Services	26,891	yes	2.5	0.7
Other Health	14,050	no	1.3	0.4
Education	135,071		12.6	3.6
Pre-School Education	10,694	yes	1.0	0.3
Elementary Education	30,357	yes	2.8	0.8
General Basic Education	36,022	yes	3.3	1.0
Complete Secondary Education	15,724	yes	1.5	0.4
Initial Professional (Vocational) Education	2,180	yes	0.2	0.1
Secondary Professional Education	3,177	yes	0.3	0.1
Higher Education	7,885	yes	0.7	0.2
Other Education	29,032	no	2.7	0.8
Social Protection	258,336		24.0	6.8
Ailment and Disability	1,251	yes	0.1	0.0
Old Age	188,396	yes	17.5	5.0
Relative Lost Persons	190	yes	0.0	0.0
Family Members and Children	43,596	yes	4.1	1.2
Unemployment	4,115	yes	0.4	0.1
Dwelling Provision	815	yes	0.1	0.0
Special Social Privileges	10,934	no	1.0	0.3
Special Protection	9,039	no	0.8	0.2

Source: Ministry of Finance.

C. CONCENTRATION COEFFICIENTS

73. **A tax or expenditure has a larger distributional impact if it is strongly targeted to the poor or the rich, and if it is large relative to incomes.** We start the presentation with information about the size and incidence of the many components that go into household incomes. The previous section showed how large is each of the items that we investigate relative to the budget and to GDP. Thus, we should expect that old age pensions or VAT may have large distributional consequences because they represent a large share of the budget. Next, we need to know how the benefits and costs of those items are distributed across the population.

74. **We present concentration coefficients[19] for the tax and expenditure items that we can analyze on the basis of the household survey.** A negative concentration coefficient for an expenditure item shows that its benefits are enjoyed predominantly by lower-income households. Thus, if we hope that fiscal policy will redistribute from the rich to the poor, then public expenditures should have negative concentration coefficients. The outcomes in detail (Figure 16):

- The family benefit is the most progressive expenditure, a result consistent with other studies of this program's targeting.[20] While targeting of the family benefit is not perfect – about a third goes to households whose market income is above the US$2.50/day poverty line – its concentration coefficient is similar to those for conditional cash transfer programs in Latin America, and better than any other social expenditure in Armenia.
- Other transfer payments also go disproportionately to poorer households. Special privileges go primarily to World War II veterans and their children, an elderly population that usually has no other source of income and is thus extremely poor in the absence of this transfer.
- The same is true for both contributory and non-contributory pensions.
- Unemployment benefits have significantly negative concentration coefficients as well.
- Among all the direct transfers we can examine, only stipends and child care benefits have positive concentration coefficients. Stipends are merit-based, intended to support students based on ability rather than need. That ability is somewhat more common in richer households. Child care benefits are provided only for mothers who participate in the social security system, i.e. who have a formal job which explains their households' somewhat higher incomes.
- Most in-kind education benefits also go more to poorer households: primary, middle, and both levels of vocational training all have negative concentration coefficients. Secondary schooling and pre-school have a concentration coefficient very near zero. This reflects the higher-than-average coverage rates of schooling in Armenia, especially at the secondary level. This is not true, however, for university studies which has a positive concentration coefficient (0.30).
- In-kind health benefits are evenly spread across the income distribution. Non-maternity hospital in-patient services and primary care both have concentration coefficients near zero. Hospital maternity care (deliveries), however, has a somewhat negative concentration

[19] Concentration coefficients are calculated like Gini coefficients: we order the population from poorest to richest and construct a concentration curve that shows the cumulative share of the taxes paid or benefits received across that income distribution. The concentration coefficient is the area between that concentration curve and an equal distribution (45-degree line) multiplied by 2. Unlike the Gini, a concentration coefficient can be negative. This indicates that the tax or benefit fall disproportionately on poorer people.

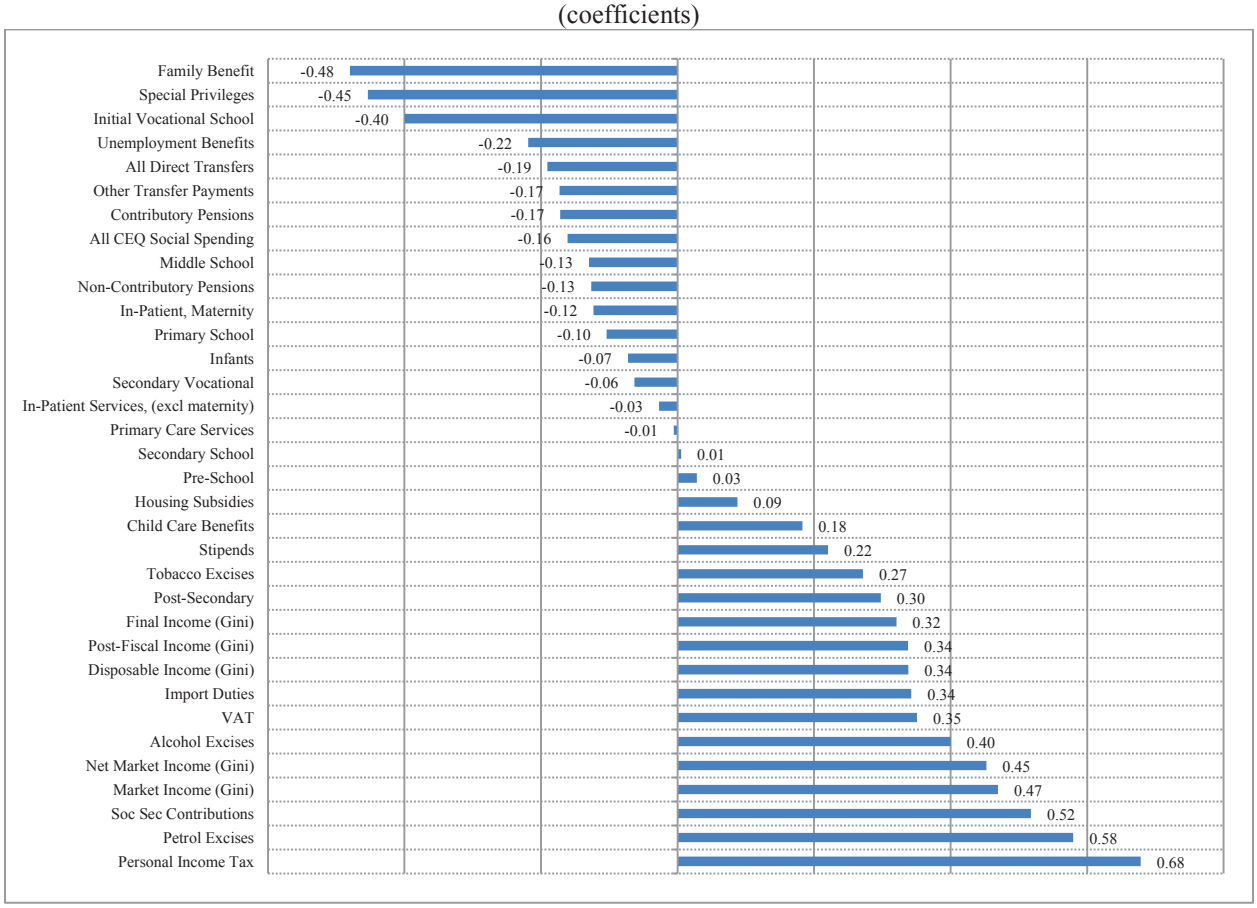
[20] Tumasyan, 2006, Esado, 2012, Karapetyan et.al. 2011.

coefficient. All of these services are supposed to be universal and free. However, the transfers from the State Health Agency to the providers are insufficient to cover costs, so patients sometimes must pay informal fees. Those fees may discourage poorer households from using these services, tilting the beneficiary pool toward richer households.

75. **In order to redistribute income toward the poor, taxes must fall disproportionately on the rich, which means they must have a concentration coefficient that is greater than the Gini for market income.** This is true for the direct taxes (PIT and social security contributions) and for excises on petroleum products.[21] These taxes are thus progressive, though only very mildly so in the case of social security contributions. The concentration coefficients for VAT, import duties, and alcohol excises are only slightly lower than the Gini coefficient, making them mildly regressive, a pattern more typical of a developed economy. Tobacco excises are much more regressive: smoking is spread more evenly across the population than is income in general.

Figure 16. Concentration Coefficients over Market Income

(coefficients)



Source: ILCS (2011) and authors' calculations.

[21] We should note that we are capturing only petroleum products consumed directly by households, mostly petrol. This is only a very small part of petroleum consumption in Armenia. Most petroleum products are consumed as intermediate goods, so petrol excises will affect the price of many goods. We have not been able to trace this effect for lack of a current input-output table, but the concentration coefficient would surely decline if we could since consumption of other goods that use petroleum as an input is more spread across the income distribution than is direct petrol consumption.

D. SENSITIVITY ANALYSES OF CONCENTRATION COEFFICIENTS

76. **The results reported above have been derived with a number of assumptions, and it is opportune to test their sensitivity with regard to the assumptions.** Overall, the results reported in Figure 15 are quite robust to alternate approaches and specifications. The outcomes are reported in more detail below.

- The first sensitivity analysis changes the treatment of contributory pensions. Rather than view them as transfer payments, we can treat them as deferred compensation, and thus part of market income, and treat social security contributions as saving rather than a tax. As a result, pensioners move further up the market income distribution, and everyone else down. Therefore, benefits that accrue disproportionately to households receiving contributory pensions – the pensions themselves, but also health care – have more positive concentration coefficients, and contributory pensions themselves now have a significantly positive concentration coefficient. Contributory pensions move their recipients well up the income distribution, and at the same time, benefits that go disproportionately to households who are unlikely to receive a contributory pension move down the income distribution. Other items remain reasonably stable. Initial vocational education actually shows a large decrease in its concentration coefficient, but it has a very large standard error (between 0.11 and 0.15) because there are few such students in the sample.
- The second sensitivity analysis alters the construction of the income concepts from an income base to an expenditure base. Most poverty analysis in Armenia is done on the basis of expenditures as reported in the ILCS, rather than incomes, while incidence studies typically use incomes. Because the correlation between reported incomes and expenditures is low in the survey, it is important to check how an expenditure-based welfare variable would change the results. Fortunately, the changes are small: when we define disposable income as reported expenditures per capita, and then derive all the other income concepts from this base, all the concentration coefficients remain quite close to the base run. Thus, the fact that our analysis is mostly carried out with income rather than expenditure is not worrisome.
- The third sensitivity analysis scales household income by the NSS adult equivalence scale[22] rather than the number of household members. This, too, has very little effect on the results. This is perhaps surprising but, unlike many other developing economies, households with children in Armenia are not especially large.

E. INCIDENCE OF TAXES AND BENEFITS BY POVERTY STATUS

77. **Rather than look at indicators over the entire income distribution, we can also look at incidence on households below different poverty lines.** We therefore show the shares of benefits received and taxes paid by poverty status (Table 10). We reconfirm the good targeting of most transfer payments to households that fall below the US$2.50 per day, and even the US$1.25 per day, poverty line. These transfers have a large impact on poverty reduction.[23] This is especially true of the family benefit, but also of contributory and non-contributory pensions and, to a lesser extent, other direct transfers. A full 78 percent of the family benefit budget is paid to the 39 percent of the population who live under US$2.50

[22] The scale is (adults + 0.65*children)^0.87, with children being those under 15 years old.

[23] Except for contributory pensions, these transfers are small, so there is no guarantee that they will lift recipient households above the poverty line. However, the fact that poor households receive the vast majority of them means that both the poverty gap and poverty severity will decline after the transfers even if the headcount does not.

per day. Since contributory pensions are the largest social expenditure by far, they have a considerable effect on poverty reduction.

Table 10. Shares of Income, Transfers, and Taxes by Income Group, Armenia, 2011
(in percent)

Income Group:	Pop Share	Market Income	Direct Taxes	Indirect Taxes	Contributory Pensions	Non-contributory Pensions	Family Benefit	Other Direct Transfers
y < $1.25	21.3	2.5	0.1	8.5	33.1	32.2	54.8	21.9
$1.25 < = y < $2.50	18.0	7.9	1.8	10.0	18.5	18.1	22.9	14.5
$2.50 <= y < $4.00	19.0	14.4	8.1	15.2	17.3	14.1	11.4	14.3
$4.00 <= y < $10.00	35.0	50.8	49.6	46.4	26.5	28.4	8.6	42.9
$10.00 <= y	6.8	24.4	40.5	19.9	4.6	7.2	2.2	6.5

Source: ILCS (2011) and authors' calculations.

78. **The poorest households pay a very small share of direct taxes, but a disproportionate share of indirect taxes.** There are two reasons for this. First, people whose main source of income is a transfer, e.g. the elderly, have very low, perhaps zero, market income, but still make significant expenditures from their transfer income. Second, because the main component of indirect taxes, the VAT, is broad-based in Armenia, even those with low expenditures do pay part of it. Thus, people under US$2.5 per day receive 10 per cent of household market income, but pay 18.5 percent of total indirect taxes. In contrast, the same people pay only 1.9 percent of total direct taxes.

F. INEQUALITY AND POVERTY

79. **Fiscal activities in their entirety reduce inequality in Armenia.** This is the result of comparing Gini coefficients for market income and final income, which differs from the former by the taxes, transfers, and expenditure benefits shown in the first section. The Gini coefficient improves from 0.469 to 0.357 (Table 11). The headcount poverty incidence for people living in poverty (less than US2.50 per day) improves from 39.3 to 30.9 percent. For the highest poverty line (less than US$4 per day), however, the effect of taxes overwhelms the effects of transfers, leaving poverty slightly higher post-fiscal activities than at market income. While we use incomes per capita, and international "dollar-a-day" poverty lines,[24] the effect of transfers and taxes on poverty and inequality estimated here will be quite close to the same effect estimated with the NSS welfare measure.[25]

Table 11. Gini Coefficients and Poverty Indices for CEQ Income Concepts
(in percent)

	Market Income	Final Income
Gini	0.469	0.357
Change (in percent)	.	-11.3
Headcount index, z = PPP$1.25/day	21.3	9.0
Change (in percent)	.	-12.2
Headcount index, z = PPP$2.50/day	39.3	30.9
Change (in percent)	.	-8.4
Headcount index, z = PPP$4.00/day	58.3	60.2
Change (in percent)	.	1.9

Source: Author's calculations.

[24] The NSS presents poverty incidence as a function of expenditures of adult equivalents, and uses cost-of-basic-needs poverty lines. It also makes adjustments for household members who were absent for part of the preceding month. The absolute values presented in Table 10, therefore, differ from those published by the NSS and the World Bank's regular poverty assessments.

[25] The one exception to this is the adult equivalence scale. Using per capita income tends to make households with children look poorer, and thus programs directed toward children like education look more progressive.

80. **The positive distributional results are driven mostly by contributory pensions.** If we consider those pensions to be deferred compensation rather than transfers, the remaining transfers (family benefits, social pensions) reduce the Gini by only two points and the headcounts from 1.6 to 3.2 points.[26] These programs are not very large relative to income, so their impact is limited by program size more than targeting.

G. INCOME MOBILITY

81. **The fiscal system increases or decreases individuals' incomes and moves them up or down the income distribution.** Direct taxes and monetary transfers move many people to higher income groups, but they also move a significant number of people to lower groupings. Large numbers of those in the US$2.50 to US$4.00 range fall below the US$2.50 poverty line post-fiscal activities because taxes outweigh the benefits they receive. The table highlights the stark reality that public spending, including transfers must be funded, and that taxation can induce a significant amount of poverty in its own right.

Table 12. Mobility Matrices by Income Group, Market Income to Disposable and Post-Fiscal Income, 2011
(in percent unless otherwise stated)

	Disposable Income groups							
Market Income groups	y < $1.25	$1.25 <= y < $2.50	$2.50 <= y < $4.00	$4.00 <= y < $10.00	$10.00 <= y < $50.00	$50.00 <= y	Percent of Population	Average Market Income (AMD per month)
y < $1.25	44	35	13	9	0	0	21	4,231
$1.25 <= y < $2.50	2	55	36	7	0	0	18	15,585
$2.50 <= y < $4.00	0	10	68	21	0	0	19	26,775
$4.00 <= y < $10.00	0	0	13	86	2	0	35	51,421
$10.00 <= y < $50.00	0	0	0	38	61	0	7	124,344
$50.00 <= y	0	0	0	0	58	42	0	520,501
	Post-Fiscal Income groups							
y < $1.25	51	31	13	5	0	0	21	4,231
$1.25 <= y < $2.50	6	66	24	5	0	0	18	15,585
$2.50 <= y < $4.00	0	24	64	12	0	0	19	26,775
$4.00 <= y < $10.00	0	0	25	75	1	0	35	51,421
$10.00 <= y < $50.00	0	0	0	56	44	0	7	124,344
$50.00 <= y	0	0	0	0	58	42	0	520,501

Source: Author's calculations.

H. CONCLUSIONS

82. **Armenia's fiscal activities lead to significant redistribution.** From market to final income, the Gini coefficient drops by 0.11. This compares to 0.13 and 0.15 in Brazil and the United States, respectively. This is impressive given the small share of GDP dedicated to transfer payments in Armenia. However, if we treat contributory (social security) pensions as deferred income, the results are much smaller: fiscal activities reduce the Gini by only 0.05. By comparison, similar analyses for Brazil, Mexico, and the United States find that fiscal activities reduce the Gini by 0.11, 0.08, and 0.11, respectively. The contributory pensions are not the best-targeted social expenditures, but they have by far the largest budget.

[26] See the appendix table.

83. **Results for poverty reduction are less encouraging.** At a poverty line of US$2.50 per day, which is similar to Armenia's national poverty line, fiscal activities lower the headcount by 0.084, but at the US$4.00 poverty line, fiscal activities actually increase the headcount slightly (0.019). Even though transfers are reasonably well-targeted in Armenia, taxes, especially indirect taxes, do fall on poorer households, thus offsetting the poverty-reducing effect of public expenditures. Further, the mobility matrices show that fiscal activities cause a significant amount of downward as well as upward movement among the poor or near poor, much more so than in Latin American countries where similar analyses have been completed.

84. **Even though transfers other than contributory pensions have good targeting in Armenia, they have a limited effect on the income distribution.** This holds an important policy implication: large redistribution requires both good targeting and significant expenditures. Armenia has the former, but with the exception of contributory pensions, not the latter.

85. **Whether greater distribution is desirable is a question for policy makers and voters.** But if the polity feels that fiscal activities should have a greater influence on the distribution of income in Armenia, the best candidate on the expenditure side of the budget is the family benefit, which is more concentrated among the poor than any other social expenditure. This could be achieved by increasing the amount of the benefit, or by increasing its coverage, which remains quite low. On the revenue side, most recent discussion of tax reform revolves around indirect taxes, especially the VAT. This analysis shows that these taxes are significantly less progressive than direct taxes. This is especially true of poverty effects: the poorest households only rarely pay direct taxes in Armenia, but they do pay VAT, import duties, and excises, especially on tobacco. From an equity perspective, then, it would be preferable to consider tax reforms to increase direct taxes either by raising rates or by drawing more workers into the formal economy.

5. Evaluating the Social Protection System[27]

A. Overview

86. **Armenia has a comprehensive array of social protection and insurance programs.** As a country with a relatively small revenue-to-GDP ratio, Armenia struggles to provide good social protection and insurance within a sustainable fiscal envelope. In this context, this chapter aims at answering the following questions:

- Is the Armenian government getting the most out of the limited social protection and insurance expenditure? We assess whether there is room for efficiency gains within and through enhanced coordination between programs.
- Are recent changes to the social protection and employment policies moving the system in the right direction? We assess whether the policy changes are likely to either increase the benefits reaching the poor, or reduce the government's costs of providing social protection and insurance.
- Are recently introduced programs fiscally sustainable? The new active labor market policies (ALMP) introduced in 2014 can become very costly if widely used by jobseekers, because of the high costs of training programs. The childbirth grant introduced in 2009 and expanded in 2014 aims at promoting fertility and is the second largest social assistance program in the country.

87. **Armenia's social protection system performs fairly well in terms of ensuring minimum living standards and promoting human capital accumulation and employment.** There is still significant room for improvement of the coverage and targeting of social assistance programs such as the FBP, upgrading coordination among programs—in particular among social assistance and active labor market policies, and searching for efficiency gains to diminish administrative costs. Enhancing the FBP has the added benefit that other programs are associated with it, and would therefore also have the same improvements.

88. **This chapter is structured as follows.** The next section gives a broad overview of the main social protection schemes, budgetary spending disbursed through them, and impacts. The third section discusses five program areas in more detail, highlighting spending trends and institutional details. The fourth section presents some performance evaluations of different schemes, and suggests options for improvements.

B. Social Assistance, Poverty, and Human Capital

89. **Poverty in Armenia was halved during the decade before the global financial crisis, helped by strong economic growth and the social protection and insurance programs**. Poverty incidence decreased from more than 50 percent to 28 percent between 1999 and 2008. Social protection, in particular the FBP, played an important role in reducing poverty. In 2008, the poverty headcount would have been 43 percent without the assistance of social protection and insurance, implying an impact on

[27] This section is based on a background paper prepared by Gayatri Koolwal and Josefina Posadas, with inputs by Lisa Oberlander, Tomas Damerau, Ximena del Carpio, and Matteo Morgandi.

poverty incidence of 15 percentage points.[28] In 2010, with the country still recovering from the lingering effects of the global economic crisis, poverty incidence would have been 54.2 percent without this assistance (i.e. 18 percentage points above the measured value).[29] In 2012, social protection lifted 14 percent of the population out of poverty.[30]

90. **The social protection system also contributes to building human capital**. Among households below the poverty line with or without FBP cash transfers, the former spend more on education than the latter (US$11.1 for recipients vs. US$6.7 for non-recipients measured in 2005 PPP dollars) and more on miscellaneous items (US$194 vs. US$21). If we extend the comparison to those below the upper poverty line, the results are preserved and amplified for the education expenses: family benefit recipients spend almost three times more in education than non-recipients (7 vs. 18.5).

C. ARMENIA SOCIAL PROTECTION AND INSURANCE PROGRAMS

Overview of Programs

91. **The social protection and insurance system in Armenia comprises social insurance, various social assistance programs, passive and active labor market policies, and a small number of subsidies for the poor.** In 2012, social protection expenditure amounted to about 7 percent of GDP (Table 13). Pensions receive by far the largest budgetary allocations with 4 percent of GDP. Armenia has a contributory pay-as-you-go (PAYG) system since 2003, which incurs a high deficit. From 2014, a defined contribution system was introduced with mandatory savings in individual accounts. The reforms envisaged a 5-percent deduction from salaries and wages, matched by a 5-percent contribution from government (capped at AMD 25,000). A Supreme Court ruling judged parts of the reform unconstitutional in April 2014, and gave the government until September 2014 to make amendments. The second largest item in the social protection area, the means-tested Family Benefits Program (FBP), is Armenia's largest social assistance program. It disbursed 0.8 percent of GDP in 2012. Non-means tested programs include social pensions, family allowances and grants, and disability benefits. All means-tested programs in Armenia are linked to the FBP, as they use the same methodology to target the vulnerable. In 2012, the share of social assistance spending on means-tested programs was about 55 percent in Armenia. Only two other countries in the region spend a larger share on means-tested programs, FYR Macedonia and Bulgaria (62 and 67 percent, respectively).[31]

92. **Since 2006, the share of spending on non-means-tested programs has risen faster than spending on means-tested programs.** Between 2006 and 2011, the share spent on non-means tested programs jumped from about 22 to 46 percent of social assistance, primarily because of the expansion of disability and family allowances.[32] These non-means tested programs do target vulnerable, albeit not necessarily very poor, households. Some components of labor market and social assistance spending have expanded counter-cyclically (Figure 17).

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[28] In order to have comparable poverty numbers over time, the measures of the consumption aggregate and poverty line have to be comparable. In 2009, the basket of goods that define the poverty line changed, affecting the measure of poverty. We therefore use the 2009 basket to describe developments over time. For more details on the change of the basket see World Bank (2011). The qualitative results do not change independently of the basket used.

[29] World Bank. Armenia Poverty Update (2012).

[30] The simulations also show that the average percentage shortfall in consumption expenditure for the population, from the poverty line, would increase by 3.5 percent without the transfer.

[31] SPEED database.

[32] Numbers were taken from SPEED database.

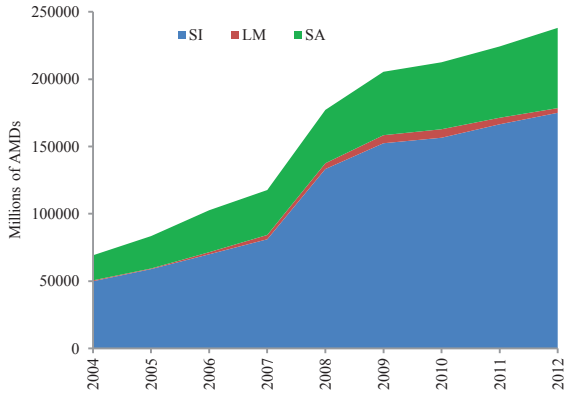
Table 13. Main Social Protection and Social Insurance Programs
(percent of GDP, percent of social protection spending, and number of beneficiaries)

Social Protection Category	Programs	Responsible Agency	% of GDP (2012)	% of total Social Protection Expenditure (2012)	Number of Beneficiaries (2012)
Social Insurance (contributory)	Pensions	MoLSI, SSSS	4.94	67.6	459,800
	Other social insurance (e.g. paid sick leave, parental leave)	SSSS	0.16	2.3	64,678
Social Assistance	Family Benefit Program, and the Emergency Assistance	MoLSI	0.86	13.1	105,403
	Social pension				
	- Old Age	MoLSI	0.01	0.1	42,045 (disability), 9,820 (old Age/survivor
	- Disability	SSS	0.19	2.6	
	- Survivor		0.05	0.7	
	Family allowances and grants	MoLSI			
	- Child Birth benefit		0.12	1.6	43,449
	- Child Care benefit		0.08	1.0	11,299
	Other social assistance benefits				
	- Funeral Grants	MoLSI	0.01	0	23,275
Labor Market (contributory and non-contributory)	Active Labor Market Policies - Training, Employment Incentives	SESA	0.18	2.5	2,225

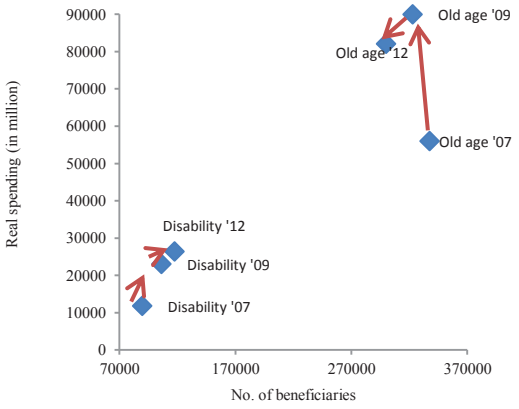
Source: Ministry of Finance and World Bank staff estimates.
Notes: MLSI: Ministry of Labor and Social Issues; SESA: State Employment Service Agency; SSSS: State Social Security Service.

Figure 17. Trends in Social Protection Spending

(A) Social protection categories, 2004-12 (in AMD millions)



(B) Social insurance spending and beneficiaries, 2007-12 (in AMD millions, and no. of beneficiaries)



Source: World Bank staff estimates based on SPEED.
Note: SI is social insurance, LM are labor market related programs, SA is social assistance.

Pension

93. **Armenia's contributory pension system—by far the largest social protection program—is in serious deficit.** The system is financially unsustainable. The ratio of workers contributing to the pension system to pensioners receiving benefits is very low. While in other countries in the region the ratio is about 1.5 and in developed countries about 2, in Armenia there is one pension contributor per pension beneficiary. This is partly due to the very low share of working age population contributing (about 30 percent), while nearly 100 percent of persons above retirement age (63) are receiving benefits. Pension expenses therefore amount to 20 percent of the state budget (and 5 percent of GDP) but provide limited benefits to pensioners as they amount to only 20 percent of average incomes. In fact, pensions in Armenia are only about half of average pensions in the ECA region.

94. **Nevertheless, pensions make a large contribution to poverty reduction.** The bulk of the poverty reduction achieved by Armenia's social protection system derives from pensions. While the family benefit program, contributes less than 2 percent to poverty reduction, about 12 percent of the population has a consumption level above the poverty line because of the pensions they receive.

95. **A pension reform put into law in 2010 aims at fiscal sustainability.** The reform aims at adding a second pillar to the current 'pay-as-you-go' pension system. While the first pillar would focus on poverty prevention, a second pillar with defined contributions to individual pension accounts would aim at income replacement after retirement. Individual contributions were set at 10 percent of salaries and wages net of taxes—5 percent to be deducted at source by employers, matched by a 5-percent contribution from the government, albeit capped at a ceiling of AMD 25,000 (US$60). The cap means low-income individuals contribute 5 percent of their wages, while high-income individuals have to make up for the difference between 5 percent and the cap, and could end up paying almost 10 percent of their wages. The system was made mandatory for all workers below the age of 40 and voluntary for older workers (with tax free contributions but no government matching contribution).

96. **The law led to protests in early 2014 against the mandatory nature, against the cap on government subsidies, and against the imposition of contributions without tax deductibility.** Critics achieved a partial victory in Armenia's Supreme Court in April 2014, which voided some of the features of the new system on constitutional grounds, and amendments are currently being discussed.

Family Benefits

97. **The FBP relies on an eligibility formula that determines a household's vulnerability score, based on individual and household indicators**. To become eligible, households have to register and are assessed based on a multiplicative formula (Box 3).[33] The formula has been revised several times. For example, in 2008 the family basic score was raised, and in 2012, the coefficient on total family income was also increased. While these changes tend to exclude families with higher income and larger family size, the eligibility threshold was lowered each year between 2004 and 2008.[34] Beginning in January 2014, two main benefit categories are distinguished within the FBP: families with dependents up to 18

[33] Each characteristic has a numerical value, and the product of those values determines the vulnerability score for the family. At its launch in 1999, the minimum marginal vulnerability score for FBP eligibility was 36, and since then the threshold has been reduced gradually (in 2008, the minimum score was 30).

[34] For more details see Karapetyan (2014) Annex 1 and Annex 2. The marginal vulnerability score was set at 36 when the program was launched in 1999, reduced to 35 in 2004, to 34 in 2005, to 33 in 2006 and finally to 30 in 2008, where it has remained since then.

years of age, and families without dependents.[35] This change paves the way for differentiation in the future, although at present the two groups receive basically identical benefits. The use of the formula means that FBP recipients are not necessarily below the poverty line, while it also excludes some households which are indeed below the poverty line.

Box 3. Family Benefit Program Eligibility

Eligibility. Households register in the family vulnerability assessment system and receive scores based on a multiplicative formula. If the score is 30 or higher, they qualify to receive the unconditional transfer. The amount of transfers depends on their exact score, number of children, and geographical area of residence. The eligibility formula was revised in 2012 to accommodate a greater share of low-income families, particularly those with children.

Eligibility formula. Takes into account 1) the mean social vulnerability of the household; each family member is categorized into a social group, to which a specific score is assigned (children, disabled persons, employed or unemployed members). 2) Family income (salaries and wages, pensions, unemployment benefits, imputed income from livestock and land). 3) Housing conditions and geographical area of residence. 4) Automatic disqualifiers (possession of a motor vehicle, real estate, registration as a company, or electricity expenditure above a certain threshold).

Benefits. Each FBP household receives an average of 29,350 per month; the basic size is 16,000 AMD per month with augmentations for each family member under 18, differentiating the benefit increases for children under 18 in families with four or more children, as well as in families living in certain regions of the country (high mountainous areas, and large (4+ children) families living in boundary areas). Beginning January 2014, changes in the Law on Public Benefits distinguishes two main benefit categories – one for families with dependents up to 18 years of age, and one for poor families without dependents. The law also allows FBP households to access/combine other benefits, including medical copayment, funeral expenses, university fees, condo fees (some cases), and child camp participation.

Source: MoLSI, SSSS. *Notes*: numbers correspond to 2012.

Benefits for Children

98. **An aging population and low birth rates have prompted policy initiatives to give incentives to families to have (more) children.** In 2013, the fertility rate in Armenia was 1.7, well below the replacement fertility rate of 2.1.[36] Initiatives include increasing financial incentives for families to have more children via the childbirth benefit, contributory childcare and maternity assistance. The childbirth benefit is provided every time a child is born in a family, regardless of family income. The childbirth benefit was expanded substantially in 2014, with half of the

Table 14. Childbirth Grant Effect on Fertility
(in AMD and in percent)

Existing number of children	2014 childbirth grant (AMD), for having another child	Estimated effect of grant in probability of having another child (percent)
1 child	50,000	1.6
2 children	1 million	4.1
3 children	1 million	6.2
4 children	1.5 million	8.5

Source: World Bank staff estimates based on ILCS 2007-2012.
Notes: Probit regressions of the probability of having a child in or after 2007, using 2007-2012 ILCS data; controlling for individual and household characteristics, of whether a woman had a child born in or after 2007.

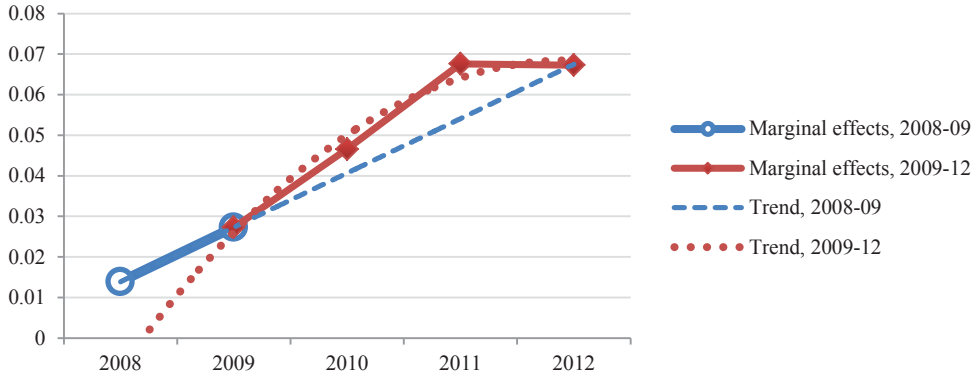
[35] This is in line with the European Social Security Code and the minimum standards embodied in the ILO Social Security Convention #102. For more details see Karapetyan (2014) Annex 3 or http://conventions.coe.int/Treaty/en/Treaties/Html/048.htm

[36] World Economic Forum (2013). *Human Capital Report: Armenia.*

benefits for higher-order births (three children and more) deposited in a family capital account that can be used for other family members as well (Table 14). The childbirth benefit program led to a significant growth in fertility initially, but it seems to have leveled off in 2012 (Figure 18). The estimated increase in probability of having another child is substantial (6.2 percent for having a fourth child, and 8.5 percent for having a fifth child, Table 14).

99. **The childbirth benefit is not a pro-poor program.** Coverage is limited to a small share of the population, and the amount of benefits paid to households at the highest and lowest ends of the distribution are not very different: 19.8 percent of benefits are paid to households in the highest quintile, versus 35 percent to the poorest.

Figure 18. Estimated Marginal Effects on the Probability of Giving Birth to a Child, 2008-12
(coefficient)



Source: World Bank staff estimates based on ILCS 2007-2012.
Notes: Probit regressions of the probability of having a child in or after 2007, using 2007-2012 ILCS data; controlling for individual and household characteristics, of whether a woman had a child born in or after 2007.

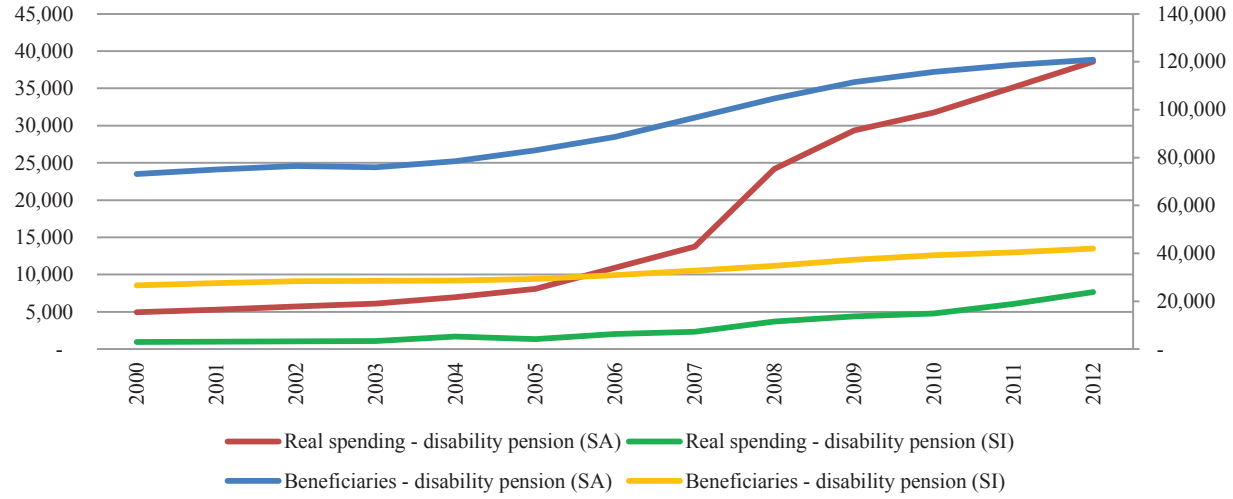
100. **In addition to childbirth benefits, families receive cash assistance to care for children up to two years of age.** The share of this program in total social protection spending has remained flat in recent years, around 1 percent, but the number of beneficiaries has increased rapidly from about 4,500 in 2008 to 9,800 in 2010, and 11,300 in 2012. Unlike the childbirth benefit, childcare assistance is contributory, as it is intended for working individuals who take time off to care for children after birth. Families also receive lump-sum assistance for school-age children entering the first grade, but the amounts are small.

Social Pension

101. **Public spending on social pensions has been on the rise in recent years, due primarily to growth in disability pensions**. Old-age, disability and survivors' pensions, so-called 'social pensions', are non-contributory and also fall under social assistance. The share of social pension recipients among pensioners increased to 10.3 percent in 2012 from 8.3 percent in 2000, with most of the increase coming from disability pensions. Since 2007, both disability pension expenditure and beneficiaries have increased their share in social assistance and social insurance programs (Figure 19). At the same time, the share for elderly pensions has fallen, and the share allocated to survivorship has remained fairly flat. In 2012, disability pensions made up nearly 77 percent of the budget for social pensions, compared to 19 percent for survivorship and 4 percent for elderly pensions.[37]

[37] Karapetyan, Susanna (2014). "Armenia: Social Assistance and Labor Benefit System."

Figure 19. Trends in Disability Spending, 2000-2012
(in AMD millions, left axis, and number of beneficiaries, right axis)



Source: World Bank staff estimates based on SPEED.

Labor Market and other Social Insurance Programs

102. **Until recently, three main social insurance programs covered the active labor force: unemployment benefits, sick leave, and maternity leave.** The most important one was the Unemployment Benefit (UB) that was abolished in the new employment law adopted in December 2013. In addition, Armenia has two key labor market policies: minimum wages and state programs on employment promotion.

103. **Unemployment benefits constituted a considerable part of the expansion of labor market spending.** Since 2006, the spending on UB grew much faster than the spending on active labor market policies (ALMPs). The increase was due to a rise in the level of benefits and the number of beneficiaries. Critics argue that long periods of transfers and high benefits are disincentives for job search and accepting job offers of the unemployed. While a thorough analysis has not been carried out in Armenia, the difference in duration of unemployment between those registered in the State Employment Service Agency and the rest of the active population is striking: it was 25 months for the registered, and slightly above 12 months for the rest.[38]

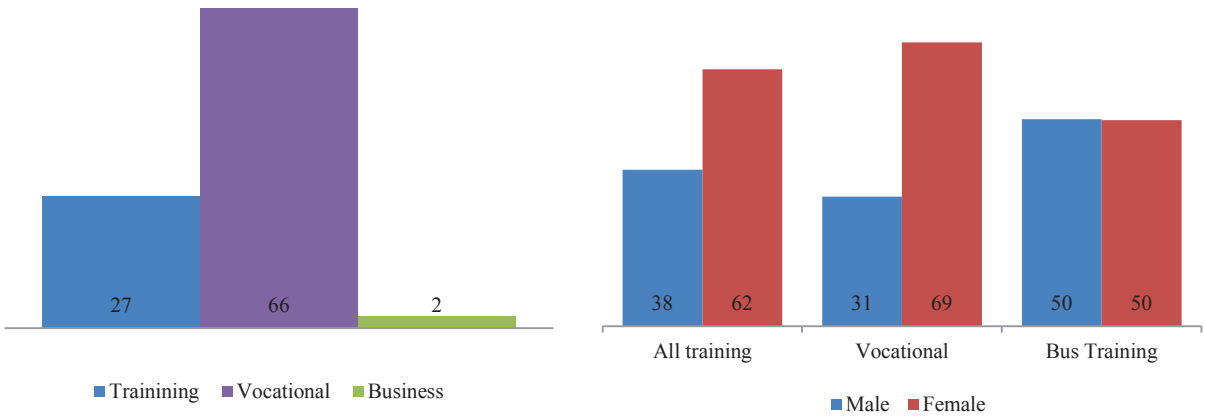
104. **The focus has now shifted from passive to active labor market policies.** Starting in January 2014, the unemployment benefit is cancelled and the unemployed will have access to new active labor market policies. These include offering professional orientation, information and counseling. A jobless person is also entitled to training, assistance for setting up companies, assistance with job placement in remote areas, reimbursement of costs associated with visits to employers, and participation in reimbursed public works.

105. **Training available before 2014 showed encouraging results on the likelihood of re-employment of the unemployed.** Almost 30 percent of the registered unemployed took training classes of some kind. Women were more likely to take the training than men, and particularly vocational training.

[38] Statistic taken from ARMStat, Employment yearbook, table 59, http://armstat.am/file/doc/99477298.pdf, and calculations from ILCS 2012.

Training was associated with a higher probability of getting a job offer: unemployed persons who took training were 15 percent more likely than those who did not in obtaining a job offer. While this is a very encouraging result, it could have a self-selection bias: those who took the training could have been the unemployed willing to put more effort into finding a suitable job, and thus, they would have been more likely to find a job even without the training. Another possibility is that upon the arrival of job offers, staff in the employment agencies would favor those with training.

Figure 20. Training Among Registered Unemployed
(in percent)



Source: World Bank staff estimates using GORTS (November 2013).

D. COVERAGE

106. **Coverage rates differ widely between different social programs.**

- Pre-primary education is not a universal service in Armenia, with public provision provided mostly by local rather than national government (Table 15). There is a sharp increase in coverage with income which mostly reflects Yerevan's ability to raise property tax revenue to provide public services, including pre-school.
- Both primary and general secondary schooling have high coverage rates that are evenly balanced across the income distribution. This suggests that the reasons for less than 100 percent coverage are not income-related.[39]
- Higher education is also not a universal service in Armenia; students must pay tuition. Scholarships are available, but they are based on merit, not need. Not surprisingly, coverage rates are much higher for higher-income households. Note, however, that the opposite is true for vocational education.
- Health care coverage is difficult to judge because there is no obvious benchmark for the number of health visits per month. The numbers reported are the share of the population that

[39] Given the way we calculate coverage, it is in fact impossible to have 100 percent coverage if any students are in school outside of the appropriate age. For example, a 12-year-old who is in primary school would count in the denominator of primary school (actual student) and also general secondary school (appropriate age), but only in the numerator of the primary school calculation. 10 percent, 8 percent, and 16 percent of students in primary, general secondary, and secondary school are outside the standard ages for those levels.

used either a publicly funded out-patient service at a hospital, polyclinic, and family doctor, or in-patient services at a hospital in the previous month (not year). Since not everyone is sick in a month, these rates are far less than 100 percent, as they should be. Overall, however, about 7 percent of the population has contact with the primary health system in a given month.

- Old age pension coverage is universal. Those who receive a contributory pension cannot receive a non-contributory (social) pension, and vice-versa, so the fact that the two rows sum almost to 100 percent means that every elderly person is receiving a pension.
- Family benefit reaches only 22 percent of people living in households whose market income is less than US$2.50/day. So even though targeting is very good for this transfer, it falls far short of covering all those in need. Indeed, there is often a trade-off between better targeting and better coverage in proxy means tested transfers like the family benefit. Tightening the proxy requirements for qualification will generally exclude richer households, which improves targeting, but also some poorer ones, which reduces coverage.
- Coverage for unemployment compensation is very low.

Table 15. Coverage Rates, Armenia, 2011

(in percent)

Income group:	x < $1.25	$1.25 < x < $2.50	$2.50 < x < $4.00	$4.00 < x < $10.00	$10.00 < x	total
			Education			
pre-primary	1.0	5.5	10.2	10.9	27.0	8.0
primary (I-IV)	89.1	85.4	92.1	89.3	98.3	89.3
general secondary (V-IX)	85.6	83.6	85.9	83.2	73.0	84.0
secondary (X-XII)	55.7	57.2	64.6	64.9	63.8	61.3
secondary vocational	1.8	2.6	0.5	0.4	0.0	1.1
secondary professional (college)	3.1	5.1	2.9	3.7	0.5	3.4
higher ed/post-grad	4.7	4.2	4.7	11.5	13.5	7.9
			Health care			
Out-patient care	7.7	6.8	6.9	6.3	5.0	6.7
In-patient care	3.80	4.32	4.45	3.35	3.72	3.85
			Old-age pensions			
Non-contributory	13	15	10	12	12	12
Contributory	87	85	90	88	86	87
			Other transfers			
Family Benefit	24.5	13.0	n.a.	n.a.	n.a.	19.2
Unemployment	4.6	3.0	3.2	3.6	2.5	3.6

Sources: ILCS, author's calculations.

Notes: Education coverage defined as (# students)/(# children of appropriate age + # actual students of other ages).
Health coverage defined as people with one or more consultations divided by population; out-patient care excludes hospital outpatient care; previous month; in-patient care is hospitals only, previous year divided by 12; old-age pension coverage defined as (number of recipients)/(population 65 or older + actual pension recipients); non-contributory is "social" pension; contributory is from social security system; family benefit coverage is #HH members of recipients / households below US$2.50/day; unemployment coverage is #recipients / #unemployed (NSS definition).

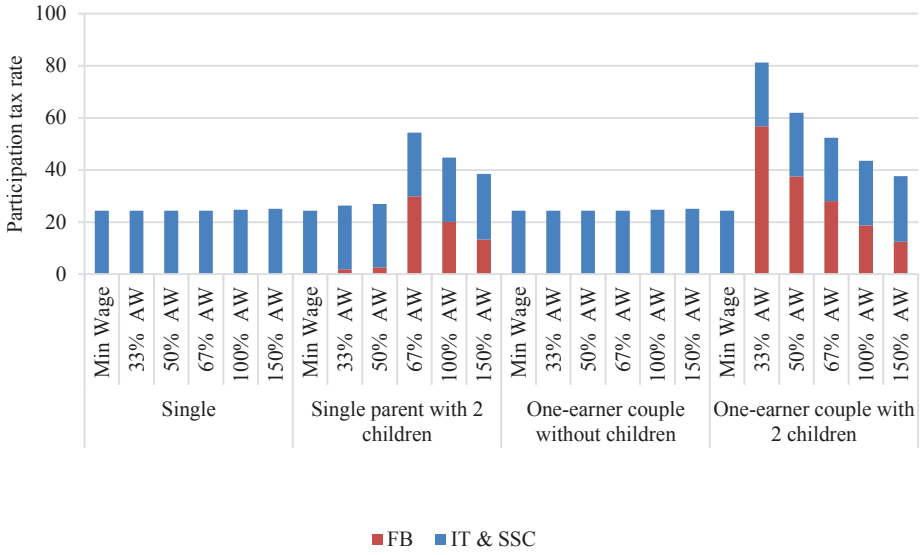
E. EVALUATION OF PROGRAMS AND AREAS FOR IMPROVEMENTS

Family Benefits

107. **There is no evidence that cash transfers from the FBP lead to work disincentives.** This is the result of a 2011 study which looked at the likelihood of people being employed just above and below the eligibility threshold for the FBP.[40] This regression discontinuity study could not find evidence of a work disincentive associated with the FBP.

108. **Participation tax rates could be high for individuals in households with certain characteristics**. They could lose FBP cash transfers without necessarily receiving higher take-home pay from formal employment. This is the result of simulations based on all taxes and social benefits for families with different characteristics. The results show that a household with two adults and 2 children and only one low-wage earner would face a very high implicit tax rate (income tax and loss of cash transfers) if the second adult took up employment at a wage slightly above the minimum wage (Figure 21). If the second adult were to receive only the minimum wage, the household would continue to receive the FB cash transfer and the net benefit of the job would be much larger.

Figure 21. Participation Tax Rates, 2012
(in percent)



Source: World Bank staff estimates.
Note: Participation tax rate is the implicit rate of tax of additional earnings resulting from income taxes (IT) and loss of eligibility to social assistance. Calculations are based on a tax and benefit simulation model developed by the OECD.

[40] World Bank (2011).

110. **Substituting the current means-tested programs with a proxy-means testing system would allow assigning different benefits to different applicants based on their characteristics.**[41] Proxy-means testing formulas have lower administrative costs (including costs on beneficiaries to collect documentation), since the score is based on characteristics that are straightforward to observe. In addition, because they do not use measures of income as an input, they are less likely to discourage formal employment.

111. **The advantage of proxy means testing is that it requires less information than true means testing, and yet is objective.** There are some drawbacks, however: administering proxy means testing requires literate and probably computer-trained staff, moderate-to-high levels of information and technology. There is also an inherent inaccuracy at household level, since the formula is only a prediction, though good results have been observed in other places. The formulae usually rely on indicators that are fairly stable and may identify well chronic poverty, but can be insensitive to quick changes in household welfare or disposable income, which may be frequent and large when an economy is suffering a large downturn. In addition, there would be high switching costs, which require careful consideration.

112. **Finally, further enhancements can be obtained by simplifying the eligibility process for poor families.** A complicated eligibility determination process may be contributing to the low coverage of the poor, and a major challenge is to find the families among the extreme poor who are not registered, or excluded from the system. About half of the households that did not apply to the FBP reasoned that they did not expect to get any assistance.[42] The automatic disqualifiers can make the application process difficult for families, as well as disqualify families that are otherwise poor. An improved comprehensive scoring system is needed, based on a more accurate assessment of the real living standard of families. Introducing differentiated thresholds to access benefits is another way to better accommodate households with different profiles.

113. **Many developed countries address possible work disincentives by combining social assistance and active labor market programs, but such an approach requires adequate capacity and funding.** Activation of beneficiaries is based on a principle of mutual obligations: the rights to benefits and responsibilities for an active job search, which can also be seen as conditionality to benefit receipts. Programs of this type, used for example in Germany and The Netherlands, rely on individual action plans generated by social workers, which identify employability gaps of each beneficiary in the current labor market and establish follow-up actions. Serving the diverse pool of social assistance beneficiaries requires tools for prioritization and resource targeting. Profiling models that predict the probability for different individuals to find employment in the short run can be used to segment customers and to prioritize interventions to the most needy. These programs can be very efficient if well implemented but they are usually more costly than providing only passive benefits.

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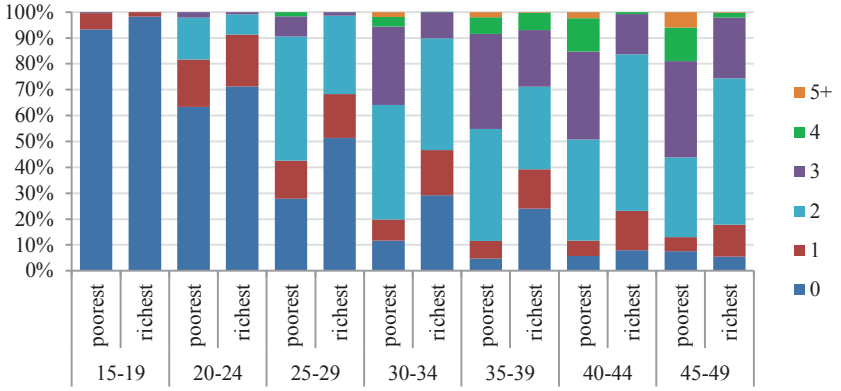
[41] Proxy means tests generate a score for applicant households based on fairly easy to observe characteristics of the household such as the location and quality of its dwelling, its ownership of durable goods, demographic structure of the household, and the education and, possibly, the occupations of adult members. The indicators used in calculating this score and their weights are derived from statistical analysis (usually regression analysis or principal components) of data from detailed household surveys of a sort too costly to be carried out for all applicants to large programs. The information provided by the applicant is usually partially verified by either collecting the information on a visit to the home by a program official or by having the applicant bring written verification of part of the information to the program office. Eligibility is determined by comparing the household's score against a predetermined cutoff.

[42] Armenia's 2013 Social Snapshot.

Childbirth Grant

114. **Poorer households in Armenia are likely to have more children.**[43] Women in the bottom 20 percent in the income distribution ranking are much more likely to have at least three children compared to women in the top 20 percent of incomes (Figure 22). Higher incomes are associated with having fewer children on average and having them later in life. There is a strong negative correlation between working and the probability of having a third or higher order child.

Figure 22. Childbirth, Age, and Income Group, 2012
(in percent)



Source: Demographic and Health Survey of Armenia, 2010.

115. **The large increase in incentives for higher order births under the childbirth grant system could increase the size of larger, poor families, and put pressure on childcare and maternity care expenditures.** The current childcare allowance and maternity benefits constitute a very small fraction of households' consumption expenditure, and are only available to families with working members. To ensure that families continue to respond to incentives for having children in the long run, both the childbirth and childcare benefits will have to complement one another. Currently, public expenditure on childcare is not effectively targeted towards families at the lower end of the income distribution, or those that are unemployed or out of the labor force. In addition, since women with more children are less likely to work, the childbirth incentives could adversely affect women's labor force participation, and could increase dependence on assistance from the FBP in households with only one low-wage earner.

116. **Cash transfers alone have shown to be relatively ineffective in increasing fertility.** Studies on the effectiveness of family-oriented policies have found that in-kind-benefits (e.g. available and affordable child care especially for children under 3) or packages that combine several policies are usually more suitable to increase fertility levels in the long-run than cash transfers alone.[44] Cash transfers may also simply affect the timing of births in the short run rather than increasing long-run fertility. Creating additional incentives for families to have children, including augmented childcare and maternity

[43] Wealth quintiles in the DHS are based on a wealth index calculated from a household's ownership of selected assets, such as televisions and bicycles; materials used for housing construction; and types of water access and sanitation facilities.

[44] Gauthier, Anne H. (2007). "The impact of family policies on fertility in industrialized countries: a review of the literature." *Population Research and Policy Review* 26: 323–346, and Luci-Greulichand Thevenon (2013) "The impact of family policies on fertility trends in developed countries" European Journal of Population. Vol.29, NO.2:

benefits, can help support the demographic expansion in Armenia. Such policies can also encourage more women to join the workforce.

Social Pensions

117. **Social pensions face increasing pressures from an aging population and an increasing number in disability pension beneficiaries.** The number of social assistance disability beneficiaries increased by 60 percent during 2004-12, and expenditures on benefits for this group almost quadrupled within the past decade. Spending on elderly pensions within social insurance also grew rapidly despite covering fewer beneficiaries (from 56 to 90 billion AMD during 2007-09, and falling to 82 billion in 2012).[45] The rise in disability expenditures will create long-term dependency at the expense of the government's budget, as disability programs are rarely means tested and are difficult to reduce.

118. **Specifically, the number of beneficiaries with low disabilities has been on the rise.** The number of beneficiaries classified as not having a significant loss of 'activities of daily living' (Group 3) rose from about 13,000 in 2010 to about 16,600 in 2012. Comparatively, the number of other disability social pensioners remained relatively stable over the period, and those receiving old age and survivor's pensions actually declined. Better monitoring is needed to make sure that the growth in social pensions is in fact related to disability or vulnerability. The government is planning to introduce major changes to the way disabled benefits are assessed, so that people will be categorized according to their ability to work.[46]

Labor Market Policies

119. **The change on emphasis from passive to active labor market policies can play a key role in reducing the high rates of unemployment in Armenia.** The new program addresses the lack of skills and skills mismatches in the market. They have to be accompanied by job creation and further coordination with other social assistance programs, such as the FBP and the EBP. Three points in particular deserve further attention:

- As the FBP and the emergency benefit remain the main channels of transfers which the unemployed can use to weather labor market shocks, it is crucial that the enrollment in the system and the collection of benefits can be done in an easy and prompt manner.
- Further coordination can be introduced between social assistance and ALMP. For example, the so called *mutual obligations* programs widely used in OECD countries require from those registered in social assistance to be also engaged in activation to maintain the eligibility status in the program. These programs avoid generating work disincentives among beneficiaries.
- Levels of benefits can be further coordinated across all programs and leveled with households' needs. The new employment law contemplates a transfer for reintegration of job search costs, which should not be confused by the public as a lower unemployment benefit. At the same time, there is a risk that the FBP and the emergency benefit would now be understood as unemployment protection, and fail thus to protect the working poor. Information campaigns about the programs as well as transfers of different amounts depending on the needs could generate efficiency gains in terms of coverage and generosity.

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[45] Over the period the number of elderly beneficiaries fell from about 337,000 to 300,000.

[46] Institute for War and Peace Reporting (February 2013). "Armenia Reforms Disability Rules."

F. CONCLUSIONS

120. **This chapter has shown that Armenia's social protection system relatively good for its size.** It is close to the average for the region in many indicators, for example in the coverage of the Family Benefit Program. However, there is still room for improvement in the following areas.

- Targeting of the FBP can be further improved. It is crucial that the administration of the program works smoothly and promptly, and that the eligibility formula is flexible enough to accommodate different needs. With further study and over the medium term, Armenia could move from a means testing system to a proxy-means testing scheme, which would allow for different benefits or levels of benefits for different recipients depending on their characteristics.

- Unemployment and very low wages for some workers are the main reasons for poverty and dependency on social assistance. The recent move away from passive labor market policies toward active labor market programs is an opportunity to re-think the design of social protection policies to ensure they contribute to higher employment. This could be achieved by making participation in employment programs mandatory for those receiving social assistance.

- While international evidence regarding the impacts of programs similar to the childbirth grant is mixed and the likely results may not be enough to justify the costs to the budget, possible work disincentives deserve further attention. Mitigating policies could be a further promotion of child care services.

- The new active labor market policies (ALMP) introduced in 2014 can become very costly if widely used by jobseekers, because of the high costs of training programs, while the return on the investment might be low if they are not accompanied by job creation. International evidence on the impact of training programs is mixed, while the analysis in this chapter shows some potential for a positive effect.

6. Reforming the Public Remuneration System[47]

A. Overview

121. **The Armenian government started a major overhaul of its public sector compensation policy in 2013.** While it kept a close watch on wage bill affordability in recent years, the criticism by managers and staff that pay levels were inadequate and pay inequities and distortions had crept in over time were increasing. A policy overhaul seemed opportune in light of the need to end the pay freeze introduced in 2009, while continuing fiscal consolidation.

122. **This chapter analyzes Armenia's public employment compensation policy against general principles of affordability, attractiveness, and fairness.** Any government compensation policy would ensure affordability of the aggregate wage bill, while helping the government attract and retain the skilled staff that it needs by offering competitive, transparent compensation that is appropriate for the array of jobs and workers, thereby contributing to productivity at worker- and entity-level. We base the analysis on data on employment in the civilian state administration, thus excluding employment in education and health sector service delivery and uniformed services and compare Armenia with regional and global benchmarks.

123. **Compensation is certainly important to achieving a well-performing cadre, but it is not the only factor**. Prior to a limited set of reforms aimed at streamlining wage schedules in 2014, the public services used an intricate set of pay regimes with few systematic linkages among them. Discretionary bonus payments supplement—and for some services and positions, outweigh—base salaries. The system lacked transparency, gave too much discretionary power to managers, and spurred questions of fairness. However, broader human resource management policy and practices also have considerable room for improvement. Better job descriptions could be used for a more competitive and discerning recruitment process, abolishing the current 'attestations', strengthening the performance appraisal system, and tailoring training.

124. **As the government continues to implement its revised policy and new legislation, it faces a number of challenges.** These can be grouped broadly by the major themes emerging from this section.

- *Flexibility and discretion.* Despite some cautious restraints, the challenge of how to rein in overly discretionary practices continues. This would entail monitoring how bonus practices evolve under the new salary structure, reducing managerial latitude, and revamping performance appraisal processes.
- *Sequencing.* The government embarked on reforms of the compensation framework and pay levels, while leaving job evaluation and re-grading for the future. It would be preferable to start with a single, important cadre such as the civil service as a pilot.
- *Managing job evaluation and classification*. A central body with appropriate authority is needed to validate the grading decisions made by individual entities.

[47] This chapter was written by Jana Orac (consultant) and Gor Khachatryan (consultant).

- *Simulating fiscal impacts of re-grading.* The decision to award across-the-board salary increases in the coming years will have knock-on effects on any subsequent re-grading exercise, because the costs of 'grandfathering'. Armenia's payroll system currently cannot easily generate the needed data, and IT expertise and funds will need to be allocated to generate reports for use in fiscal impact projections.

125. **The chapter is structured as follows:** first, we situate Armenia's public employment and wage bill levels relative to other European and transition economies. Second, we highlight the level and composition of earnings across the various services that comprise the state administration. Third, we examine the competitiveness of government compensation, and the extent to which the government is able to attract and retain the skills it needs. Fourth, we review some human-resource management considerations. In the closing section, the chapter presents international experience – country examples and good practice insights – with regard to further steps in the reforms of the Armenian compensation policy.

B. ARMENIA'S WAGE BILL AND PUBLIC EMPLOYMENT IN CONTEXT

126. **The size of Armenia's wage bill and government employment fall well within the range of European and transition economies.** On commonly used indicators of size and affordability Armenia is on the low to middle end of the ranking of European and Central Asian (ECA) countries (Figures 23 and 24). When looking at compensation in percent of GDP, Armenia spends very little on its public service.

Figure 23. Compensation of Employees
(as Percent Expense, 2011)

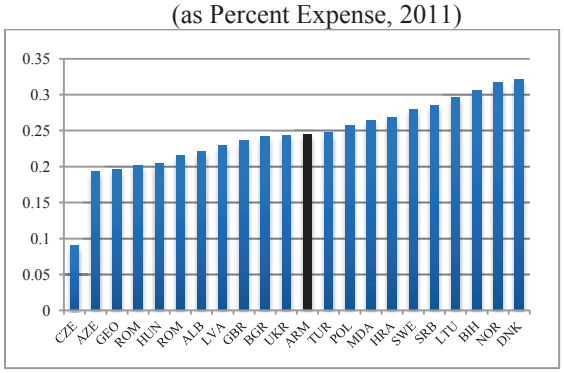
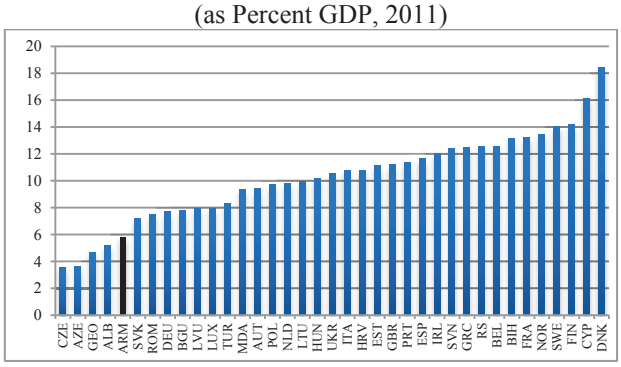


Figure 24. Compensation of Employees
(as Percent GDP, 2011)



Source: IMF Government Finance Statistics and World Bank calculations.

Figure 25. Employment in Public Administration
(per 1000 Population, 2012)

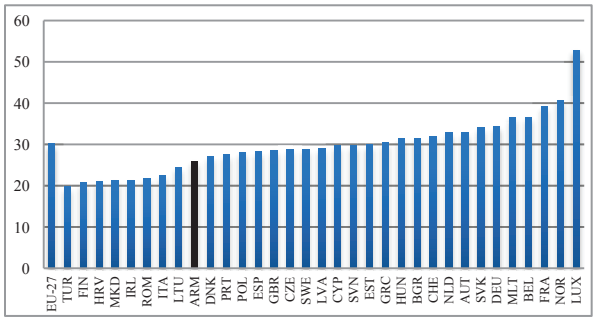
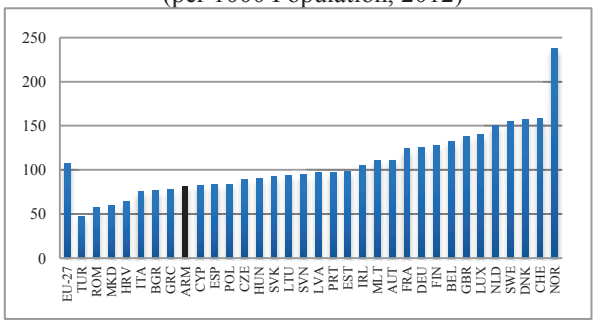


Figure 26. Employment in Public Administration, Education, Health & Social Work
(per 1000 Population, 2012)



Source: Eurostat, 2013 and National Statistical Service for Armenia data.
Note: Armenia and Netherlands data are for 2011.

127. **The Ministry of Finance exercises effective vigilance over the wage bill.** This includes limiting any increases in the base reference wages that determine pay levels in the civil service and other public services. The number of authorized posts is also tightly regulated via government decree; while this can in principle be amended, senior managers report that it is difficult to get permission to add posts.[48]

128. **In terms of size, Armenia's public sector employment is in line with levels in other European and transition economies.** Relative to population, employment in the public administration is well within the range found in European countries, and comparable to other small transition economies (Figure 26). Taking a wider-angle view that encompasses public administration plus economic activities where the public sector often predominates (notably Education, and Human Health and Social Work), Armenia falls toward the lower end of the range for comparator countries (Figure 27).

C. PAY REGIMES AND EARNING DIFFERENTIALS

129. **The state-level government comprises roughly 17,125 posts in the executive, legislative and judicial branches.** This figure includes regional administrations and de-concentrated staff of ministries, departments and agencies. These posts are covered by a number of different employment regimes, pay scales and other compensation terms. Other groups of publicly funded employees—not covered in this analysis—are local self-governments, and education and health service delivery staff.

130. **The civil service is the largest single cadre in the state administration, with some 6,800 staff.** Other services (referred to as 'parallel' public services) include the judicial service, prosecutor's service, tax service, customs service, special investigation service, judicial enforcement service, penitentiary service, bailiff service, special civil service, rescue service, and the diplomatic service. Bodies employing public and civil servants may also hire workers on contract.

131. **As of mid-2013, the services used an intricate set of pay regimes with few systematic linkages among them.** Compensation generally comprises a base salary, regular additions to pay (e.g. allowances paid in each pay period, plus annual vacation pay) and periodic bonuses. Uniformed services in particular receive in-kind benefits. Base salaries are generally derived from a wage grid, with each grade divided into steps with a corresponding coefficient; the coefficient is multiplied by a base reference wage that is stipulated in each year's budget. While the base reference wage for civil servants remained unchanged from 2008 through 2012, increasing earnings for other cadres (notably, tax and customs officers and judges) on anti-corruption grounds has been a priority.

132. **Discretionary bonus payments supplement—and for some services and positions, outweigh—base salaries.** Service-specific legislation mentions bonuses in general terms; entity-level management has a substantial role in deciding the amounts paid to individuals. Bonuses fall into two main types. The annual performance bonus is a modest multiple of base salary, awarded more or less automatically to most staff. Then there are bonuses for special assignments or other purposes, which can account for a sizable share of total earnings. This second category of bonuses is governed by entity-level guidelines and deliberations, and amounts differ considerably across service, workplaces and jobs. Provisions are made for regular performance bonuses in the annual budget. In addition, entities are able to use unspent savings accruing from vacancies to supplement the earnings of existing staff. Finally, a few services - most notably, Tax, Customs and Police - may direct a portion of own-source revenue to compensation, subject to approval by the Government in conjunction with the annual budget process. This gives them considerably more latitude to award bonuses.

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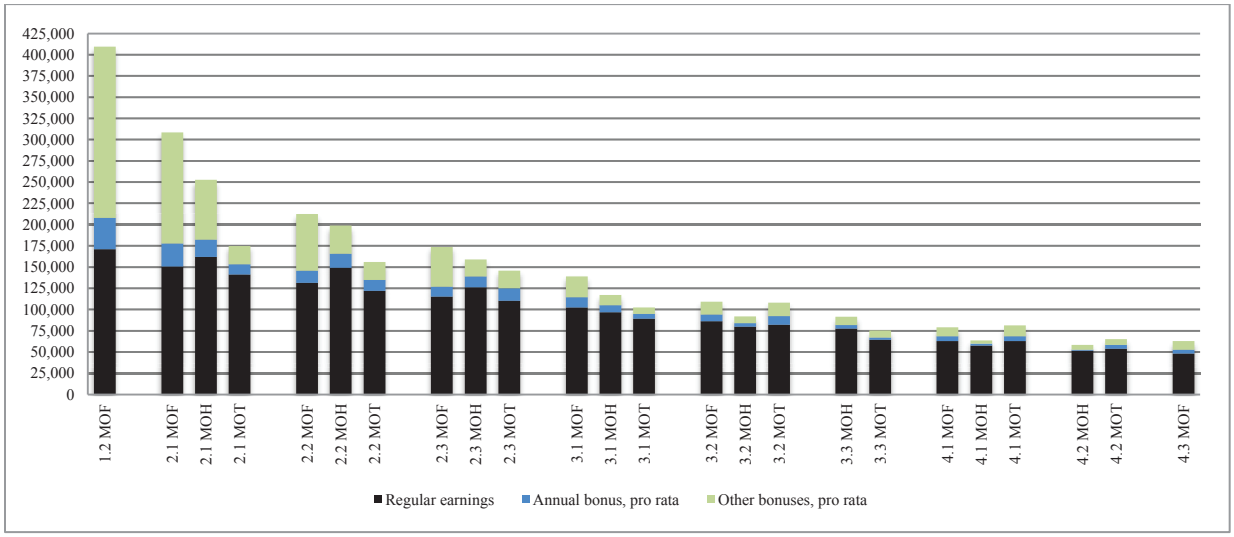
[48] Prime Minister's decree 620 of 1998 and amendments.

Average earnings differ considerably across services, and additions to base salary have a significant impact for some groups. Differences in average earnings do not necessarily mean that a service is over-paid or under-paid, however, since averages reflect the different human capital requirements of each service. The weight of base salary in average total earnings is, on average, highest in the civil service (Figure 27). In contrast, base salary accounts for only 50 to 60 percent of total monetary earnings in the Customs and Tax Services, the Bailiff Service and the Rescue Service, and bottoms out at 27 percent in the Penitentiary Service.[49]

Figure 27. Civil Service Compensation in the Ministries of Finance, Health, Transport, 2011

(Average Monthly Earnings by Grade, Armenian drams)



Source: NILSR survey and World Bank calculations.

133. **Using the civil service as an example, entity-level data reveal a more nuanced picture.** Bonuses often constitute a larger proportion of total earnings for higher-graded posts, especially at the very top of the scale. Thus in practice, they may decompress the earnings structure, though the extent to which this is true is likely to vary across entities.[50] Most significant are the "other" or "special" bonuses, allocated by internal deliberations. These outstrip the annual "performance" bonuses that are more clearly defined. Bonus size varies across entities and is noticeably higher in some bodies. Bonuses may vary substantially from year to year, so the prorated earnings data presented here should be interpreted with caution.

134. **Some high-bonus niches exist even within the 'low bonus' civil service**. For example, professionals within Ministry of Finance's Financial Oversight Inspectorate earned bonuses that, effectively doubled or tripled their regular monthly earnings in 2011 (Table 16). Similarly, analysis of the Tax and Customs services found that while the "results" bonuses consistently make up 4-5 percent of total earnings, the special assignment bonus accounts for roughly 36-50 percent.

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[49] Data in this section are from the National Institute for Labor and Social Research's annual survey of civil service and non-public sector earnings, and from *Report on Base Salary and Remuneration System for Civil Servants*, Ministry of Labor (2012, unpublished).

[50] Armenia's civil service base salary scale has a compression ratio of 5.9 (top of grade 1.1 to bottom of grade 4.3, but in practice few staff attain the highest grade). As an example, once bonuses are included, in Ministry of Finance the ratio of actual average earnings for just the *second* highest grade (1.2) to the lowest rises to 6.5.

Table 16. Compensation in the Financial Oversight Inspectorate, 2011
(Average Monthly Earnings, Armenian drams)

Position and Civil Service Group	Total no. of staff	Average Regular monthly earnings	Average Annual bonus, pro rata	Average Other bonus, pro rata	Total	Total, US Dollars	Pro rata bonuses as multiple of regular earnings
Chief (2.2)	4	134,410	13,051	393,750	541,211	1,320	3.0
Deputy Chief (2.3)	8	122,849	15,726	247,130	385,705	941	2.1
Chief Specialist (2.3)	31	115,103	13,561	188,065	316,729	773	1.8

Source: NILSR survey and World Bank calculations.

135. **Even where bonuses are more modest, they may be used to distinguish among individuals who hold similar positions.** In practice, it is possible that these jobs differ substantially, despite having the same general title. Overly general job descriptions, the lack of robust job evaluation processes, and reports of widespread over-grading in the Civil Service leave little basis for assessing equivalencies.[51] From this perspective, in the best case, earnings differences may reflect managers' astute allocation of bonus funds to better align pay with market rates, or the jobholder's skills and performance. Alternatively, more personalized factors could be at play. It is not possible to judge which of these motivations prevails, nor how robust the internal bonus allocation processes are.

D. ATTRACTING AND RETAINING SKILLS

136. **Earnings in the highly educated public administration sphere exceed the economy-wide average, as should be expected.** On the other hand, they lag behind two high-paying categories, Information and Communication Activities, and Financial and Insurance Activities. Within a given economic activity, public sector earnings are generally (but not always) lower than in non-public entities. A human capital based analysis has also yielded similar findings.[52]

137. **Analysis of monetary earnings, however, misses elements of compensation where government often leads the private sector**. For example, a recent nationwide survey confirmed that government jobs are more stable and tend to entail a shorter workweek.[53] Government employment also offers superior benefits: 85 percent of government workers in Armenia reported receiving both paid vacation leave and sick leave, compared to only 17 percent of private sector respondents. The premium of government benefits has further increased since this round of the survey was conducted: in 2012, a social benefits package for government workers was introduced, providing roughly 132,000 dram per year

[51] One indication of over-grading is that fully 45 percent of civil servants are in the Chief group, which represents the highest levels that most civil servants can attain, given that the top-ranking Senior group comprises a mere 2 percent of civil service positions.

[52] A 2011 analysis of data from the government's Integrated Living Conditions Survey (ILCS) compared earnings of individuals with equivalent human capital (measured by level of educational attainment). For a given level of education, monetary earnings were usually – but not always - higher in the private sector than in government. For university-educated workers the highest earnings were in the State Management, Army and Police category, which also includes public administration staff. However, it was not possible to examine earnings separately for civilian versus non-civilian staff, who may enjoy preferential treatment. The next highest paying sub-sectors for university-educated workers were Utilities & Services (Private) and Cultivation (Private). For individuals with specialized secondary and college educations, the three highest-paying sub-sectors were Construction (Private), followed by State Management, Army & Police (Public), and Utilities & Services (Private). See *Republic of Armenia Fiscal Consolidation and Recovery, Volume II: Background Papers*, World Bank, 2011.

[53] Of respondents working in the government sector, 99 percent had permanent work, compared with 70 percent of respondents working in the private sector. Respondents in the government sector worked an average of 41 hours per week versus 47 in the private sector. Ibid.

(US$300) in benefits to some 120,000 regular staff of state bodies, state non-commercial organizations and other groups.

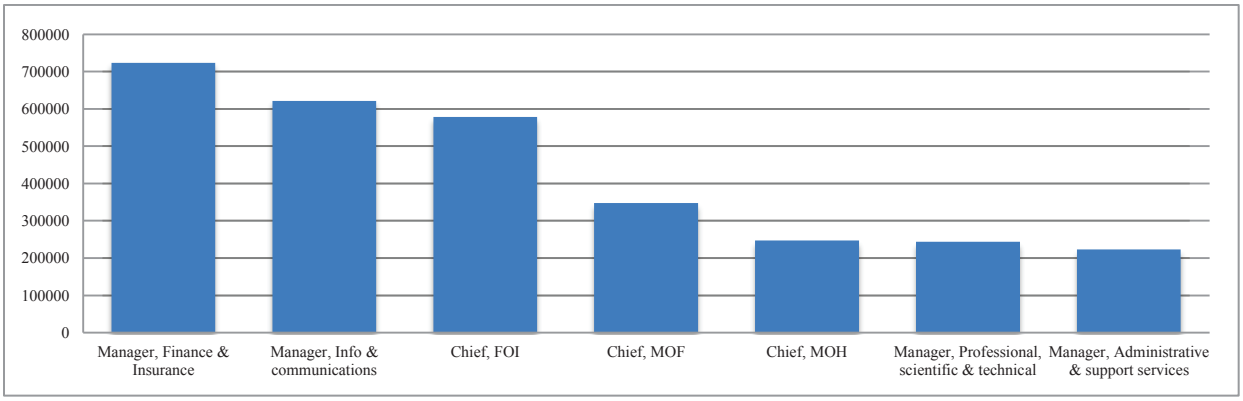
E. COMPENSATION IN INDIVIDUAL GOVERNMENT OCCUPATIONS

138. **A more nuanced approach is to examine earnings for specific occupations in government.** As with international comparisons of wage bills and employment, there is no definitive "right" ratio for a given occupation. In this case, comparisons are limited by the fact that standardized indicators are not widely available at this level of detail.[54] Generally, however, in European OECD members the highest earning government occupations tend to be judges and physicians. In such countries, tax and customs inspectors fall closer toward the middle range of earnings. In Armenia, in contrast, while judges' official earnings are by far the highest, the next highest earners are tax and customs inspectors with physicians considerably lower. These findings appear to reflect the Government's emphasis on increasing the pay of cadres that it deems at especially high risk of corruption.

139. **Some jobs that require high levels of human capital (e.g. hospital doctors) apparently are being paid less than jobs with substantially lower human capital requirements.** While some of these findings may reflect data limitations and sector-specific financing policy, other anomalies support the critique repeated by government officials and independent observers: in a system that lacks adequate measures to ensure internal equity (such as robust job evaluation and grading), pay relativities can become misaligned.

140. **Limited available data shows a wide range in average earnings for managers in different economic activities and civil service bodies.** Although these data do not support definitive conclusions, they nevertheless suggest that earnings in some specialized niches of the civil service *may* be broadly competitive (largely due to bonuses), taking into consideration the public sector advantage in terms of job stability and benefits (Figure 28). Without these special terms, however, managers in the civil service lag behind high-paying activities, and anecdotes of skilled managers being offered higher salaries in (riskier) private companies abound.

Figure 28. Average Monthly Earnings for Managers, 2011
(Armenian drams, 2011)



Source: National Statistical Service, National Institute for Labor & Social Research, and World Bank calculations.
Notes: Data for economic activities include both public and non-public ownership.

[54] The exceptions are earnings for teachers and to a lesser extent health sector professions. For "white collar" public administrations, information tends to be limited to more aggregated measures, such as average civil service wage to per capita GDP, which are easily calculated but of limited use.

F. PERSPECTIVES ON STAFF RECRUITMENT AND RETENTION

141. **Senior managers in Armenia's civil service bodies recount difficulties in recruiting experienced staff and describe characteristic patterns of staff losses.** These patterns reflect financial considerations as well as career building, and often relate to highly skilled experts. In parallel, managers also express concerns about the challenges of inspiring better performance from long-standing civil servants who remain in their posts and do not, or cannot, pursue outside opportunities.

142. **Application statistics show a low level of interest in public sector jobs.** In 2012, recruitment competitions for posts in the senior, chief and leading groups of the grading system attracted, on average, a modest three to four applicants but noticeably more (nine) for the junior group, which does not require any work experience and uses more liberal recruitment rules. Only six competitions (out of 676) drew a notably higher number of applicants – ten, on average.[55] The percentage of competitions cancelled due to insufficient interest was about 11-12 percent for chief and leading posts, 6 percent for junior posts, and zero for the senior group at the top of the hierarchy. This is consistent with insiders' observations that numerous posts go unfilled for lack of qualified applicants.

143. **Available data do not enable drawing nuanced conclusions about the extent to which the administration succeeds in retaining quality skills.** Resignation rates in 2012 and 2011 were approximately 10 percent, up from 7 percent in 2010. However, these data are not categorized by reason for departure or type of post, making it impossible to say whether there is inordinately high turnover of certain skills, in certain bodies and so on. They also do not indicate what specific factors are driving turnover, and their relative importance.

144. **It is clear that the civil service receives only modest interest, although other services may fare differently.** Services or positions that are known to offer substantial bonuses, in-kind benefits or otherwise offer possibilities for additional earnings may well draw greater interest. However, relevant indicators are not available for these groups. Of course, factors beyond pay are also at play. These include the recruitment process (which for the civil service can be slow, mechanistic, and favor internal candidates over applicants with experience outside the civil service). Anecdotally, some observers suggest there is some gaming (such as advertising openings only after a preferred candidate is available), possibly motivated by concerns that the competition process will otherwise not yield suitable candidates. The interest in junior posts is consistent with managers' views that civil service jobs appeal most to young graduates who want a few years of work experience in a tough economy and, with no children to support, can tolerate modest starting salaries.

G. HUMAN RESOURCE MANAGEMENT ISSUES

145. **Compensation is certainly important to achieving a well-performing cadre, but it is not the only factor**. Broader HRM policy and practices (including attention to employee and organizational performance) set the overall context in which employees operate, and they deserve the Government's serious attention. While considerable progress has been achieved over the past decade, there are still important challenges, which would require attention as discussed below.[56]

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[55] The competitions were for five chief specialist jobs in the President's Office, Cabinet Office, two ministries and the CSC itself; and one Head of Department post in the Chamber of Control.

[56] See also *Review of Civil Service Recruitment Procedures in Armenia*, Gor Khachatryan and Simon James, unpublished report, 1 May 2013; *Assessment of the Civil Service System of the Republic of Armenia*, SIGMA,

- *A more competitive and discerning recruitment process*, including: tests and interviews that probe applicants' knowledge, competencies and suitability for the specific job opening (in contrast to the rote, general screening that, while a positive step in the early days of the civil service law, has outlived its usefulness); increasing the scope for hiring skills from outside the civil service by narrowing the differential in work experience required of internal versus external candidates; reconfiguring the competition commission to always include the direct supervisor for the post in question, and drawing upon a pool of independent assessors and others who are trained in new procedures and interviewing skills.
- *Refining overly general job descriptions ('civil service passports') to better specify specialized and managerial skills requirements and the contexts for their use.* These would also define the transferable managerial skills that are required. Such improved job descriptions would also help focus the recruitment competitions, by enabling more focused screening of applicants. It was recommended that Government obtain specialized advice for this purpose.
- *Increased latitude to pay special supplements to attract candidates to vacancies that require scarce skills.* While Armenia's current pay system includes discretionary elements via the bonus system (with all the hopes and shortcomings that such bonuses entail, as noted earlier) there is no systematic, evidence-based attempt to address specific skills shortages. This measure would entail developing appropriate criteria, transparency, and checks in order to limit scope for abuse.
- *Revising the performance appraisal system that currently fails to distinguish among average, poor and excellent performers*. Furthermore, the heavy emphasis in the scoring system on timeliness and quality at time of submission favors routine administrative tasks while disadvantaging policy-related work that entails more uncertainty. It was recommended that the Government commission a specialized review that would also develop improved procedures for dealing with poor performance.
- *Abolishing the current 'attestation' system of periodic, rote exams for civil servants, which is no longer effective.* This would occur in conjunction with introduction of a more robust performance appraisal system.
- *Providing training that is more finely tailored to the specific needs of individual staff* (in contrast to current training that is geared towards passing the general attestation test). Elaboration of training needs would be incorporated into performance assessment discussions between managers and staff, and feed into ministry-specific training needs assessments.
- *Transforming personnel units (which currently are largely administrative) into strategically oriented units that play an active role in recruitment, retention and professional development of staff.*

H. INTERNATIONAL PRACTICE AND POLICY RECOMMENDATIONS

146. **This final section places Armenia in the international context and draws implications for moving forward.** We examine four questions. First, what do compensation systems look like elsewhere in Europe and the OECD? Second, what lessons do other countries' reform experiences yield? Next, what are the big picture implications for undertakings in Armenia? Finally, what technical improvements can be launched *now*, in order to improve ongoing operations and strengthen the foundations for reforms? In addition, boxes present specific country or thematic experience that address specific issues and requests

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2011; and *Republic of Armenia Fiscal Consolidation and Recovery, Volume II: Background Papers*, World Bank, 2011.

raised by senior officials in the ministries of Finance, Labor, and other government bodies in the course of the Public Expenditure Review.

Compensation Systems Elsewhere

147. **Pay arrangements vary widely across OECD countries, reflecting historical and cultural factors as well as system-specific objectives.** On the spectrum between central determination and flexibility for individual employers, Germany constitutes one extreme: it has a highly prescribed, centrally set pay system that gives little discretion to entities or managers. Sweden constitutes another extreme: entity management has wide-ranging authority to determine pay, within budget constraints and subject to negotiations with workers. Additional checks and balances in the Swedish system come via guidelines for employers, and a pay reporting system that enables easy comparisons of salaries for equivalent positions across government. The different arrangements reflect objectives as well as capabilities and orientation of administrative systems and political economy constraints. Thus, for policymakers in Armenia, it is not a matter of seeking a single model to emulate but rather of thinking through the issues and devising arrangements that are appropriate.

148. **Broad trends over recent decades have seen advanced economies introduce at least some elements of pay flexibility into compensation**. This shift required assigning some pay-setting authority to entities and their management teams – and ensuring that these managers have the skills needed to fulfill this task effectively. It also entailed introducing checks and balances to facilitate coherent pay-setting practices across the administration and reduce the risk of patronage and other abuses, by using mechanisms such as those mentioned above as well as truly robust performance appraisal systems.

149. **Another dimension of concern to Armenia is how to treat cadres or positions whose distinctive character may necessitate separate arrangements.** Prominent examples include tax and customs officers, senior civil servants (who in many countries are treated separately from the bulk of the civil service)[57] and high public officials.

Lessons from Reforms in Other Countries

150. **Reforms are shaped by a myriad of political economy factors.** Kosovo and Serbia provide recent illustrations (Boxes 4 and 5). For example, election considerations in Serbia resulted in reforms being shelved in favor of satisfying special interest groups, a dynamic that subsequently ended with the exogenous shock of the global financial crisis. Thus real world reform strategies benefit from being attuned to these shifting dynamics, and combining realism about what is possible with an approach that makes the most of opportunities that arise. Part of this entails lining up influential reform leadership whose reach spans across government, and buttressing it with effective arrangements for managing entity-level implementation (as in Kosovo's network of job evaluation working groups).

[57] According to the OECD, senior civil servants are treated as a distinct cadre in 9 of 14 EU members in Western Europe, 3 of 6 recent EU members, and 11 of 13 other OECD members. See "Senior Civil Service" in *Government at a Glance 2011*, OECD, 2011 and also *International Experiences with Senior Executive Service Cadres*, World Bank, 2012.

Box 4. Kosovo's Ten-Year Trek Toward Viable Civil Service Pay Reform

Kosovo's early attempt at pay reform envisioned a unified grading framework and compensation terms that would cover civil servants and also other important cadres, including education, health and the police. Over an 18-month period in 2003-04, the government designed a new grading system and then conducted an intensive government-wide job classification exercise to assign jobs to the new grades.

A number of complications arose: A dramatic expansion in employment was unfolding concurrently with the reforms and greatly increased wage bill costs. The government responded by reducing salary levels and moving groups of jobs to lower grades. This disrupted the internal relativities of the new grading system and undermined its credibility.

Communication about the reforms proved to be delicate. As work progressed, implementation dates were announced in the media and missed. Preliminary salary figures were circulated within the administration raising expectations, and then adjusted downward. Furthermore, staff took certain government statements to mean that they would receive an immediate, substantial pay rise, when in fact the plan was to allow advancement to higher grades over time. Key cadres objected strongly on the grounds that the plans did not accommodate the distinctive nature of their work. Some sectors bypassed the regular process to take their case to higher authorities and won.

In light of these problems, the strategy changed from a public sector-wide approach to one focused on the civil service as a starting point. By late 2012, almost ten years after the initial attempt, reform plans were at an advanced stage. The target implementation date of January 1, 2013 was ambitious, however: only nine months were envisaged to finish preparatory work for job classifications (in contrast to the one to two years that are usually needed), giving rise to concerns that the quality might suffer.

Well-elaborated plans helped manage the large volume of work. Each entity that employs civil servants had its own working group charged with classifying its jobs (based on newly-developed job descriptions) into the new grading system, guided by a manual and catalogue of generic job descriptions. A specially established Joint Commission (ministries of Public Administration and Finance) would review entity-level classifications and either approve them or send them back for revision. All of these bodies would benefit from an intensive (and logistically challenging) training program to ensure they were ready to carry out their work and apply consistent standards. A six-month moratorium on appeals of the Joint Commission's grading decisions was recommended in order to avoid an initial flood of opportunistic appeals; thereafter, appeals would be allowed only if the job descriptions were flawed. The rationale was that the Joint Commission, through its intensive work reviewing and checking classifications across the civil service, would have developed the best possible understanding of grading criteria that no other body could match.

Source: Authors.

151. **Inadequate analysis of fiscal impacts risk derailing reforms**. Pay reform often results in a rise in the wage bill. Indeed, objectives may include increasing inadequate compensation levels. In addition, rationalizing the number of grades and consolidating excessive numbers of allowances into base pay results in 'leveling up', as variations in individuals' earnings are smoothed over. Concurrently, staff whose earnings would drop under the new system are often grandfathered (guaranteed their pre-reform earnings) in some manner in order to reduce resistance. In countries where establishment controls are weak, unforeseen growth in employment numbers may undermine affordability, as happened in Kosovo. It is therefore wise to incorporate fiscal impacts analysis from the outset, using assumptions and scenarios to test the scale of possible impacts.

Box 5. On-again, Off-again Reforms in Serbia

Pay reform in Serbia has been unfolding in a sequenced, stop-and-go manner. It was subject not only to technical challenges but also to the political realities of election cycles as well as the impact of unforeseen global developments.

Pay reform focused first on the relatively small civil service. It aimed at increasing the comparability of compensation for similar jobs, and better aligning salaries with developments in the private sector. Civil service reforms of 2005-06 included introducing a new grading structure and performance appraisal system, and decompressing the salary structure. Earnings increased by about 40 percent (on average) for all grades except for those near the bottom, which analysis had shown fared better (relative to alternatives) than did the higher civil service grades, a common problem in public administration.

Plans called for tackling the public services next, which outnumber the civil service, but election politics intervened. In a pilot exercise in 2006-07, a new job classification system and grading structure was designed, and a public-private salary survey was conducted. Public service jobs were scored on five dimensions, and the results used to assign jobs to one of the 12 proposed grades. This proposal, however, would have resulted in a 35 percent increase in the wage bill and, not surprisingly, was never implemented. Instead, as the 2007 elections approached, the government awarded ad hoc pay rises to politically powerful groups, notably teachers. Facing fiscal pressures in the wake of the global financial crisis, however, the government froze wage levels through 2010, after which modest public service pay increases were capped at the rate of inflation plus one half the rate of GDP growth; actually awarded increases were below this target.

The government took another run at public service pay reform in 2010, again aiming to harmonize earnings across the services for jobs that were deemed to be comparable. In an attempt to counteract the private sector salary survey's bias towards elite, high-paying employers (a common limitation of commercial salary surveys) the proposed salaries were pitched at a lower decile of the surveyed firms. Yet again, the resulting proposal entailed substantial costs: the smaller number of new grades meant a large number of workers would get de facto pay rises as their earnings were 'leveled up', while political acceptability of the reforms necessitated 'grandfathering', i.e. protecting the earnings of individuals who would otherwise have seen their salaries drop. Reform plans were set aside once again.

Sources: Dillinger, William. *Managing the Public Sector Wage Bill: The Serbia Case*, unpublished note dated 13 June, 2013, and *Serbia: Rightsizing the Government Wage Bill,* World Bank, 2010.

152. **A sequenced, asymmetric approach may increase the chances of success**. Designing, implementing and managing compensation reform is a time-and resource-intensive process. Compounding the risks inherent to large-scale reforms, the number of people with the skills required to run them is usually limited. Both Serbia and Kosovo ultimately chose to start with the white-collar civil service before tackling the larger service delivery sectors. In some cases, it may increase the chances of success to start with pilots (choosing promising, motivated institutions), and transition individual entities into the new system once they have met stringent standards.

153. **Communications and expectations need to be managed carefully**. Compensation reform brings hope as well as uncertainty for large numbers of workers and their families, and is of interest to the general public. As the process unfolds, it is important to provide clear information and also to manage expectations; failing to do so can be disruptive.

Box 6. New Legislation and Policy Framework for Budget-funded Compensation

The aim of the reform is to apply a unified framework for public wages. It encompasses compensation in the civil service, public services, broader public sector (including service delivery sectors such as health and education), and political posts, and to ensure broad pay relativities among these groups. The new public pay schedules will be referenced to the national minimum wage. Parallel plans to increase the national minimum wage over 2013-17 will thus lead to higher public sector compensation.

Wage bill budget allocations will be calculated by benchmarking to base salaries at certain levels of the civil service grade structure. In actual practice this benchmarking will be confirmed each year, in order to remain within budget constraints. Health, education and some other sectors (and entities such as schools and hospitals) will retain their existing flexibility to set actual salaries paid to staff. The highest base salary will be set at 20 times the lowest. Positions that are now paid more than is envisaged under the new framework will have their pay frozen at current levels, with the expectation that the planned annual pay rises will lead to convergence within five years.

While there is a desire to increase transparency of compensation, a fair degree of discretion remains, particularly around bonus practices. The share of allowances and other additions to base salary in an individual's total regular monetary compensation is not to exceed a stipulated percentage. The bonus fund for each entity continues to be calculated as a percentage of its wage bill. In principle, public sector earnings will be aligned with the private sector, but the exact details still need to be worked out.

The new system starts with the pay increase in July 2014. Defense and security services and scientific institutions will be brought on board at some future time. Policymakers have also indicated an intention to re-examine the grading system, and tackle human resource management issues.

Source: Authors.

I. CONCLUSIONS

154. **The Armenian government has taken the first bold step in launching a pay reform strategy at the end of 2013.** Armenia's parliament passed a new law to regulate publicly funded compensation, and the government outlined the concept and direction for its compensation policy in the 2014-16 Medium Term Expenditure Framework (MTEF) document (Box 6). Overall responsibility for the reform agenda rests with the Cabinet Office, which has government-wide reach and appears well positioned to manage the dialogue with disparate stakeholders.

155. **As the government continues to implement its revised medium-term policy and new legislation, it faces a number of challenges.** These can be grouped broadly by the major themes emerging from this chapter.

- *Pay flexibility:* Armenia's pay system has substantial flexibility with regard to differentiation and individualization of pay allowing a high degree of discretion while lacking transparency. The new legislative and policy framework has introduced some cautious restraints, but the challenge of how to rein in overly discretionary practices continues. This would entail monitoring how bonus practices evolve under the new salary structure, reducing managerial latitude, and revamping performance appraisal processes.
- *Sequencing:* The government embarked on reforms of the compensation framework and pay levels, while leaving job evaluation and re-grading for the future. As outlined above, a robust effort to tackle the distortions in grading and job titles that have crept into the system over time could preferably start with a single, important cadre such as the civil service as a pilot.
- *Managing job evaluation and classification:* a central body with appropriate authority is needed to validate the grading decisions made by individual entities. Since Armenia currently

has no HRM body with an administration-wide purview, it will need to devise suitable arrangements and also provide training and support to enable them to function properly.

- *Simulating fiscal impacts of re-grading:* The decision to award across-the-board salary increases in the coming years will have knock-on effects on any subsequent re-grading exercise, because the costs of 'grandfathering' will necessarily be higher. The implementation of wage increases and the future re-grading exercise should incorporate robust fiscal impact analyses, with an increasing level of detail and accuracy as preparations advance. Armenia's payroll system currently cannot easily generate the needed data, and IT expertise and funds will need to be allocated to generate reports for use in fiscal impact projections.
- *Competitiveness and pay adequacy:* If the government wishes to align salaries with developments in the private labor market, it will need mechanisms to conduct periodic comparisons. This will require job descriptions that accurately capture the demands of government posts and meaningful data on private sector earnings. The government will need to build the analytical capabilities to collect and evaluate this information on a regular basis.

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