Armenia

Systematic Country Diagnostic

“Future Armenia”
Key Findings, June 2017
Objective: Identify Forward Looking Options for Fostering Inclusive Growth to Support Poverty Reduction and Shared Prosperity

Armenia Systematic Diagnostic

- Analyze Current Economic Model (poverty reduction and growth over the last decade)
- Identify Elements of a New Economic model

- Global Connectivity
- Productive and Competitive Firms
- Raising People’s Productivity and Removing Barriers to Work
- Resilience for Sustainable Growth
Report Structure

1. Introduction
2. Poverty, Vulnerability and Shared Prosperity
3. Slowing Growth, New Conditions and a New Growth Story
4. Global Connectivity
5. More Productive and Competitive Firms
6. Raising People’s Productivity and Removing Barriers to Work
7. Resilience for Sustainable Growth
Current Economic Model Brought Poverty Reduction and Growth, However, …

Until 2008, Armenia featured as one of the “pre-eminent reformers among the former Soviet Republics”

Since 2009, radically different and challenging circumstances, low growth-low investment environment and stalled poverty reduction

Source: NSSRA (poverty headcount, national) and WDI (real GDP per capita growth). National poverty rate reported.
Poverty Reduction Did Not Result in a Larger Middle Class; Instead, the Size of Moderately Poor and Vulnerable Grew..

Source: World Bank staff calculations using harmonized consumption data for ECA countries. Poverty is measured at the international poverty line of US$2.50 per person per day, 2005 purchasing power parity. The threshold of $10 per day as the “middle class line” was estimated by Lopez-Calva and Ortiz-Juarez (2014) through a vulnerability-to-poverty approach and corresponds to the income level associated with a probability smaller than 10 percent of falling into poverty.
Sustaining Poverty Reduction Would Require Growth In Labor Income, Pensions, Employment, Remittances, and Agricultural Income

Note: Based on the micro-decomposition of poverty change, negative numbers indicate that the factor helped to reduce poverty, positive numbers indicate the opposite effect. Agriculture income includes value of home produced food. Following adjustments were made: 1) home consumed agriculture production was added in household total income; 2) data was trimmed by dropping extreme values at 1%; 3) Consumption to income ratio was trimmed at 1%.

Source: ILCS data for 2004 and 2015.
The “High-Low” Growth Performance was Due to

i) Reliance on External Conditions (consequent Dutch Disease)

Export earnings and copper price

Foreign direct investment flows

Remittances, 2007-16 (US$ million)

Nominal and Real Effective exchange rates
ii) Fueled by Domestic Consumption

Growth decomposition by sector and expenditures

Source: NSSRA.
(iii) Supported by Only Piecemeal Reforms

Reform progress

Source: EBRD Transition indicators.
Leaving Fundamentals Unaddressed

Savings, investment, and the current account balance (% of GDP)

Source: NSSRA
And Reliance on Countercyclical Government Spending (with Consequent Debt Burden)

Fiscal and debt developments (% of GDP)

Source: Ministry of Finance and World Bank.
Under “Business As Usual” Armenia’s Modest Per-capita Growth Would not be Sufficient by 2050 to Reduce Poverty Significantly

Source: Simulations using the DEC-MFM Long-Term Growth Model (LTGM)
Systemic Demographic Change of Shrinking and Aging Population, If Unaddressed, Will Also Take a Toll

Population Decline Has A Significant Impact on GDP Growth
Population Aging Has Even Larger Impact on GDP Growth

Demographic Trends and Forecasts

Looking Ahead: SCD Examines Needed Elements of a Re-designed Economic Model

The SCD recommends the adoption of a new economic model. One that addresses both the fundamentals of growth-poverty relationships AND tackles the systemic challenges posed by aging and shrinking workforce and climate change.

- **Re-balance growth from non-tradable to tradable goods and services through greater global connectivity** - trade and investment, and from the perspective of the underlying drivers of that connectivity: hard infrastructure to connect to others (through land, and air), and soft infrastructure (ICT) as well as trade and investment policies. (chapter 4)

- **Build a vibrant business sector** that is dynamic, productive and competitive that creates jobs (a good buffer against the “new global normal” of challenging external conditions) (chapter 5)

- **Raise people’s productivity and remove barriers to work participation** as a cushion against productivity decline coming from an aging workforce. Removing barriers to participation – especially by women – is the only way available to counteract the negative demographics and raise the share of working age people that participate in the labor force (chapter 6).

- **Build resilience into the economic model** both to pro-actively tackle macroeconomic and microeconomic vulnerabilities but also to be forward looking and be prepared for the impacts coming from climate change, environmental degradation, and possibilities of natural disasters (chapter 7).
RE-BALANCE GROWTH THROUGH GLOBAL CONNECTIVITY
Trade Outcomes

Low merchandise export competitiveness

- Low base, low sophistication, low diversification, low survival rate

Relative market shares (%)

<table>
<thead>
<tr>
<th>Country</th>
<th>2005</th>
<th>2015</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>0.009</td>
<td>0.011</td>
<td>1.6%</td>
</tr>
<tr>
<td>Latvia</td>
<td>0.035</td>
<td>0.075</td>
<td>8.0%</td>
</tr>
<tr>
<td>Moldova</td>
<td>0.008</td>
<td>0.009</td>
<td>0.2%</td>
</tr>
<tr>
<td>Moldova</td>
<td>0.022</td>
<td>0.029</td>
<td>3.2%</td>
</tr>
<tr>
<td>Armenia</td>
<td>0.008</td>
<td>0.009</td>
<td>1.2%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.826</td>
<td>1.033</td>
<td>2.3%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>0.336</td>
<td>0.493</td>
<td>3.9%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>0.127</td>
<td>0.167</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

Exports of goods and services as a % of GDP

Source: Authors’ calculations based on data from WDI, UN Comtrade, and UNCTAD
However, the ratio of trade in services to GDP for Armenia is lower than for comparable countries, such as Albania, Hungary, and Georgia.

Largest share of services exports: travel (62 percent), construction (11 percent), transportation (11 percent), and computer and ICT services (11 percent).

Recent trends: travel is most dynamic, (tourism). While the ICT subsector has not grown as fast, it is also expanding.

Exports of services more than doubled between 2005 and 2015, growing at an average annual rate of 14.4%
Growth of agricultural exports has been dramatic, but primarily driven by tobacco and (alcoholic) beverages (70% of agriculture exports)

Neither group draws significantly on Armenia’s agricultural resource base:
- Wine grapes, the raw material for Armenia’s internationally renowned wines and spirits, are grown on just 10,000 ha, or only 3 percent of Armenia’s cultivable land
- Cigarettes are manufactured from imported tobacco.

Source: UN Comtrade.
Global Value Chains (GVCs)

- Low participation in GVCs

The analysis of performance of key GVC-prone sectors suggests:

- Firms in final and intermediate apparel and footwear have managed to integrate most with international production networks.

- ICT, in which Armenian firms have expanded over the past ten years, has increasing links to global suppliers and clients.

- Medical tourism is a promising export sector that may help move Armenia’s export basket towards a more knowledge-intensive level.

Source: Authors’ calculations based on EORA
FDI - % of GDP

FDI inflows by sector

FDI integration

Source: Authors' calculations based on WDI.

Source: FDI Markets
Between 9 and 11 million individuals of Armenian descent live worldwide. Contribution through financial, philanthropic and (intangible) institutional, knowledge and network transfers

Under-utilized potential to support increased international trade, investment flows, knowledge transfer and innovation: Globally, the size of a country’s diaspora is correlated with both trade and investment.

- In Armenia, little correlation between migrant destinations, trade, FDI.

Members of the diaspora best placed to identify opportunities in Armenia with their combination of outside know-how and intimate knowledge of the home country.

Diaspora engagement as promoting search networks, and help them scale up and institutionalize innovative ideas.

- Introduce linkages between diaspora members and home country agencies to benefit from the dynamism and external experience in shaping domestic institutions, removing barriers to growth, and fostering innovation.
Trade Environment: Global Connectivity

High trade costs

- Trade dependent on third countries (Georgia)
- Traditional transport services operators require higher professionalization and modernization
- Under-regulated road freight services
- Rail and ferry services not yet meaningful alternative
- Intra-country connectivity an issue: less than half of the road network in good or fair condition.
- Good progress in air connectivity, border management

Armenia’s Logistics Performance Index (2016)

Source: World Bank’s Trade Cost Database.
Broadband internet access has improved

- Markets becoming more competitive in cities
- Low penetration of high-speed fixed broadband in rural and poorer areas due to a lack of infrastructure and limited affordable options
- Internet pricing has declined but affordability remains an issue
- Average speeds lower than in comparator countries

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**Trade Environment: ICT**

**Mobile broadband speeds (Mbps)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Operator 1</th>
<th>Operator 2</th>
<th>Operator 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>11</td>
<td>46</td>
<td>11</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>22</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Latvia</td>
<td>20</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Chile</td>
<td>11</td>
<td>9</td>
<td>8</td>
</tr>
</tbody>
</table>

**Fixed broadband speeds (Mbps)**

<table>
<thead>
<tr>
<th>Country</th>
<th>Operator 1</th>
<th>Operator 2</th>
<th>Operator 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armenia</td>
<td>4.2</td>
<td>3.4</td>
<td>1.6</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>15.6</td>
<td>15.4</td>
<td>15.2</td>
</tr>
<tr>
<td>Moldova</td>
<td>11.1</td>
<td>11.1</td>
<td>11.1</td>
</tr>
<tr>
<td>Georgia</td>
<td>8.2</td>
<td>8.2</td>
<td>8.2</td>
</tr>
</tbody>
</table>

**Monthly entry level fixed broadband basket**

<table>
<thead>
<tr>
<th>Country</th>
<th>Mbps</th>
<th>US$/Mbps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moldova</td>
<td>50</td>
<td>$0.19</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>20</td>
<td>$0.50</td>
</tr>
<tr>
<td>Georgia</td>
<td>10</td>
<td>$1.19</td>
</tr>
<tr>
<td>Armenia</td>
<td>5</td>
<td>$2.09</td>
</tr>
<tr>
<td>Latvia</td>
<td>8</td>
<td>$2.42</td>
</tr>
<tr>
<td>Chile</td>
<td>2</td>
<td>$3.25</td>
</tr>
<tr>
<td>Albania</td>
<td>4.76</td>
<td>$4.76</td>
</tr>
</tbody>
</table>

**Armenia, fixed broadband subscriptions per 100 people**

- Latvia: 24.8
- Bulgaria: 22.7
- Moldova: 15.6
- Chile: 15.2
- Georgia: 14.7
- Armenia: 9.6
- Albania: 7.6

**Fixed broadband subscriptions (per 100 people), 2015**

Source: ITU 2015.

Source: speedtest.net & OpenSignal; adapted from Armenian operators and Akamai.
Armenia’s membership of the Eurasian Economic Union (EEU) since 2015 brings opportunities as well as challenges.

- Trade policy was very open after Armenia’s accession to the WTO in 2003.
- While Armenia’s membership of the EEU has brought immediate benefits, it has also added bureaucratic burdens for trade outside the Union.
- Membership in the EEU constrains Armenia’s ability to negotiate deep preferential trade agreements with third countries.
- Medium- to long-term impacts are mixed with reduced benefits from structural and institutional reforms, and knowledge transfer.
- However, Armenia may be able to attract considerable interest for FDI seeking markets in the EEU because of its more attractive investment climate relative to other EEU members.
High degree of overlap between different dimensions of connectivity. Trade, investment, information, knowledge, technological flows, diaspora, and labor mobility are all intertwined.

How can Armenia increase a reform momentum supportive of knowledge and technology transfers for exports?

Take advantage of “exports enablers” to open new markets

(i) Leverage trade in services as a platform for the sophistication of exports

(ii) Have world-class ICT connectivity and services to overcome land connectivity obstacles. Enable international e-commerce.

(iii) Provide export intelligence through modern export promotion institutions;

(iv) Make better use of diaspora trade, investment, knowledge networks;

(v) Improve logistics constraints where possible, in particular with regard to the north-south corridor.

(vi) Take advantage of the EEU membership by positioning the country as a springboard for market-seeking investors looking to access the wider EEU market; Adopt an open policy towards FDI and technology transfer.
BUILD A VIBRANT BUSINESS SECTOR WITH MORE PRODUCITIVE AND COMPETITIVE FIRMS
SMEs account for the bulk of the firms, are crucial employers and important job creator.

Firms exhibit dynamism with characteristics of a successful and vibrant private sector...

- High rates of entrepreneurship, SMEs lead the way in job creation, firms’ size increases at they grow older.
- More productive firms are younger, use more technology, and are more innovative,
- Exporters are more likely to be innovators and foreign owned.

Exports and outward orientation, innovation come together as productivity-enhancing characteristics
Firms are constrained in their ability to enter markets and grow.

- Slow growth in the entry rates of new companies
- Difficulties by small firms in growing larger suggest significant barriers to entry and in terms of employing more workers or accessing capital.

There is scope for improving efficiency by shifting labor and capital to more productive firms.

<table>
<thead>
<tr>
<th>Success Percentage among those that tried to start business</th>
</tr>
</thead>
</table>

Note: Authors’ elaboration from the SCR dataset. Values indicate the percentage of firms in each cell. Categories indicate the number of employees.

<p>| Small firms struggle to grow (Firm-size transition between 2013 and 2015) |
|-----------------------------|----------------|----------------|----------------|----------------|----------------|</p>
<table>
<thead>
<tr>
<th>2013</th>
<th>2015</th>
<th>&lt;5</th>
<th>5 - 9</th>
<th>10 - 49</th>
<th>50 - 99</th>
<th>&gt; 99</th>
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<tbody>
<tr>
<td>Less than 5</td>
<td>92</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>5 - 9</td>
<td>26</td>
<td>63</td>
<td>11</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>10 - 49</td>
<td>4</td>
<td>12</td>
<td>81</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>50 - 99</td>
<td>0</td>
<td>0</td>
<td>15</td>
<td>77</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>More than 99</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>8</td>
<td>90</td>
<td></td>
</tr>
</tbody>
</table>
While agriculture sector growth has been strong, closer examination shows that the high growth rate is unsustainable. Recent strong growth has been driven largely by increased productivity of semi-subsistence farms rather than the widespread adoption of improved technology and a shift towards modern, commercial agriculture. In fact, changes in the composition of production have been modest.

Yield increases and public investments have driven sector productivity (increased use of fertilizer, improved seeds through subsidies, increase number of livestock, improved (subsidized) access to capital and extension services)

No room for complacency, if the agriculture sector is to continue growing and become more export-oriented. By focusing on input subsidies for the smallest farms rather than facilitating farm enlargement and building the institutional infrastructure for knowledge transfer, government has preserved this structure rather than driving its transformation.
Business climate has improved, but implementation lags behind.

Improved performance in business climate indicators:

- Increasing its Distance to Frontier in the Doing Business Index (DBI) from 61 in 2010 to 74 in 2017,
- Ranking in the Global Competitiveness Index (GCI) from 97 in 2009-10 to 79 in 2016-17.

Ease of Doing Business Index 2017

Global Competitiveness Index 2016


Much room for further improvement:

- **Incomplete implementation of regulatory reforms** (Armenia’s public governance lags behind its peers, particularly in the rule-of-law and the control of corruption)

- **Corporate governance is another area where implementation has been lagging.** The legal framework is in place, but implementation is limited (limited transparency, limited effectiveness of Boards, limited protection of shareholders rights)

Most problematic factors for doing business (Global Competitiveness Report, 2016)
Market Contestability

Lack of market contestability

- **Improvements in recent years** (World Economic Forum’s Global Competitiveness Report (2016-17).
- **Legal framework** has improved, but could be further strengthened.
- But **investors in Armenia face one of the highest risks** in doing business among other European and Central Asian countries. Perceived risks are related to: (i) vested interests and cronyism; and (ii) unfair competitive practices.
- **Lack of market contestability in sectors providing production inputs** (railways, utilities, internet connectivity) adds to the costs of firms operating in Armenia and reduces their competitiveness
- **Lack of competition in procurement** and transparency in state aid.

Business risks related to weak competition policies (by component)

![Graph showing business risks across different countries](image)

Source: Economist Intelligence Unit, 2017
Access to finance remains an important constraint to growth and private sector development. Only 3 percent of firms indicated that access to finance was not a problem in 2013, compared with an average of 49 percent across ECA countries. Skewed towards large firms (75 percent of them reporting having bank loan, against 31 percent of small firms), concentrated in Yerevan.

Progress in the development of an innovation ecosystem, but limited use of innovation

Banking depth

Source: WDI

Source: Global Innovation Index 2016.
Support firms’ entry, growth and exit by:

- Address regulatory and implementation gaps in the investment climate and strengthen the evidence, consultative and institutional base of regulations.
- Reinforce the effectiveness of Competition Law by including competition principles in regulatory impact assessment; introducing true investigative powers; adjusting the level of fines; accounting for individual companies that operate under common control; ensuring competitive neutrality (state aid control, competitive/transparent e-procurement).
- Strengthen conflicts of interest framework and follow through cases.
- Improve corporate governance (improve corporate transparency, including disclosure of financial and non-financial information, strengthen Boards of Directors and protect the rights of shareholders).
- Enable access to finance (implement the new secured transactions framework, develop the capital markets, promote savings; improve skills in MSMEs and in lenders). CBA is carrying out a financial inclusion assessment to identify the key policy and institutional constraints to access to finance.
- Enhance access to innovation (innovation institutions; intellectual property rights; dissemination and commercialization of new technologies; marketplace for innovation; access to Armenian scientists abroad; international standards for R&D and private-sector innovation).
- Build a modern agriculture sector using new institutional infrastructure and knowledge transfer (focus on medium-scale farms, farmers willing to invest in modern farming technology, and the knowledge needed to use this technology effectively; Facilitate farm enlargement through the land market).
RAISE PEOPLE’S PRODUCTIVITY AND REMOVE BARRIERS TO PARTICIPATION
Declining Labor Resources, Aging Population
Low Labor Productivity Growth

Growth in labor resources, economically active, and employed workers, 2008-15

Labor supply is affected by population shrinking and aging. The average worker (15-75) is 43 years old (in 2015) – she/he completed most schooling before transition.

Employment is contracting, unemployment growing and labor productivity growth slowing down – due to combination of demographics, job creation patterns, and changing skills demand.

Median Age of the Population (Years), 2000-2050: Population Aging
Workers’ Productivity: Low Foundational Skills

TIMSS 2011 Grade 4 Math Achievement

<table>
<thead>
<tr>
<th>Country</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Average</td>
<td>500</td>
</tr>
<tr>
<td>Armenia</td>
<td>452</td>
</tr>
<tr>
<td>Georgia</td>
<td>450</td>
</tr>
<tr>
<td>Serbia</td>
<td>516</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>607</td>
</tr>
<tr>
<td>Turkey</td>
<td>469</td>
</tr>
</tbody>
</table>


* PIAAC levels, representative of national populations of adults ages 15-65.
** STEP levels, representative of urban areas for adults ages 15-64.
Workers’ Productivity: Qualification Mismatch (Over-Education) Especially for Older Workers

1. Over-education is more common than under-education. Common for transition economies.
2. Share reporting over-education is highest for older workers (like Georgia but unlike Macedonia or Ukraine). Degrees obtained during the Soviet era may have now become obsolete.
3. Younger workers also report over-education. Suggesting that education systems may not be keeping up with an evolving economy, failing to equip young people with sufficient skills and quality of education need for the labor market.

Source: Kupets 2015 based on STEP Survey

Note: Estimates based on STEPS (Skills Toward Employment and Productivity) household surveys of working-age adults (aged 15-64) residing in urban areas.

Source: Handel, Valerio and Sanchez Puerta (2016)
Workers’ Productivity: High Returns to Tertiary Education Reflecting Demand for Skilled Workforce

Returns to schooling by level

- Lower secondary
- Upper secondary
- Tertiary

% of Firms Reporting Inadequately Educated Workforce to be a Constraint by Investment in Research and Development

Skills not a constraint for most firms. Higher share of Firms Investing in R&D report skills to be a constraint.

Source: ILCS data.
Note: Estimates from a standard OLS Mincer regression.

1. Rural workers, especially the rural poor, are predominantly in agriculture operating small scale semi-subsistence farms. Employment in agriculture declining, attributable to short term migration. Increasing diversification to rural non-farm employment.

2. Information technology, the expansion of broadband and greater use of digital technology bringing another change in the demand for skills.
1.5 women for every man enrolled in tertiary education. However, most do not participate in the labor market.

An key obstacle to work participation by women – their care responsibilities.

Several countries have managed to raise women’s participation by addressing care needs.
Work Participation Rates: Women’s Greater Participation to Offset Rising Dependency Rates & Gain in Aggregate Output

**Trends in Ratio of Economic Dependents to Economically Active Persons 2015-2040**

- **Scenario A:** Labor participation does not change
- **Scenario B:** Female labor force participation growing at average rate of 1.05% annually to equalize male and female rates of participation in 2040
- **Scenario C:** Female and male labor force participation growing at average rate of 1.24% and 0.18% annually to equalize male and female rates of participation TO 80% IN 2040

Source: World Bank staff calculations using age specific UN population projections and modeled ILO estimates of labor force participation for 15-64.

**Gain in Output From Reducing Gender Gap in Participation (as % GDP)**

Source: World Bank staff calculations following Cuberes and Teignier.
Recommendations

**Education System Provides Skills Relevant for the Labor Market + Support Women’s Work**

- Expand Early Childhood Education to cover children under 3; expand to rural areas.

- Improve teacher training in General and Tertiary education systems to teach technical and soft skills needed for labor market.

- Scholarships to rural students for tertiary enrollment. (support movement to non-farm)

- Reform National Center for VET Development and National Council for VET Development; improve VET curricula and integration with labor market.

- Establish clear pathway to STEM and improve student’s performance on STEM subjects

- Modernize workforce development

- Strengthen lifelong learning/adult education

**Support Matching of Workers to Jobs**

- Improving job-worker matching by strengthening the State Employment Agency (SEA)

- facilitate the best job-worker matches; reduce skills mismatches, especially shortages of some types of skills, by providing career guidance and necessary active labor market programs (ALMPs)

- Low-income groups, including social assistance beneficiaries, need targeted activation policies to facilitate their transition to (more productive) employment.
BUILD RESILIENCE FOR SUSTAINABILITY
Role of Resilience In Mitigating Impact of Vulnerabilities

Impact

Current and future aggregate economic output; individual consumption

Resilience and Sustainability

Macro resilience:
- Macro policy;
- environmental regulations;
- disaster risk management;
- management of natural resources

Micro resilience:
- Consumption smoothing;
- social protection;
- basic services;
- adaptation

Vulnerabilities

Macropolicy and the business cycle

Natural disasters;
environmental pollution;
degradation of natural capital

Health shocks/job loss;
impact of energy tariff increases; and other individual shocks
Need for Resilience Policies at the Macro and Micro Levels

• **Macrofiscal and financial:** A sharp rise in Armenia’s public debt burden: 84 percent of public debt denominated in foreign currency. Debt sustainability analysis suggests that real GDP growth has the largest impact on Armenia’s debt indicators. Armenian financial sector appears to be healthy. CBA has employed macro-prudential policy tools to address risks from dollarization.

• **Climate change** is exacerbating natural and environmental vulnerabilities with significant implications for agriculture, such as an increase in the use of irrigation water, reduced yields of major crops, reductions in soil fertility, land degradation, and greater severity and frequency of extreme weather events. In 2013, financial losses to Armenia’s agriculture from extreme weather events amounted to AMD 23.9 million.

• **Natural disasters** Most of Armenia is also exposed to significant risk of earthquakes, hailstorms, and floods. It is estimated that currently more than 2.5 million people in 48 cities of Armenia are located in seismically active areas.

• **Mining,** one of the largest contributors to GDP and exports, is also a source of **air and water pollution.**

• Among Armenia’s natural resources, the **use of water** needs to be better managed, especially as future water availability appears to be uncertain due to climate change. Some areas outside Yerevan lack full time access to water.

• **Targeted Family Benefit Program:** Program reaches around 13 percent of the population in 2015, but could be better targeted: only 61 percent of its resources went to the poor. Low coverage of the poor. Concerns that program may discourage take up formal employment (although no evidence of work dis-incentive).

• Simulations show **pensions** played significant role reducing poverty and inequalities. Pensions cover 60 percent of poorest 20 percent of the population. Pension system consists of two components: (i) a defined benefit component that is financed from the State budget; and (ii) a defined contribution program that has been in place since 2014, which covers only civil servants and new labor force entrants since that date.

• **Health affordability:** households shoulder a large burden of health spending, especially on pharmaceuticals. Free primary health care services but 32 percent of poorest decile and 4.2 percent of richest decile report going without primary health care due to affordability concerns (ILCS, 2014). Targeting is an issue as many of the poor are not covered for the full Basic Benefit Package.

• **Credit/financial access:** Shallowness savings and credit markets inadequate to enable individuals to respond to shocks. Only 19.3 percent of adults (aged 25+) had an account at a financial institution in 2014. This is the lowest among peer countries, which had an average of 74.5 percent.
## Recommendations

<table>
<thead>
<tr>
<th>Macro resilience</th>
<th>Micro resilience</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-build fiscal buffers and mitigate fiscal risks</td>
<td>Consider gradual implementation of pension targets for the defined benefit component (PAYG) and pursue as planned the re-establishing of the defined contribution component in 2018.</td>
</tr>
<tr>
<td>Strengthen response to climate change with a clear and comprehensive plan for adaption in agriculture. Translate Nationally Determined Contribution (NDC) document into an effective implementation strategy by promoting cross-sectoral dialogue.</td>
<td>Improve coverage and targeting accuracy of the Family Benefit Program (FBP) and promote labor activation among its beneficiaries. An important priority would be to strengthen the State Employment Agency (SEA).</td>
</tr>
<tr>
<td>Enhance capacity of Armenia’s Disaster Risk Management (DRM) system. Mainstream DRM in urban planning and building disaster resilience in key infrastructure sectors such as schools.</td>
<td>Pursue the integrated delivery of social services, especially for marginalized and vulnerable families.</td>
</tr>
<tr>
<td>Implement existing environmental laws and regulations; strengthen fines and consequences for non-compliance; and raise public awareness.</td>
<td>Given the constrained fiscal space, improve targeting of the Basic Benefit Package (BBP) to improve affordability of health spending.</td>
</tr>
<tr>
<td>Improve management of forests</td>
<td>Effort to deepen and broaden credit, savings, insurance, and capital markets needed to provide financial services and products to help households cope with shocks.</td>
</tr>
<tr>
<td>Strengthen management of water resources to ensure sustainable and productive use.</td>
<td></td>
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</tbody>
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NEXT STEPS
Next Steps

- *World Bank Management Concept Review (February 2017)*
- *Consultations on SCD concept (March 2017)*

- **Consultations on reform priorities (June 2017)**
- Prioritization of Recommendations
- World Bank Management Decision Meeting
- Report Publication
THANK YOU

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