

ARMENIA:

POVERTY REDUCTION AND SHARED PROSPERITY



WORLD BANK GROUP

South Caucasus Poverty team
Poverty and Equity Global Practice
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Acknowledgements

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Executive summary: patterns of poverty reduction and shared prosperity

- ❑ **Economic growth translated into higher levels of consumption for all parts of the welfare distribution and lower poverty.** Consumption growth for the bottom 40 was lower than for the total of the population.
- ❑ **Between 2010 and 2014 poverty in Armenia declined.** An international comparison shows that Armenia still has one of the highest poverty rates in Europe and Central Asia and only made limited progress after the global economic crisis hit the country in 2009.
- ❑ **Despite positive consumption growth for all households,** (i) regional disparities between Yerevan, other urban areas and rural areas remain high, (ii) vulnerability to poverty persists, and (iii) non-monetary measures of welfare highlight development gaps.

Executive summary: drivers of income growth and poverty reduction

- ❑ **Income growth and poverty reduction:** Decline in poverty benefited from (i) higher employment rates and wages, as well as growth in agricultural sales, (ii) remittances and (iii) social expenditure such as pensions.
- ❑ **Labor markets:** growth of services and manufacturing translated into additional employment opportunities and higher wages. Growth of sales in the agricultural sector supported rural areas. Individuals in poor households (i) are more often unemployed, (ii) work fewer hours, (iii) are more often temporary or seasonal workers, and (iv) experience less protection due to different type of contracts. Other urban areas do not create sufficient employment opportunities in the non- agricultural private sector to accommodate decreasing employment in agricultural sector.
- ❑ **Migration:** international migration creates employment opportunities for a landlocked country. At the same time, remittances are subject to substantial fluctuations triggered by shifts in the economic environment.
- ❑ **Fiscal activity:** overall, taxes and expenditure reduce poverty and inequality; pensions are an important source of income and transfers through the family benefit program (FBP) reduce the intensity of poverty. Yet, poverty impact of FBP is small as budget is limited.

Executive summary: policy agenda



Policy agenda: Patterns of poverty and shared prosperity suggest that policy agenda should focus on inclusiveness of economic growth:

- (i) Supporting growth,**
- (ii) Investing in endowment, and**
- (iii) Protecting the poor and vulnerable.**

Agenda – Armenia: Poverty reduction and shared prosperity

World Bank Twin Goals in Armenia: an international perspective

Recent trends: economic growth, poverty reduction and shared prosperity

Picture of poverty: who are the poor, how do they experience poverty and where do they live

Sources of income growth and poverty reduction: composition of income and changes over time

Behind aggregate figures: three facts on drivers of income growth and challenges

Policy agenda: support, invest and protect



THE WORLD BANK GROUP GOALS

**END EXTREME POVERTY AND
PROMOTE SHARED PROSPERITY**

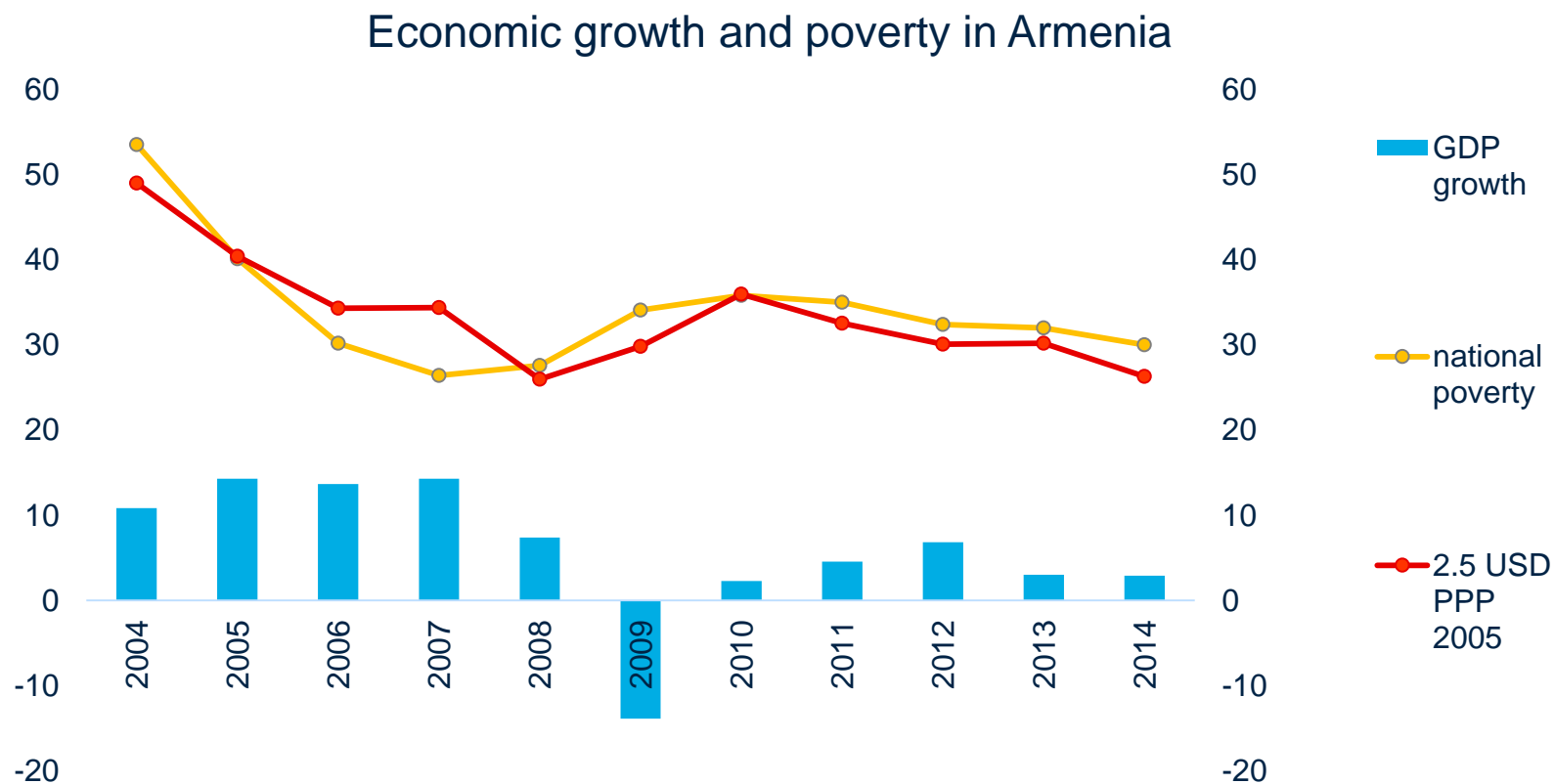
World Bank Twin Goals in Armenia

An international perspective

Economic growth contributed to consumption growth for all households in Armenia and supported poverty reduction.

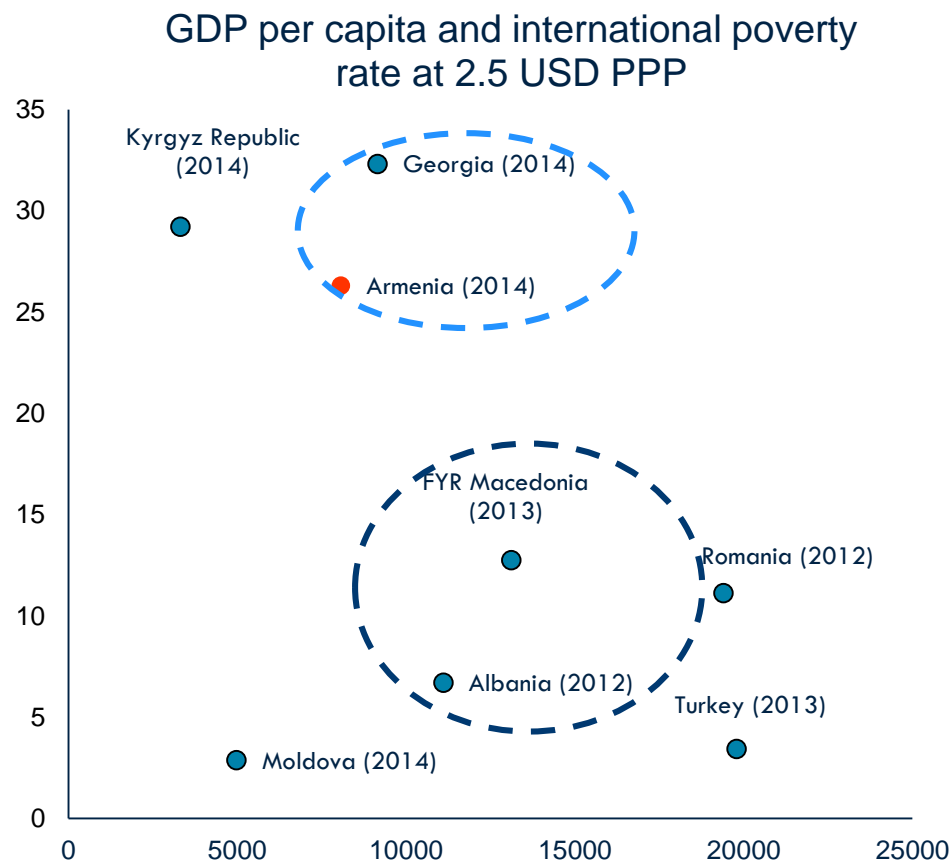
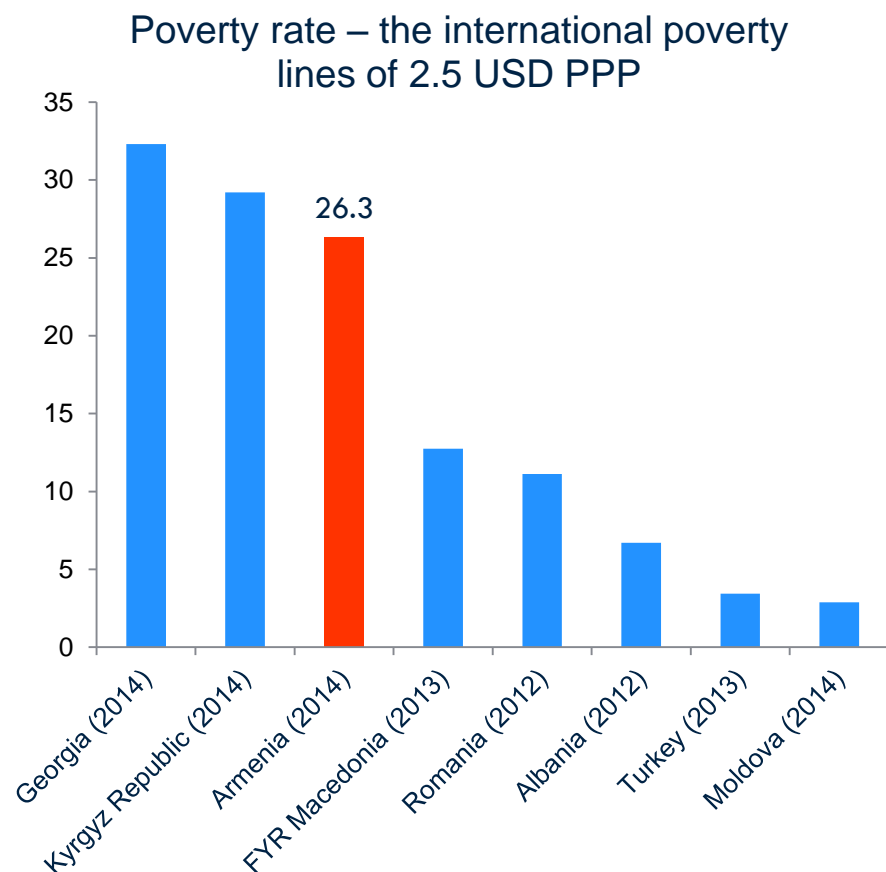
An international comparison shows Armenia's poor performance on poverty and shared prosperity.

Poverty reduction: In 2014, 26.3 percent of the population lived below the international poverty line of 2.5 USD PPP. Compared to 2010, poverty has declined, but the share of poor households is still higher than before the global economic crisis which hit the country in 2009.



Poverty trend using the international poverty lines of 2.5 USD PPP, and the national poverty rate (yellow line), GDP growth in Armenia (bar graph). *Note 1:* World Bank staff calculation using a consumption aggregate drawn from ILCS data and harmonized for international comparison. *Note 2:* National consumption aggregate (using methodology adopted in 2009). *Source:* World Bank's data base of harmonized consumption data (ECAPOV accessed 3/15/2016).

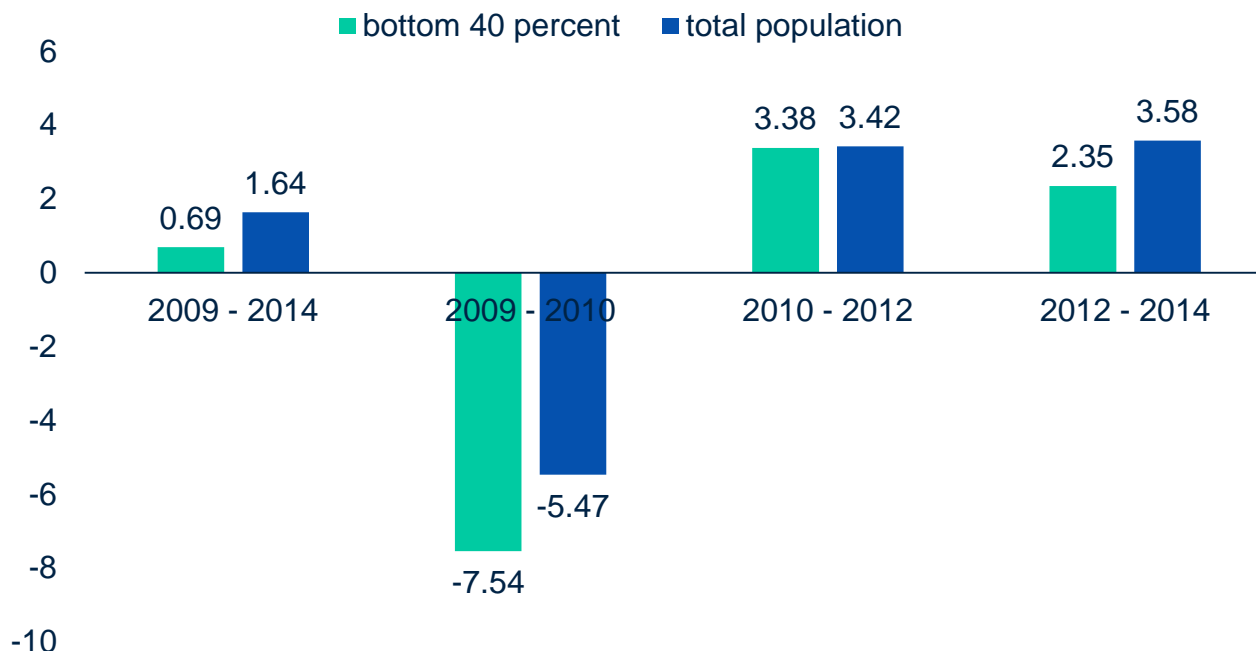
An international comparison illustrates that Armenia has one of the highest poverty rates in Europe and Central Asia. Other countries with same level of GDP per capita report lower poverty: nature of economic growth and distribution of wealth differ from other countries in the region.



Poverty rate the international poverty lines of 2.5 USD PPP (left) and relationship between GDP per capita in USD PPP and the international poverty rate at 2.5 USD PPP (right). Note: World Bank staff calculation using a consumption aggregate drawn from ILCS data and harmonized for international comparison. Source: World Bank's data base of harmonized consumption data (ECAPOV accessed 3/15/2016).

Shared prosperity: Between 2009 and 2014 economic growth has contributed to consumption growth for households in the bottom 40. The distribution of growth has not been pro-poor: relatively poor households experienced larger welfare losses during crisis and slower growth thereafter.

Shared prosperity—growth rate of average per capita consumption expenditure



Trend in shared prosperity: growth rate of average per capita consumption expenditure (%). Note: World Bank staff calculation using a consumption aggregate drawn from ILCS data and harmonized for international comparison. Source: World Bank's data base of harmonized consumption data (ECAPOV accessed 3/15/2016).

An international comparison shows that during time period from 2009 to 2014, Armenia (1) belongs into the group of countries where consumption growth for the bottom 40 and the total population has been positive, but (2) the bottom 40 grew on average slower than the total population.

Patterns of shared prosperity in Europe and Central Asia, circa 2009 - 2014



Patterns of shared prosperity in Europe and Central Asia using the growth rate of consumption for the bottom 40 of the welfare distribution and the total population (circa 2008 to 2013). Note: World Bank staff calculation using a consumption aggregate drawn from ILCS data and harmonized for international comparison. Source: World Bank's data base of harmonized consumption data (ECAPOV accessed 3/15/2016).

Recent trends

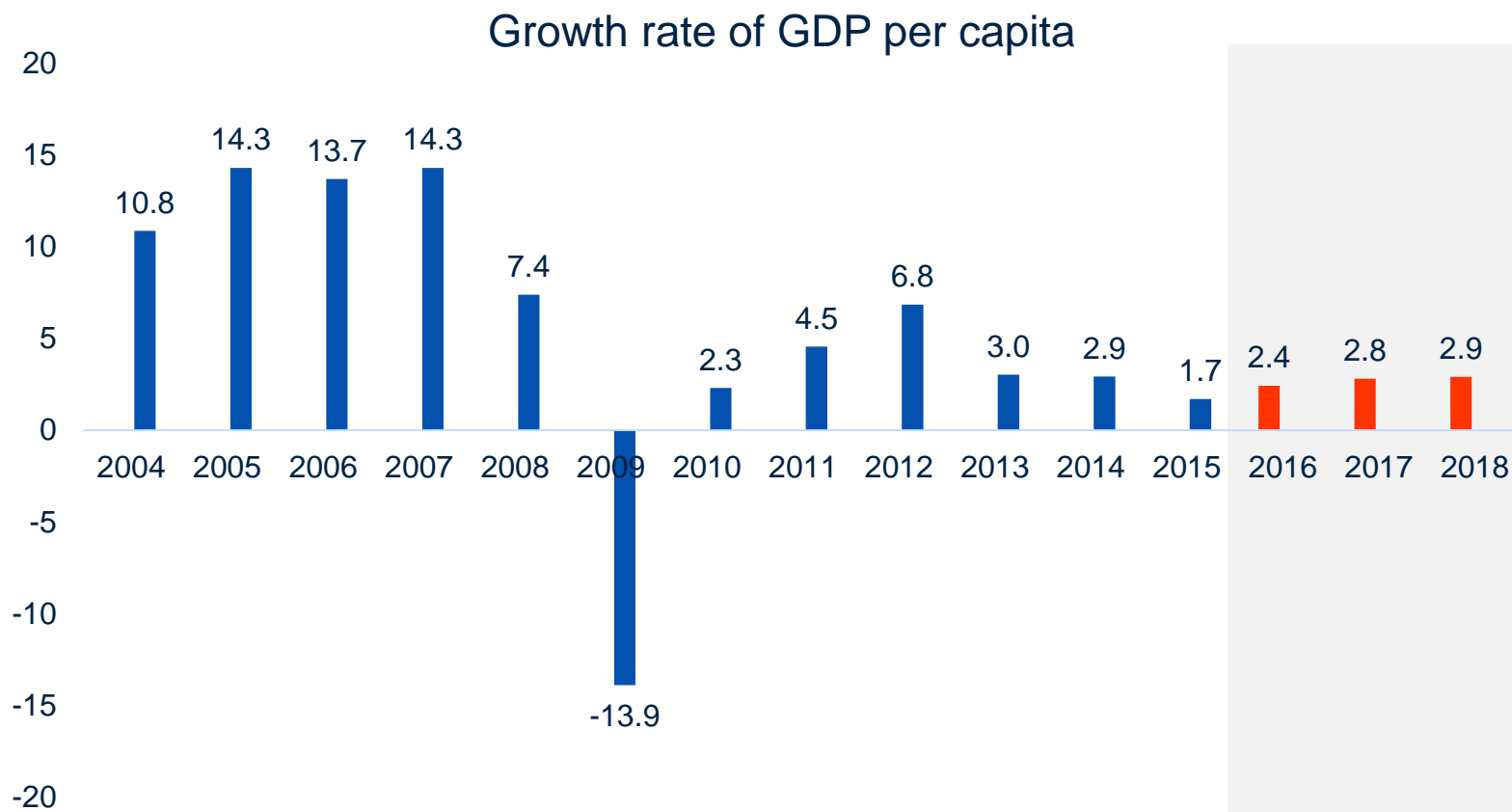
Economic growth, poverty reduction and shared prosperity

Economic recovery increased welfare for all households in Armenia and led to a decline in poverty.

Consumption growth shows fluctuations and disparities across the welfare distribution.

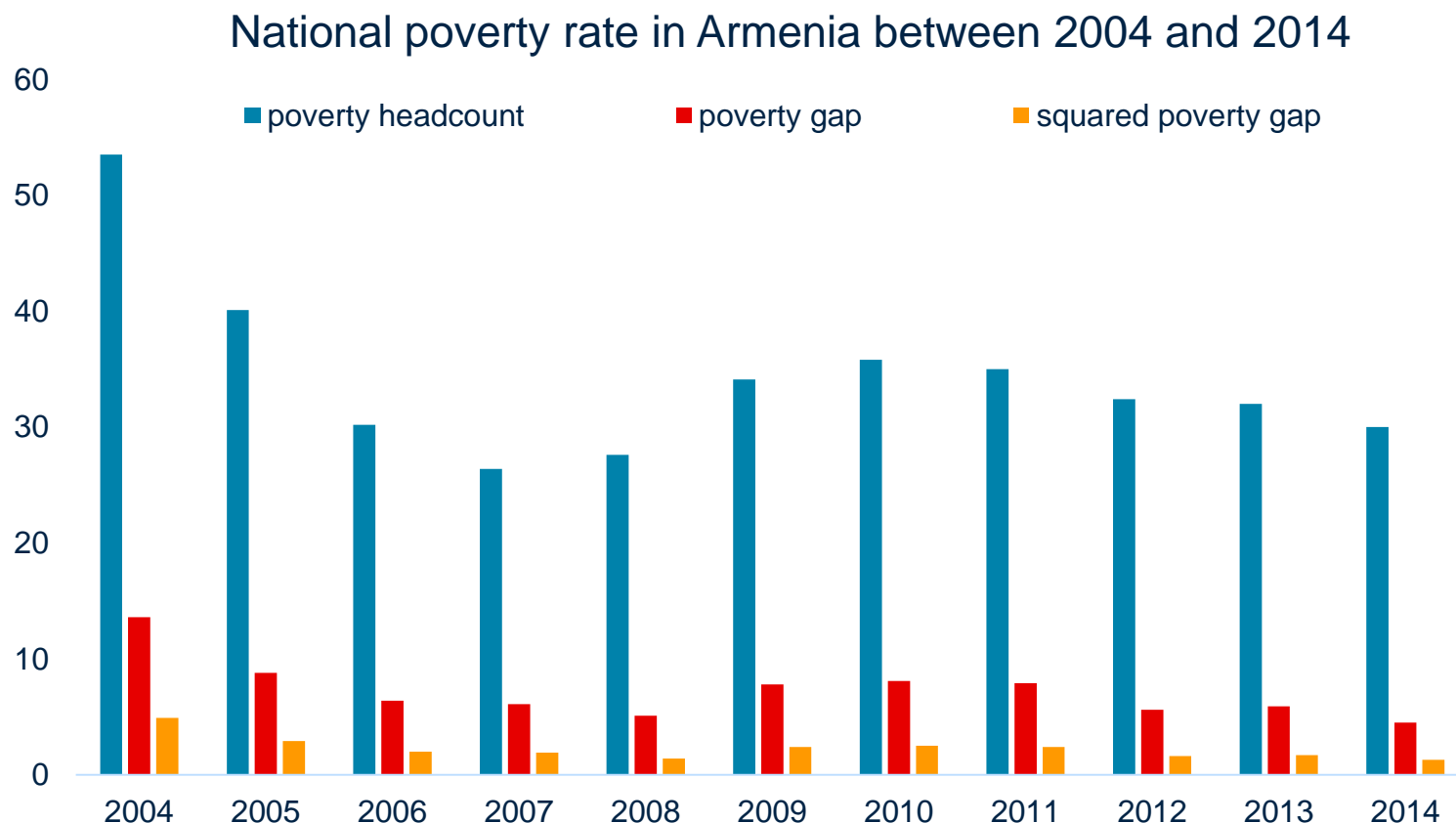
Dynamic patterns of poverty illustrate large number of vulnerable households.

Period of poverty reduction between 2010 and 2014 happens in a context of sluggish economic growth: following the global economic crisis which hit Armenia in 2009, the country is now growing at a much lower rate than during the pre-crisis period.



Growth rate of GDP per capita. Note: Growth rates are based on year on year changes of real GDP (at constant market prices). Source: World Development Indicators published by the World Bank. Forecast for 2015 to 2017 published by the World Bank (March 2016).

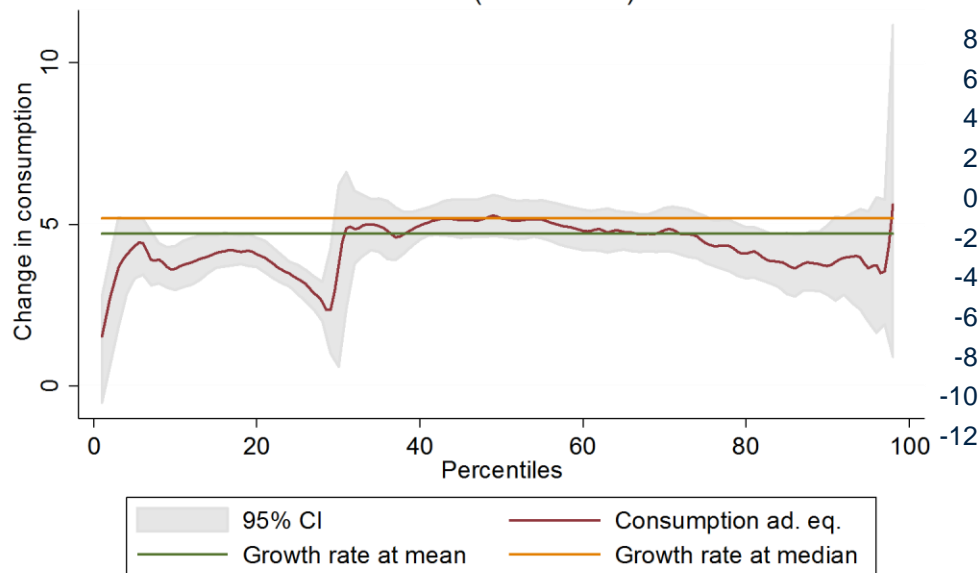
Poverty in Armenia declined from 35.8 percent in 2010 to 30.0 percent in 2014 (national poverty line). Over the same time period, poor households experienced positive consumption growth and moved closer to poverty line. But this pace of poverty reduction is slower than in pre-crisis years (2004-2007).



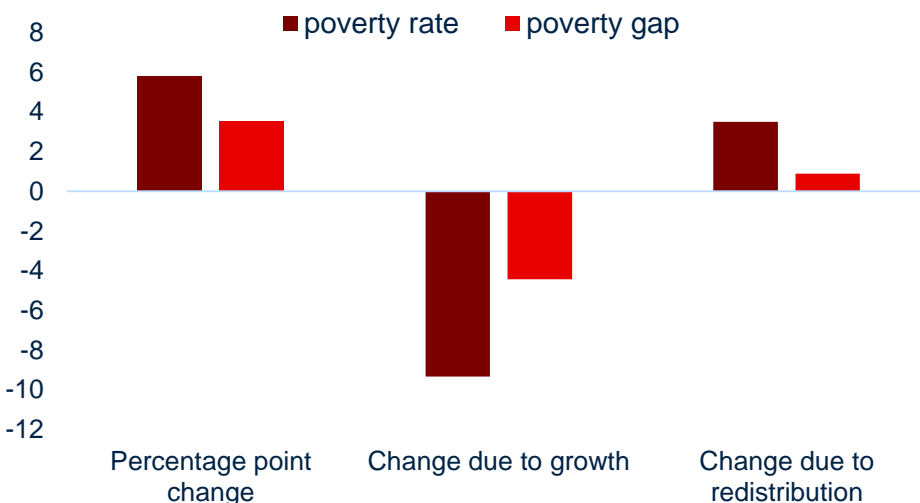
National poverty rate in Armenia between 2004 and 2014. Note: National consumption aggregate (using methodology adopted in 2009). Source: Social Snapshot and Poverty 2015.

All parts of the welfare distribution benefited from most recent growth period and managed to increase their consumption levels. However, reduction in poverty could have been bigger if poor households would have grown at an equal pace as relatively richer households.

Growth incidence curve
Armenia (2010 - 2014)

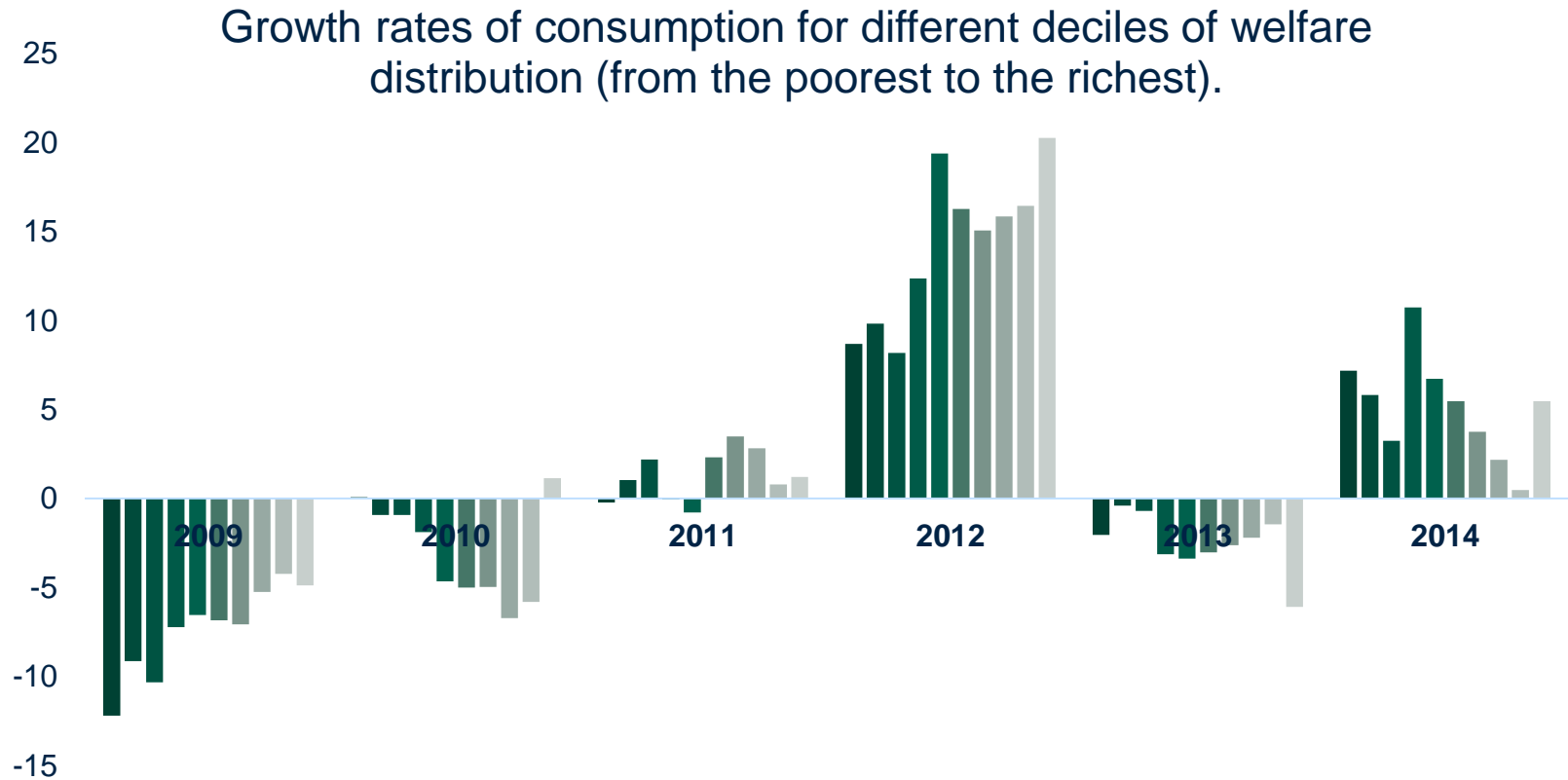


Datt Ravallion decomposition for Armenia,
2010 to 2014



Growth incidence curve (left) and Datt Ravallion decomposition (right) for Armenia, 2010 to 2014. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014

Moreover, growth rates of consumption for different deciles of the welfare distribution show (1) large fluctuations over time and (2) substantial disparities between different groups of the welfare distribution.



Growth rates of consumption for different deciles of welfare distribution (from the poorest to the richest). Note: National consumption aggregate (using methodology adopted in 2009); year on year changes between 2008 and 2014. Source: World Bank staff calculations based on Armenia ILCS 2008 to 2014

Gini coefficient of 0.277 in 2014 indicates moderate to low levels of inequality: (1) inequality increased mildly between 2008 and 2014; (2) levels and change in inequality appear to be biggest for Yerevan; (3) inequality mostly within regions – not too much inequality between regions.

Table X: Consumption inequality in Armenia

Year	Gini coefficient	Theil ($\alpha=-1$)
2008	0.242	0.097
2009	0.257	0.111
2010	0.265	0.115
2011	0.266	0.117
2012	0.269	0.123
2013	0.271	0.124
2014	0.277	0.129

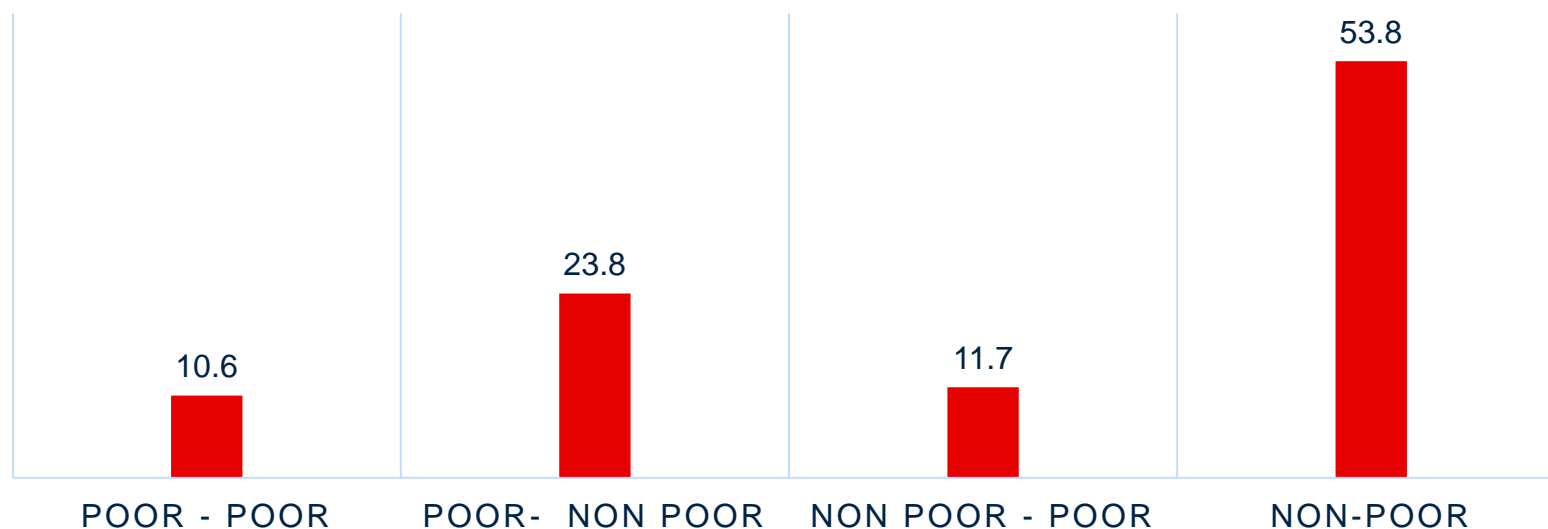
Table X: Consumption inequality in Armenia, Gini coefficient

Year	Yerevan	Other urban	Rural
2008	0.247	0.246	0.222
2009	0.269	0.258	0.230
2010	0.297	0.241	0.234
2011	0.305	0.248	0.207
2012	0.279	0.271	0.248
2013	0.289	0.286	0.231
2014	0.341	0.244	0.215

Patterns of inequality on the national level and by location. Note: National consumption aggregate (using methodology adopted in 2009). Gini and Theil coefficient range from 0 to 1, and Gini coefficient of 0 (Theil of 0) means perfect equality. Source: World Bank staff calculations based on Armenia ILCS 2008 to 2014.

Vulnerability to poverty persists, and reflects idiosyncratic and aggregate shocks. Between 2010 and 2014, 10.6 percent were poor in both periods and only 53.8 percent were not affected by poverty as defined by upper poverty line.

Simulated transition between poverty and non-poverty between 2010 and 2014



Simulated transition between poverty and non-poverty between 2010 and 2014. Note: Patterns of economic mobility are estimated on a sample that is restricted to households with household head between 25 and 55 years. National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2008 to 2014.

Picture of Poverty

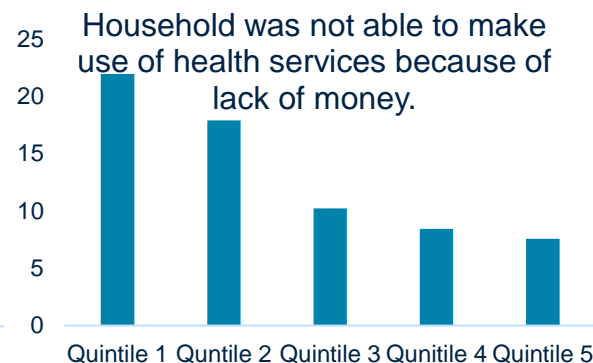
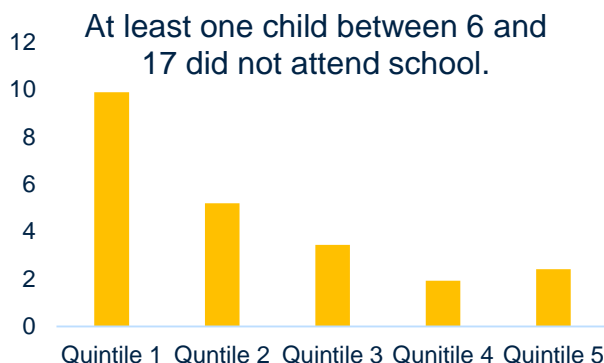
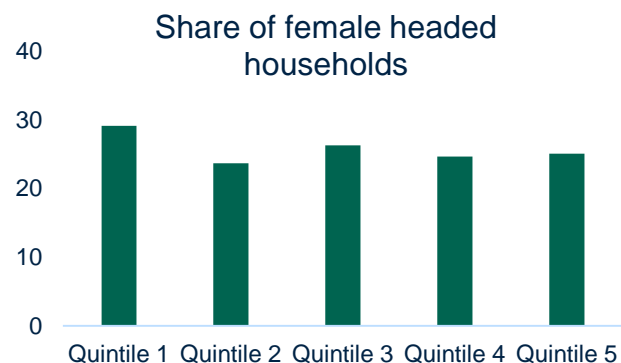
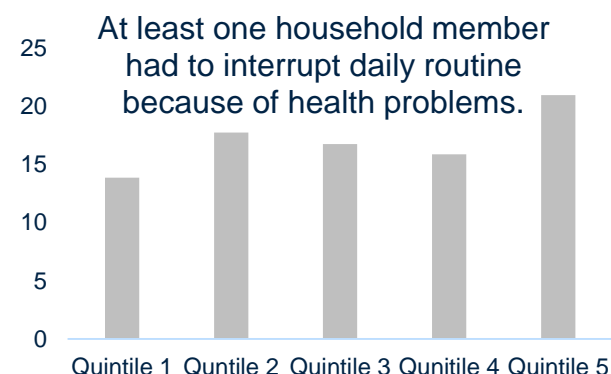
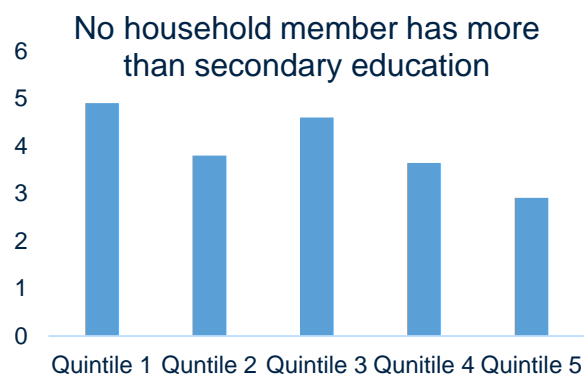
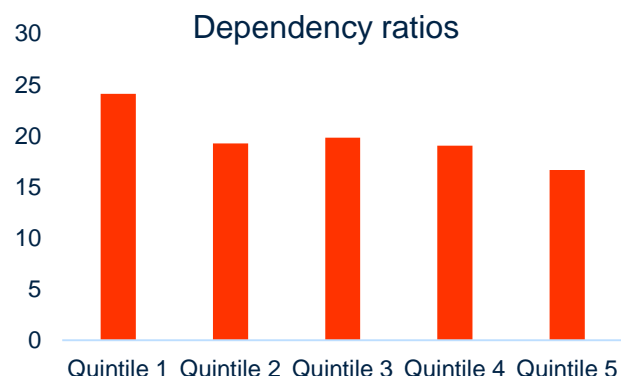
Who are the poor, how do they experience poverty and where do they live

Poor households differ in demographics and endowment from non-poor households.

Poor households experience worse housing conditions and lack access to public services – also regional variation.

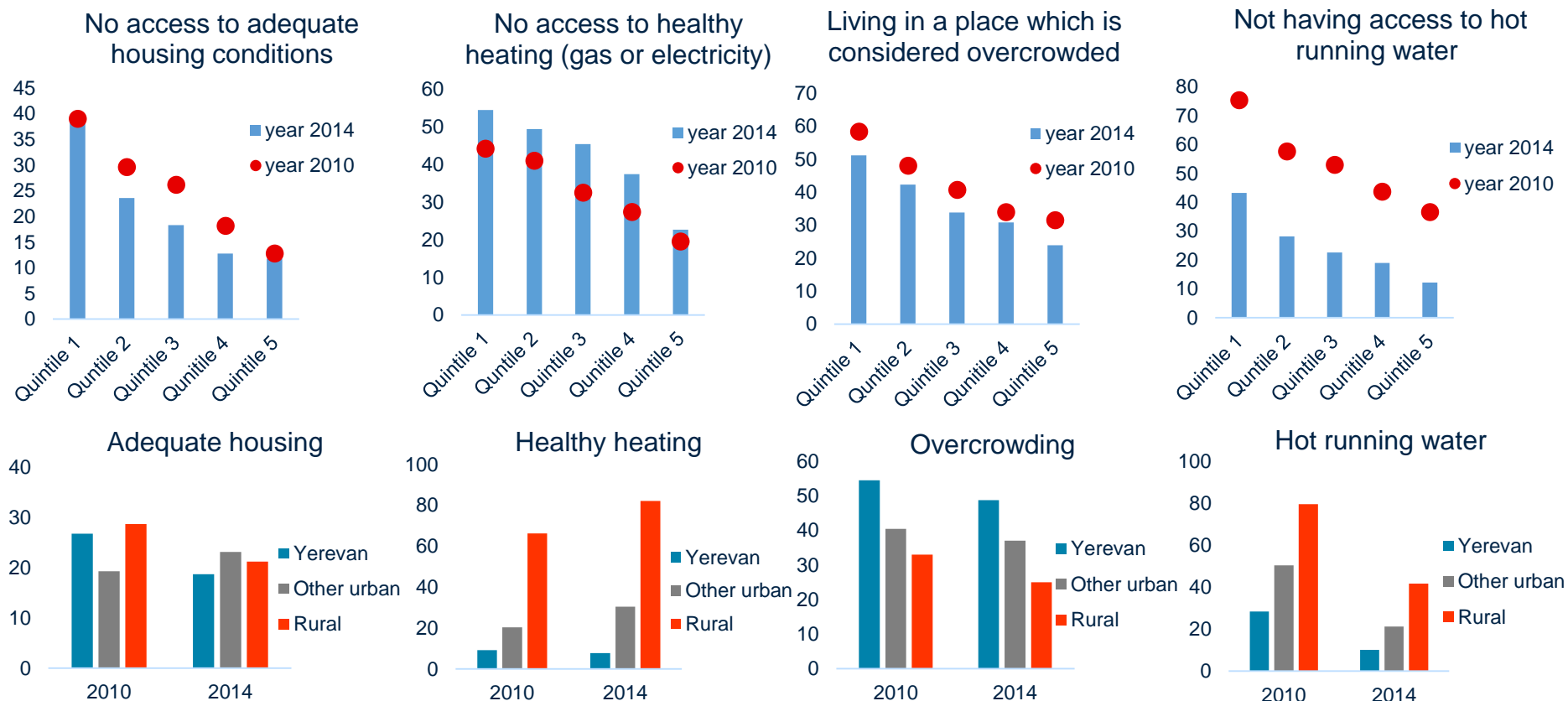
Poor households are concentrated in and around Yerevan; regional poverty rates are highest in other urban areas.

Who are the poor: differences in demographics and gaps in the endowment such as health and education across the welfare distribution. Poor households have higher dependency ratios and are more often female headed; multiple deprivation related to basic education and health status.



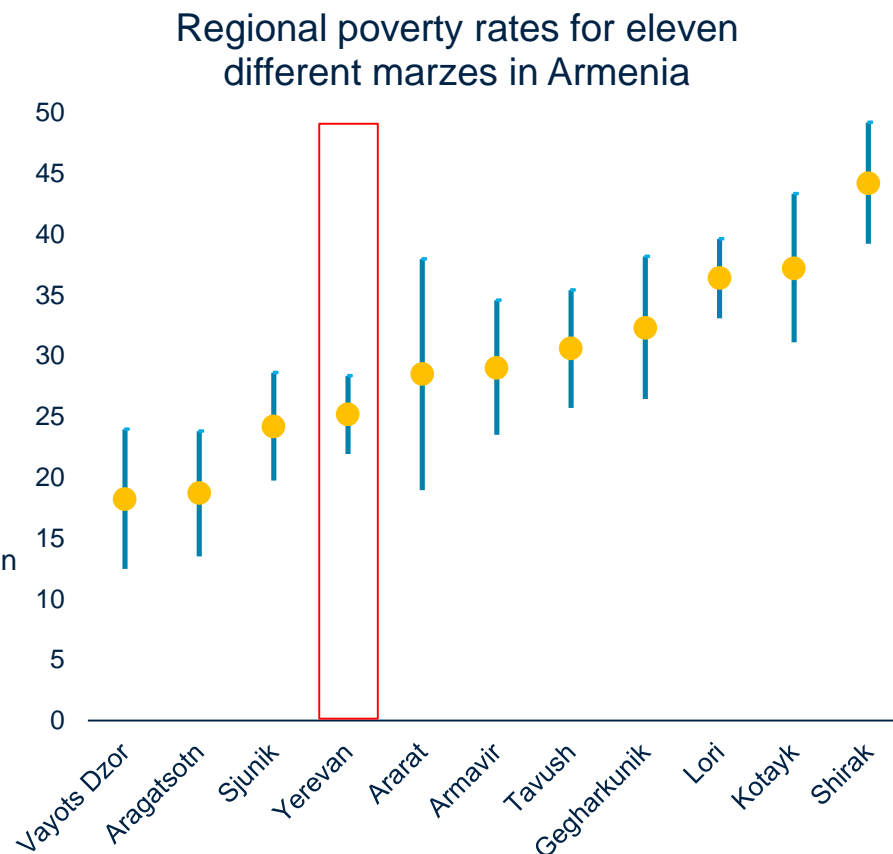
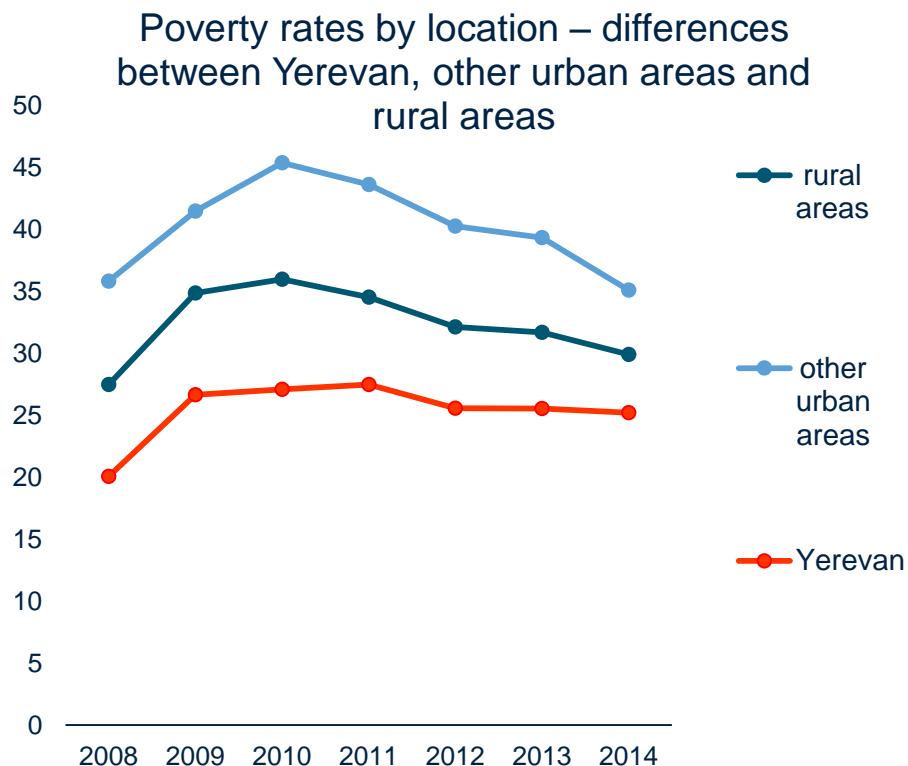
Deprivations linked to different dimensions of multidimensional poverty in Armenia. Note: Source: World Bank staff calculations based on Armenia ILCS 2014

How do they experience poverty: non-monetary measures of welfare highlight development gaps, which are persistent over time. Poor households report worse housing conditions and inferior access to public services; differs systematically across five quintiles of the welfare distribution and between locations.



Deprivations linked to housing and infrastructure for different quintiles of the welfare distribution for 2010 and 2014 (top) and by location (bottom). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

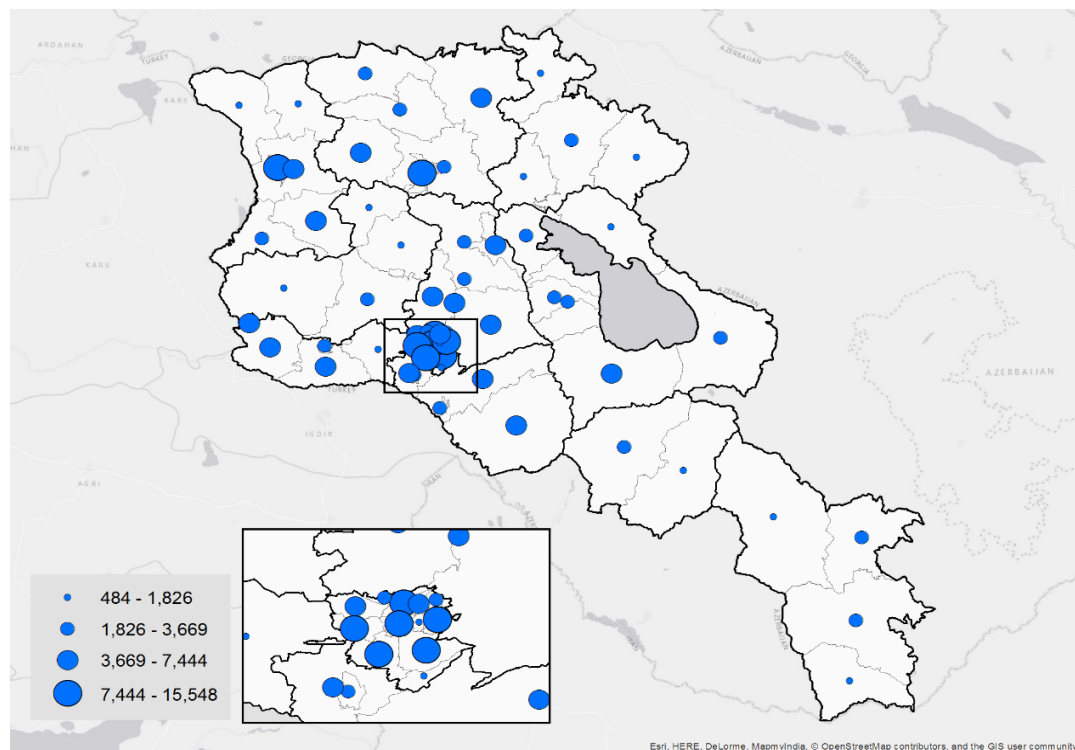
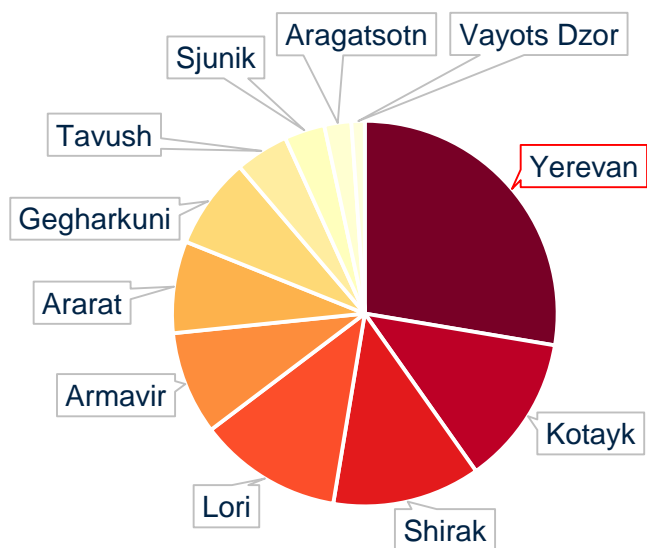
Where do they live: poverty rates are highest in other urban areas, and lowest in the capital city Yerevan. Spatial disparities between marzes in Armenia are high.



Poverty headcount– differences between Yerevan, other urban areas and rural areas (left) and differences on the marz level (right). Note: National consumption aggregate (using methodology adopted in 2009). Source: Social Snapshot and Poverty 2015.

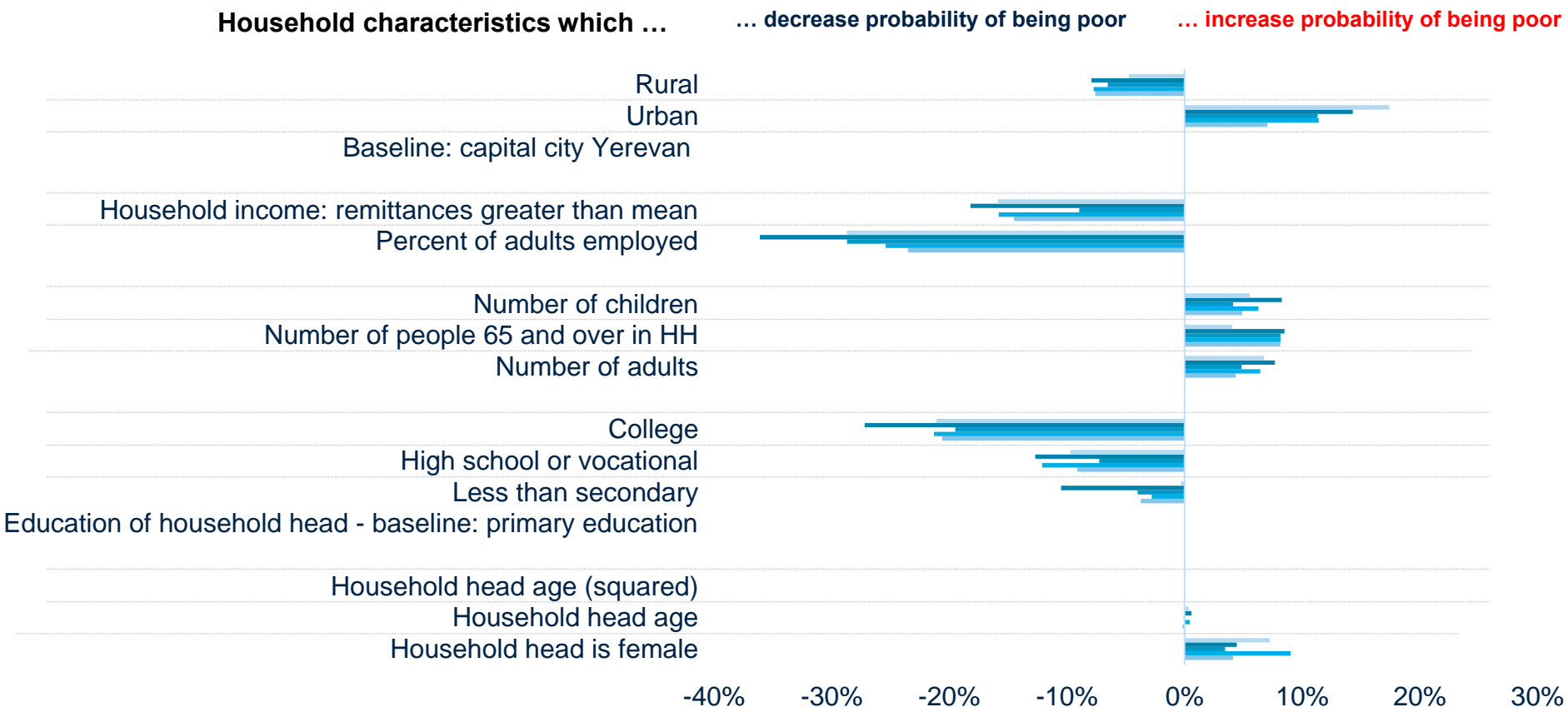
The concentration of population around capital city influences the distribution of poor households across marzes: 41 percent of the poor live either in Yerevan or Kotayk. Outside Yerevan, number of poor households is large in other urban areas in the country.

Distribution of poor across marzes



Distribution of poor across marzes (left) and number of poor households by administrative district (left). Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2014 and ILCS 2011 (for poverty map).

The poor tend to (1) live in bigger households with larger number of dependents, (2) reside in other urban areas of the country, (3) have lower education, (4) show lower employment rates, and (5) are less likely to receive (attract) international remittances.



Household characteristics which decrease or increase probability of being poor. Note: Figure shows marginal effects estimated from a probit model with dependent variable being one if the household is poor. Results are obtained from repeated cross section between 2010 and 2014. Source: World Bank staff calculations based on Armenia ILCS 2014.

Sources of income growth and poverty reduction

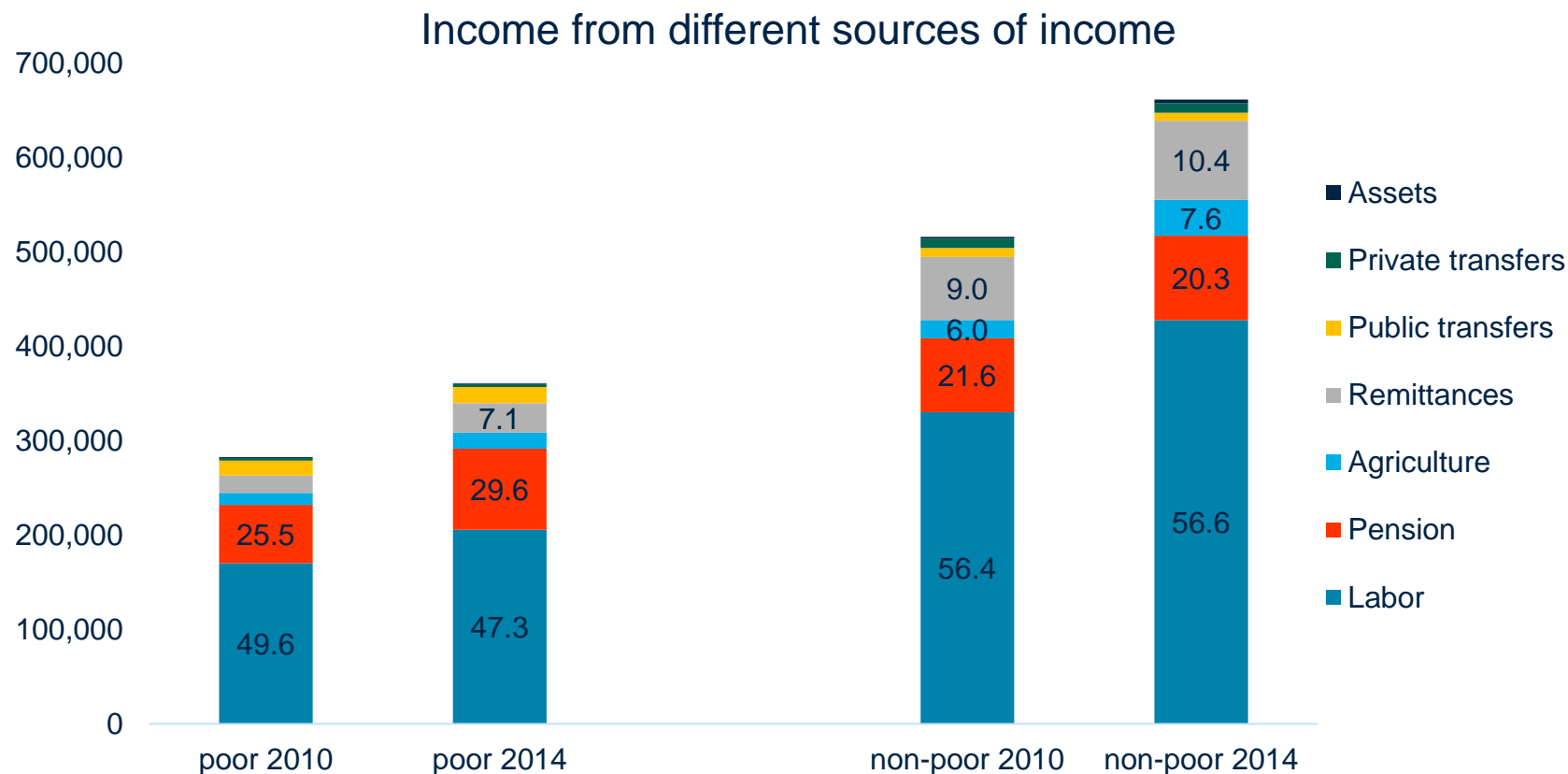
Composition of income and changes over time

Income from labor markets and pensions are the biggest income share for poor and non-poor households.

Composition differs between poor and non-poor households; lower share of labor income for the poor.

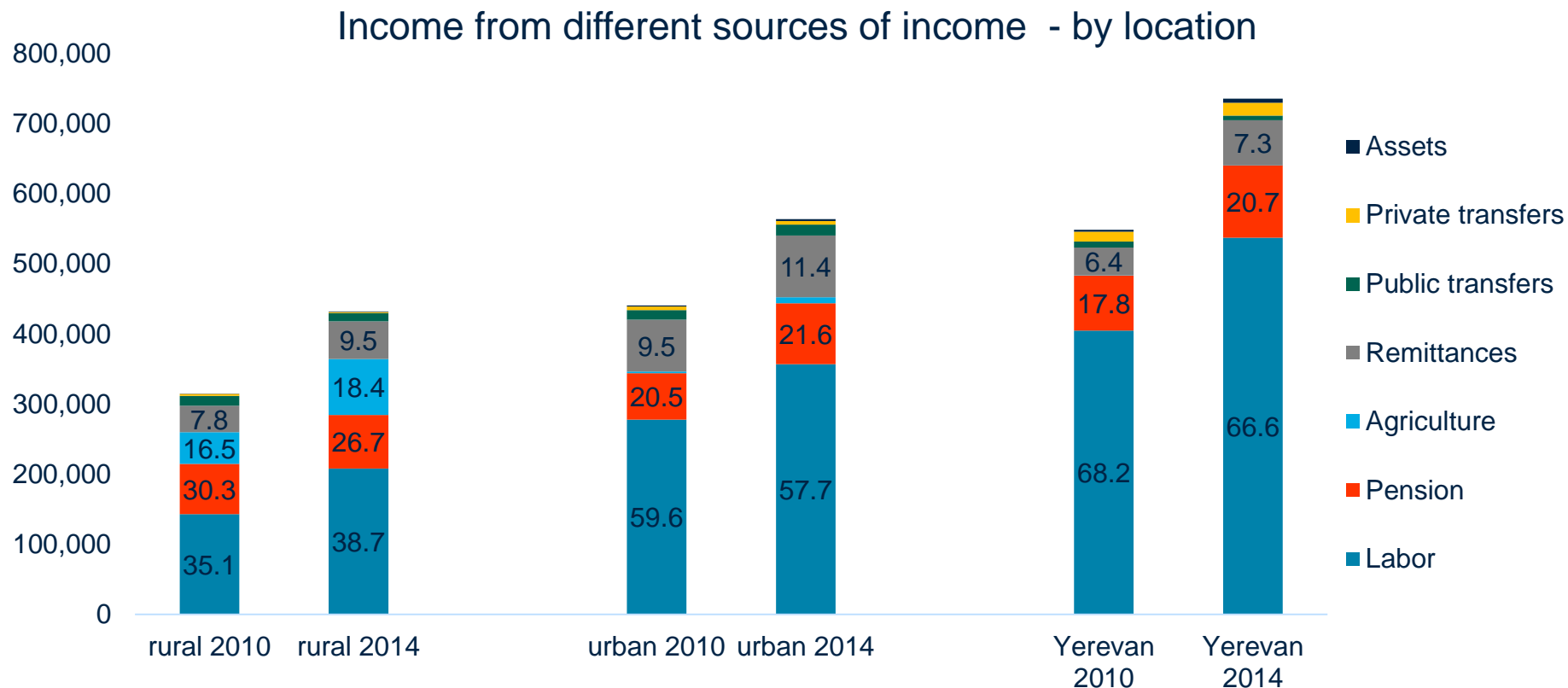
Income growth and poverty reduction benefited from labor markets, agricultural sales, remittances and pensions.

Both, poor and non- poor households experienced growth of income from 2010 to 2014. Composition differs systematically between poor and non-poor households: poor have lower levels and shares of (1) labor income and (2) remittances, and depend more on (3) pension income and (4) public transfers.



Income from different sources of income (left scale constant 2014 AMD, per capita); labels show relative composition. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

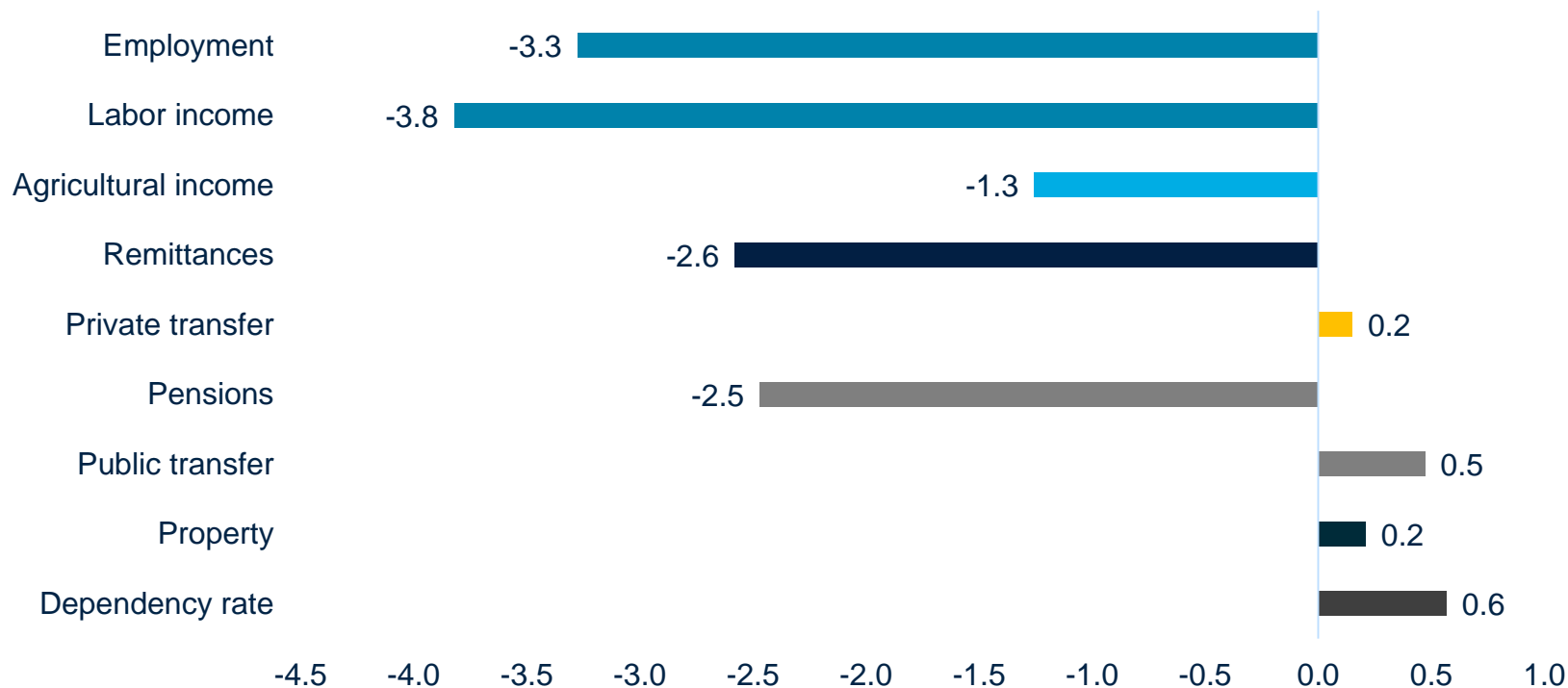
Regional patterns in the composition of income highlight dominant role of labor earnings and pensions. Also: (1) sales from agricultural production and labor market earnings in agriculture in rural areas, (2) remittances in other urban areas, and (3) private transfers (internal migration) in Yerevan.



Income from different sources of income (left scale constant 2014 AMD, per capita); labels show relative composition. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Income growth and decline in poverty between 2010 and 2014 driven by (1) higher employment and wages, (2) increasing agricultural output but also employment in rural areas, and (3) additional remittances and (4) private transfers; also, (5) pensions helped households to escape poverty.

Drivers of poverty reduction between 2010 and 2014



Drivers of poverty reduction to the change in the poverty rate between 2010 and 2014. Note: Negative estimated coefficients describe by how many percentage points corresponding factor has contributed to poverty reduction (and vice-verse). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Behind the aggregate figures

Three facts on drivers of income growth and challenges

Cheat Sheet to Three Facts

Fact 1

Structural transformation and labor markets

- Private sector growth has raised incomes for all households.
- How will structural transformation reshape the economy?

Fact 2

Migration

- Internal and external migration have extended domestic labor markets.
- How to explore opportunities and mitigate challenges?

Fact 3

Fiscal and social policy

- Social expenditures have protected poor and vulnerable households.

Fact 1

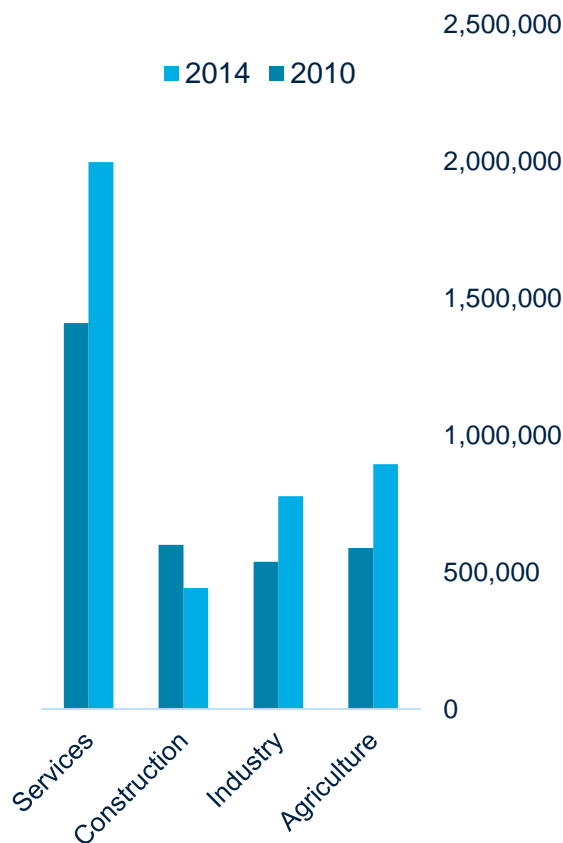
Structural transformation and labor markets

Private sector growth has raised incomes for all households.

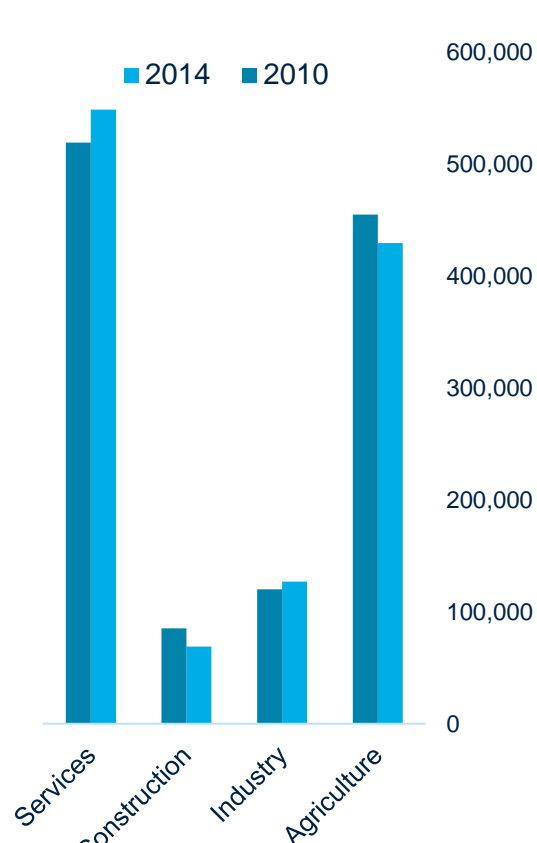
- ☐ **Growth of services and manufacturing translated into new employment opportunities and higher wages.**
- ☐ **Increasing agricultural sales, high productivity services in Yerevan and limited job creation in other urban areas.**
- ☐ **Labor market outcomes for poor households: lower quality of employment and lower productivity of labor.**

Structural transformation: growth of services and manufacturing (excluding construction) translated into new employment opportunities and higher wages. Reallocation between different sectors of the economy.

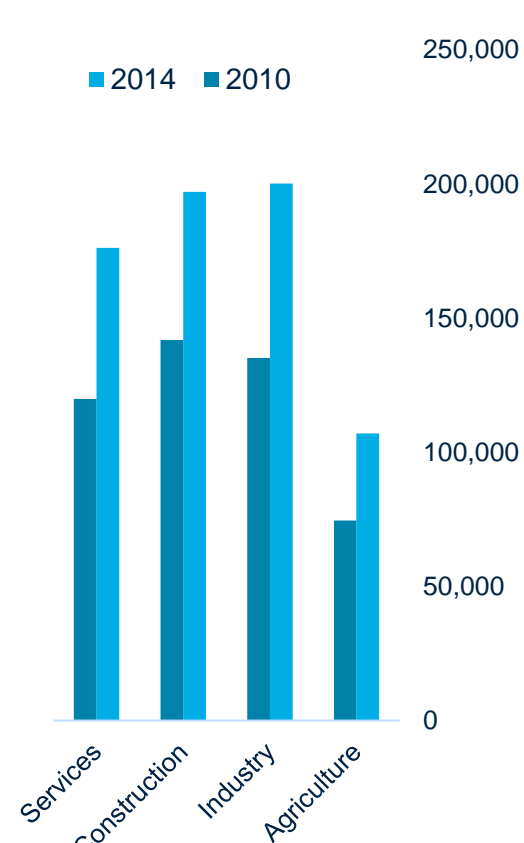
GDP production, by sector



Total employment, by sector



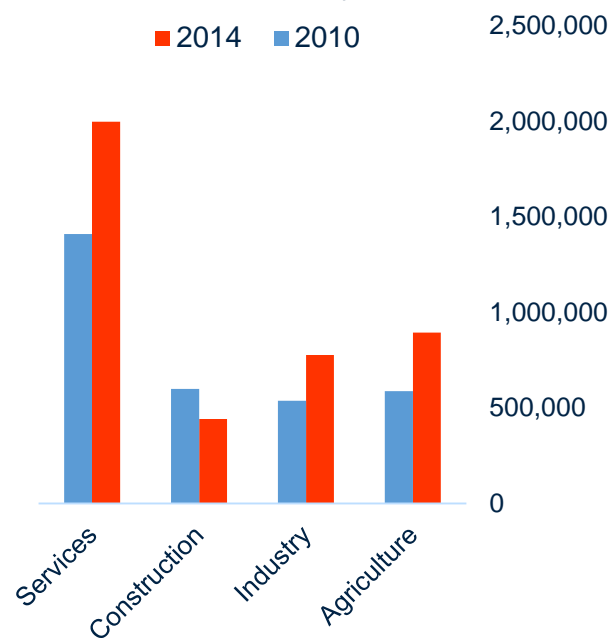
Monthly wages, by sector



GDP production (constant 2014, million AMD), by sector (left) total employment, by sector (middle) and monthly wages (constant 2014, AMD), by sector (right). Note: Sector by NACE 2 classification. Source: Central Bank of Armenia (accessed 03/15/2016).

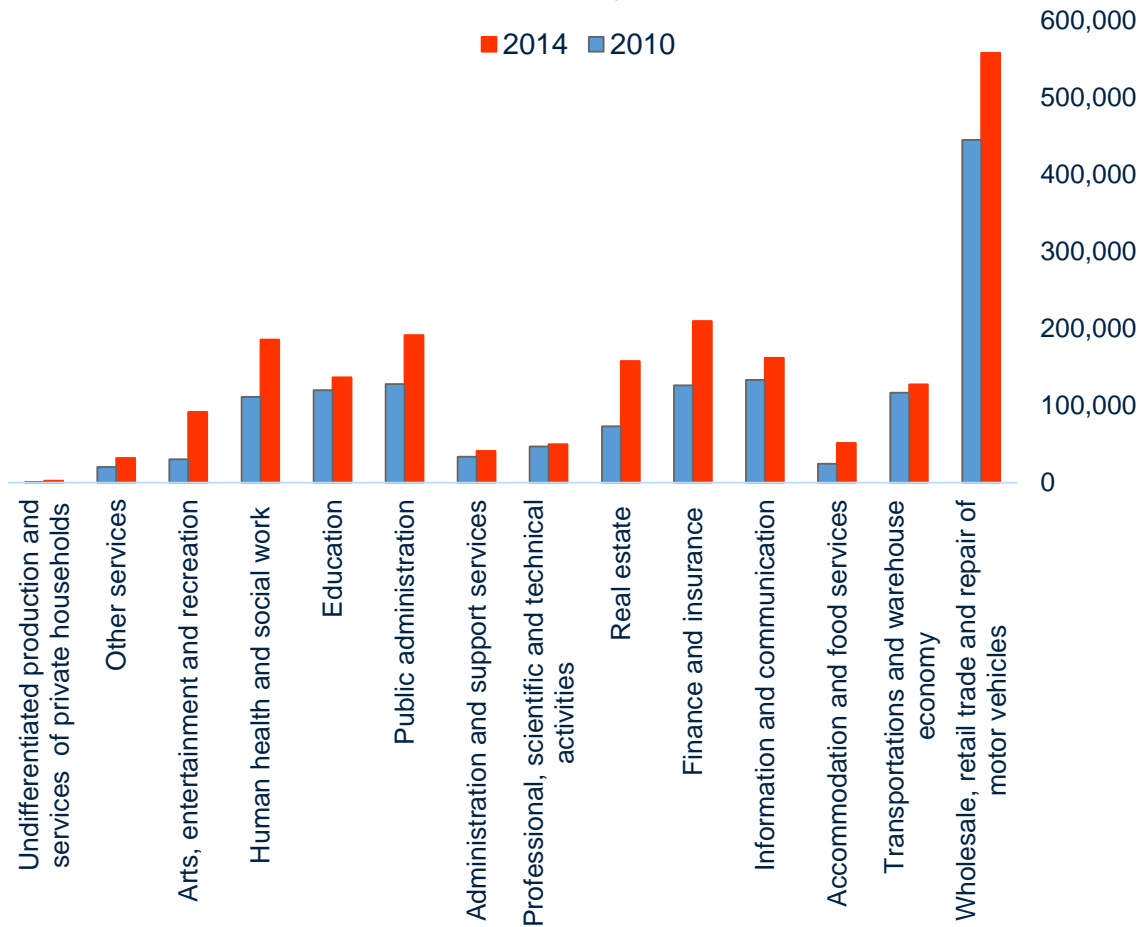
Patterns of GDP growth describe differential performance across sectors of the economy. Expansion of agricultural sector and growth of industry and services; construction sector decreased substantially.

GDP production, by sector



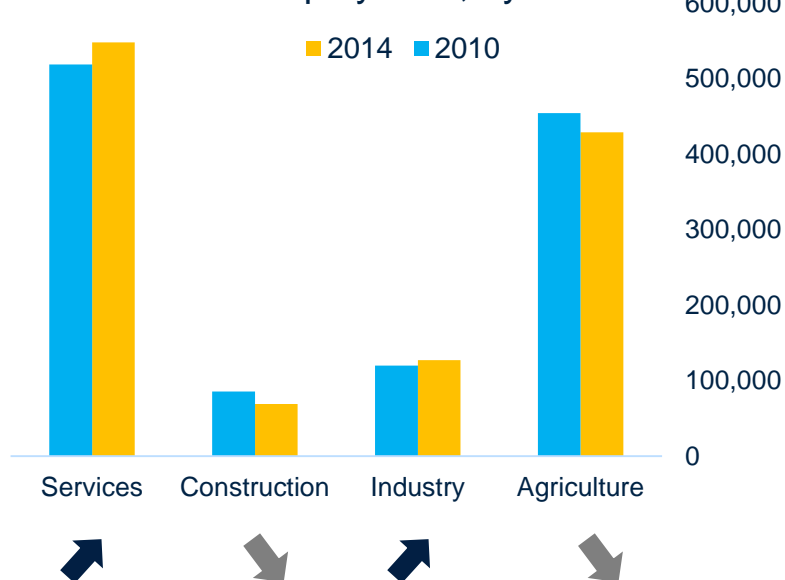
Structure of GDP production (constant 2014, million AMD), by sector (left) and more disaggregated view into the service sector (right). Note: GDP production (NACE 2 classification) at current prices, million Armenian drams
Source: Central Bank of Armenia (accessed 03/15/2016).

GDP production, only service sector

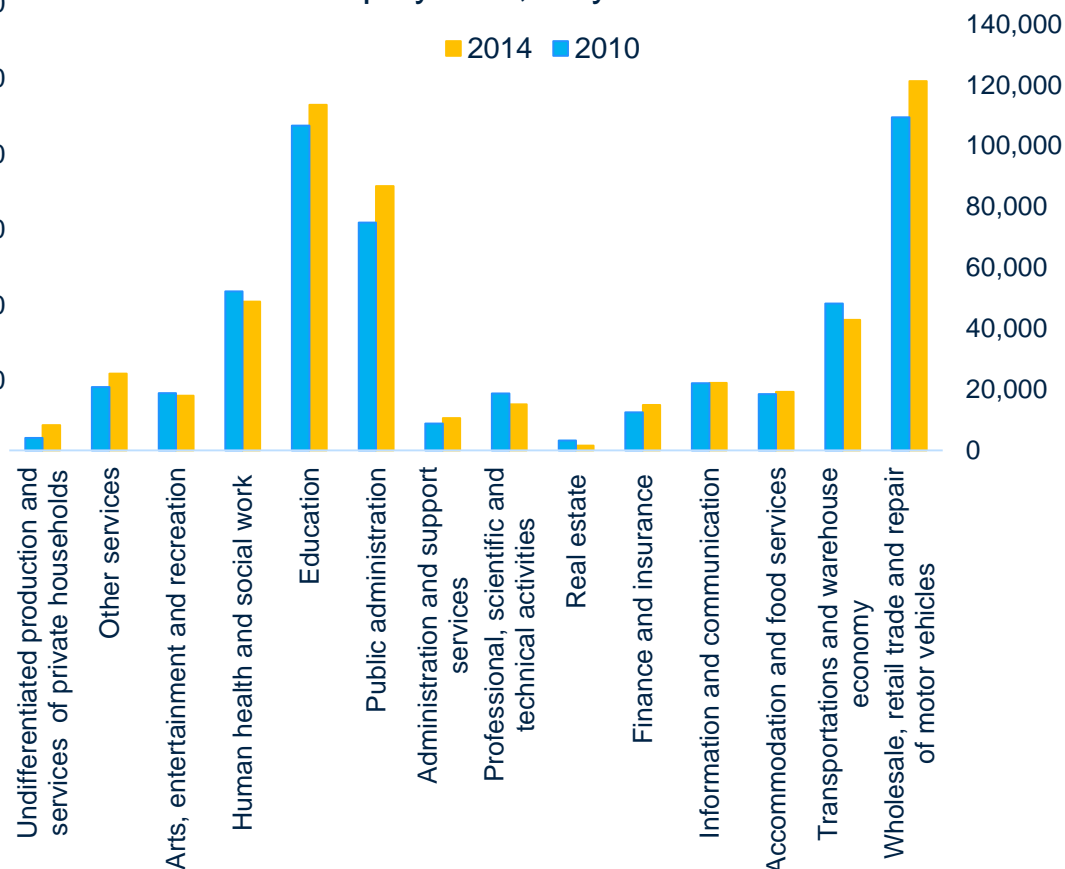


Total employment in Armenia decreased marginally between 2010 and 2014 – also driven by a decline of the working age population due to demographic shifts and migration. However, analysis by sector of employment illustrates that structural transformation led to substantial shifts between sectors.

Total employment, by sector



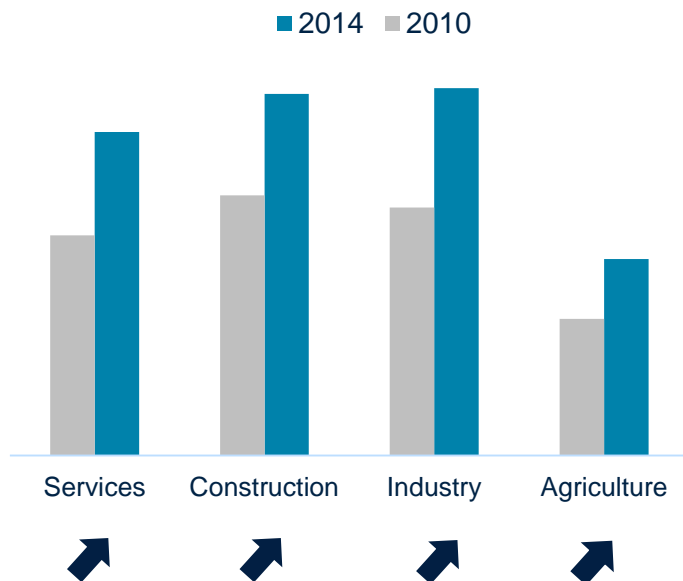
Total employment, only service sector



Structure of total employment, by sector (left) and more disaggregated view into the service sector (right). Note: Total number of employed. Source: Central Bank of Armenia (accessed 03/15/2016).

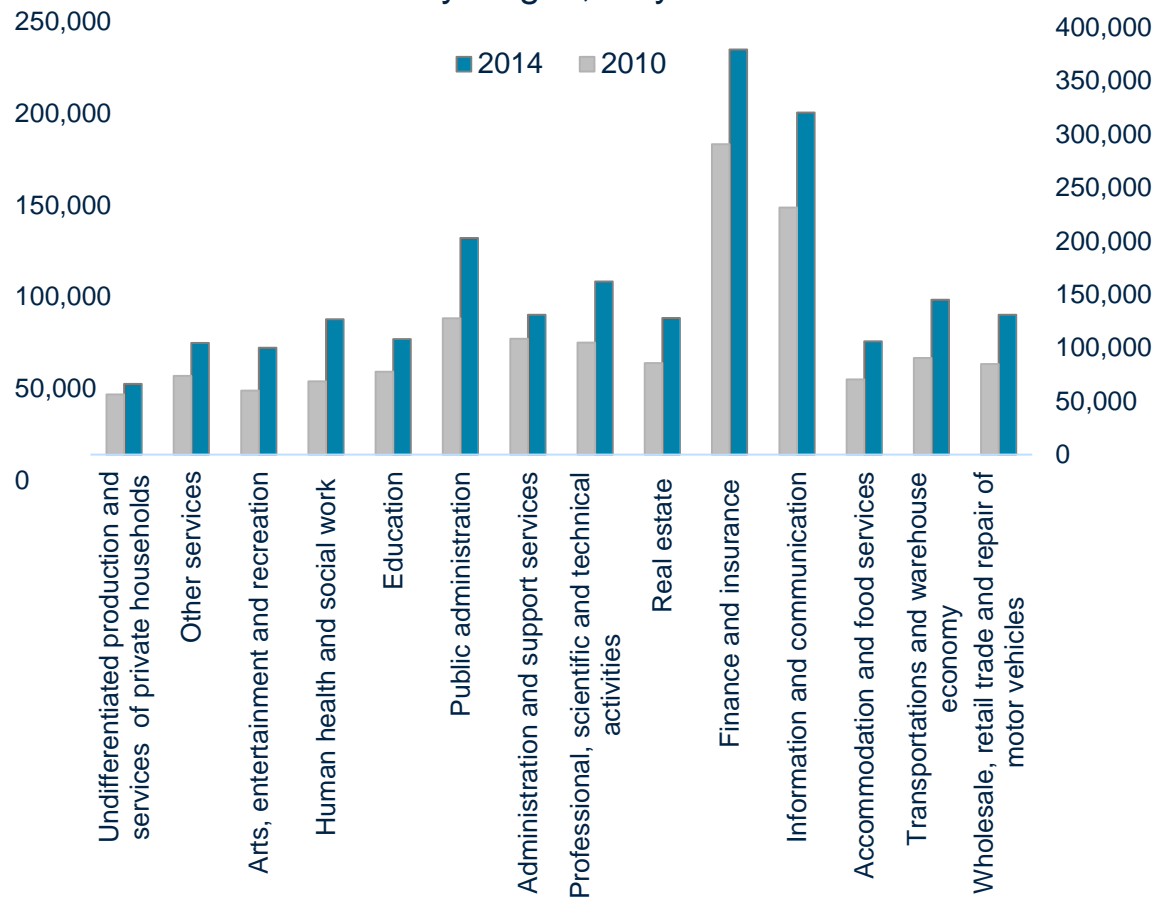
All sectors of the economy show a positive wage growth between 2010 and 2014. However, large gaps between sectors (in services) which link to differential labor productivity. Low productivity in agricultural sector.

Monthly wages, by sector



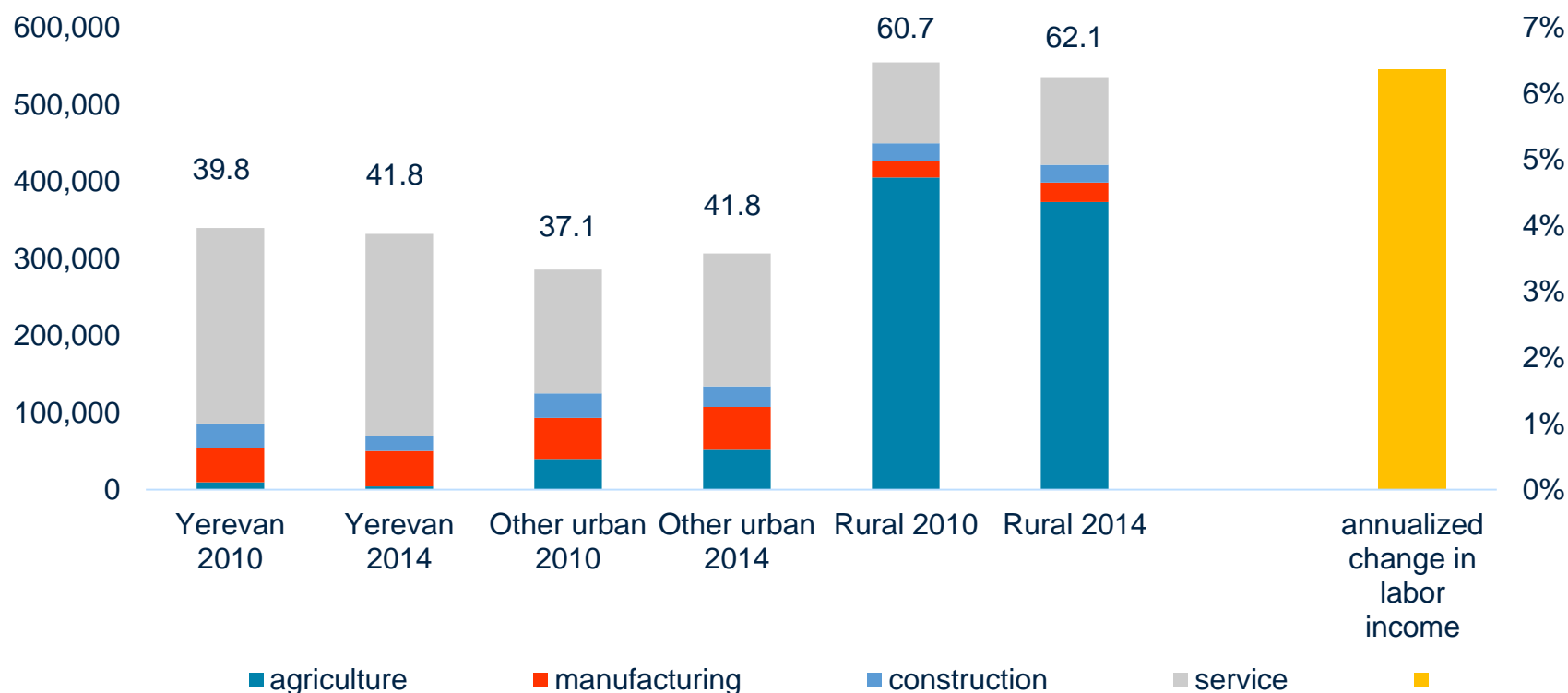
Monthly wages (constant 2014, AMD), by sector (left) and more disaggregated view into the service sector (right). Note: Monthly wages in AMD. Source: Central Bank of Armenia (accessed 03/15/2016).

Monthly wages, only service sector



Regional view: Reallocation of employment for Yerevan, other urban areas and rural areas. Job creation in other urban areas to provide employment opportunities for people leaving agriculture.

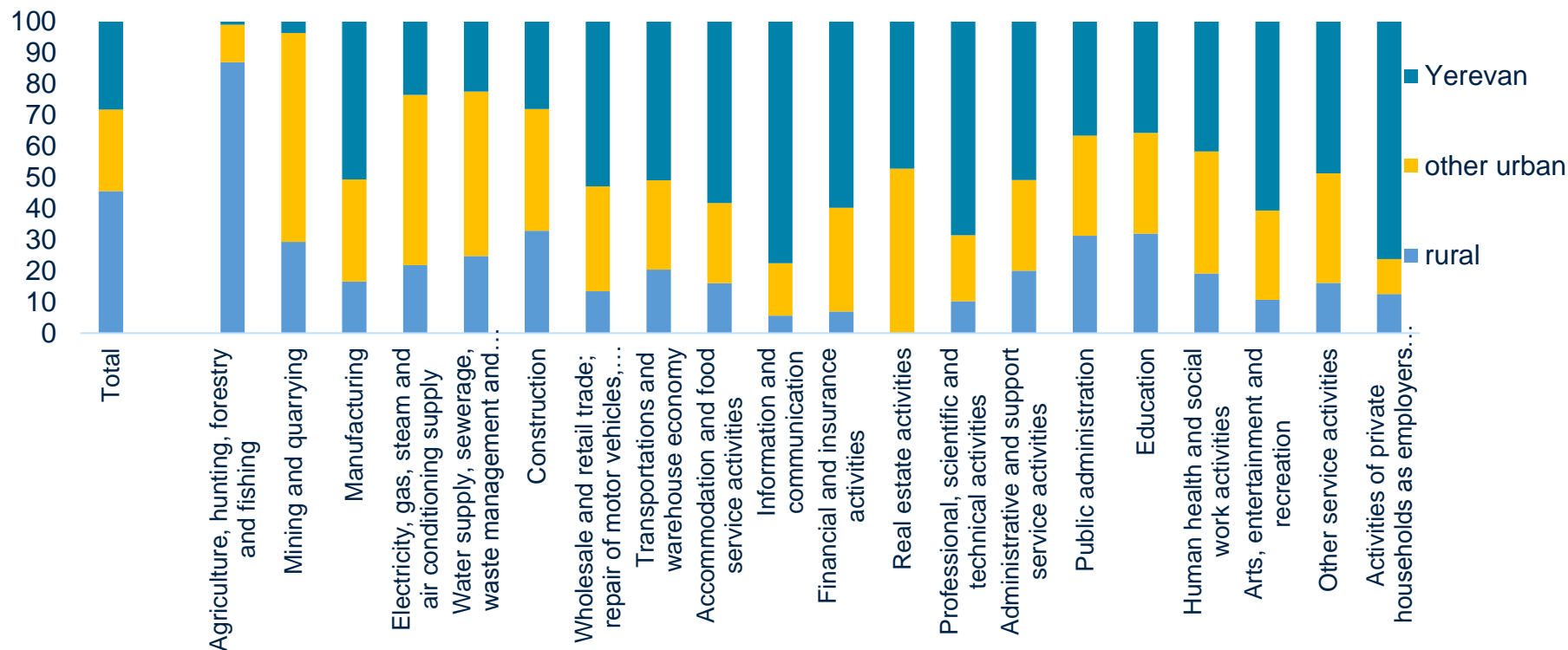
Sector of employment (and employment rates), by location



Sector of employment 2010 and 2014, by location (left), annualized change in labor income (right). Note: Employment rates (on top of each bar) calculated based on a working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Where are the jobs? Agriculture is concentrated in rural areas; 85 percent of service sector is in Yerevan. In times of declining employment in agriculture and construction, an intermediate sector in other urban areas could create new opportunities for additional employment – yet, geographic mobility matters.

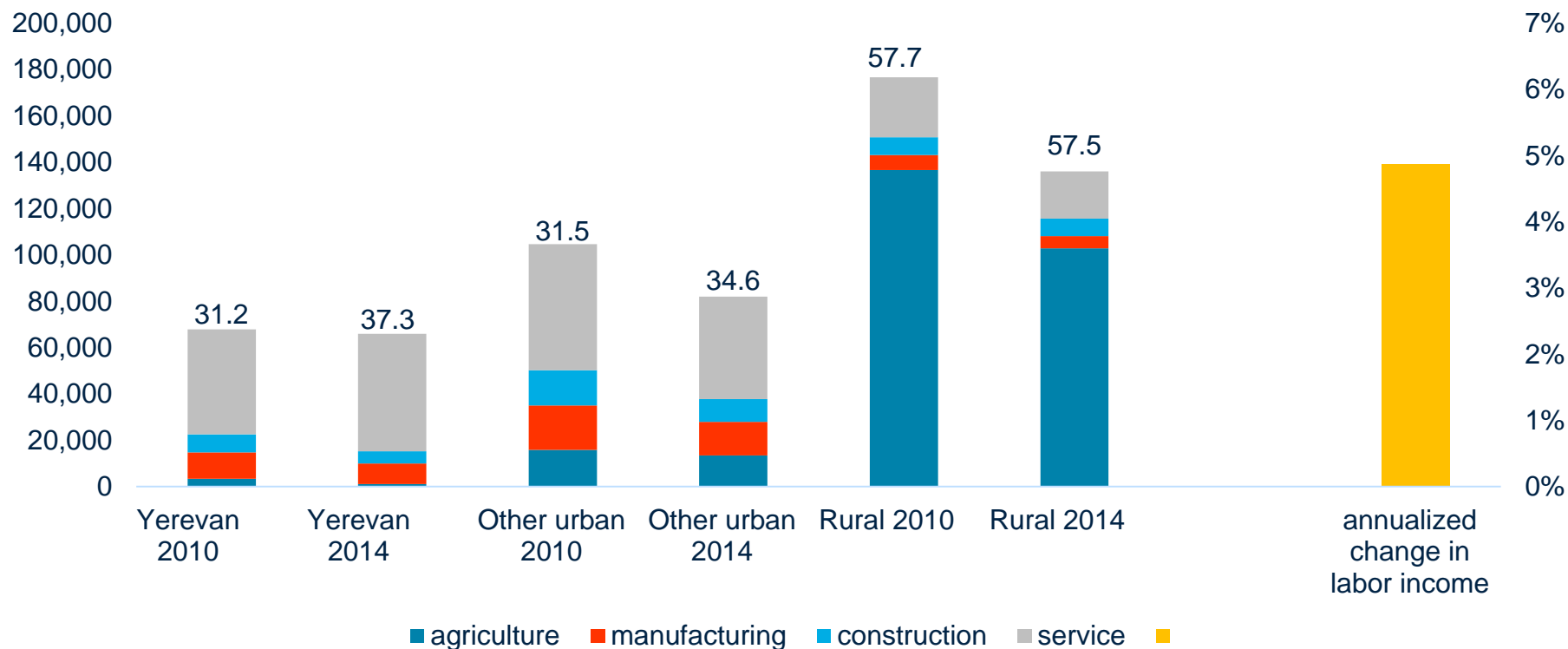
Employment by location, different sectors of the economy



Employment by location, different sectors of the economy. Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2014.

Distributional view: Structural transformation also works for the poor. Helped to reduce poverty between 2010 and 2014. Yet, compared to the total population, poor experienced lower growth of labor income.

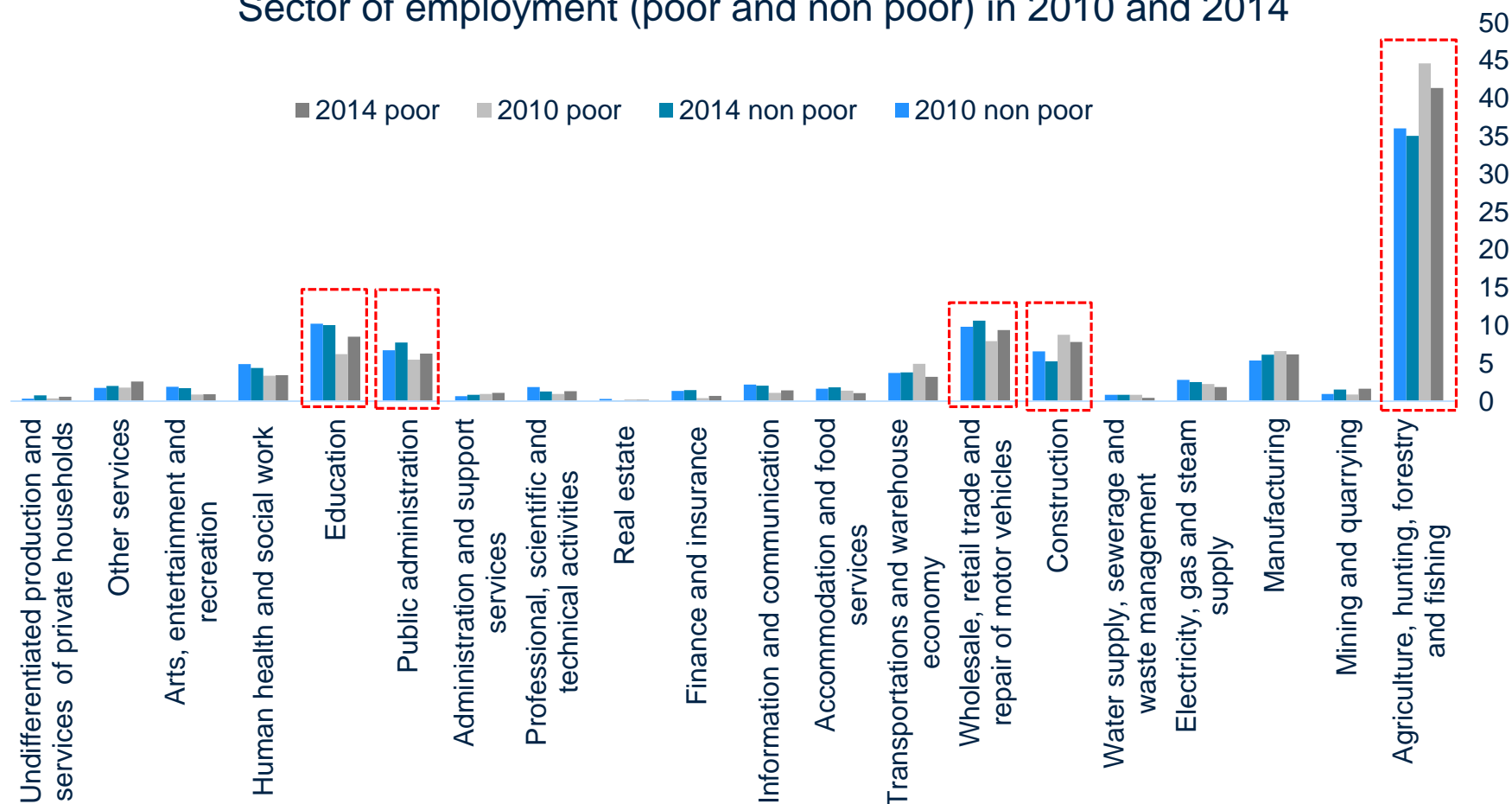
Sector of employment for the poor (and employment rates), by location



Sector of employment for the poor in 2010 and 2014, by location (left), annualized change in labor income (right). Note: Employment rates (on top of each bar) calculated based on a working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Patterns of employment across sectors of the economy document: (1) no major gaps in the sector of employment between workers from poor and non-poor households; (2) all parts of the welfare distribution have experienced shifts in sector of employment.

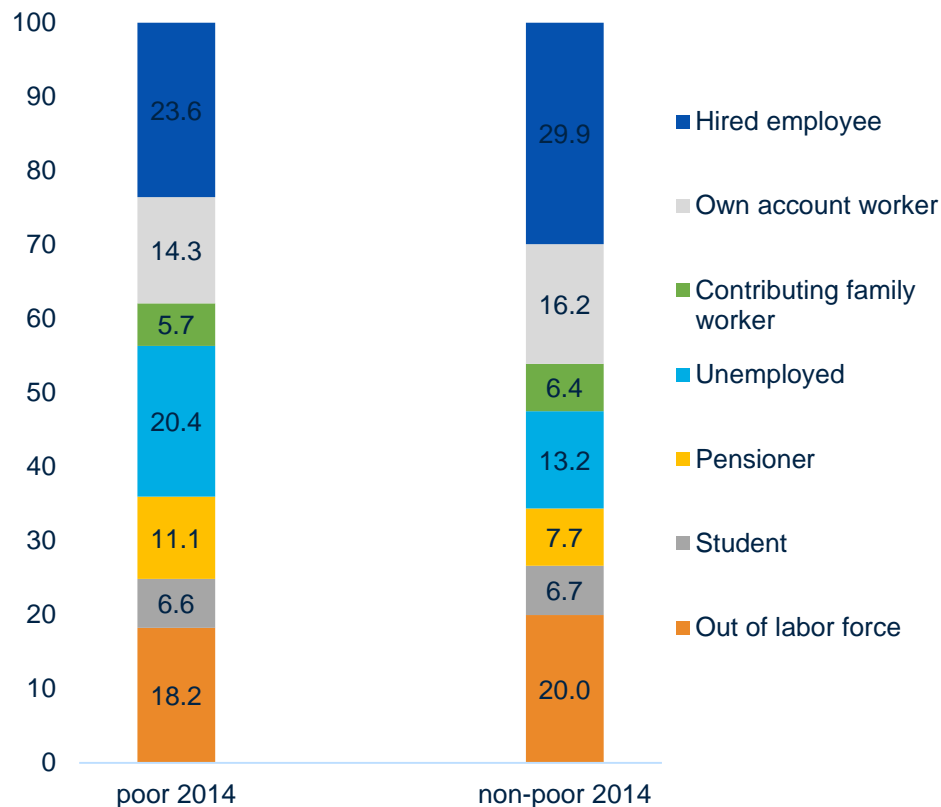
Sector of employment (poor and non poor) in 2010 and 2014



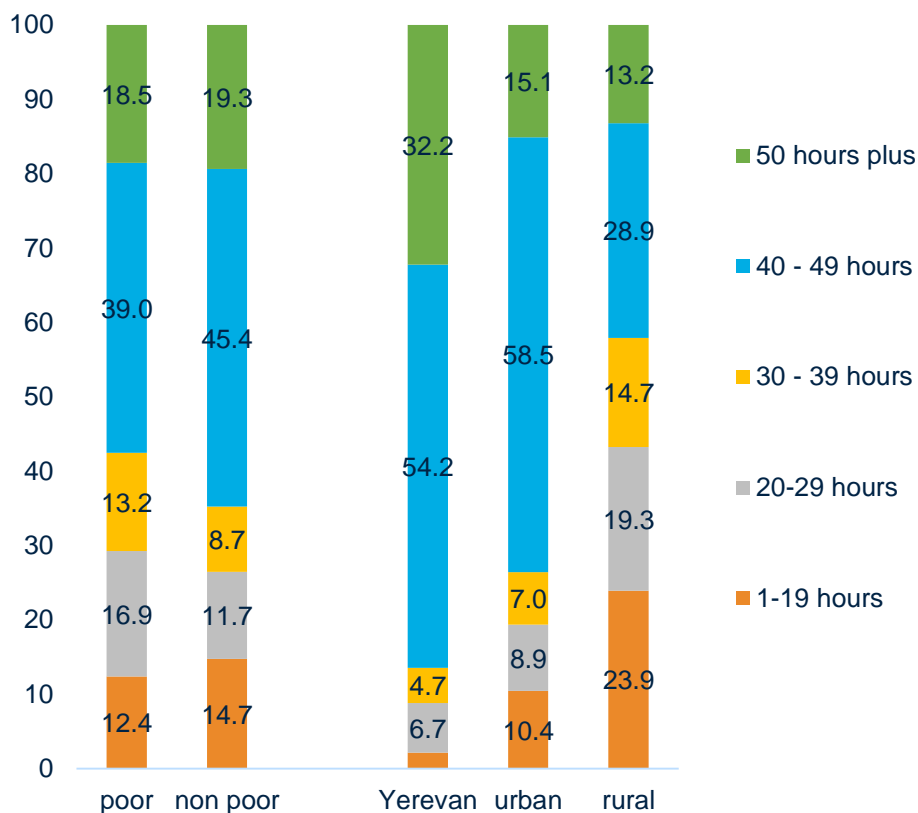
Sector of employment (poor and non poor) in 2010 and 2014. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Status of employment: Poor are less attached to labor markets and work fewer hours. Higher unemployment rates among individuals from poor households and higher levels of underemployment in rural areas.

Labor market status

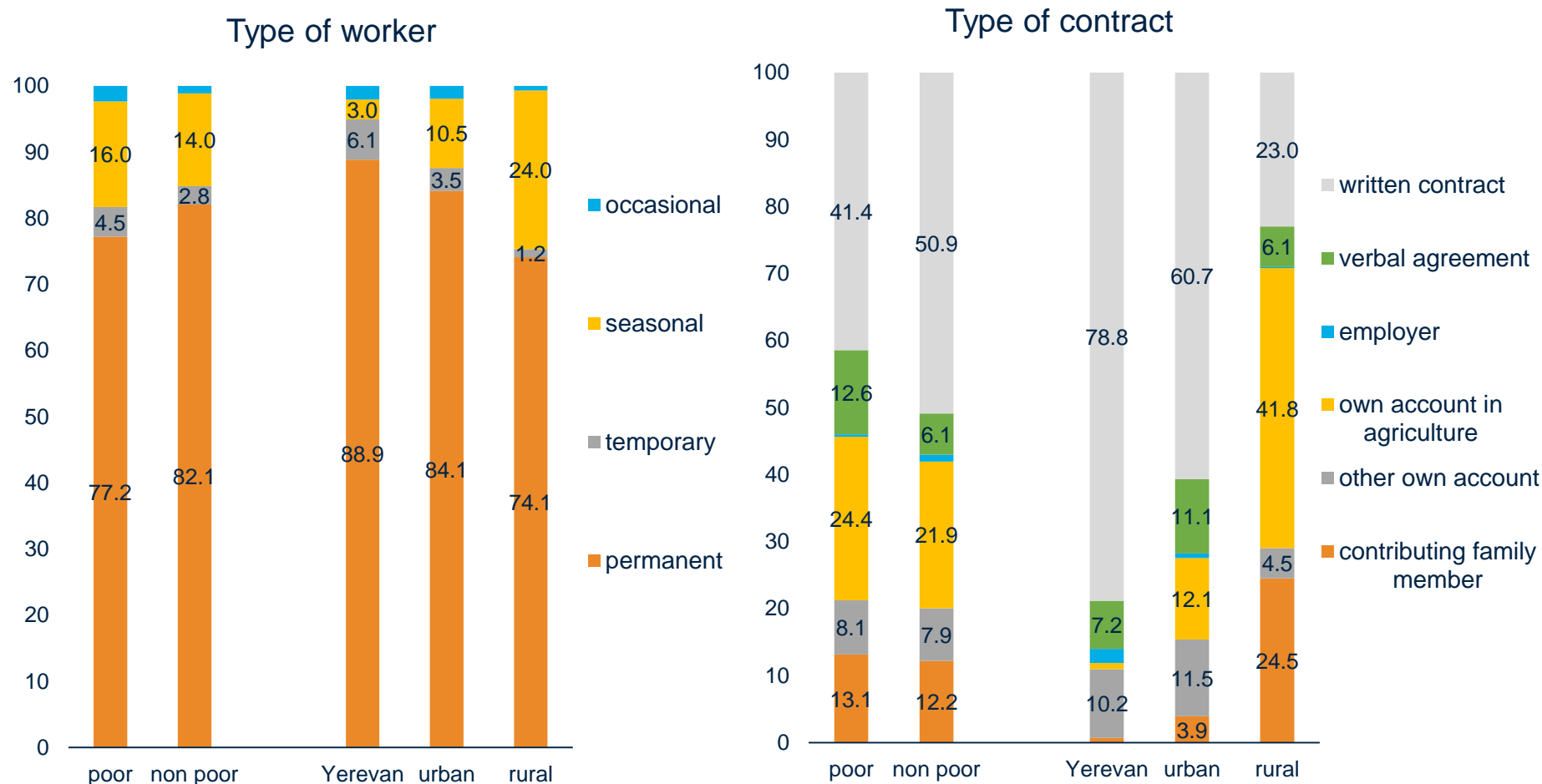


Hours worked per week



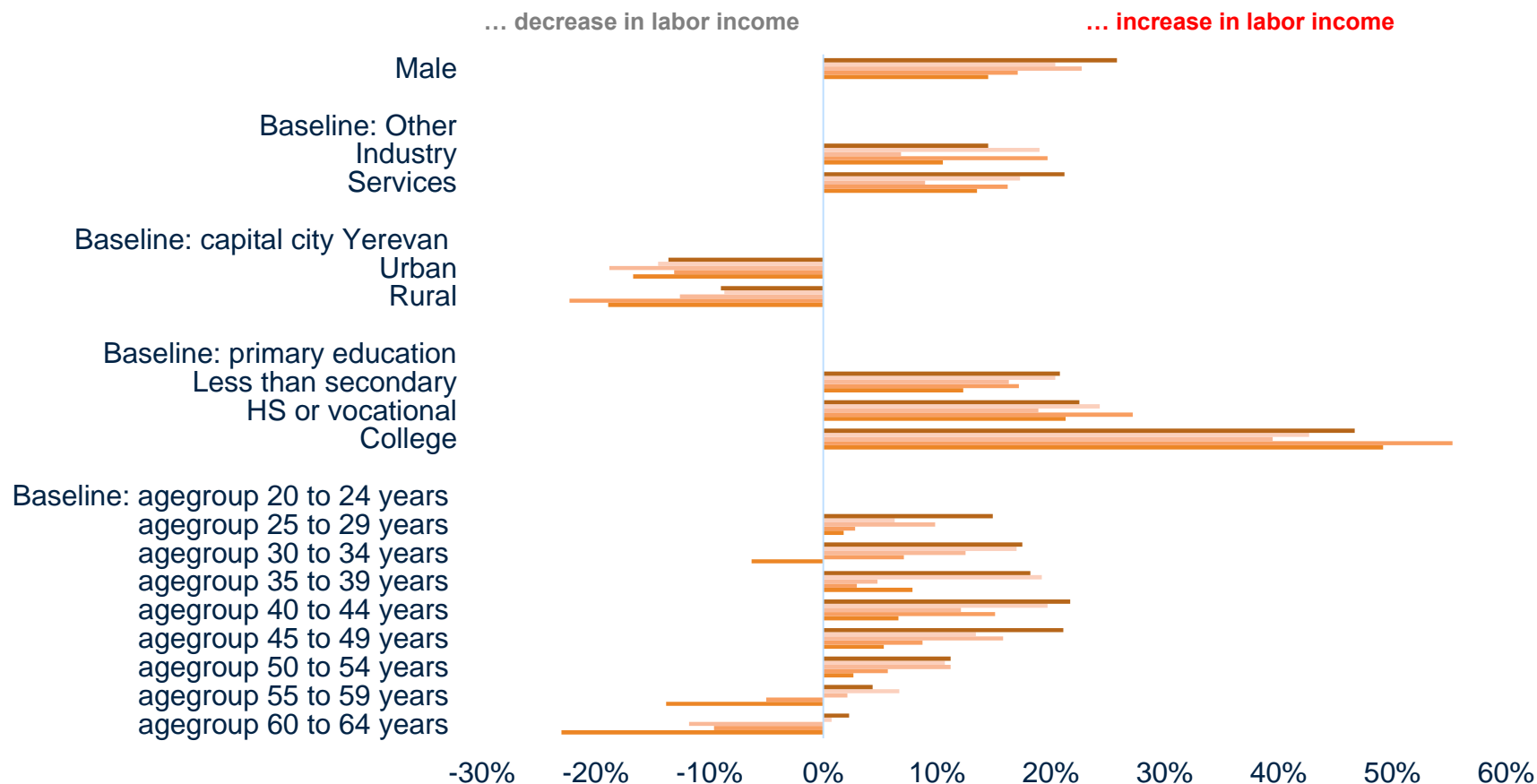
Labor market status for individuals from poor and non-poor households (left) and educational attainment for individuals from poor and non-poor households (right). Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Quality of employment: Poor have less protection and worse contracts. Literature links both to vulnerability of employment (and welfare) and highlights relationship between informality and low productivity.



Status of employment (left) and type of contract (right) – by location and poverty status of households. Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Productivity of employment: Poor have less education which then translates into lower wages. Higher levels of education allow for productivity gains if demand and supply of labor markets is well-aligned.



Individual characteristics which decrease or increase labor income earned from employment outside agricultural sector. Note: Figure shows estimated coefficients from a Mincer labor income regression where the dependent variable is the logarithm of labor income in constant AMD 2014. Results are obtained from repeated cross section between 2010 and 2014. Source: World Bank staff calculations based on Armenia ILCS 2014.

Fact 2

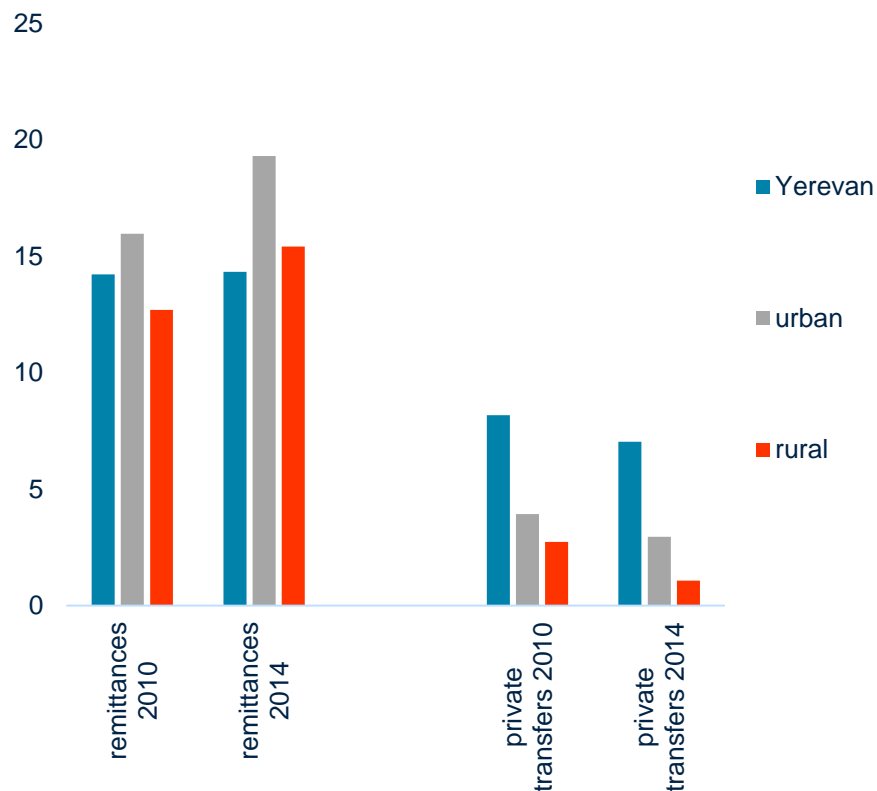
Migration

Internal and external migration extend domestic labor markets

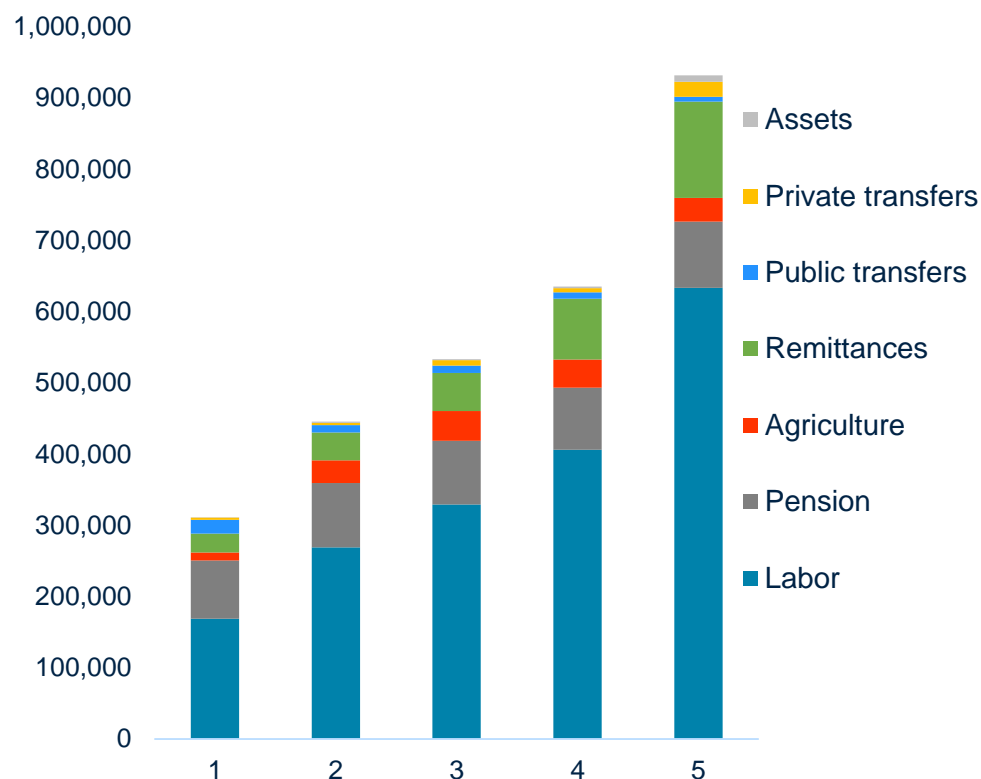
- ☐ **Opportunity for migration expands domestic labor market and generates additional income from remittances.**
- ☐ **Role of internal and external migration as an equalizer between locations (poverty in other urban areas).**
- ☐ **Sustainability: dependence on remittances also increases vulnerability through contagion of external shocks.**

Labor mobility characterizes small open economy: across all parts of the welfare distribution, 15.9 percent of households receive remittances from international migration and 3.5 percent of households receive private transfers from within the country.

Share of households receiving remittances and private transfers – by location



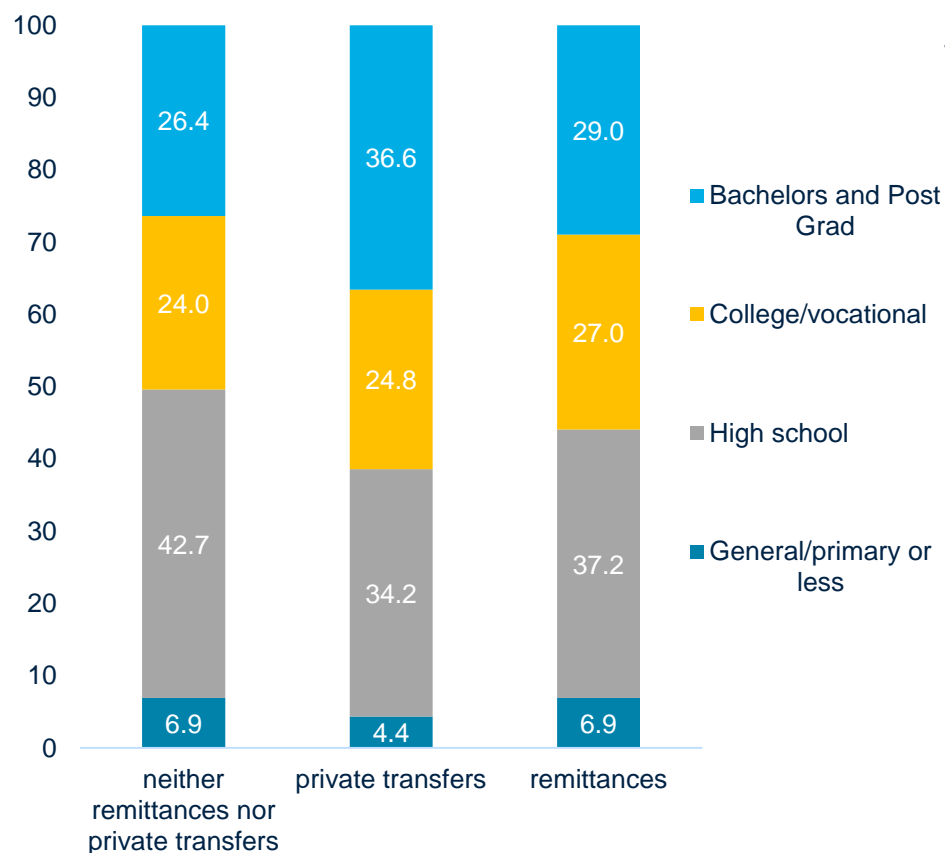
Composition of income by quintile of welfare distribution



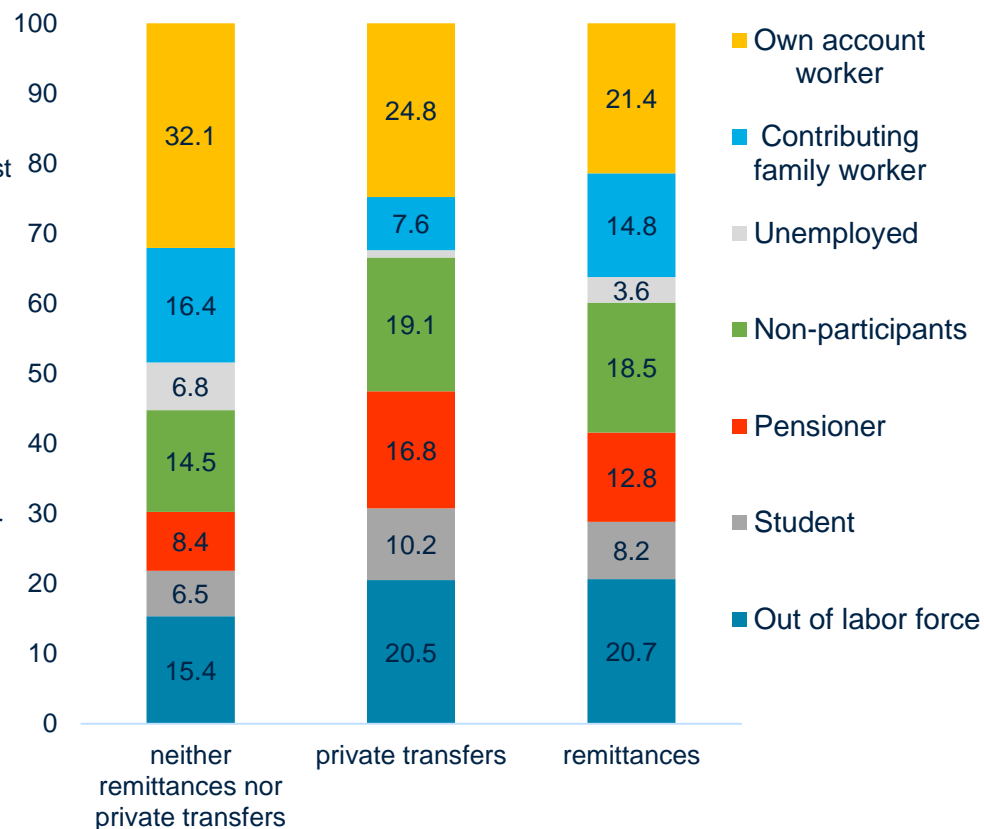
Share of households receiving remittances and private transfers – by location (left) and composition of income by quintile of welfare distribution (constant 2014 AMD per capita, right) . Source: World Bank staff calculations based on Armenia ILCS 2010 to 2014.

Individuals living in households which receive remittances or private transfers, are on average (1) better educated and have (2) lower employment rates than households which do not receive remittances.

Educational attainment of individuals living in households receiving ...



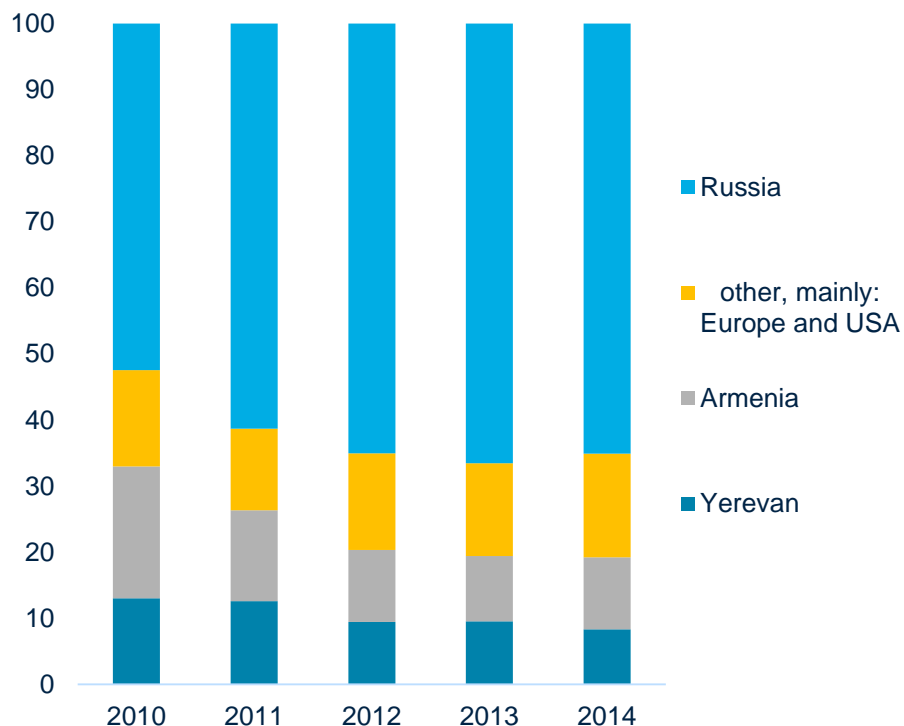
Labor market status of individuals living in households receiving ...



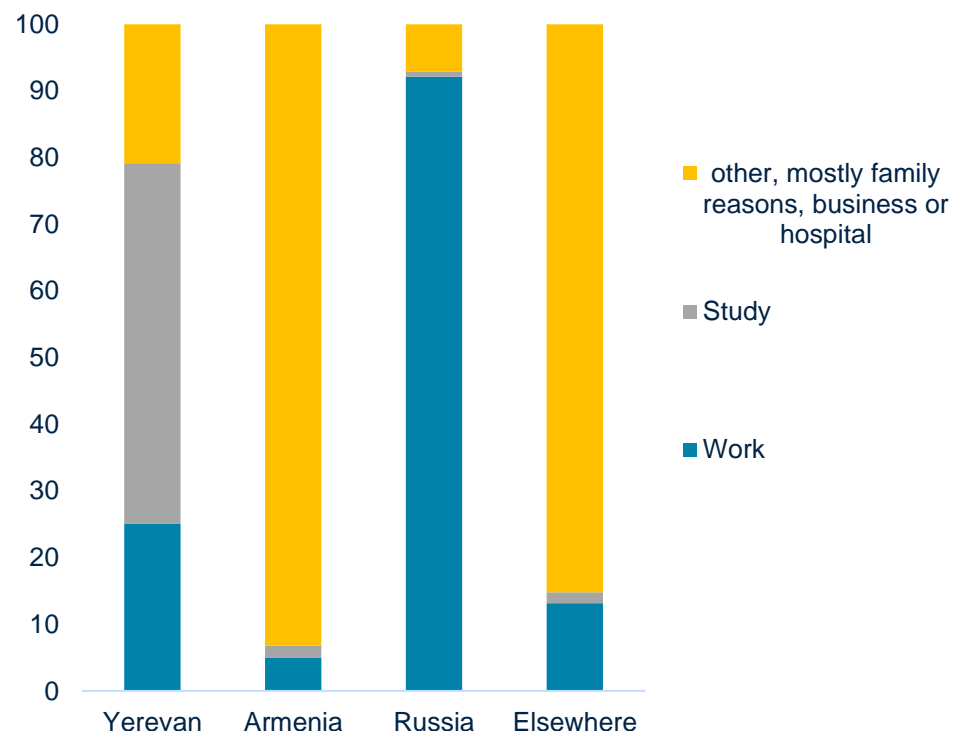
Educational attainment (left) and labor market status (right) of individuals living in households receiving either private transfers, remittances or none of both. Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2014.

Large majority of international migrants leaves the country to work in Russia. Domestic migration with movements between Yerevan and other parts of the country – majority moves to Yerevan to study or leaves the household for family reasons.

Destination for internal and external migrants

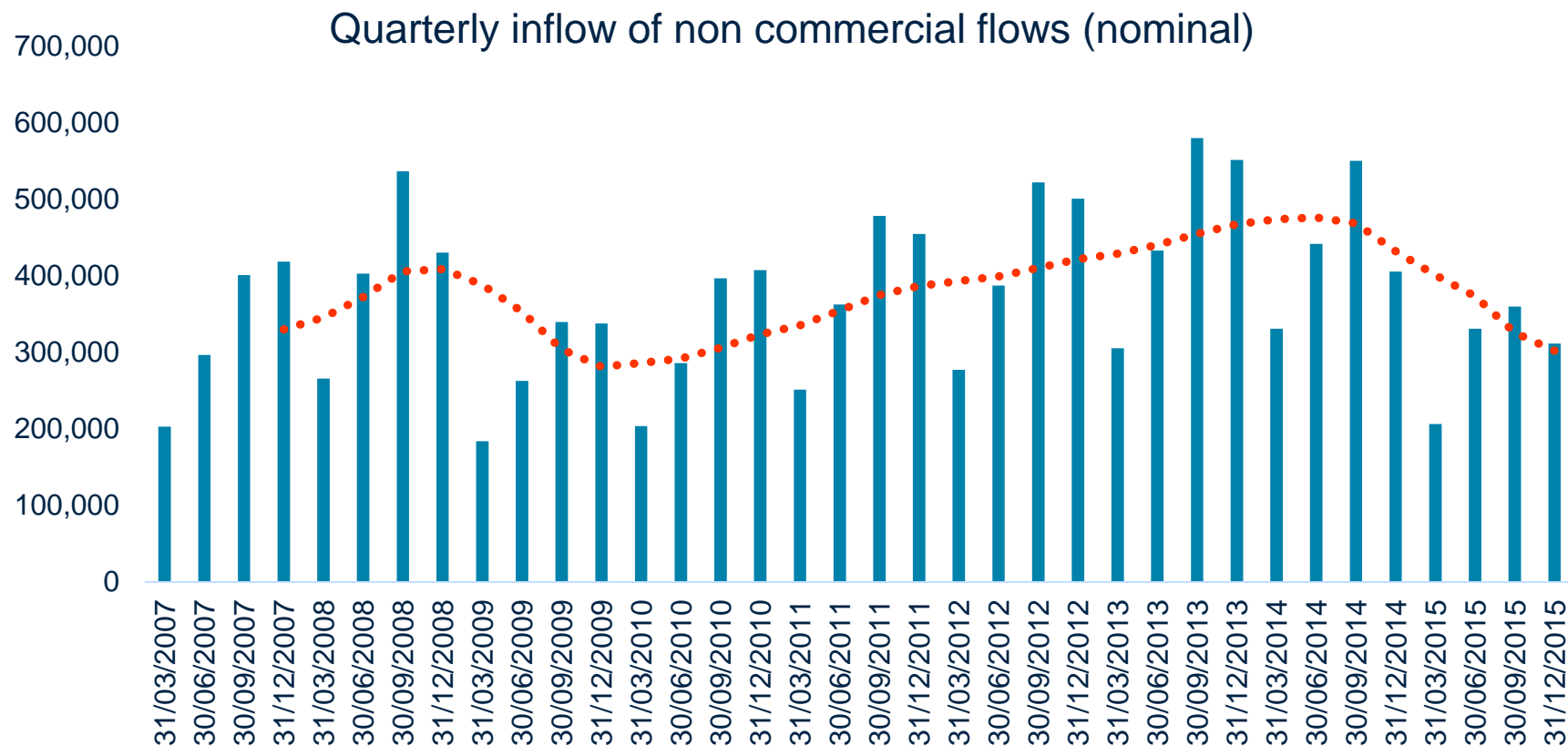


Migrant activity conditional on destination



Share of internal and external migrants – by destination (left) and Population temporarily as migrants – by reason (right). Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 to 2014.

Remittances from abroad increased in 2014 and supported consumption growth for all parts of the welfare distribution; fluctuations reflect shifts in economic conditions in sending countries and a increasing number of return migrants imposes pressure on domestic labor markets.



Quarterly inflow of non commercial flows (nominal, in million AMD). Note: Dotted line shows trend between 2007 and 2015. Source: Central Bank of Armenia (accessed 03/15/2016).

Fact 3

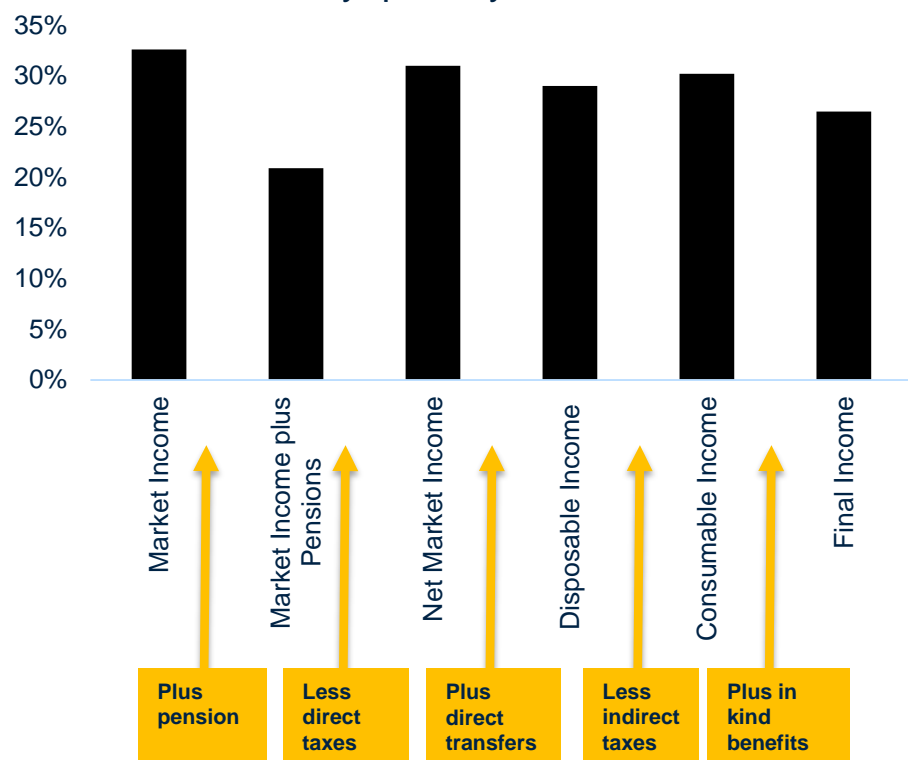
Fiscal and social policy

Social spending protect poor and vulnerable households

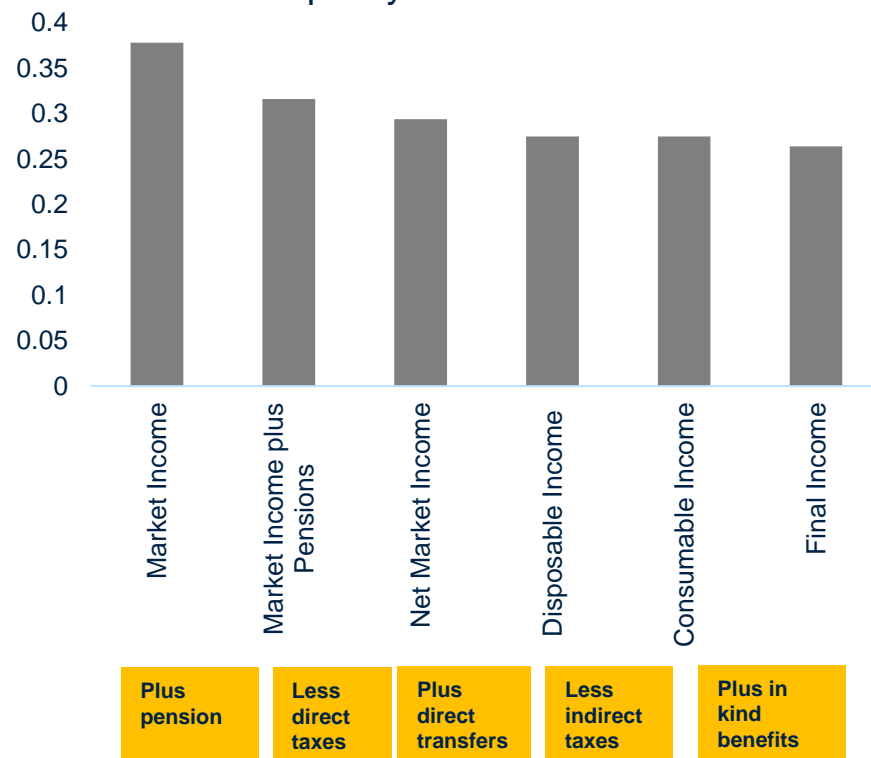
- ☐ **Fiscal activity contributed to lower poverty and inequality.**
- ☐ **Pensions and family benefit program are important to lift households out of poverty.**

Fiscal policy redistributes income in Armenia (status quo): (1) reduces poverty, (2) decreases inequality, and (3) expenditures on social protection, health and education are progressive.

Poverty: poverty headcount

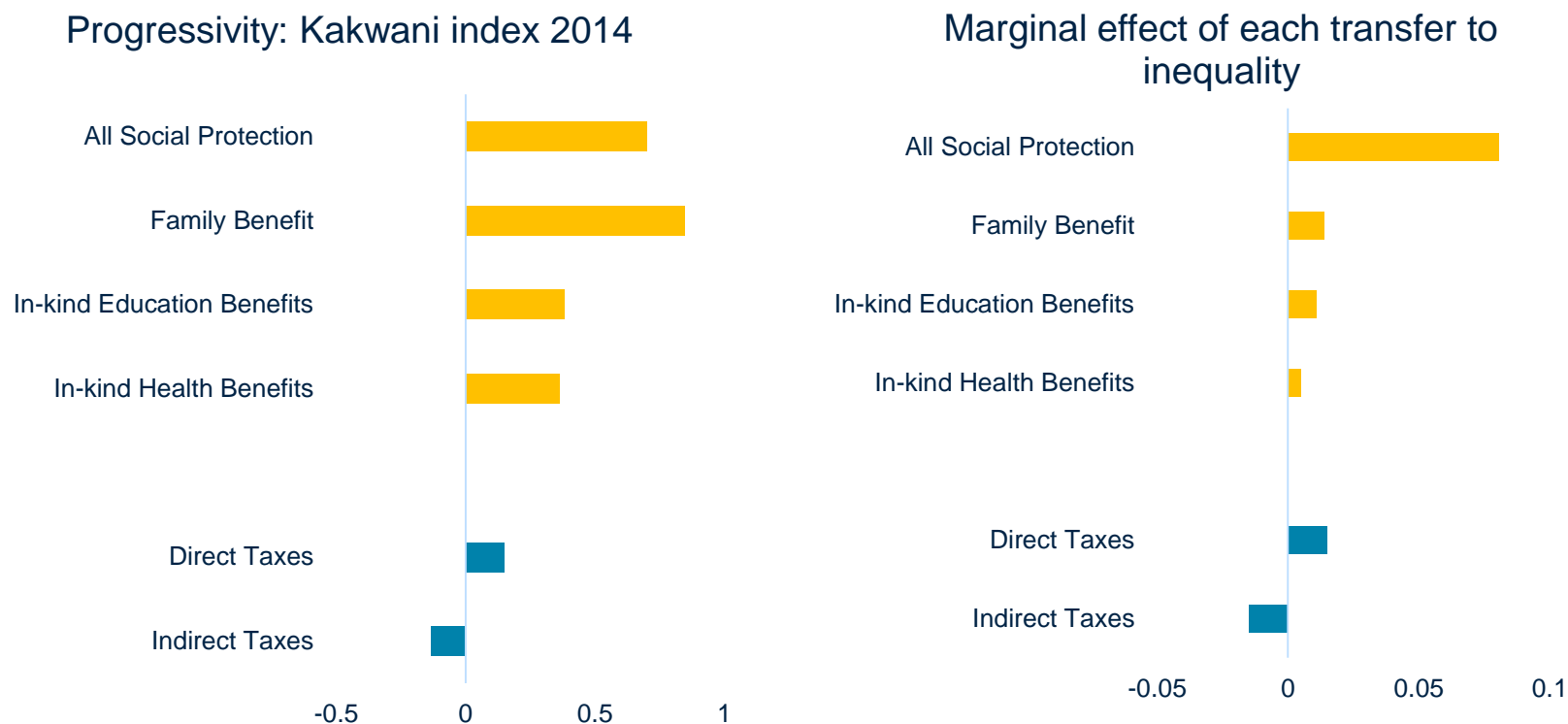


Inequality: Gini coefficient



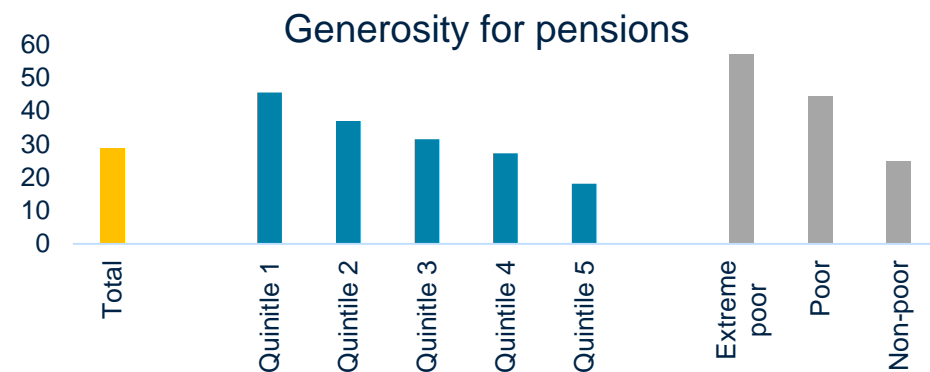
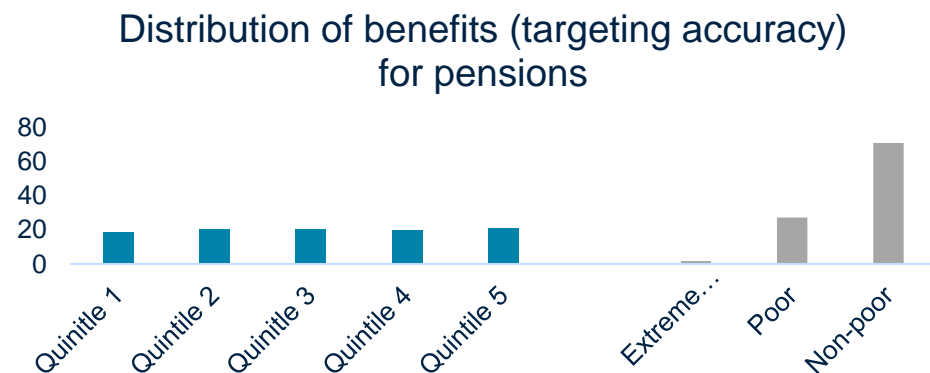
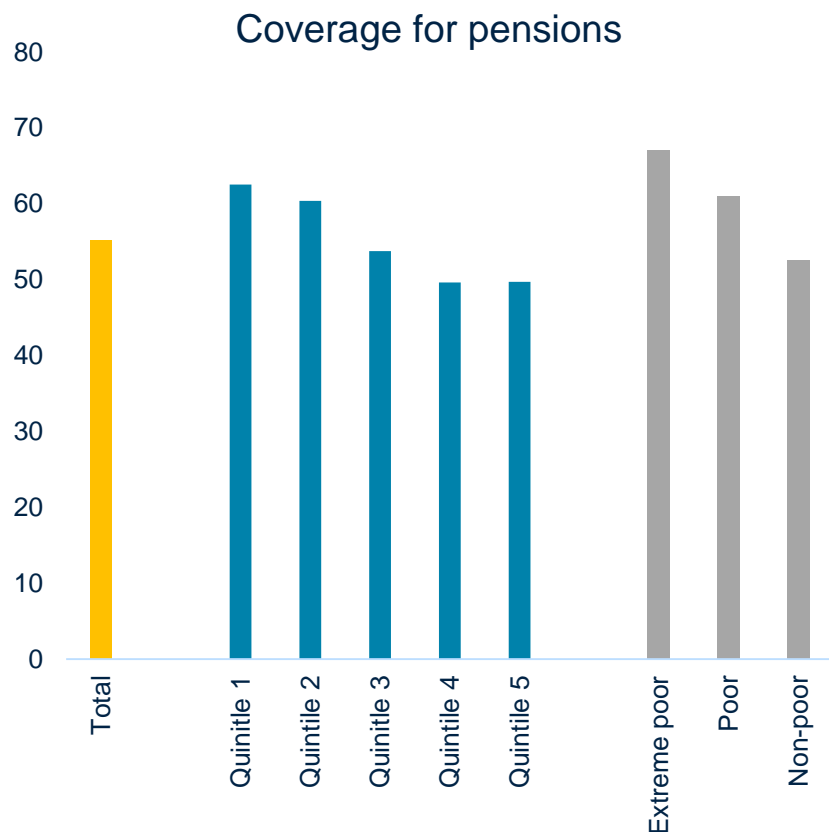
Findings for the fiscal incidence analysis in Armenia 2014: poverty head count (left) and Gini coefficient (right). Note: Armenia, Fiscal Incidence Analysis 2014. Source: Armenia ILCS 2014.

Equity of expenditure and taxes depends on progressivity and size of transfer. Progressivity of taxes and spending in 2014 (status quo): Near neutral (neither progressive nor regressive) for taxes; progressive for social spending.



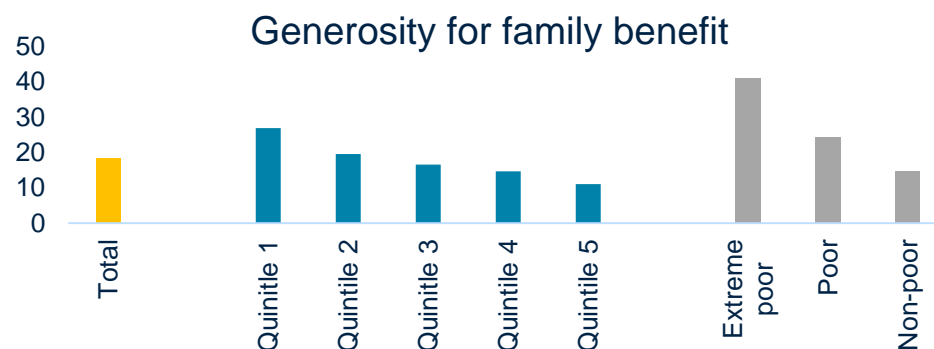
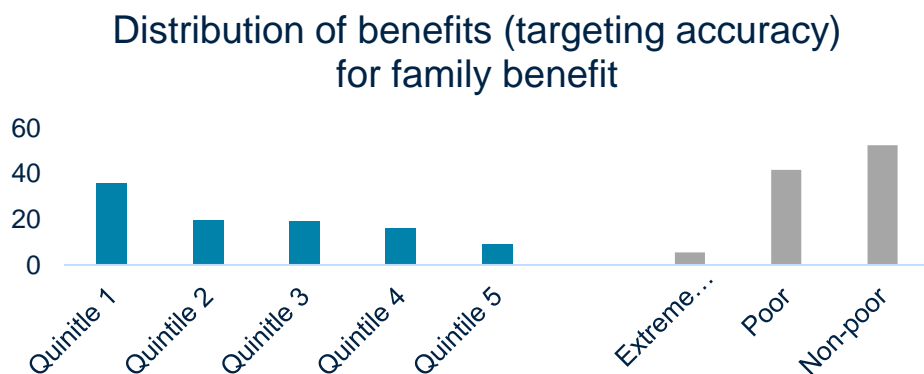
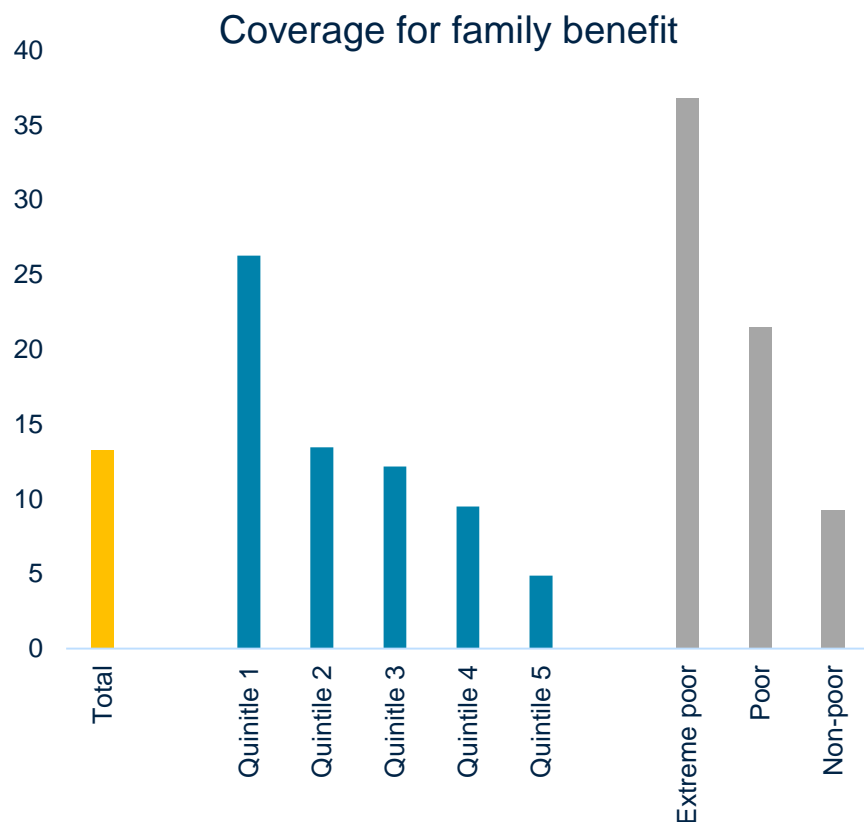
Findings for the fiscal incidence analysis in Armenia 2014: Kakwani index 2014 and marginal effects. Note: Armenia, Fiscal Incidence Analysis 2014. Source: Armenia ILCS 2014.

Social pensions and old age benefits are an important source of income: (1) more than half of households receive pension income; (2) targeting accuracy reflects that pensions are part of social insurance and not assistance; (3) generosity shows how important income from pensions is.



Key indicator on family benefit program in Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

The family benefit program supports poor and vulnerable: (1) coverage decreases for higher quintile of the welfare distribution; (2) targeting accuracy suggests that large parts of the money go to the poor; (3) generosity illustrates how important these benefits are for the bottom of the welfare distribution.



Key indicator on family benefit program in Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

Policy Agenda

Basic policy agenda

Context: Structural transformation of the economy and poverty reduction, but challenges to shared prosperity. Environment with global slowdown (in the short term), limited fiscal space and demographic transition (in the long term).

1 Supporting growth

- Deepen structural transformation and promote productivity and employment growth
- Raise agricultural productivity and non-agriculture private sector growth in other urban areas

2 Investing in endowment

- Expand asset endowment (skills) and improve access to and quality of basic services
- Enhance connectivity (infrastructure and people)

3 Protecting the poor and vulnerable

- Strengthen safety nets (family benefit program) to reduce vulnerability to shocks and reforms (energy prices) while being mindful of fiscal sustainability reforms

BACKGROUND INFORMATION ON DATA AND METHODOLOGY

SOUTH CAUCASUS POVERTY TEAM
POVERTY AND EQUITY GLOBAL PRACTICE



Data: Integrated Living Conditions Survey

- ❑ The National Statistics Service of the Republic of Armenia (NSS RA) conducts the Integrated Living Conditions Survey (ILCS) on an annual basis. The survey is the official source to monitor poverty and measure social indicators in the country.
- ❑ Analyses based upon household data inform decision makers in Armenia and serve as primary source of information on living standards for international organizations. Consequently, these data are heavily relied upon by the government.
- ❑ The NSSRA produces an annual publication - Social Snapshot and Poverty in Armenia - presenting analysis of poverty along with employment and other social indicators using the ILCS. This report is used by line ministries (such as the Ministry of Labor and Social Affairs) and members of the public. The ILCS data and documentation is available through the website www.armstat.am.

Methodology: national poverty measurement methodology for Armenia

- ❑ Official poverty estimates for Armenia are based on the "Cost of Basic Needs" approach which determines three different poverty lines: (1) the food poverty line which uses the minimum required level of calories; (2) the lower poverty line which refers to the "Consumption Basket Method;" and (3) the upper poverty line which makes use of the "Food Expenditure Method."
- ❑ In 2014, the most recent year of published figures, the three different poverty headcount rates were 2.3, 10.9 and 30.0 percent, respectively (exploring a consumption aggregate which is corrected using an adult equivalence scale).
- ❑ The World Bank estimates a harmonized consumption aggregate from ILCS data which is then used for international comparisons (such as international poverty rates). The welfare aggregate includes food and nonfood consumption, durables and health expenditure. For more information on the micro data, see <http://ecadataportal/>.

National poverty measurement methodology for Armenia

- ❑ **Metric and concept**
 - Absolute poverty using consumption expenditure
- ❑ **Welfare aggregate includes food and nonfood consumption**
 - Durables and own produced goods
 - Price adjustments: regional prices
 - Scaling: per adult equivalent
- ❑ **Poverty line (revised in 2009)**
 - Cost of basic needs: 2,232 calories
 - Consumption patterns of the 2nd to 4th decile of the welfare distribution

APPENDIX

South Caucasus Poverty team
Poverty and Equity Global Practice

APPENDIX: Recent trends



1 Poverty trend using the international poverty lines of 2.5 USD PPP and 5.0 USD PPP

2 Exchange rate movements between Armenian Dram and Russian Rubel, US Dollar and EURO

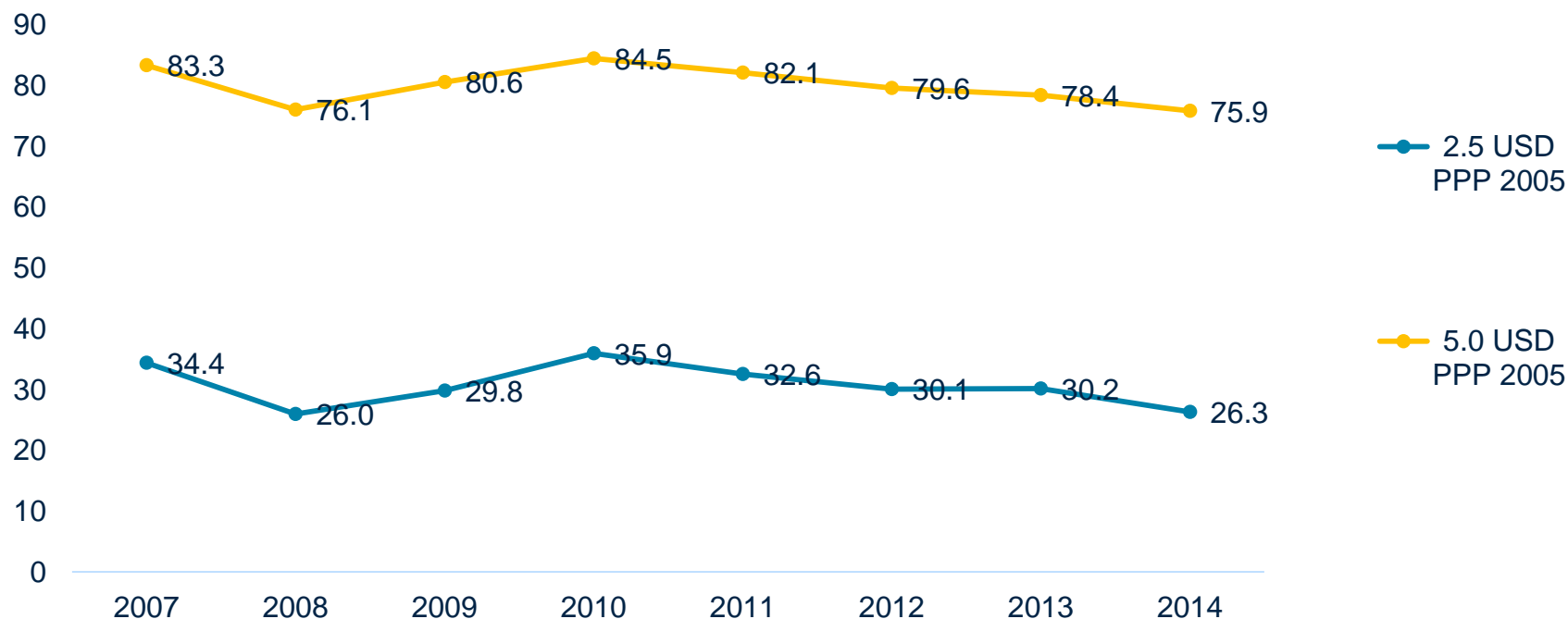
3 Loans to enterprises and households

4 Agricultural sector between 2010 and 2015

5 Income growth for bottom 40 and top 60

Poverty trend using the international poverty lines of 2.5 USD PPP and 5.0 USD PPP.

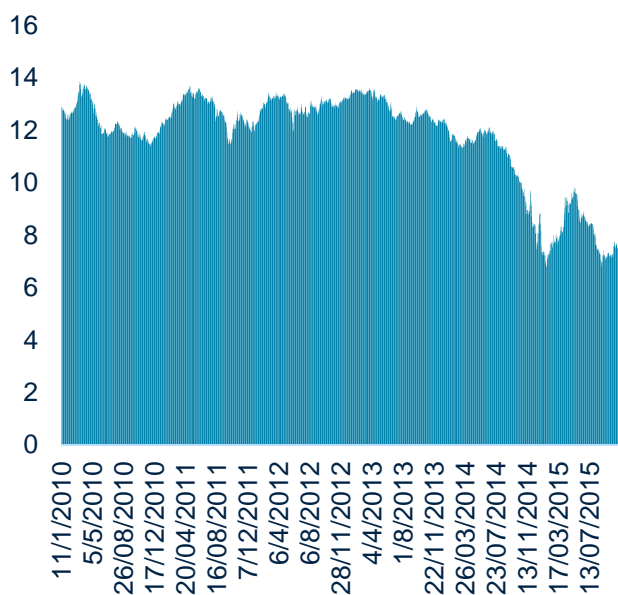
Poverty trend using the international poverty lines of 2.5 USD PPP and 5.0 USD PPP



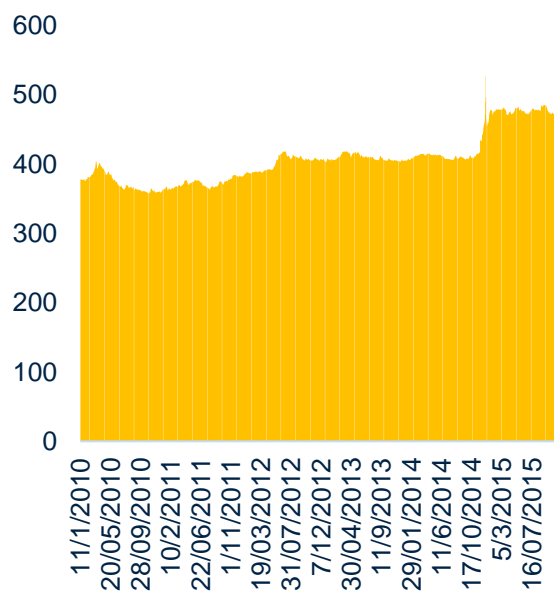
Poverty trend using the international poverty lines of 2.5 USD PPP and 5.0 USD PPP 2005. Note: World Bank staff calculation using a consumption aggregate drawn from ILCS data and harmonized for international comparison. Source: World Bank's data base of harmonized consumption data (ECAPOV accessed 3/15/2016).

Exchange rate movements between Armenian Dram and Russian Rubel, US Dollar and EURO.

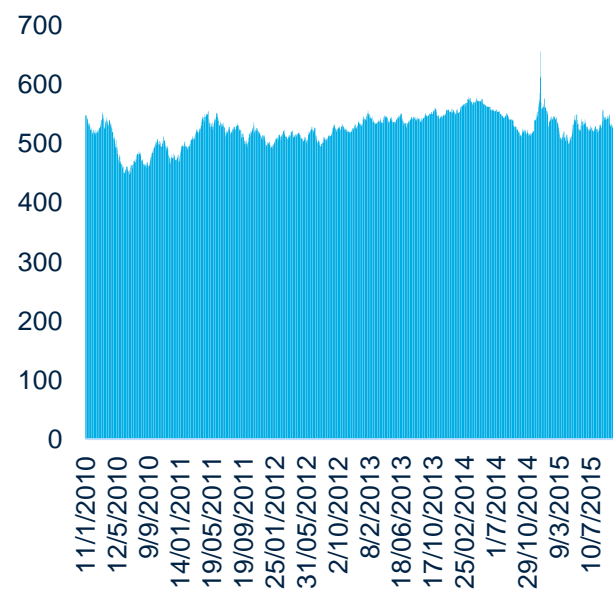
Rubel exchange rate



USD exchange rate

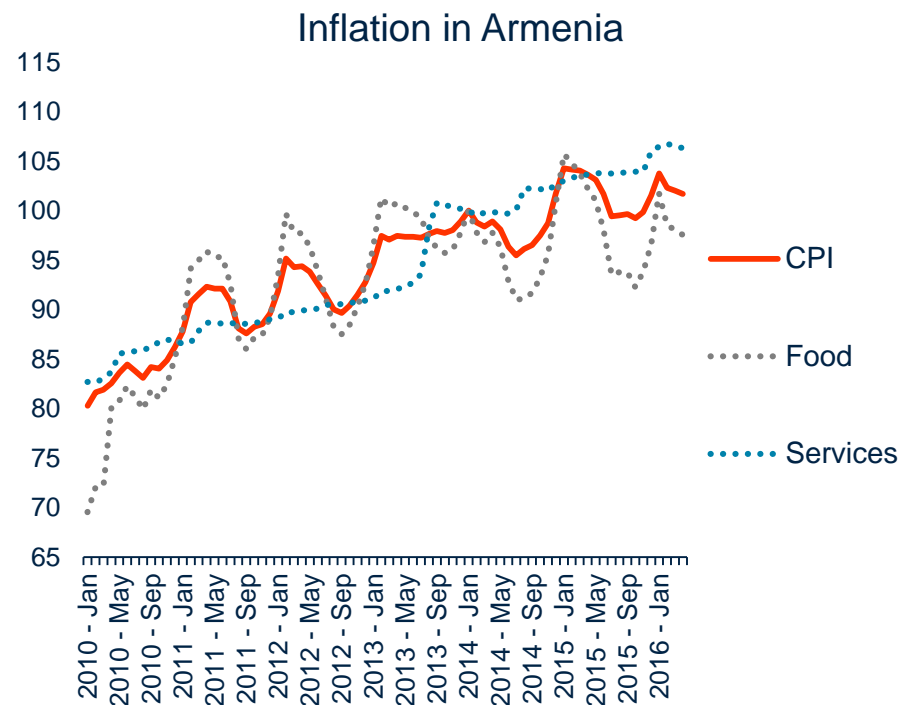
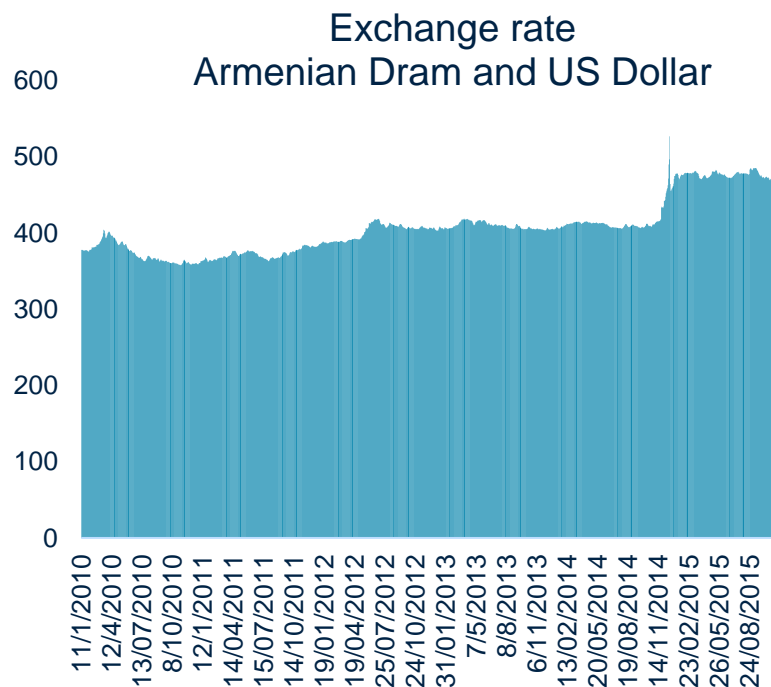


EUR exchange rate



Exchange rates in Armenia. Note: Source: Central Bank of Armenia (accessed 03/15/2016).

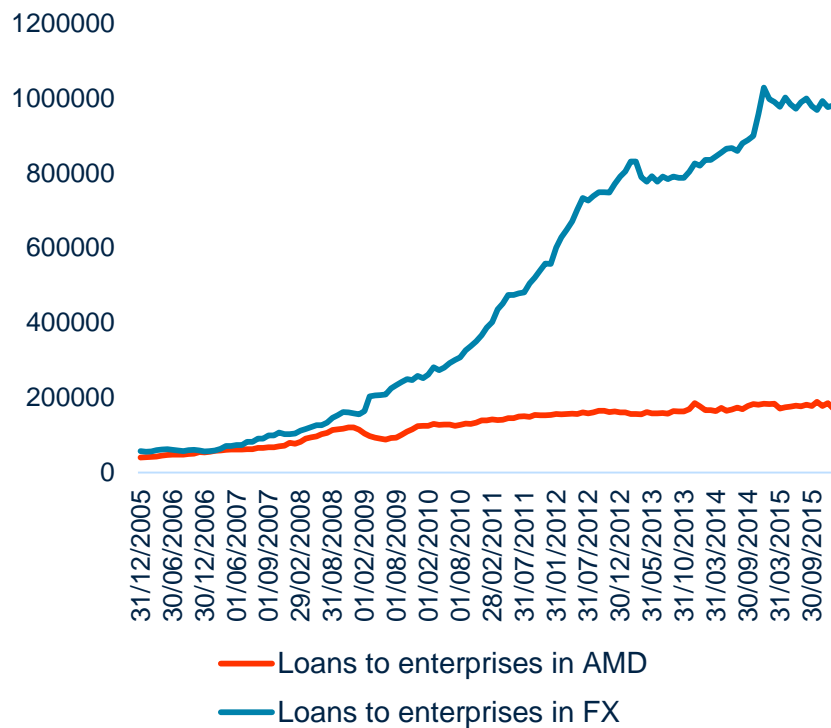
In November 2014, Armenia saw a substantial adjustment in the exchange rate between Armenian Dram and US Dollar: however, inflation did not increase beyond the inflation target; still, it affected households and firms through the real value of loans which are often denominated in US Dollar.



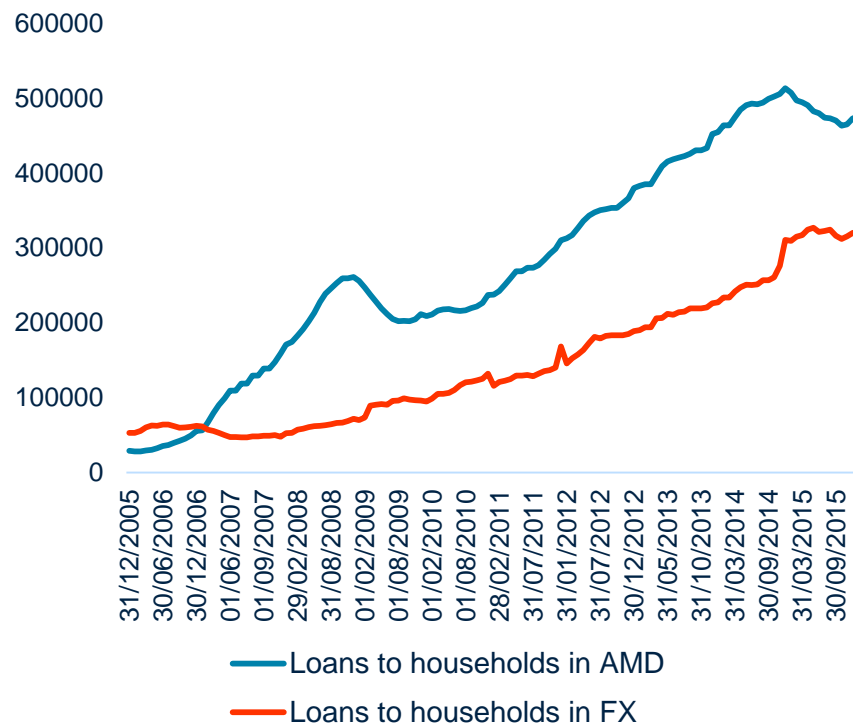
Exchange rates between Armenia Dram and US Dollar (left) and Inflation in Armenia (right). Source: Central Bank of Armenia (accessed 03/15/2016).

Loans to enterprises and households denominated in Armenian Dram and Foreign Exchange.

Loans to enterprises



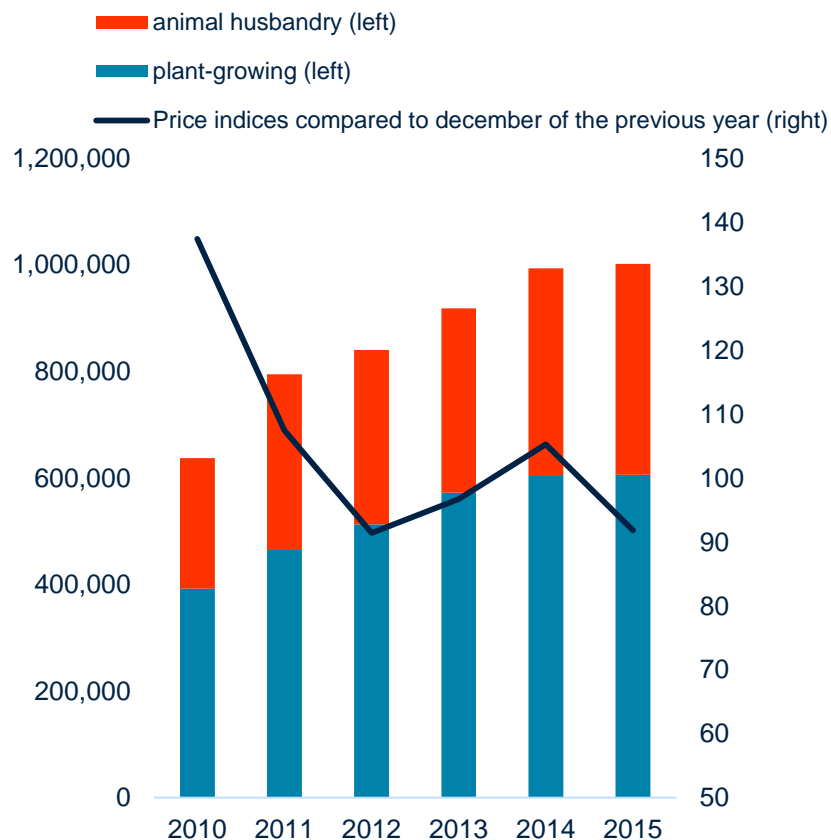
Loans to households



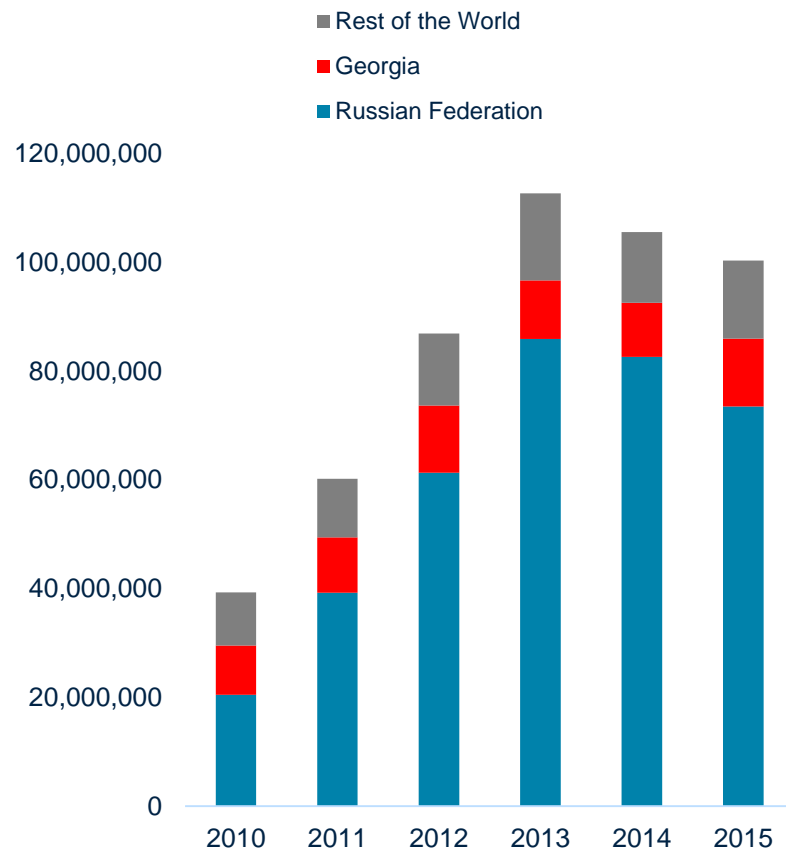
Loans to enterprises (left) and loans to households (right). Note: Source: Central Bank of Armenia (accessed 03/15/2016).

Increase in agricultural output – with lower levels of employment – reflects higher productivity which led to a positive supply shock. In consequence: (1) lower producer and consumer prices, (2) lower food inflation and (3) increasing exports with limited diversification.

Output of plant-growing and animal husbandry in million AMD (left), and price index for agricultural products (right)



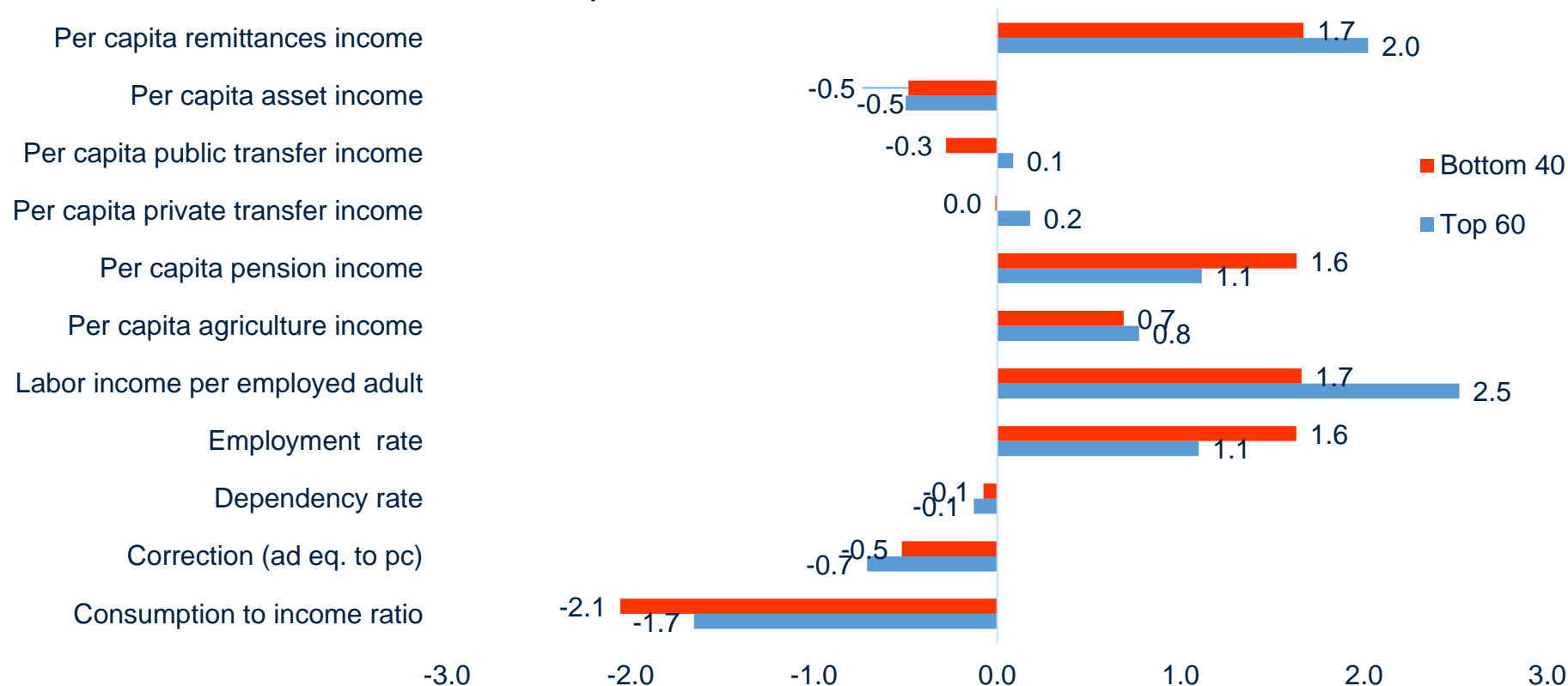
Exports from Armenia: Food and live animals - trade volume in US Dollar



Output of plant-growing and animal husbandry in million AMD (left scale), and price index for agricultural products (right scale) (left panel), and Exports from Armenia: Food and live animals - trade volume in US Dollar (right). Note: National consumption aggregate (using methodology adopted in 2009). Source: Central Bank of Armenia and UN Comtrade data 2010-2015.

Income growth for bottom 40 and top 60 benefited from (1) higher levels of employment, (2) positive growth of wages, and (3) expansion of agricultural activity; (4) remittances contributed relatively more to income growth for the top 60, whereas (5) pensions raised incomes for the bottom 40.

Contribution of different factors to income growth for the bottom 40 and the top 60 of the welfare distribution

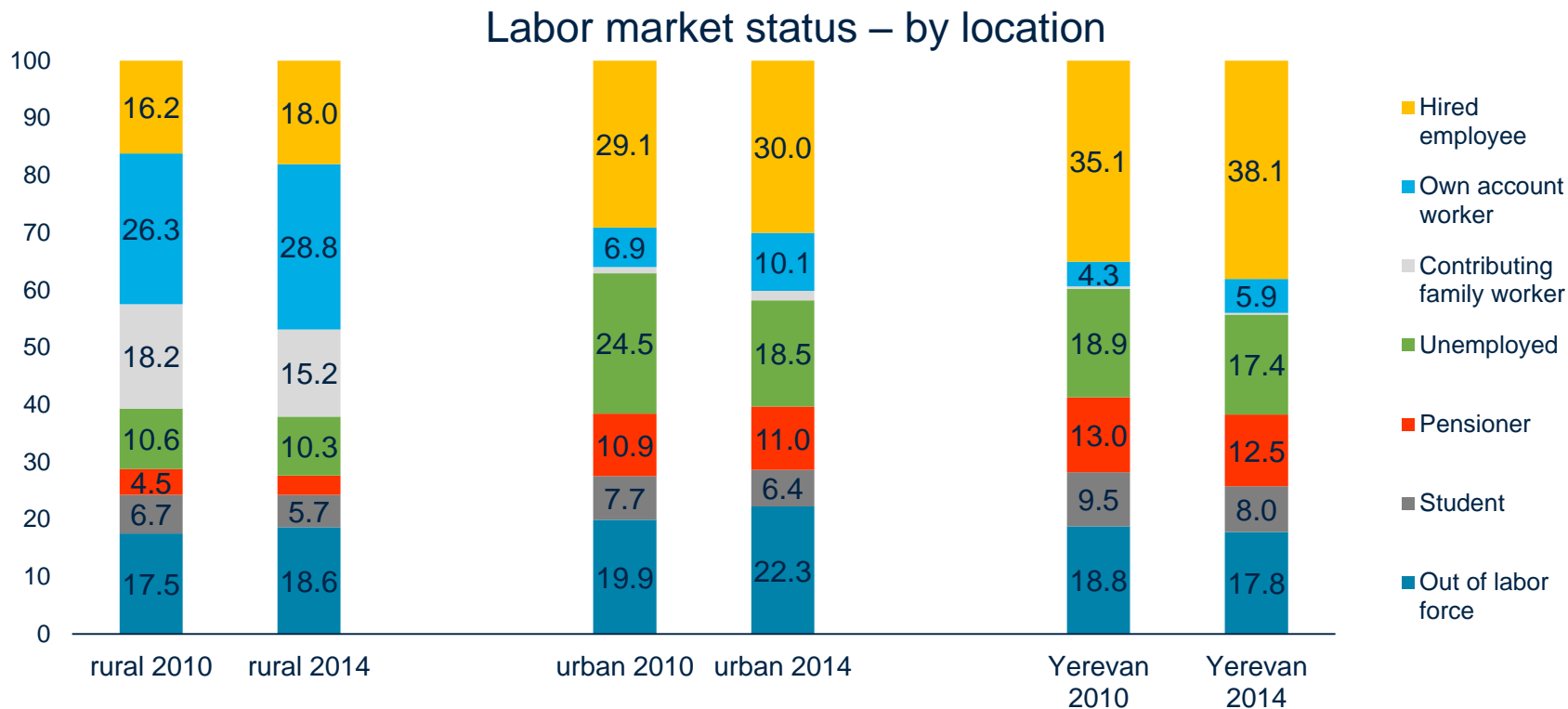


Contribution of different factors to income growth for the bottom 40 and the top 60 of the welfare distribution. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

APPENDIX: Structural transformation and labor markets

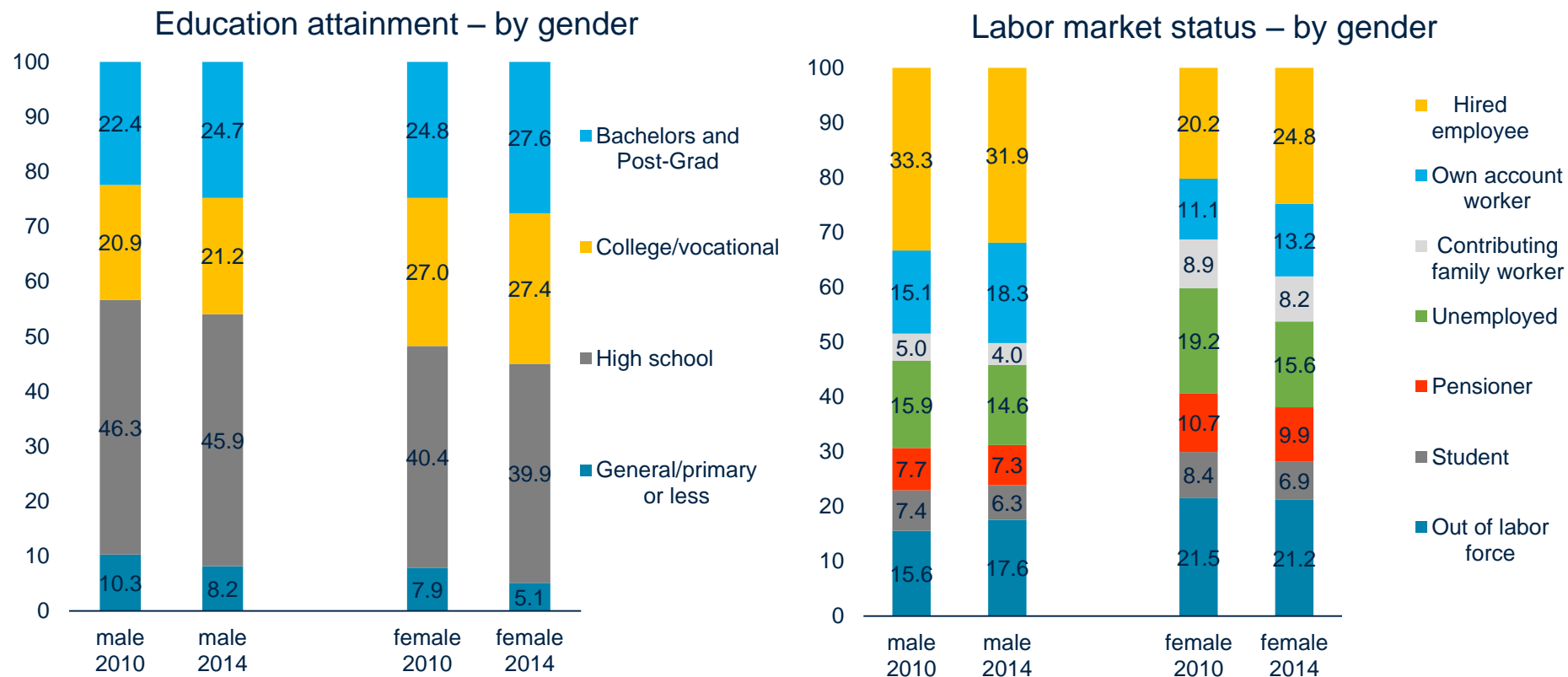
- ☐ Labor market status – by location
- ☐ Education attainment and labor market status – by gender
- ☐ Sector of employment (capital city Yerevan) in 2010 and 2014 – by poverty status
- ☐ Sector of employment (other urban areas) in 2010 and 2014 – by poverty status
- ☐ Sector of employment (rural areas) in 2010 and 2014 – by poverty status

Labor market outcomes differ systematically across locations: labor force participation and employment rates are lowest in other urban areas, whereas the share of self-employed and other employed is highest in rural areas.



Labor market status – by location. Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

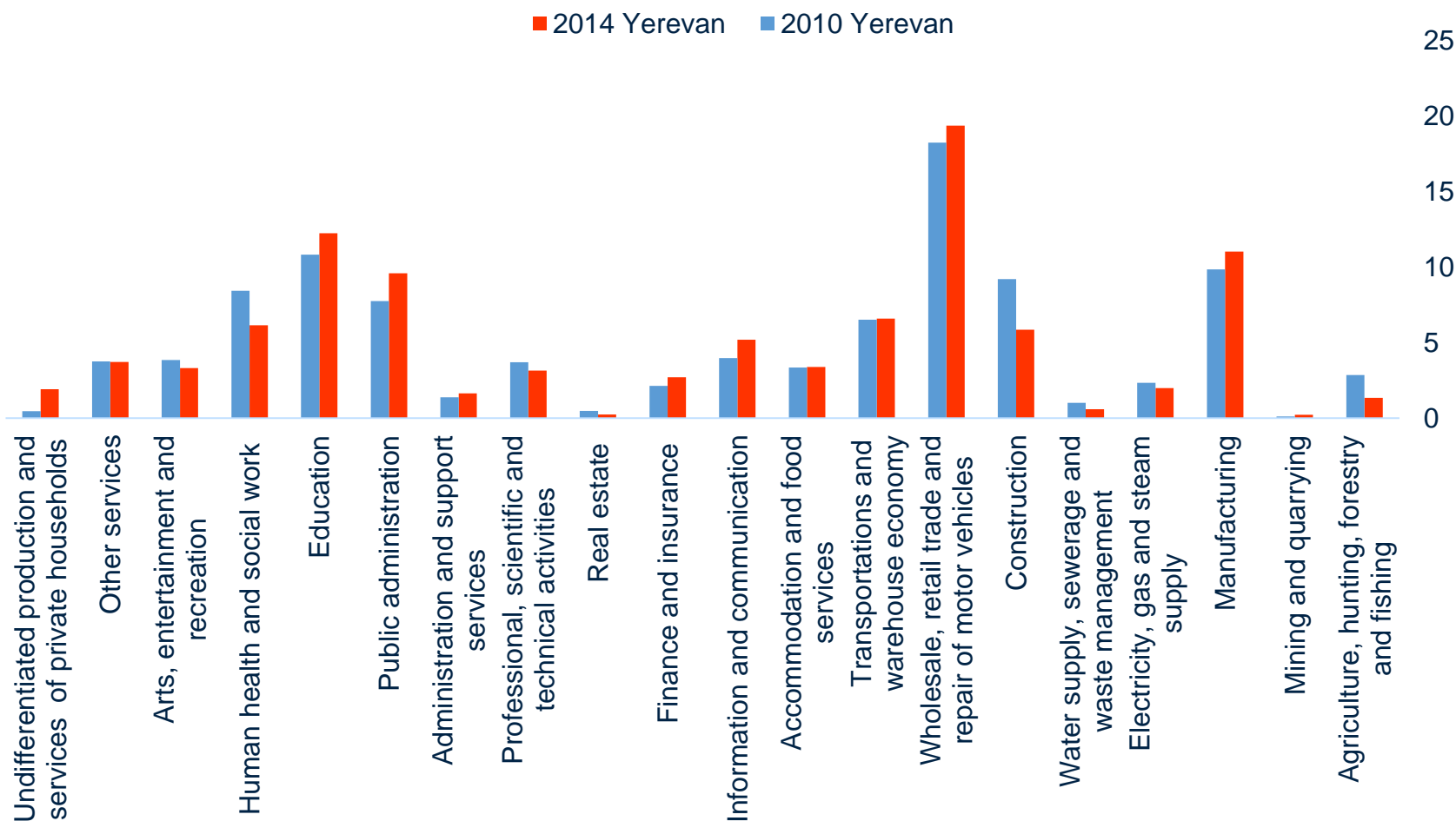
Heterogeneity in education and labor markets does not only exist between poor and non-poor: even though women obtain more education than men (27.6 percent versus 24.7 for tertiary education), labor force participation rates and employment status are worse for women.



Education attainment – by gender (left) and labor market status – by gender (right). Note: Sample is restricted to individuals in the working age population between 15 and 75 years of age. Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

More than one third of the population lives in Yerevan and 29 percent of all jobs is concentrated in the capital city. 54 percent of output in construction, 42 percent in industry and 85 percent in the service industry are produced in Yerevan.

Sector of employment (Yerevan) in 2010 and 2014

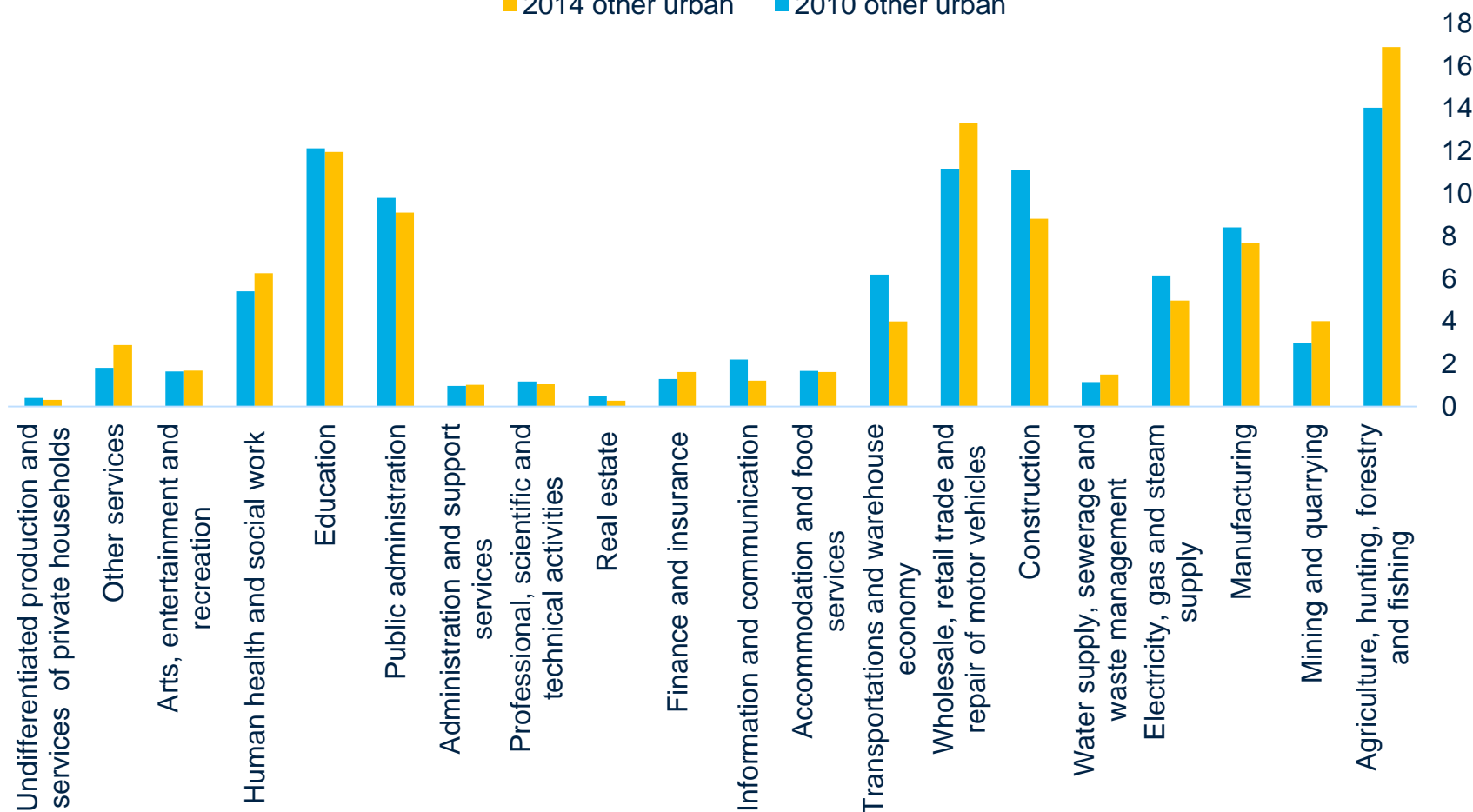


Sector of employment (capital city Yerevan) in 2010 and 2014. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

Labor markets in other urban areas saw a decline in jobs in the construction sector. Public sector and wholesale and retail trade offer additional employment opportunities. Still, other urban areas outside Yerevan do not create sufficient number of jobs to absorb surplus workers leaving agricultural sector.

Sector of employment (other urban areas) in 2010 and 2014

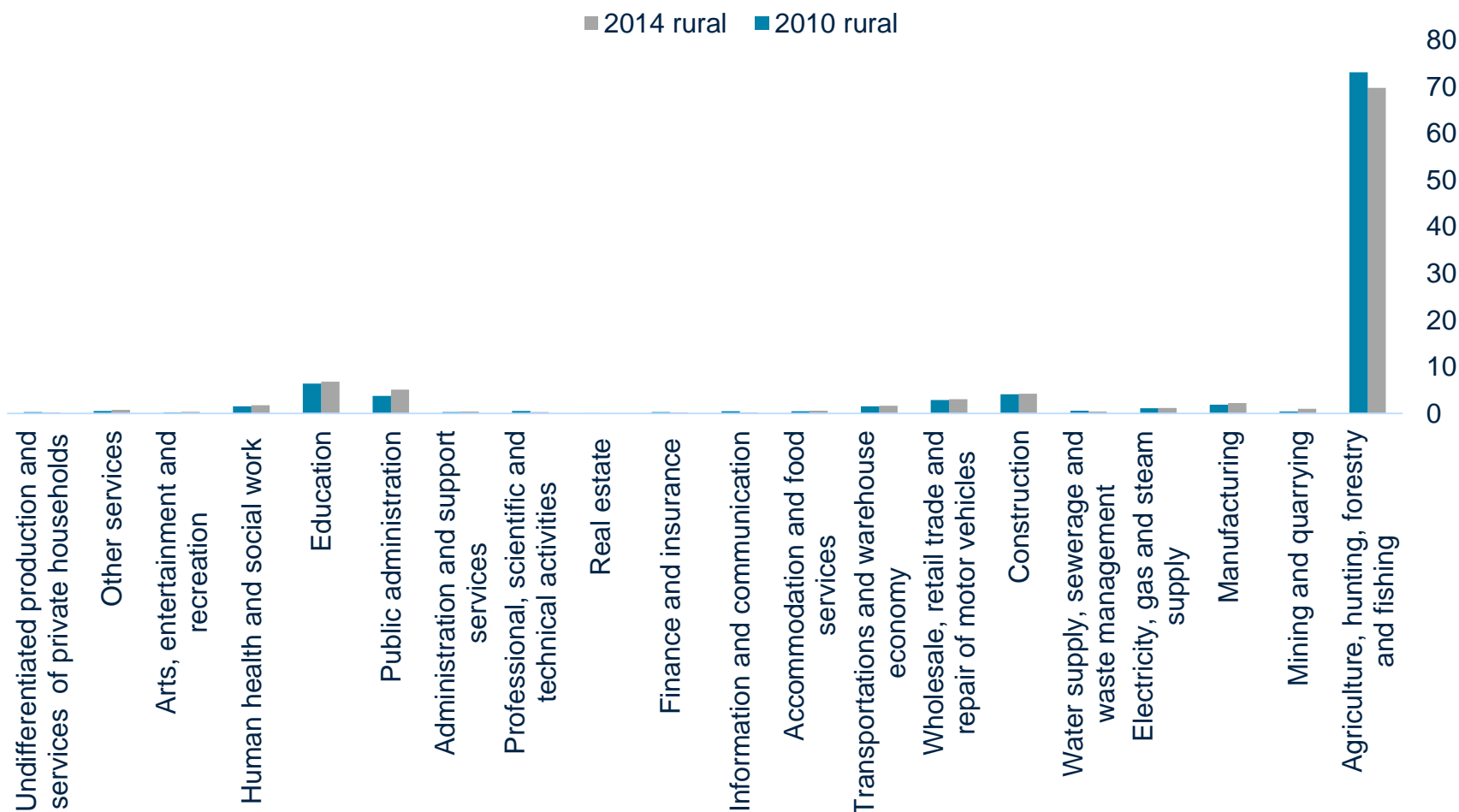
■ 2014 other urban ■ 2010 other urban



Sector of employment (other urban areas) in 2010 and 2014. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

In rural areas, 70 percent of employment in 2014 was in the agricultural sector – with a declining trend compared to 2010. Even though welfare increased through higher productivity, increased incomes and improved quality of employment, less employment opportunities create challenges for rural areas.

Sector of employment (rural areas) in 2010 and 2014



Sector of employment (rural areas) in 2010 and 2014. Note: National consumption aggregate (using methodology adopted in 2009). Source: World Bank staff calculations based on Armenia ILCS 2010 and 2014.

APPENDIX: Fiscal and social policy

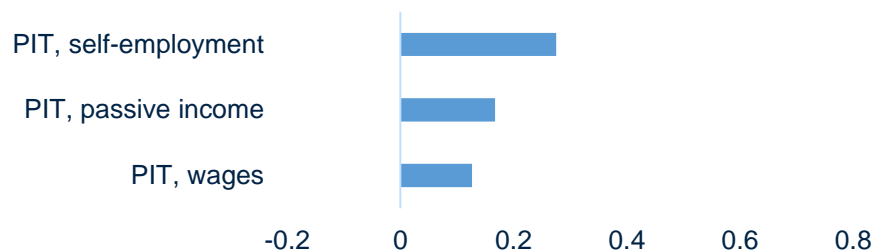
- ☐ **Social expenditure: pensions and family benefit program**
- ☐ **Taxes: PIT progressive, VAT regressive**
- ☐ **Spending: (absolutely) progressive**
- ☐ **Key indicators on social expenditure: Pension, Family Benefit Program and Child Benefit**
- ☐ **Transfers from within Armenia and abroad**

Social expenditure created favorable environment for private consumption growth: (1) pensions reduced poverty the incidence of poverty but grew at a lower pace than other income (increasing gaps by demographic groups); (2) family benefit program reduced the severity of poverty.

	2008	2009	2010	2011	2012	2013	2014	2015
Total number of pensioners	469,747	467,555	465,084	454,488	452,505	453,917	458,569	462,539
Monthly average pension per individual, AMD constant 2005	19,272	21,529	21,879	20,363	21,617	20,246	22,857	24,665
Change in average pension to previous year, inflation adjusted		11.7%	1.6%	-6.9%	6.2%	-6.3%	12.9%	7.9%
Basic pension, AMD constant 2005	5,810	6,610	8,019	7,449	8,993	8,501	8,890	9,722
Value of one year of service, AMD						450	450	500
Total number of FBP beneficiary households	121,160	107,493	150,005	91,575	96,306	102,570	104,130	105,300
Monthly average FBP spending per household, AMD constant 2005	16,938	18,683	18,745	18,732	19,820	18,366	18,005	17,792
Change in average FBP to previous year, inflation adjusted		10.3%	0.3%	-0.1%	5.8%	-7.3%	-2.0%	-1.2%

Taxes: PIT progressive, VAT regressive

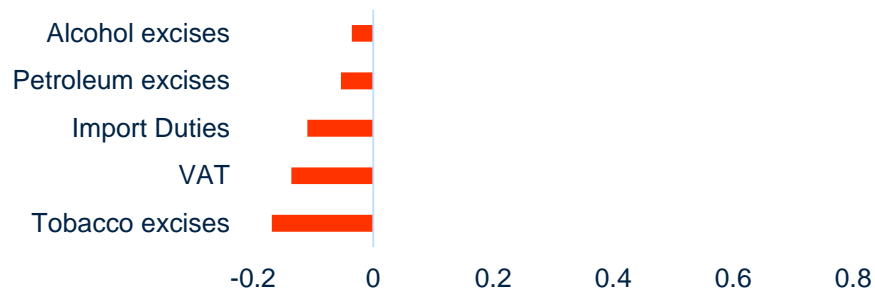
Kakwani Index 2014: PIT



Personal income tax:

- Three brackets; only 0.2 percent of households pay highest tax rate – effective tax rate 25.6 percent.
- Informal employment, yet many formal employees directly below poverty line.

Kakwani Index 2014: VAT and Excises



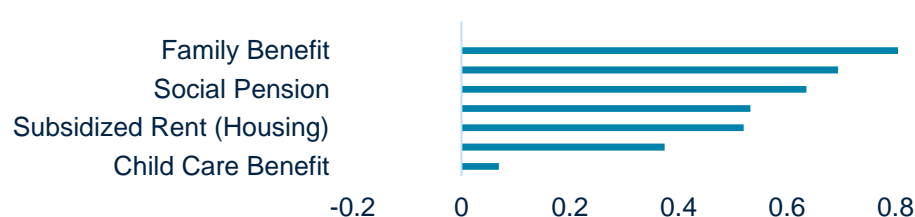
Value added tax:

- Formally 20 percent with some exemptions – effective tax rate around 10.67 (2011 data).

Findings for the fiscal incidence analysis in Armenia 2014: Kakwani index for PIT (top) and Kakwani index for VAT and excises (bottom). Note: Armenia, Fiscal Incidence Analysis 2014. Source: Armenia ILCS 2014.

Spending: Even though transfers are (absolutely) progressive, limited size of social budget constraints impact on poverty.

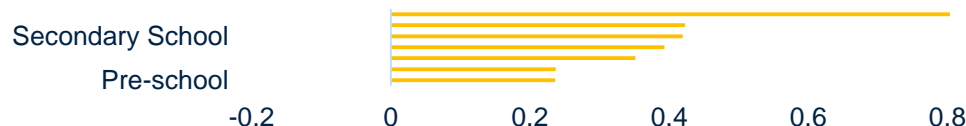
Kakwani Index 2014: Social Protection



□ Social protection

- FBP targeted towards poor households
- (non) contributory pensions

Kakwani Index 2014: Education (in-kind benefits)



□ Education

- Impact depends on level of education

Kakwani Index 2014: Health



□ Health benefits

- Relative progressive

Findings for the fiscal incidence analysis in Armenia 2014. Note: Armenia, Fiscal Incidence Analysis 2014. Source: Armenia ILCS 2014.

Key indicators on social expenditure: Pension

		Quintiles of per ae consumption, net of all SA transfers					Poverty Status		
Pension	Total	Q1	Q2	Q3	Q4	Q5	XP	MP	NP
Average Transfer Value, Per Capita	7,352.9	6,762.0	7,518.6	7,481.2	7,265.4	7,736.7	5,850.6	7,269.2	7,434.5
Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only	13,316.1	10,809.7	12,447.1	13,911.9	14,633.5	15,563.1	8,717.1	11,931.2	14,137.6
Coverage	55.2	62.6	60.4	53.8	49.6	49.7	67.1	60.9	52.6
Distribution of Beneficiaries	100.0	22.6	21.9	19.5	18.0	18.0	2.8	30.4	66.8
Distribution of Benefits (Targeting Accuracy)	100.0	18.4	20.5	20.3	19.8	21.0	1.8	27.3	70.9
Relative Incidence	15.0	28.6	22.6	17.3	13.7	8.4	38.4	27.3	12.6
Generosity	28.6	45.5	36.9	31.5	27.3	18.1	56.9	44.4	24.9

Key indicator on Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

Key indicators on social expenditure: Family benefit

		Quintiles of per ae consumption, net of all SA transfers					Poverty Status		
Family benefit	Total	Q1	Q2	Q3	Q4	Q5	XP	MP	NP
Average Transfer Value, Per Capita	853.1	1,533.3	829.0	823.4	690.4	390.1	2,077.6	1,294.3	639.8
Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only	6,434.6	5,834.4	6,155.3	6,767.2	7,263.4	7,990.5	5,642.3	6,018.1	6,917.8
Coverage	13.3	26.3	13.5	12.2	9.5	4.9	36.8	21.5	9.2
Distribution of Beneficiaries	100.0	39.6	20.3	18.4	14.3	7.4	6.3	44.8	48.9
Distribution of Benefits (Targeting Accuracy)	100.0	35.9	19.5	19.3	16.2	9.1	5.5	41.9	52.6
Relative Incidence	1.7	6.5	2.5	1.9	1.3	0.4	13.6	4.9	1.1
Generosity	18.5	26.9	19.5	16.6	14.7	11.1	41.0	24.4	14.7

Key indicator on Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

Key indicators on social expenditure: Child benefit

		Quintiles of per ae consumption, net of all SA transfers					Poverty Status		
Child benefit	Total	Q1	Q2	Q3	Q4	Q5	XP	MP	NP
Average Transfer Value, Per Capita	47.0	38.2	15.3	48.8	39.3	93.2	0.0	31.3	54.6
Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only	3,615.5	3,176.3	2,897.5	3,592.2	3,801.2	3,930.3	n.a.	3,091.5	3,759.2
Coverage	1.3	1.2	0.5	1.4	1.0	2.4	0.0	1.0	1.5
Distribution of Beneficiaries	100.0	18.5	8.1	20.9	15.9	36.5	0.0	21.5	78.5
Distribution of Benefits (Targeting Accuracy)	100.0	16.3	6.5	20.8	16.8	39.7	0.0	18.4	81.6
Relative Incidence	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.1
Generosity	7.2	13.6	9.4	9.1	7.3	5.4	n.a.	12.8	6.6

Key indicator on Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

Transfers from within Armenia

	Quintiles of per ae consumption, net of all SA transfers						Poverty Status		
	Total	Q1	Q2	Q3	Q4	Q5	XP	MP	NP
Transfers from within Armenia									
Average Transfer Value, Per Capita	666.0	227.3	256.5	555.4	545.9	1,744.5	108.4	290.2	831.9
Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only	19,199.6	9,194.5	11,582.7	14,540.2	13,926.8	35,475.2	5,384.1	10,719.9	21,802.5
Coverage	3.5	2.5	2.2	3.8	3.9	4.9	2.0	2.7	3.8
Distribution of Beneficiaries	100.0	14.2	12.8	22.0	22.6	28.4	1.3	21.5	77.1
Distribution of Benefits (Targeting Accuracy)	100.0	6.8	7.7	16.7	16.4	52.4	0.4	12.0	87.6
Relative Incidence	1.4	1.0	0.8	1.3	1.0	1.9	0.7	1.1	1.4
Generosity	29.3	38.1	34.3	31.4	25.7	28.5	28.3	39.3	28.3

Key indicator on Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

Transfers from abroad

	Quintiles of per ae consumption, net of all SA transfers						Poverty Status		
Transfers from abroad	Total	Q1	Q2	Q3	Q4	Q5	XP	MP	NP
Average Transfer Value, Per Capita	5,451.6	2,109.2	3,150.8	4,611.0	6,564.3	10,819.8	853.9	2,681.1	6,690.5
Average Transfer Value, Per Capita, Beneficiary Households Of Indicated Transfer Only	34,225.4	19,653.7	22,870.9	29,071.7	32,612.8	56,525.9	28,936.4	21,376.4	37,839.7
Coverage	15.9	10.7	13.8	15.9	20.1	19.1	3.0	12.5	17.7
Distribution of Beneficiaries	100.0	13.5	17.3	19.9	25.3	24.0	0.4	21.7	77.9
Distribution of Benefits (Targeting Accuracy)	100.0	7.7	11.6	16.9	24.1	39.7	0.4	13.6	86.1
Relative Incidence	11.1	8.9	9.5	10.7	12.4	11.8	5.6	10.1	11.4
Generosity	65.2	81.7	69.3	68.2	60.9	63.1	179.3	80.2	63.1

Key indicator on Armenia. Note: Quintiles of per ae consumption, net of all SA transfers. Source: Armenia ILCS 2014.

THANK YOU

