



Armenia2020 Updated

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the IdeA Foundation

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Executive summary (1/3)

- Armenia has shown a **steady economic growth of ~7%¹** over the last decade, in line with its regional peers
 - With a **GDP PPP per capita of USD 7,000 in 2013**, Armenia's GDP remains low in the CIS region
 - Growth rates of **8% p.a.** have been reached before the financial crisis, mainly due to **foreign financial expansion of the construction sector and domestic services**
 - **After the financial crisis, growth rates fell to ~5% p.a.; growth was mainly driven by the service sector** (retail, banking, transport, and communication), expanding **exports** based on high commodity prices for metals and minerals, and high **agricultural output**
- Armenia's economic growth has been fueled by favorable external effects and not through strong focus on economic development, as suggested by the Singapore scenario, especially after the financial crisis and thus bears the **risk of high volatility and unsustainability**.
 - **Increased private consumption**, mainly driven by **remittances that increased from 6% of GDP in 2003 to >20% today**, thus not supporting a sustainable development of the economy
 - **Increased exports** after the crisis, but **not diversified** (3 products² account for 70% of goods exports) and focused on **commodities that did profit from high market prices**

¹ PPP, real, 2003-13

² Metals, and ore diamonds, alcoholic beverages

Executive summary (2/3)

- **Several factors indicate that Armenia's GDP growth path might not be sustainable in the near future**
 - While FDI¹ played an important role before the financial crisis, **Armenia seems to have lost its attractiveness to foreign investors** – FDI steadily declined from its peak in 2008 (USD 1.1 billion) to 2013 (USD 0.4 billion)
 - Except for Aluminium, **most commodities** exported by Armenia are forecasted to have **reached their peak market prices in recent years**
 - **Armenia's productivity** is catching up, but is **still behind its regional peers** with USD 19,300 GDP PPP/capita vs. USD 41,000 as CIS average, decreasing Armenia's competitiveness
 - **Armenia's economy is highly dependent on Russia** in all dimensions – from exports and imports, to FDI¹ and remittances, which bears the risk to hinder further growth should the Russian economy continue to slow down
 - Thus, it is not surprising that **most key sectors identified within Armenia 2020**, with the exception of banking and tourism, **did not fully exploit their productivity and employment growth potential**
- In terms of creating a **growth-enabling environment**, such as business environment, assets, and education, **Armenia compares favorably to its regional peers**, but still **ranks low on a global scale**; regional leading examples such as Georgia show that there is still significant room for improvement

¹ Foreign direct investment

Executive summary (3/3)

- Furthermore, growth over the last years seems to have had **only limited impact on social indicators**
 - The relatively strong economic growth over the last years could **not reduce the constantly high net emigration rate** in Armenia of 6 per 1,000 population in 2014
 - The growth over the last decade has been supported mainly by an **increase in productivity**, while the **economy failed to create a significant amount of new jobs** (Armenia's unemployment rate 18.5% vs. 9.6% in CIS region in 2013)
 - Today in Armenia, **every third person is poor** and poverty even increased over the last years
 - Armenia still has a **very large share of informal economy** (~40% of official GDP), which could be reduced only marginally over the last decade (~45% in the early 2000s)
- Based on this country snapshot, Armenia should look for **new models of growth to diversify its current economy and make growth more sustainable**. Morocco, Chile, Georgia, and Malaysia are archetypes of economies that have a strong and sustainable growth trajectory and have succeeded in diversifying their economy
- The Armenian government, business leaders, and also Dolphyn can **support this development by addressing 4 areas**
 - Business environment, institutions, and policies
 - Financial market and availability of capital
 - Infrastructure
 - Human capital

Contents

- **Snapshot of the Armenian economy today and its development over the last 10 years**
- Armenia's development in context of Armenia2020's models of growth
- Sector deep dives – actual development vs. potential
- Emerging new models of growth
- Armenia's way forward

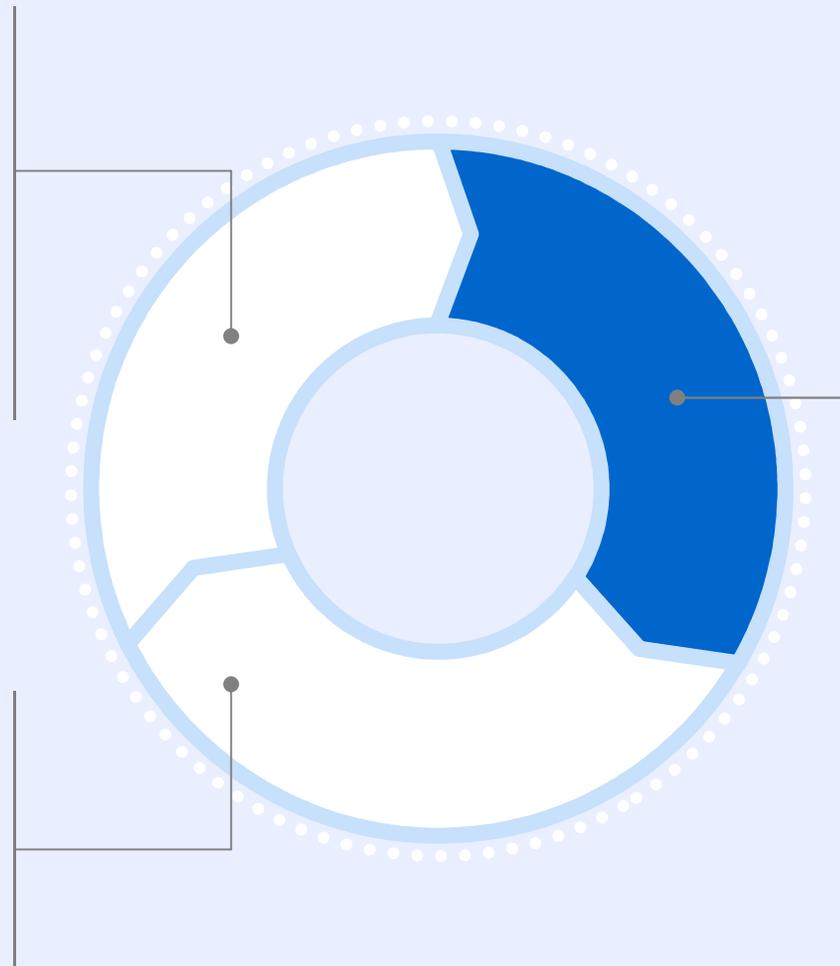
We have analyzed Armenia's economy in 3 dimensions

Growth-enabling environment

- Is the business environment and infrastructure pro business?
- Is the economic environment supporting the positive development of social indicators?

Growth drivers

- What has fueled GDP growth?
- Are these growth drivers sustainable in the future?

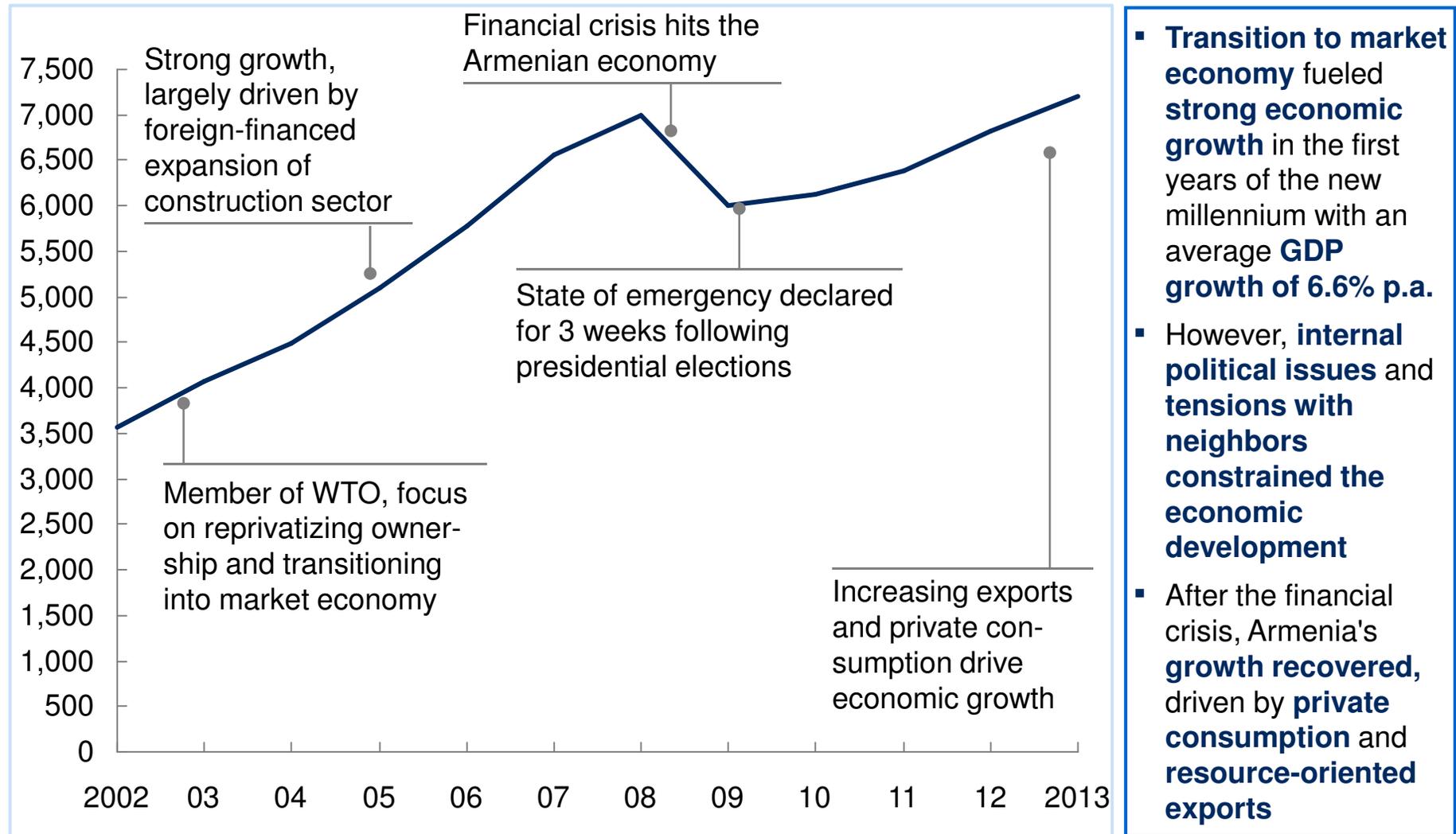


Production of goods and services

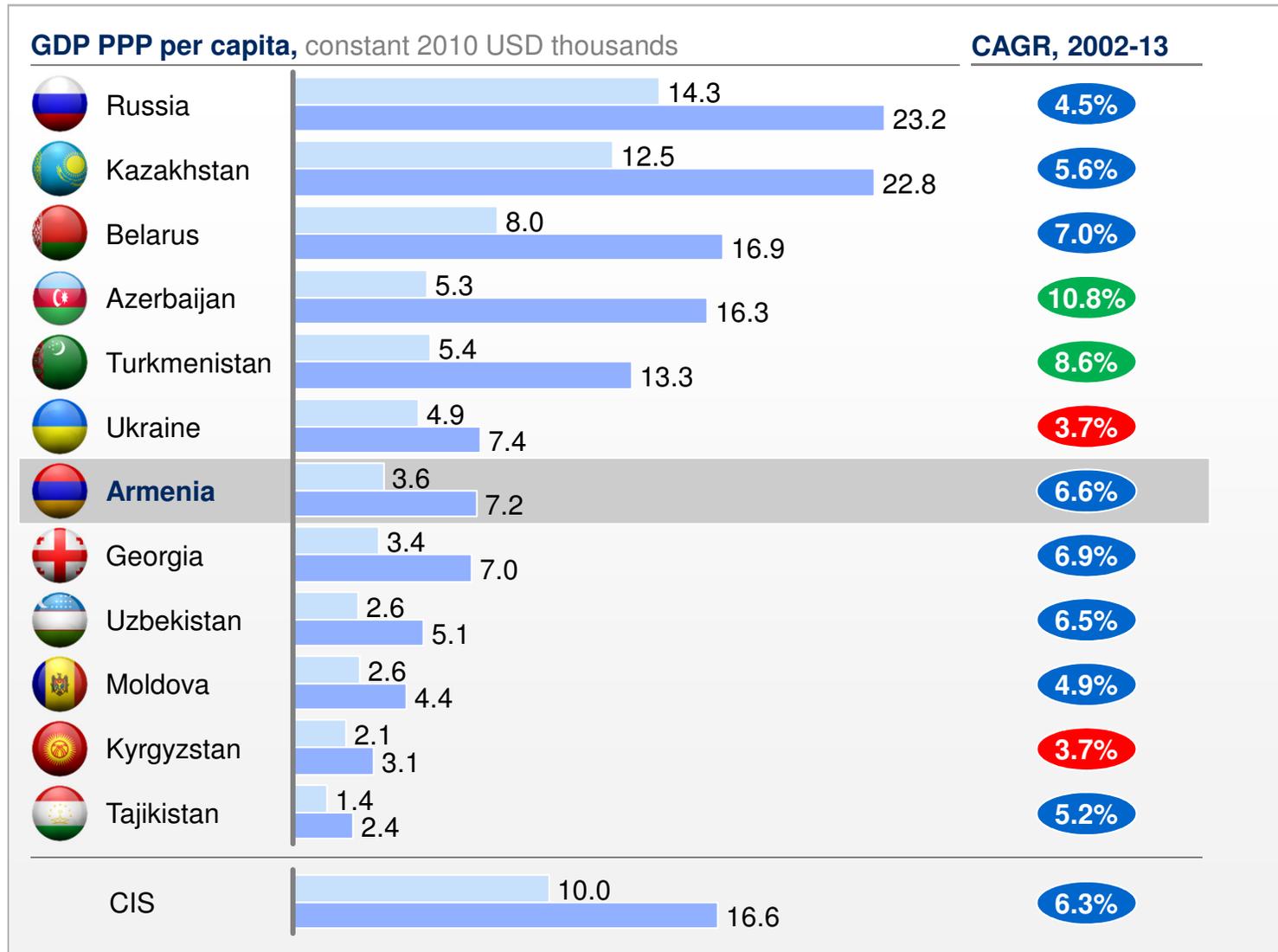
- How many goods and services have been produced?
- What has been produced?

Over the last decade, Armenia has shown a steady economic growth ...

GDP PPP per capita, constant 2010 USD



... in line with its regional peers – however, Armenia's GDP per capita remains low in CIS

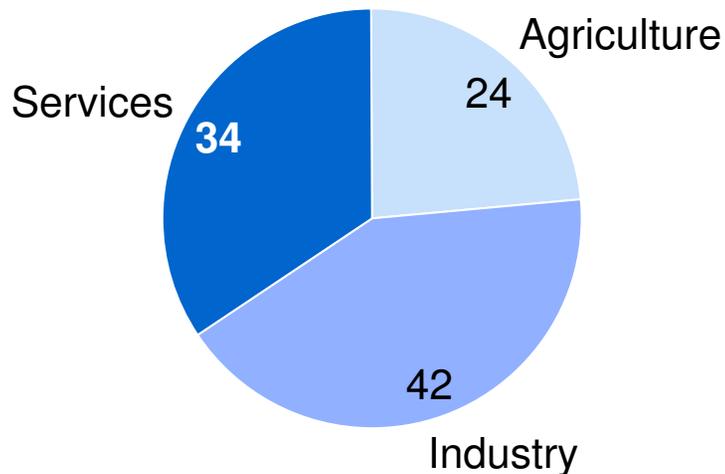


GDP growth was driven by the services sector during the last years, however, Armenia's economy still has a strong focus on agriculture

GDP¹ composition, 2003

Percent

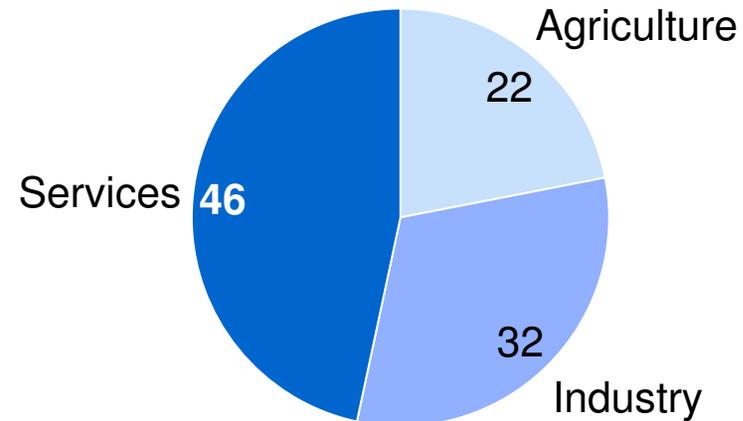
100% = USD 2,807 million



GDP¹ composition, 2013

Percent

100% = USD 10,432 million

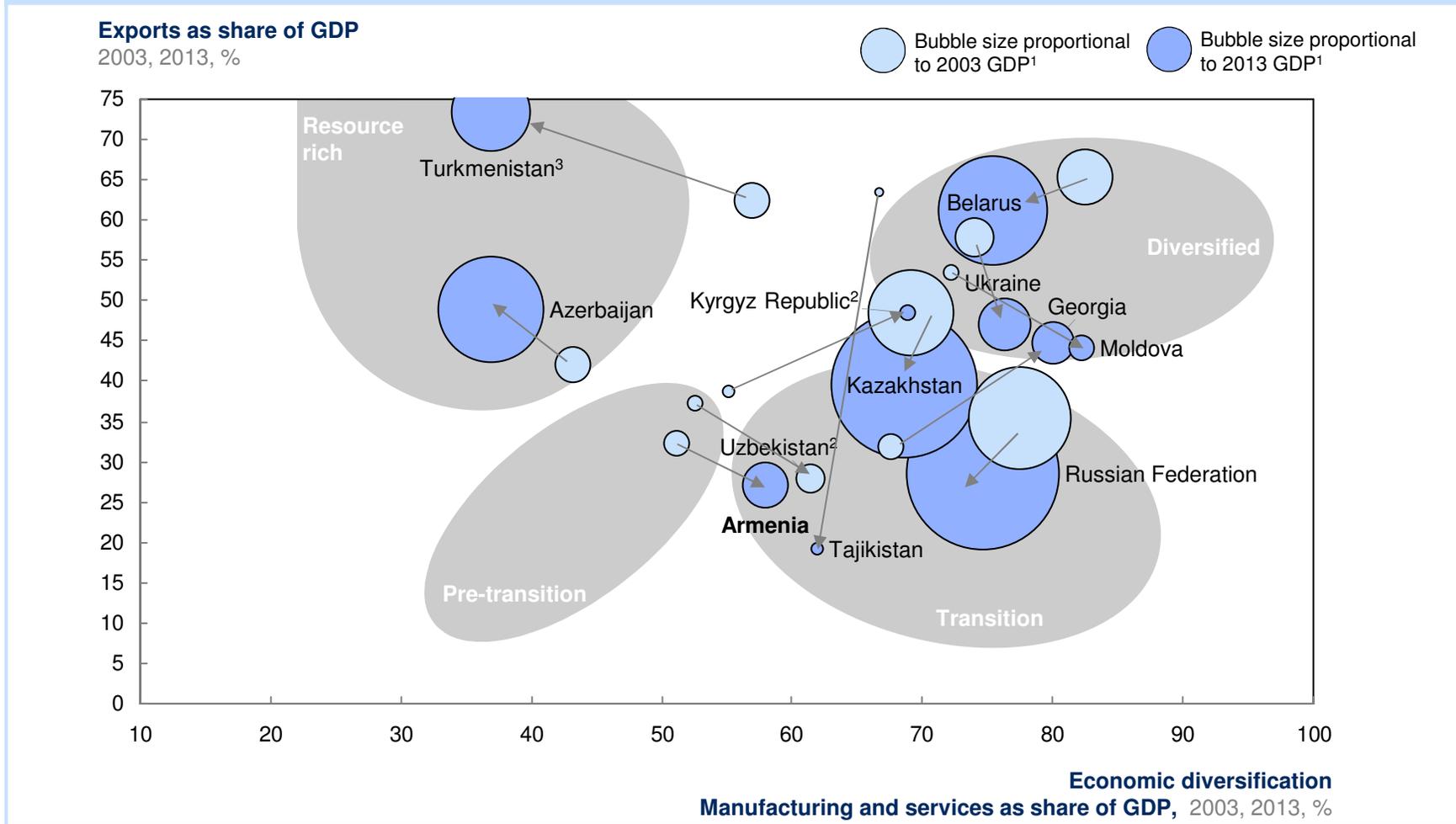


- **Services sector with strong growth**, which is mainly driven by **increased private consumption**
- GDP contribution of **agricultural sector** remains **high** compared to other CIS countries (**CIS average 8%**, with only Tajikistan and Moldova having a higher share)

¹ Nominal GDP at current USD

Strong focus on Agriculture leads to Armenia still being in a transitional phase compared to its neighbors

Categorization of CIS countries

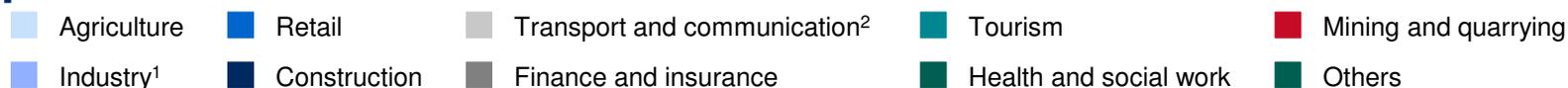


1 GDP per capita PPP, 2011 international \$

2 Only 2012 data available

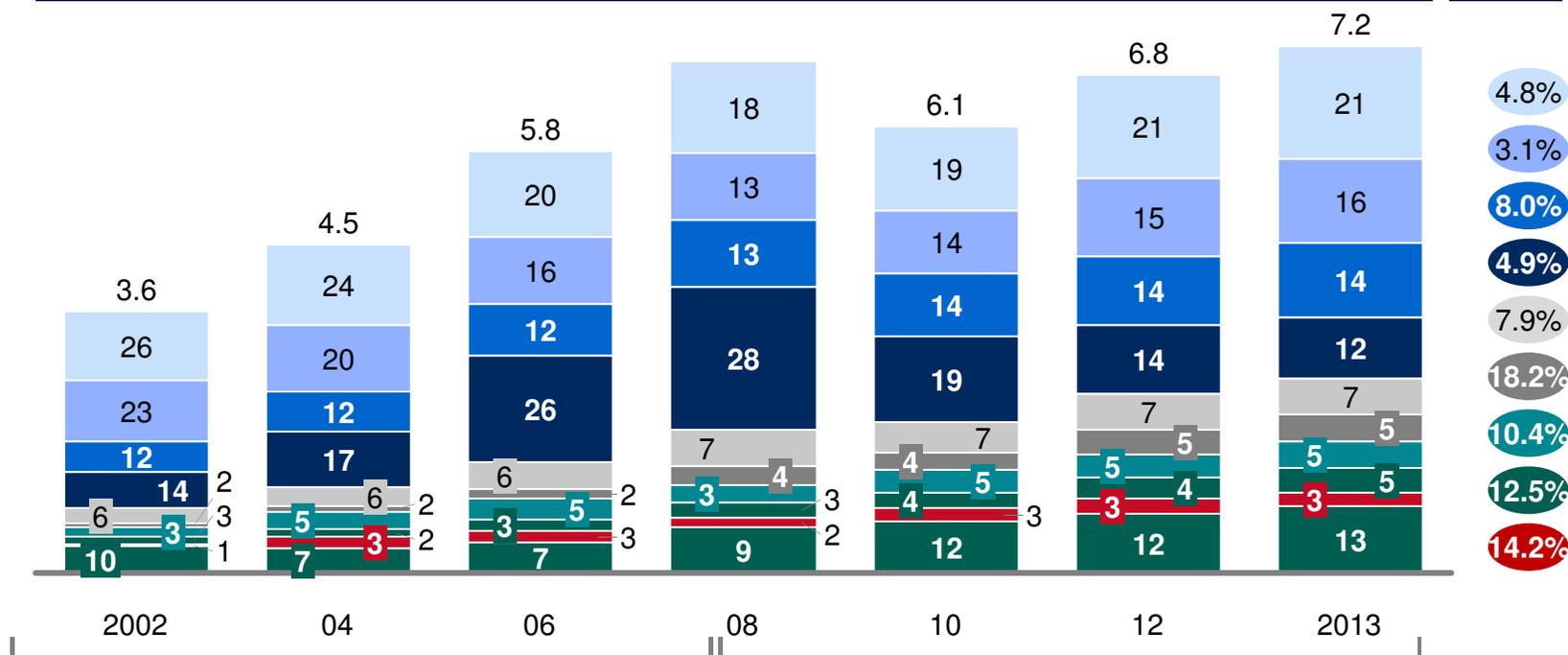
3 Only services as share of GDP for 2012

While Armenia's main GDP growth driver before the crisis was the construction sector, in recent years it has been the domestic services and export-oriented sectors



GDP per capita of Armenia, PPP, in constant 2010 USD, percent

CAGR
2002-13



Growth drivers

- Construction
- High agricultural output
- Growth of service sector (e.g., finance, tourism)
- Export of metals and minerals

1 Incl. Manufacturing and electricity, gas, water supply

2 Excl. transportation of international tourists (~5% of total transportation in 2013)

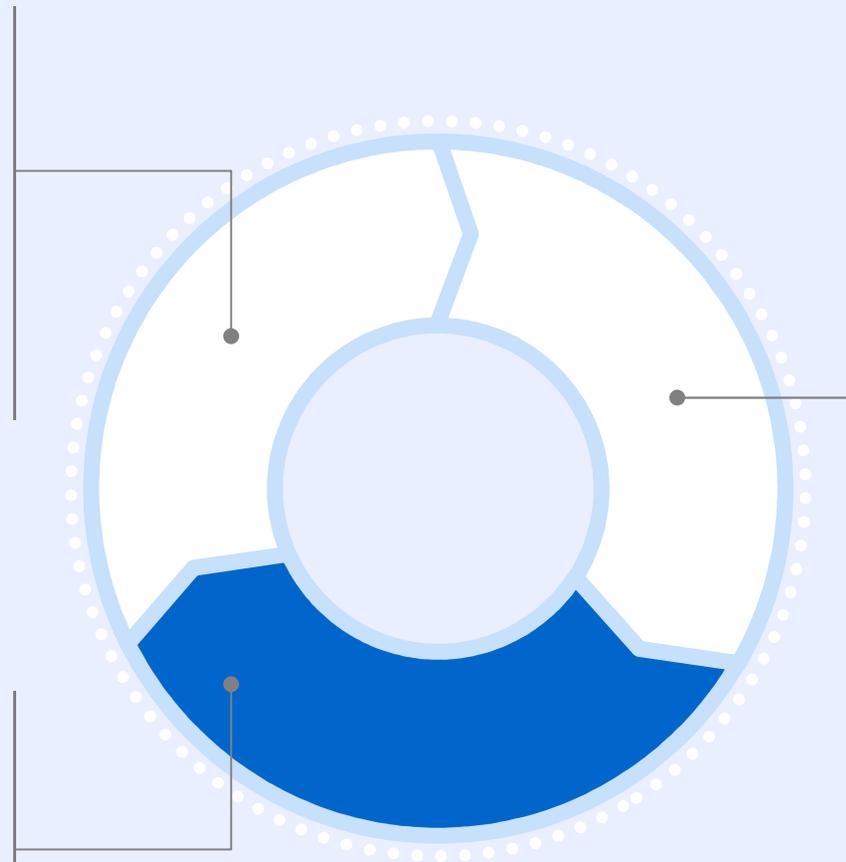
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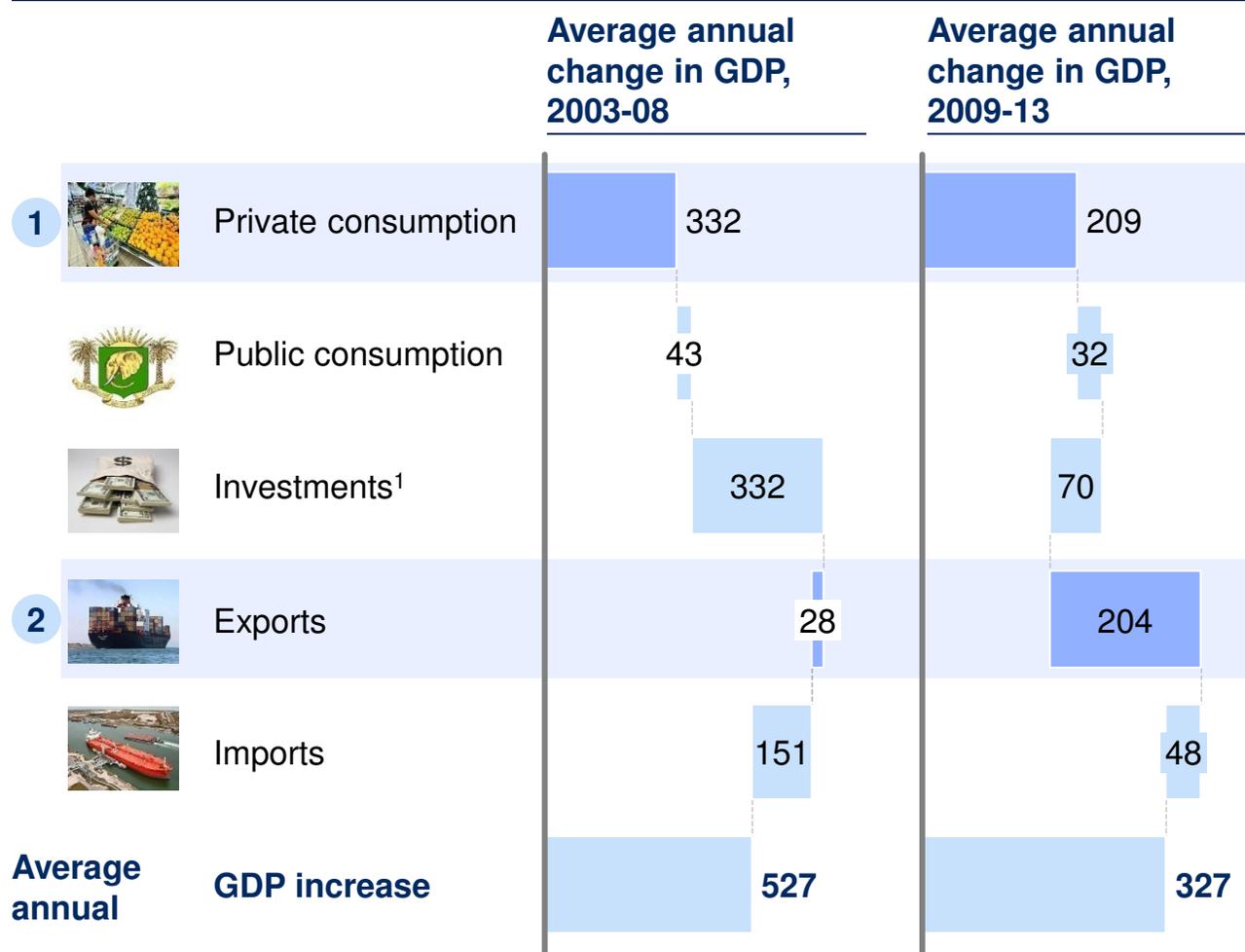
Production of goods and services

- How many goods and services have been produced?
- What has been produced?

Armenia's economic growth has been fueled by positive external effects, especially after the financial crisis

Detailed on next slides

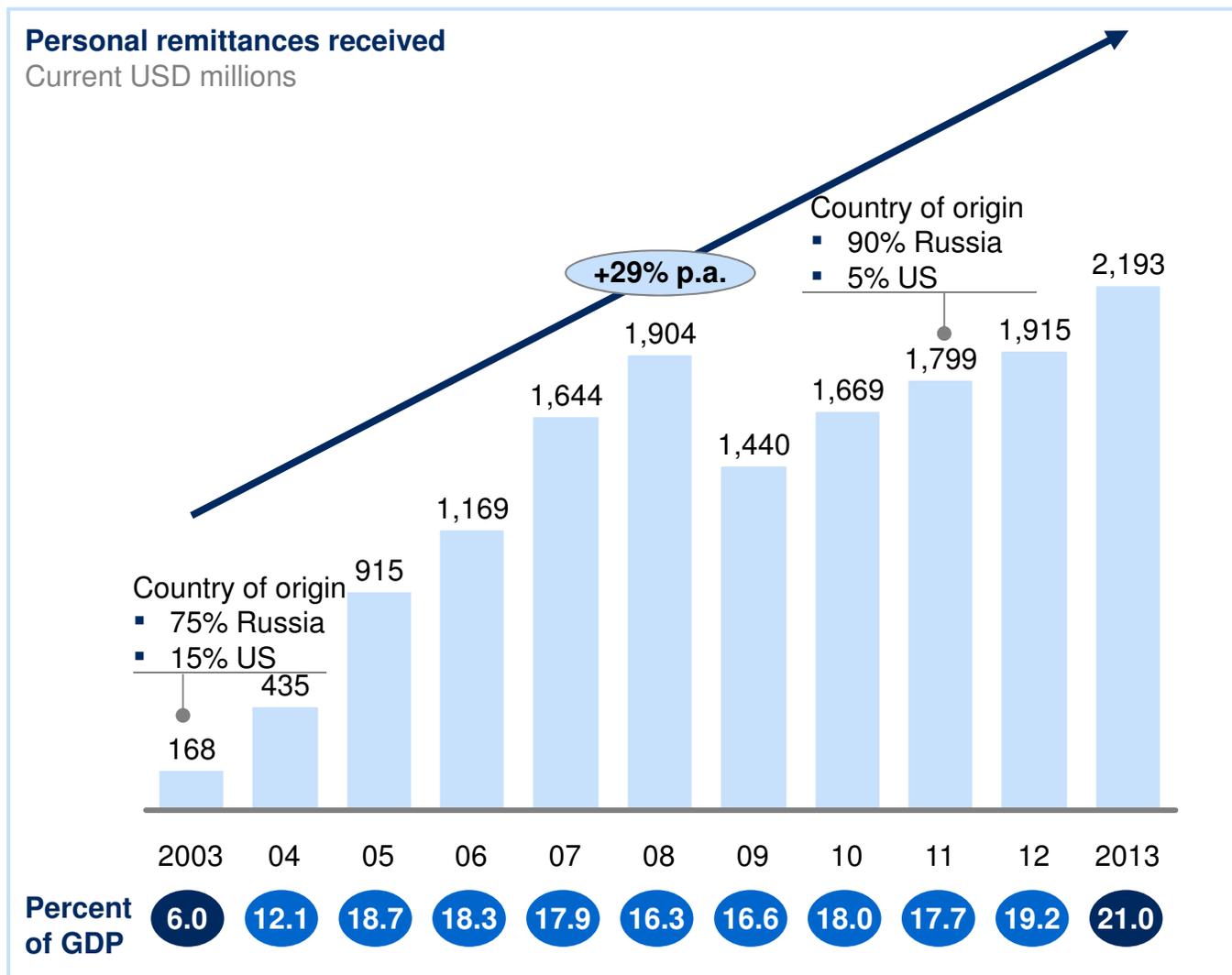
Drivers of GDP, constant 2005 USD millions



- 1 Private consumption consistently **drove GDP growth** over the past decade, largely finance by **remittances from fast-growing Russia**
- 2 In recent years, **exports** have **significantly contributed to GDP growth**, driven by increased service exports and **market price increases of commodities**

1 Gross capital formation

1 Remittances have driven private consumption and increased significantly from 6% of GDP in 2002 to >20% of GDP today



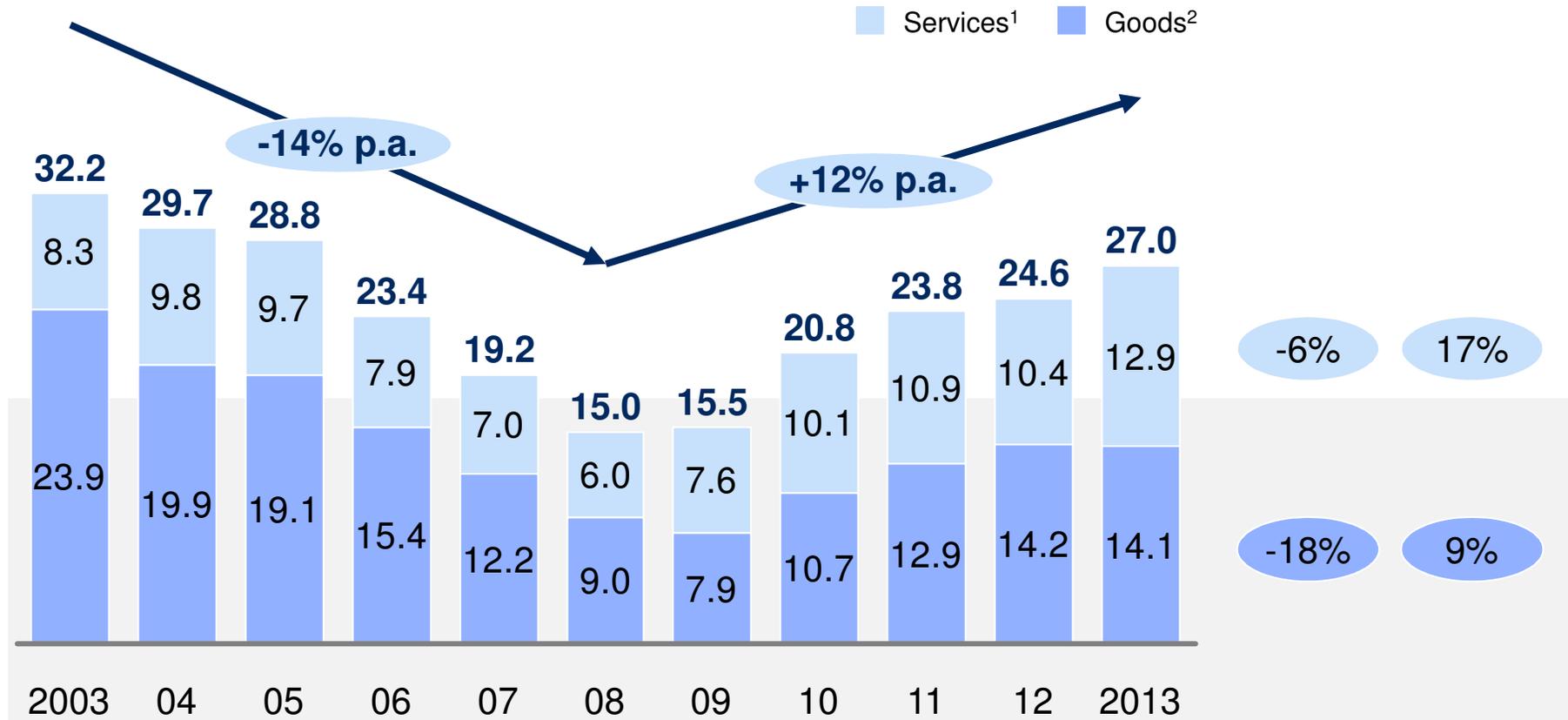
- With its extensive diaspora, Armenia is the **15th largest remittance recipient** in the world – **40% of Armenian households** receive remittances from migrant families
- Share of **remittances from Russia has increased significantly** over the years – from 75% in 2004 to 90% in 2011
- Yet remittances are **not being used productively**; typically, households spend **90% of remittances** on **current consumption**

2 Exports were a main driver of Armenia's growth after the crisis

Detailed on next page

Exports Percent of GDP

CAGR, 2003-08 **CAGR, 2008-12**



1 Mainly travel (55% of services), transportation (22%), and IT (8%)

2 Mainly basic metals, jewelry, alcoholic beverages

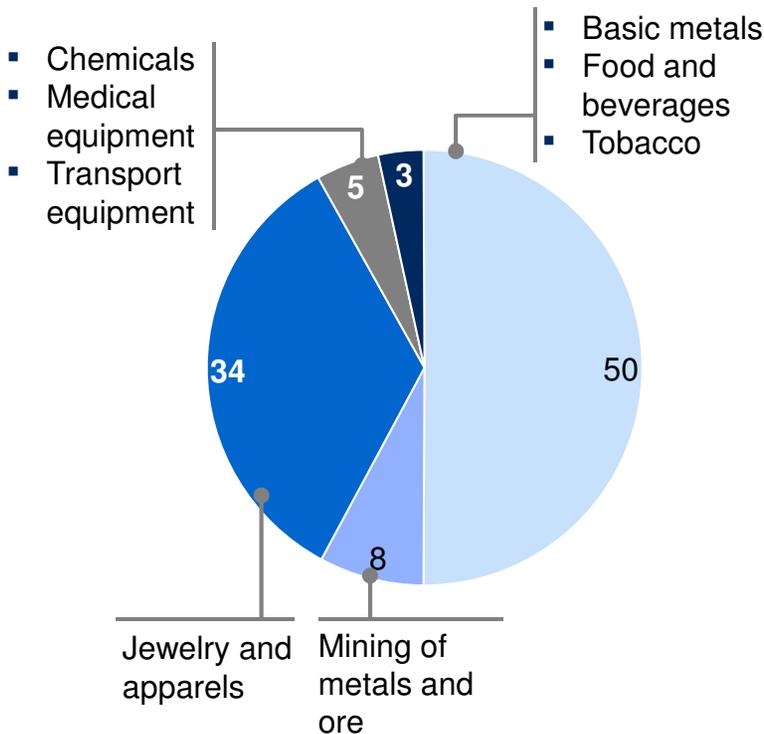
2 However, Armenia's exports of goods are resource-oriented and thus fail to develop the economy sustainably and don't create high-quality jobs



Breakdown of goods exports

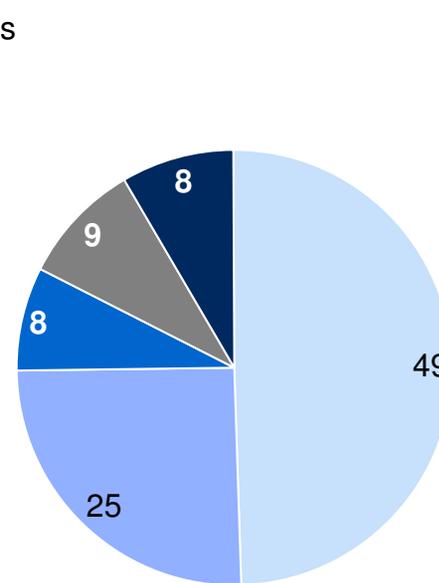
2005

100% = USD 0.9 billion



2012

100% = USD 1.4 billion



CAGR
2005-12

6.3%

26.4%

-13.7%

16.5%

21.5%

- High prices for metals and minerals supported growth over last years (see next page)
- However, resource-based trade with significant drawbacks
 - Vulnerability to global commodity price fluctuations
 - Little value add in the local economy
- Increased focus on mining detracts from more human-capital- and R&D-intensive sectors, making Armenia's goal of high-quality job creation¹ more difficult to achieve

¹ Republic of Armenia Government Decree, March 27, 2014: Armenia Development Strategy 2014-25

Several factors indicate that Armenia's current GDP growth path might not be sustainable in the near future



1

While FDI played an important role before the financial crisis, Armenia lost its attractiveness to foreign investors after 2008



2

Forecasts for basic metals and minerals suggest that commodities have reached their peak prices in 2012/2013



3

Armenia's productivity is still low, even compared to its regional peers



4

Strong link to Russia might hinder future growth as Russia will most likely face difficult economic times



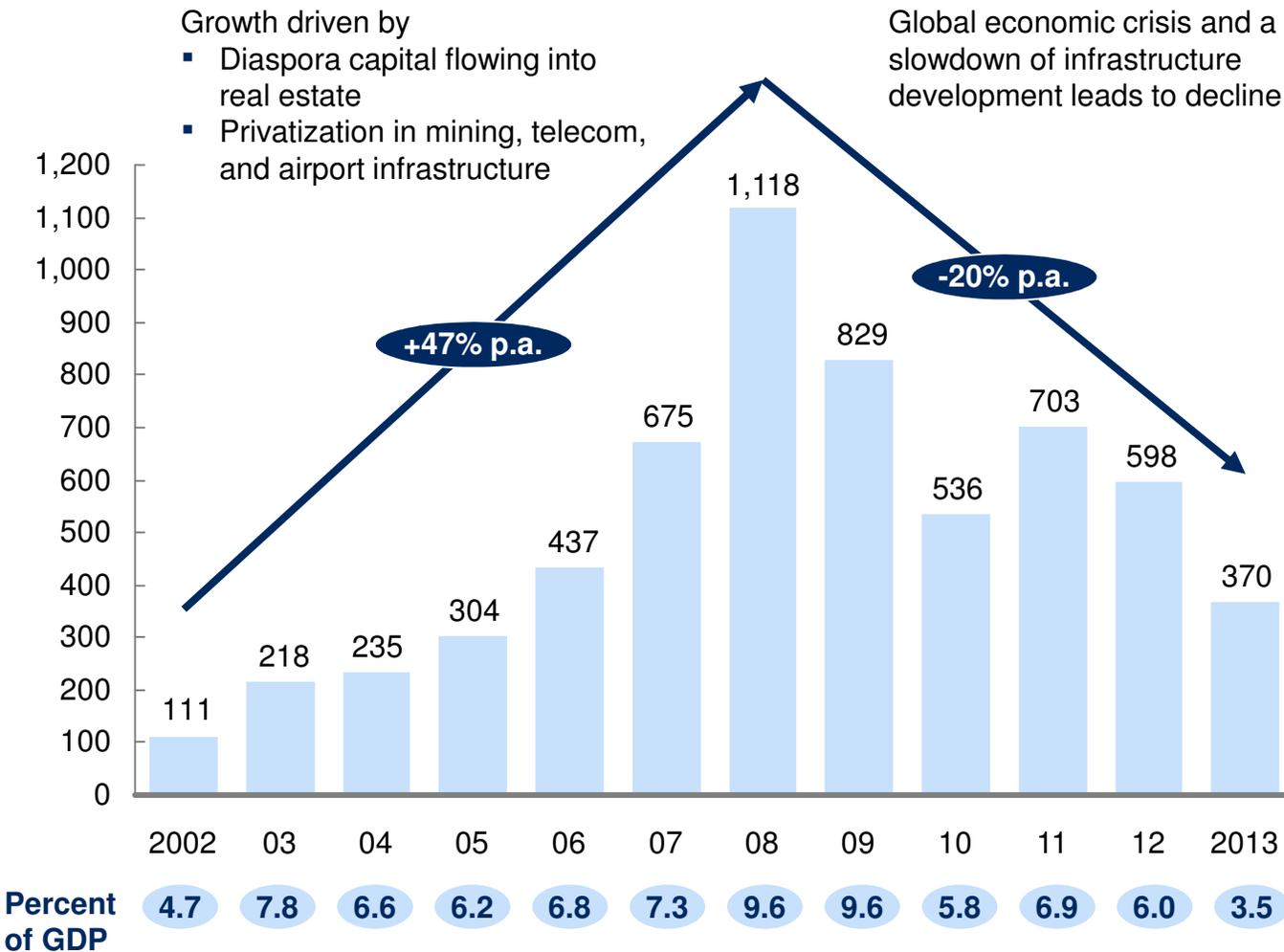
5

Sectors identified within Armenia2020 have not reached their potential, suggesting that there are no structural changes in key industries

1 While FDI played an important role in Armenia's economic development until 2009, they are declining since then

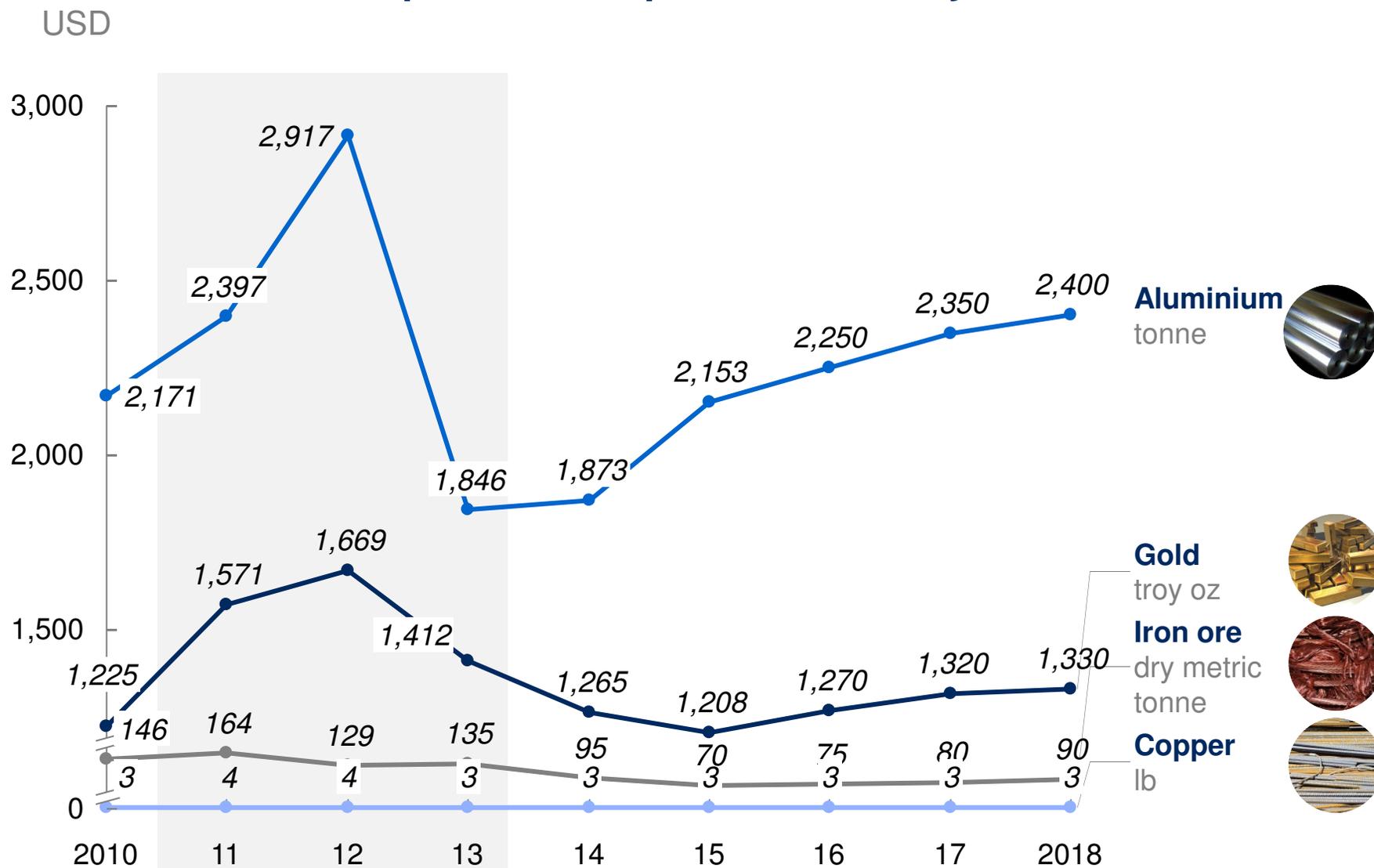
FDI inflows

Current USD millions

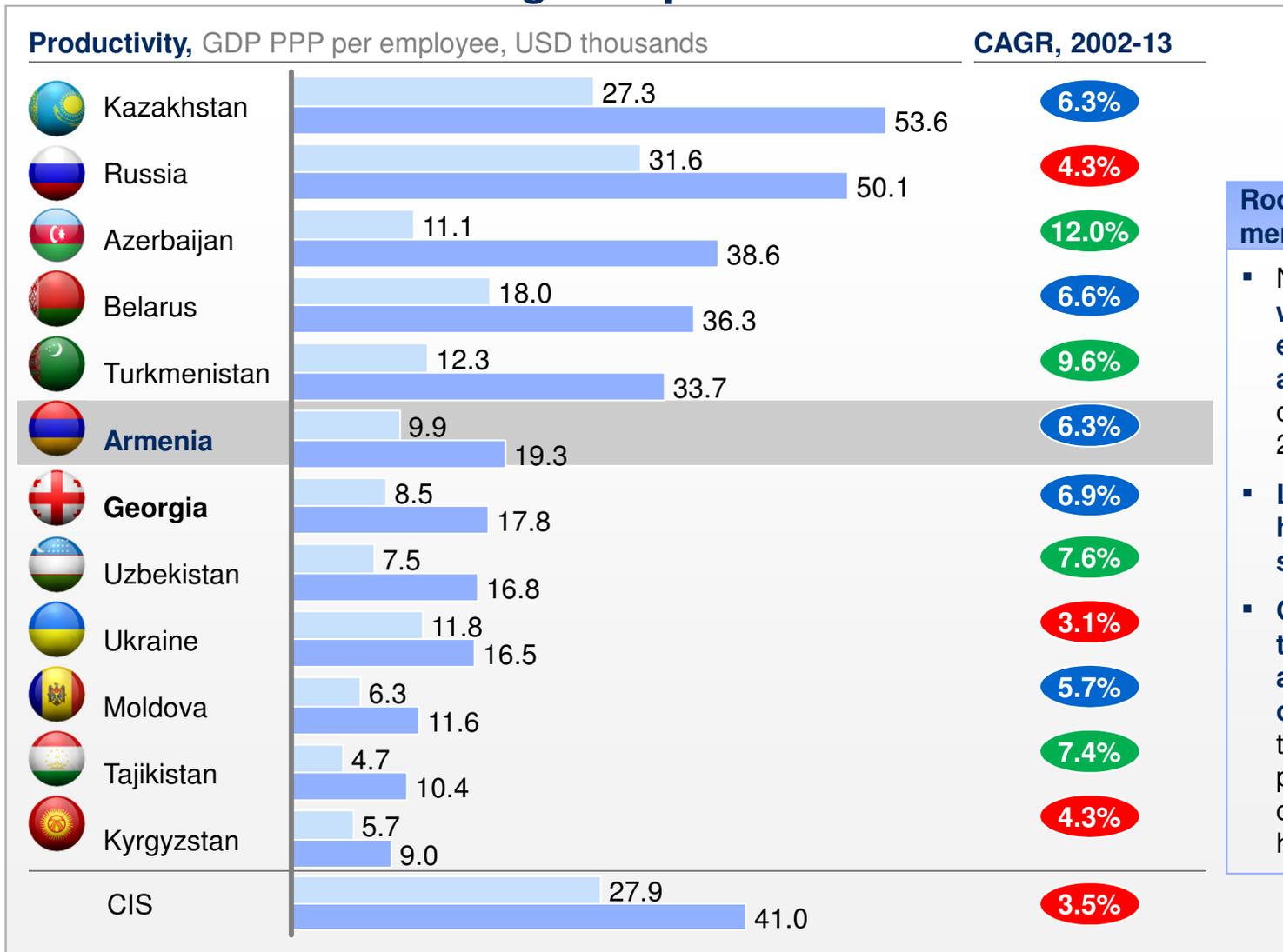


- Strong **increase in FDI** since late 1990s supported by government
 - **Privatization** of economy
 - Granting foreign companies **same rights** as local companies
 - **Investment guarantees** for foreign investors
 - Attracting FDI flowing into **real estate sector**
- **Today, FDI** account for **20% of total investments** in Armenia
- **Main sectors attracting FDI (2003-13)**
 - Financial services: 30%
 - Communications: 22%
 - Metals: 14%

2 Except for Aluminium, most commodities exported by Armenia seem to have reached their peak market prices in recent years



3 Armenia's productivity is catching up, but is still behind its regional peers



Room for improvement remains

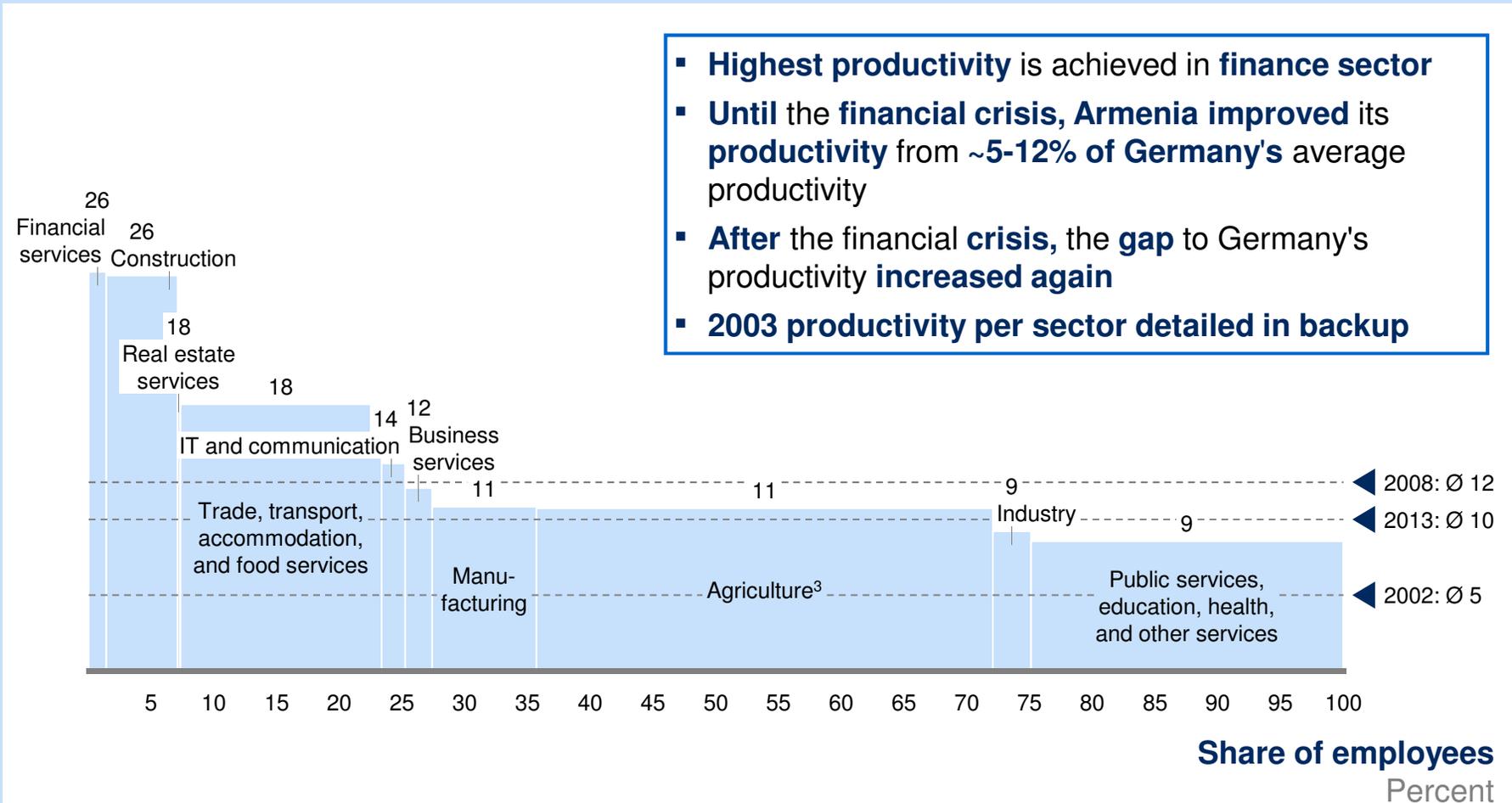
- Nearly **40% of workers are employed in agriculture**, which only accounts for 20% of GDP
- Lack of modern, high-productivity sectors**
- Gap in productivity to CIS average somewhat overestimated** due to natural resource production in some countries leading to high productivity

1 US productivity in 2013: ~ USD 117k

3 The Armenian productivity is significantly lower than that of Germany across all sectors and has even declined after the financial crisis

Productivity¹, 2013

Germany = 100%



1 GDP per employee

2 Incl insurance

3 Incl forestry and fishing

Note: Detailed sector allocation in backup

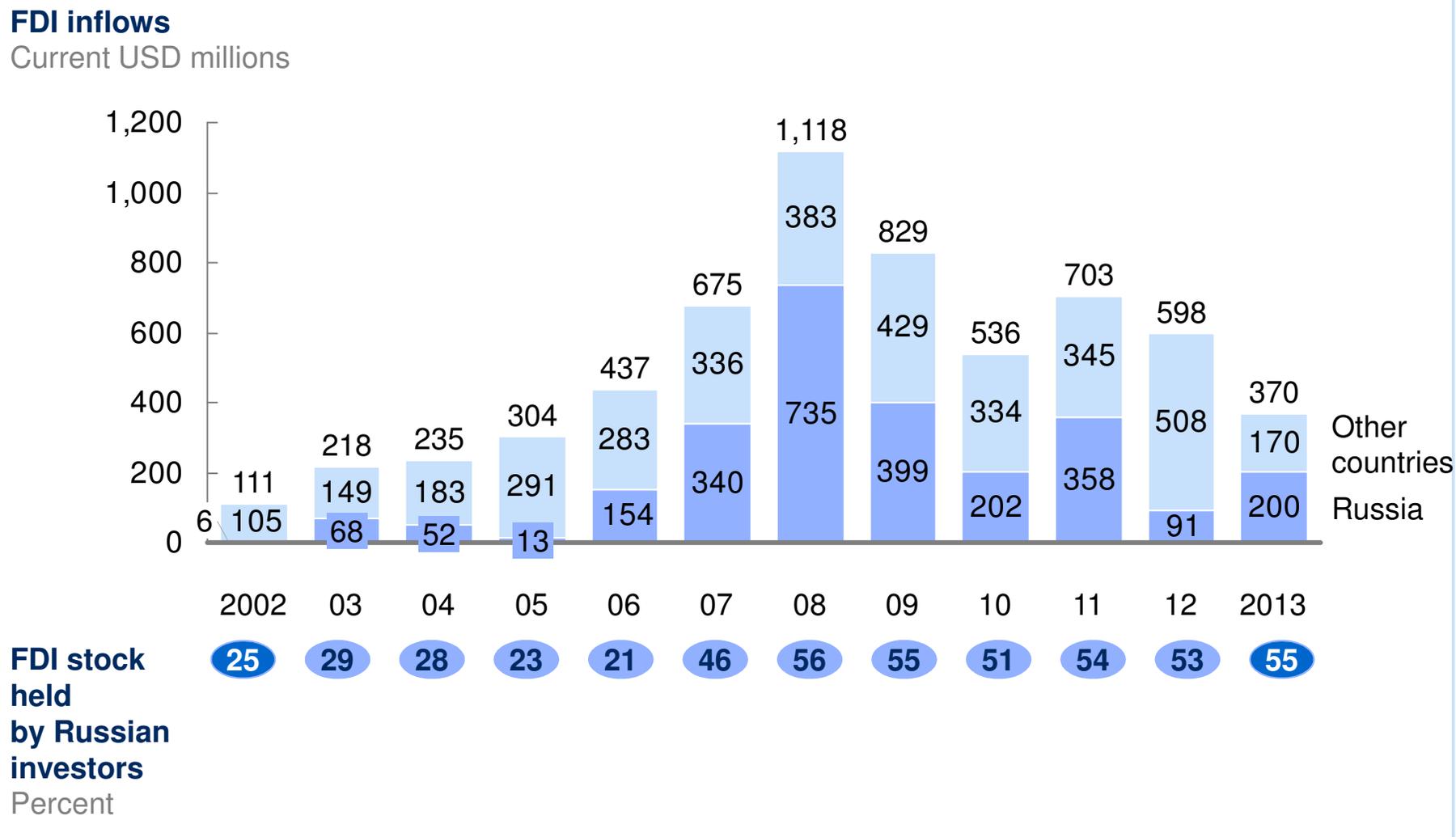
4 Among the CIS countries, Armenia has one of the strongest dependencies on Russia

2013 for exports and imports 2012 for remittances and FDI, Percent of GDP

■ >5% of GDP
 ■ 2-5% of GDP
 ■ <2% of GDP
 [] Detailed on next pages

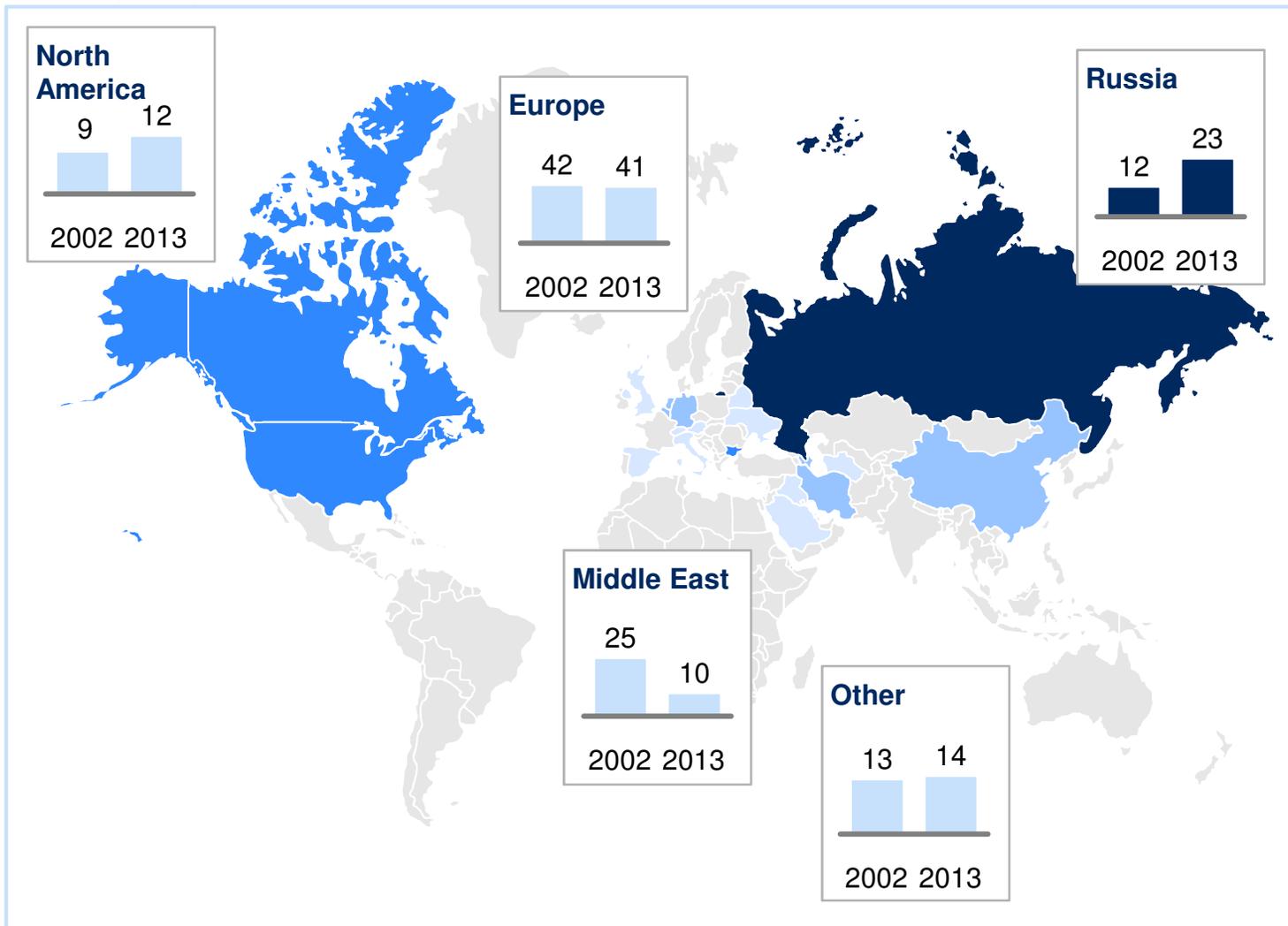


4 Armenia's dependency on Russia has increased significantly – FDI stock held by Russian investors increased from 25% in 2002 to >50% today



4 While Europe is Armenia's main trade partner, it relies increasingly on Russia for export trade

Export partners' trade value and share

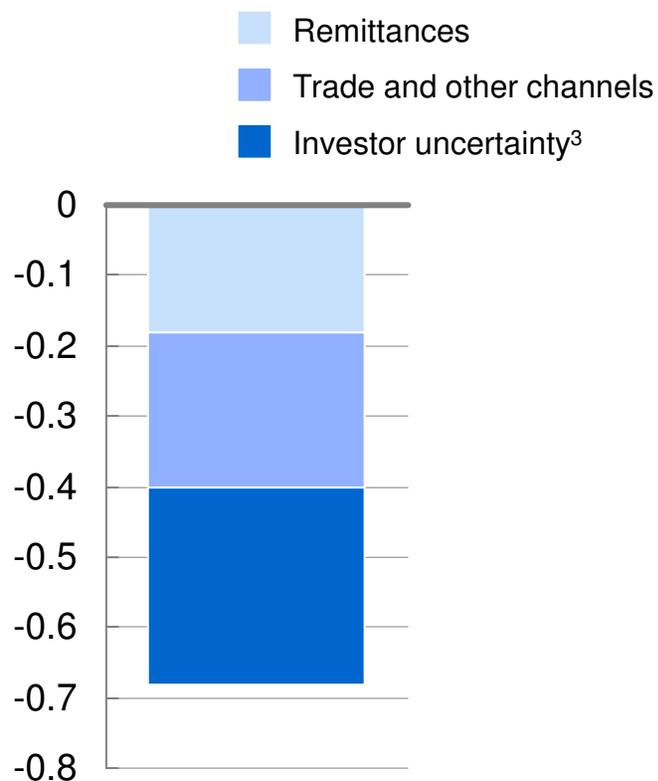


- Strong and **growing trade** with **Russia**, fostered by a **free trade** multilateral agreement with **CIS countries**
- **Exports to Russia** expected to **further increase** with Armenia joining the **Eurasian Customs Union** in 2015
- **Exports to the Middle East** have been **decreasing** due to the **political situation** in the region and deteriorating relations with neighboring countries

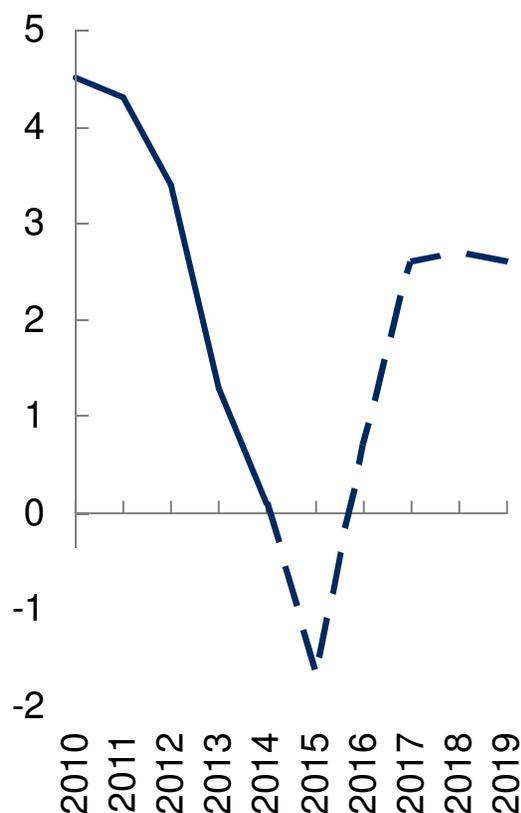
4 Armenia's high dependence on Russia might lead to a decline in GDP growth if the slowdown of Russias growth continues

----- Forecast

Impact of 1 percentage point fall in Russias GDP growth on CCA oil importer countries¹



GDP² growth rate Russia



- Armenia has experienced **robust growth over the last years**
- However, current **growth model is highly dependent Russia's economy**
- With **negative forecasts for Russia's economy**, Armenia could face a substantial decline in GDP growth in the near future

1 Armenia, Georgia, Kyrgyzstan

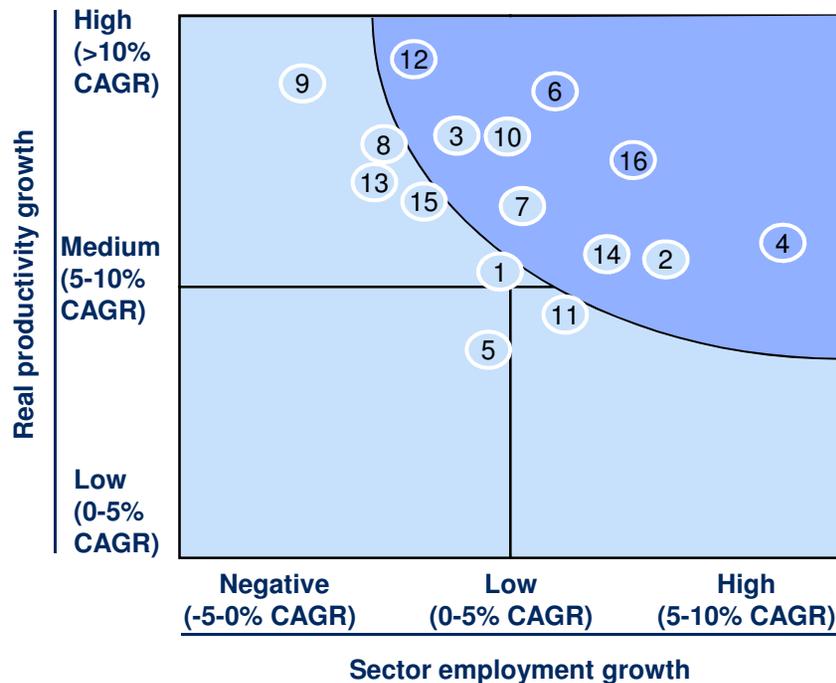
2 GDP, PPP, real 2010 USD

3 Escalating geopolitical tensions raise risk premiums in Russia (by ~220 basis points) and other countries, incl. the CCA oil importers (by ~75 basis points) and CCA oil exporters (by ~45 basis points).

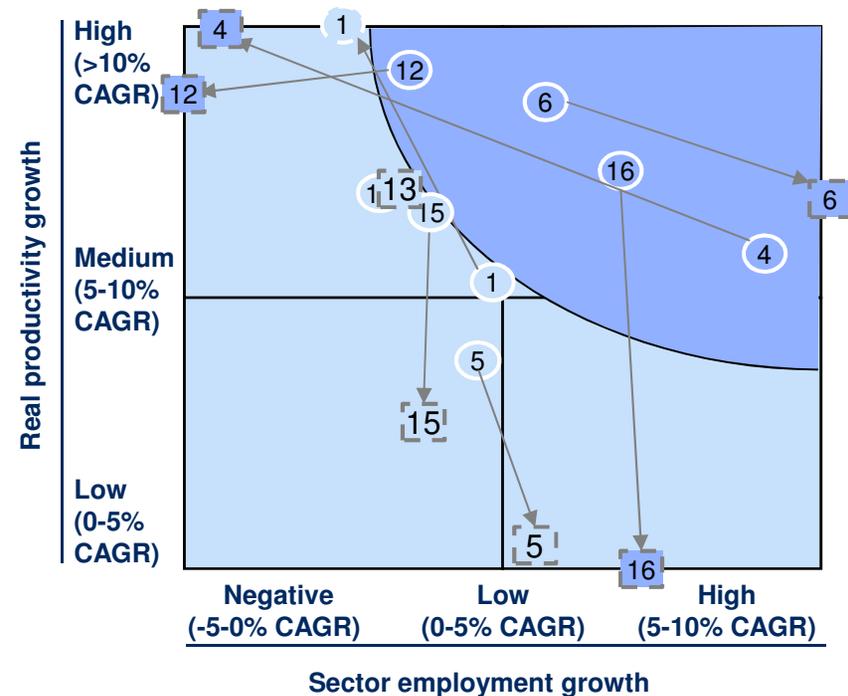
5 Many sectors did not exploit their productivity and employment growth potential identified in Armenia2020

- Key sectors, detailed on next slides
- Growth potential 2003-10
- Actual growth 2003-10

Productivity and growth potential for key sectors identified in Armenia2020 (as of 2003)



Actual growth of these sectors¹ between 2003 and 2010 (showing only sectors for which data is available)



- | | | | |
|----------------------------------|--------------------------------|------------------------------|------------------------------------|
| 1 Mining | 5 Construction | 9 Industrial machinery | 13 Retail and wholesale |
| 2 Metals | 6 Banking and insurance | 10 Electronics and precision | 14 Jewelry and diamonds |
| 3 Telecommunications | 7 Food processing | 11 Construction materials | 15 Transportation |
| 4 Tourism and restaurants | 8 Textiles and apparel | 12 Healthcare | 16 Software and IT services |

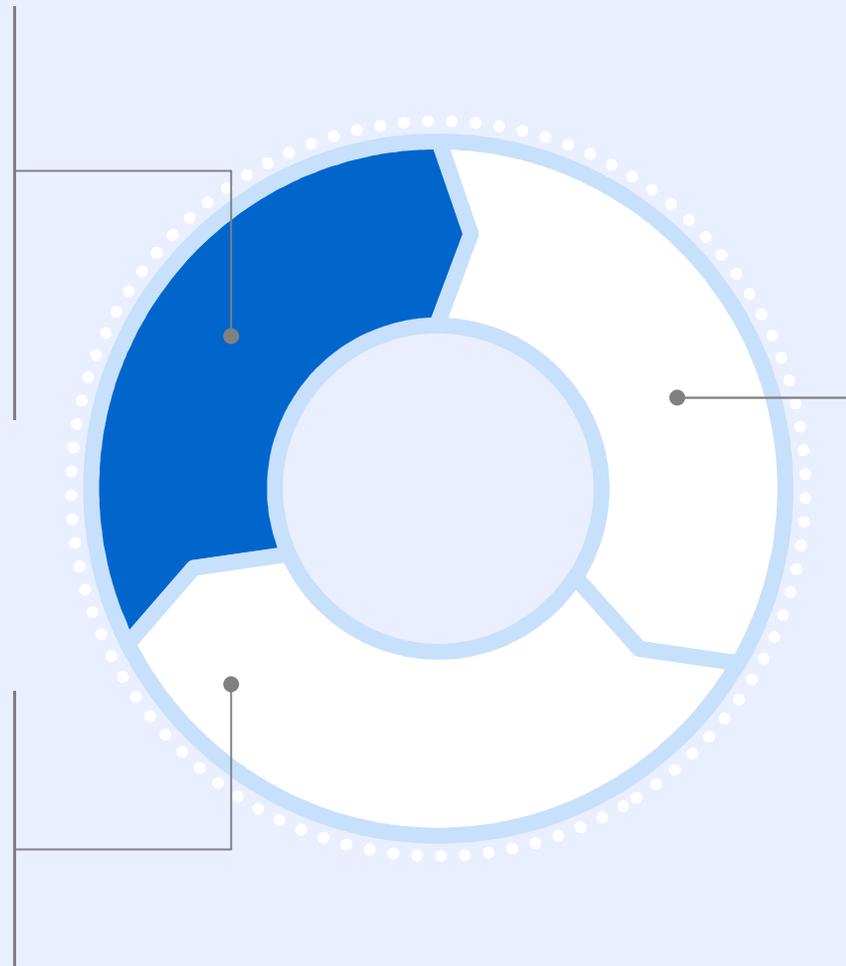
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Production of goods and services

- How many goods and services have been produced?
- What has been produced?

Examples such as Georgia show that there is room for improvement for Armenia to build a growth-enabling environment

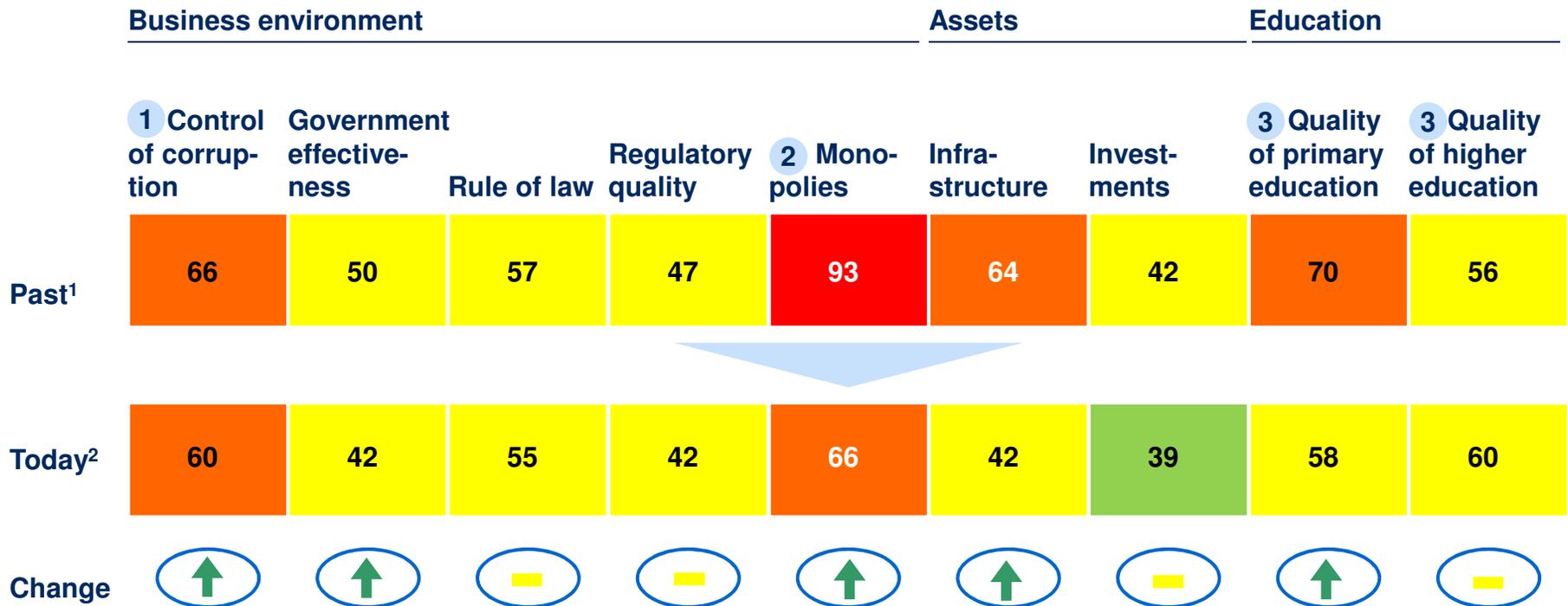
- Top 20th percentile (best)
- 20th-40th percentile
- 40th-60th percentile
- 60th-80th percentile
- Lowest 20th percentile (worst)
- ... Detailed on next page

	Business environment					Assets		Education	
	1 Control of corruption	Government effectiveness	Rule of law	Regulatory quality	2 Monopolies	Infrastructure	Investments	3 Quality of primary education	3 Quality of higher education
Armenia	60th-80th percentile	40th-60th percentile	40th-60th percentile	40th-60th percentile	60th-80th percentile	40th-60th percentile	40th-60th percentile	40th-60th percentile	40th-60th percentile
Azerbaijan	Lowest 20th percentile (worst)	60th-80th percentile	60th-80th percentile	60th-80th percentile	Lowest 20th percentile (worst)	20th-40th percentile	40th-60th percentile	60th-80th percentile	60th-80th percentile
Belarus	60th-80th percentile	Lowest 20th percentile (worst)	60th-80th percentile	Lowest 20th percentile (worst)	Greyed out	Greyed out	Top 20th percentile (best)	Greyed out	Greyed out
Georgia	20th-40th percentile	20th-40th percentile	40th-60th percentile	20th-40th percentile	Lowest 20th percentile (worst)	20th-40th percentile	20th-40th percentile	60th-80th percentile	60th-80th percentile
Kazakhstan	60th-80th percentile	60th-80th percentile	60th-80th percentile	60th-80th percentile	Lowest 20th percentile (worst)	40th-60th percentile	40th-60th percentile	40th-60th percentile	40th-60th percentile
Kyrgyzstan	Lowest 20th percentile (worst)	60th-80th percentile	Lowest 20th percentile (worst)	40th-60th percentile	Lowest 20th percentile (worst)	60th-80th percentile	Top 20th percentile (best)	60th-80th percentile	Lowest 20th percentile (worst)
Moldova	60th-80th percentile	40th-60th percentile	40th-60th percentile	40th-60th percentile	Lowest 20th percentile (worst)	40th-60th percentile	40th-60th percentile	40th-60th percentile	60th-80th percentile
Russia	Lowest 20th percentile (worst)	40th-60th percentile	60th-80th percentile	60th-80th percentile	60th-80th percentile	40th-60th percentile	40th-60th percentile	20th-40th percentile	40th-60th percentile
Tajikistan	Lowest 20th percentile (worst)	60th-80th percentile	60th-80th percentile	60th-80th percentile	40th-60th percentile				
Turkmenistan	Lowest 20th percentile (worst)	Greyed out	Greyed out	Top 20th percentile (best)	Greyed out	Greyed out			
Ukraine	Lowest 20th percentile (worst)	60th-80th percentile	60th-80th percentile	60th-80th percentile	Lowest 20th percentile (worst)	40th-60th percentile	60th-80th percentile	20th-40th percentile	40th-60th percentile
Uzbekistan	Lowest 20th percentile (worst)	Greyed out	Greyed out	40th-60th percentile	Greyed out	Greyed out			

While Armenia has improved across most indicators, there has not been a step change in performance

Armenia's rank (out of 100 with 1 being the best)

- Top 20th percentile (best)
- 20th-40th percentile
- 40th-60th percentile
- 60th-80th percentile
- Lowest 20th percentile (worst)
- Change in rank ≤5
- ↑ Change in rank >5

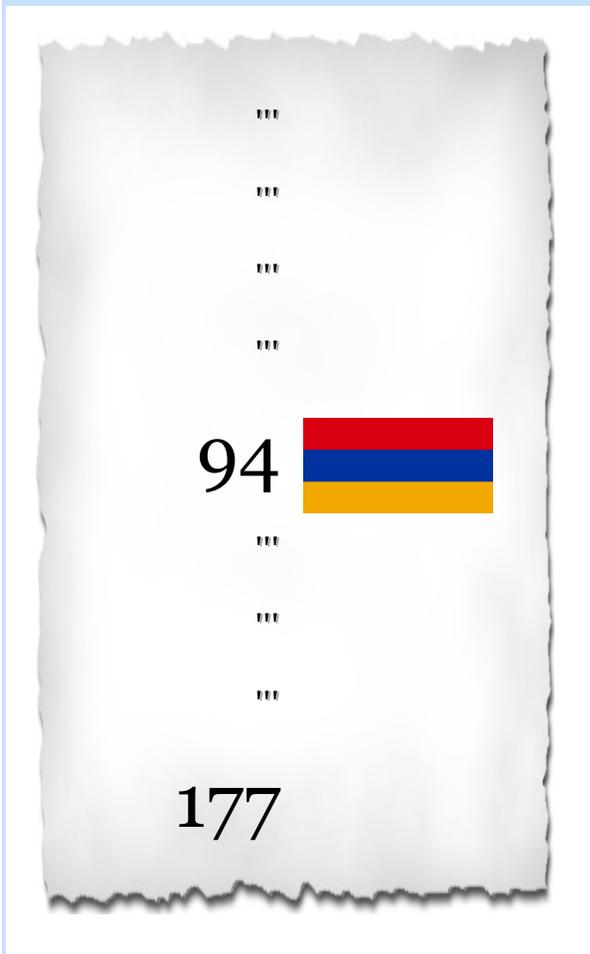


1 2002 data for control of corruption, government effectiveness, regulatory quality, rule of law and investments; 2006 for infrastructure and education, 2008 for monopolies

2 2012-14

1 Armenia is perceived as a corrupt country, hindering the growth of the economy

Armenia ranks low on the perceived corruption index ...

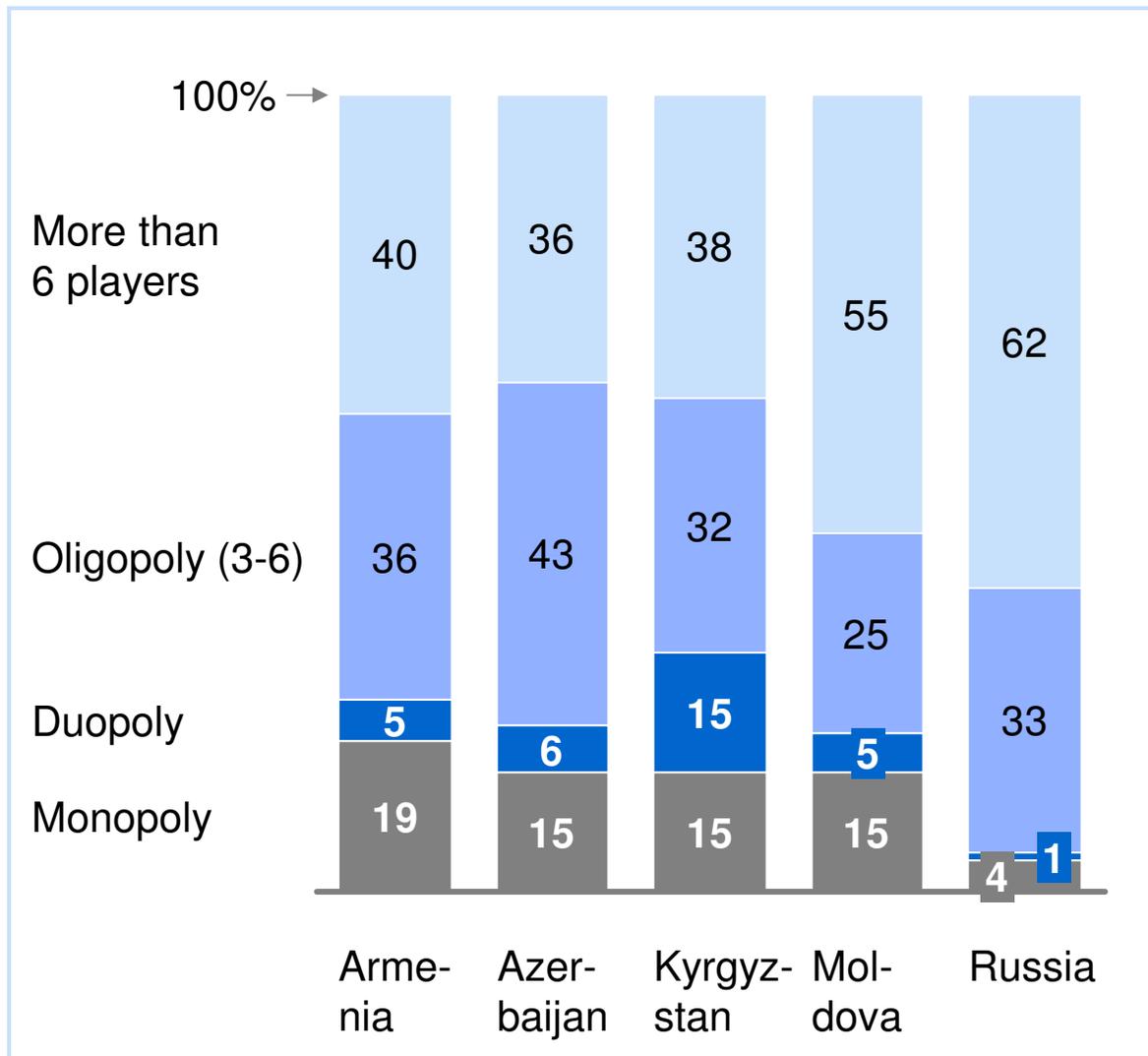


... and is struggling to improve the situation

- **Government** follows an **AntiCorruption Strategy** since 2003 and established an **AntiCorruption Council in 2004**, chaired by the Prime Minister
- **However, little progress has been made** to reduce the corruption
 - Global integrity report rates the **anticorruption law** as “**weak**” and its **enforcement** as “**very weak**”
 - Policy Forum Armenia: “**most anticorruption measures are dead from the start**”
 - **Armenia's rank within the corruption index worsened from 2003 to 2011** (from rank 78 to rank 129); **progress has been made from 2011 to 2013** (rank 94), but **corruption** in Armenia is still rated the **most problematic factor for doing business**

2 Monopolies are highly prevalent in Armenia

2009 market shares percent



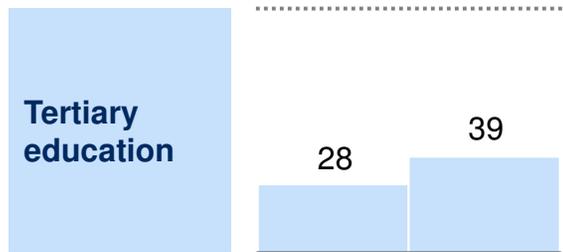
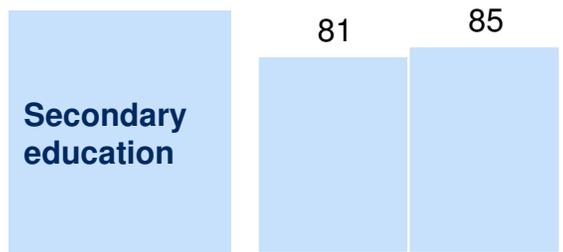
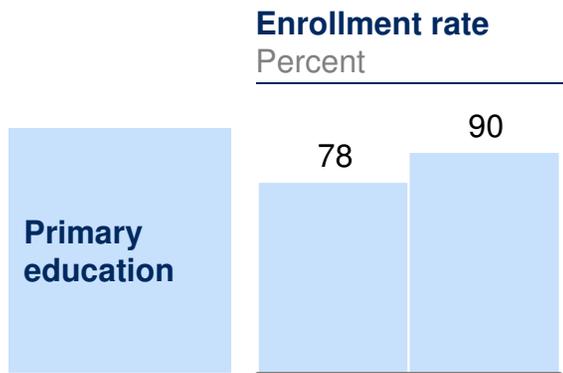
Monopolies are prevalent, mainly due to **widespread corruption** and **lack of law enforcement**

- **Mutual agreements** between entrepreneurs and judiciary prevail in all levels of government
- **Weak framework for contract enforcement** makes prosecution difficult
- Most concentrated markets are **sugar, wheat, and energy/gas transmission**
- **Consumer welfare losses** due to above-average pricing USD 300 million p.a.

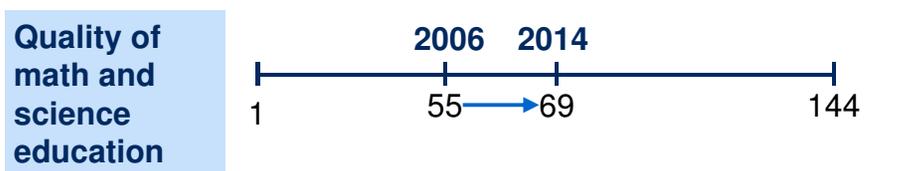
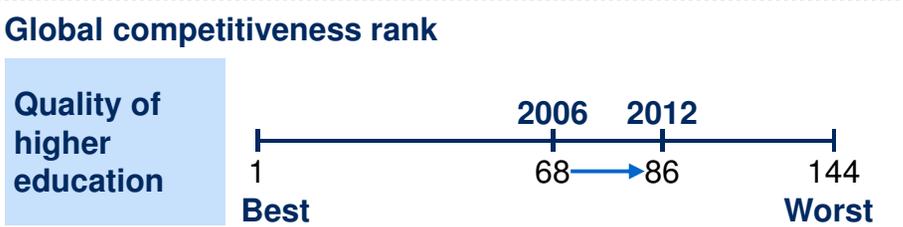
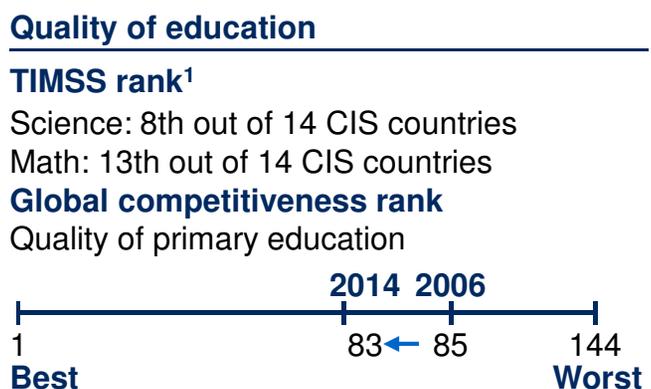
3 While there have been several lighthouse educational projects in Armenia over the last years ...

Example projects	Description	Status and size
	<p>Ayb School</p> <ul style="list-style-type: none"> ▪ First Armenian school community integrating the best of Armenia's educational traditions with the world's latest technological resources ▪ Goal is for >1,000 students to attend across elementary, middle and high schools (70% receiving scholarships) ▪ National Education Excellence Program launched 	<ul style="list-style-type: none"> ▪ Opened in 2011 ▪ USD 15 million of investments
	<p>Tumo Centre for Creative Technologies</p> <ul style="list-style-type: none"> ▪ >5,000 children aged 12-18 getting lessons in animation, game development, digital media and web design (free training courses) 	<ul style="list-style-type: none"> ▪ Opened in 2011 ▪ >USD 40 million of investments
	<p>Dilijan International School</p> <ul style="list-style-type: none"> ▪ international co-educational boarding and day school for students aged 13 to 19 years ▪ Up to 800 students from 50 nationalities 	<ul style="list-style-type: none"> ▪ Opened in 2011 ▪ USD 120 million of investments
	<p>The American University of Armenia</p> <ul style="list-style-type: none"> ▪ The only US-accredited university in the CIS ▪ > 1,000 students, of which ~half receive scholarships 	<ul style="list-style-type: none"> ▪ Opened in 1991

3 ... the quality of education in Armenia is low and even worsened over the past years



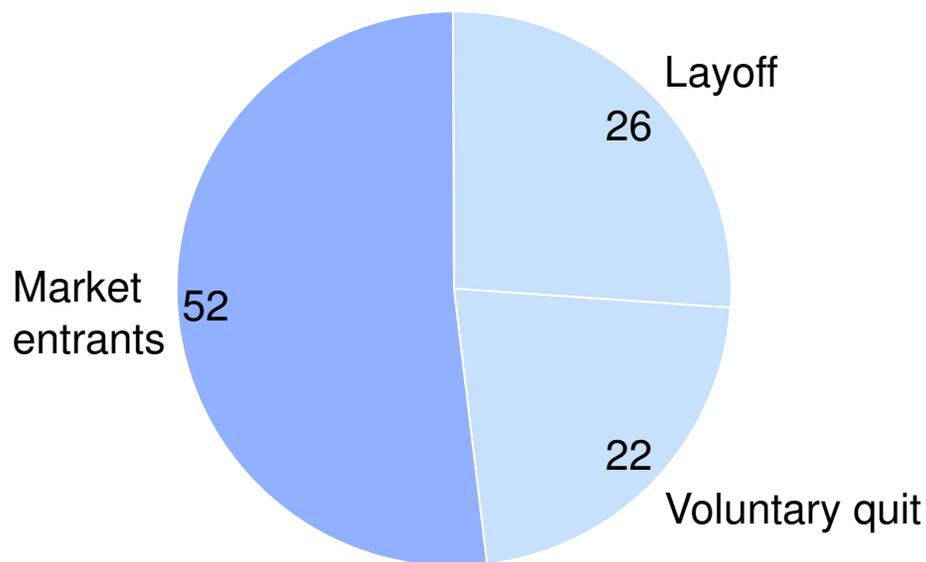
Armenia CIS country average



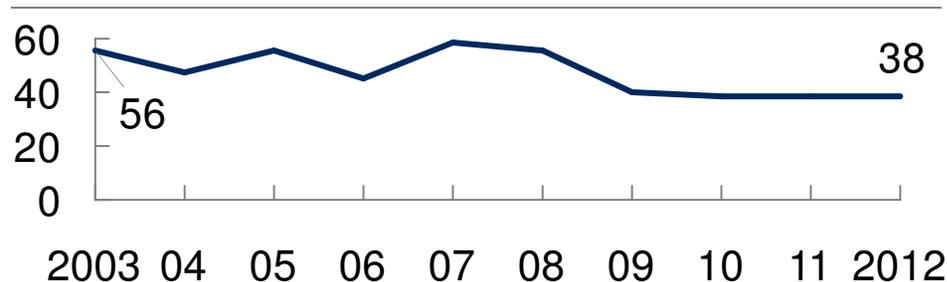
¹ Trends in international mathematics and science study

3 High share of unemployed market entrants suggests a mismatch between education and its relevance to labor market needs

Distribution of unemployment by cause, 2010



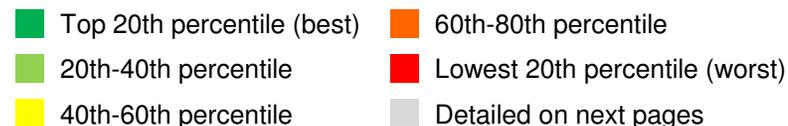
Youth unemployment rate (age 15-24), Percent



- In most cases, **unemployment** in Armenia is **not caused by job loss due to layoffs**
- Instead, more than half of the unemployed are **new labor market entrants** – mostly youth
- 1/3 of respondents mentioned "**inadequately educated workforce**" as **obstacles to firm activities** in Armenia in enterprise performance survey¹

¹ World Bank Business Environment and Enterprise Performance Survey (BEEPS) , 2008

Armenia still ranks low on important social indicators



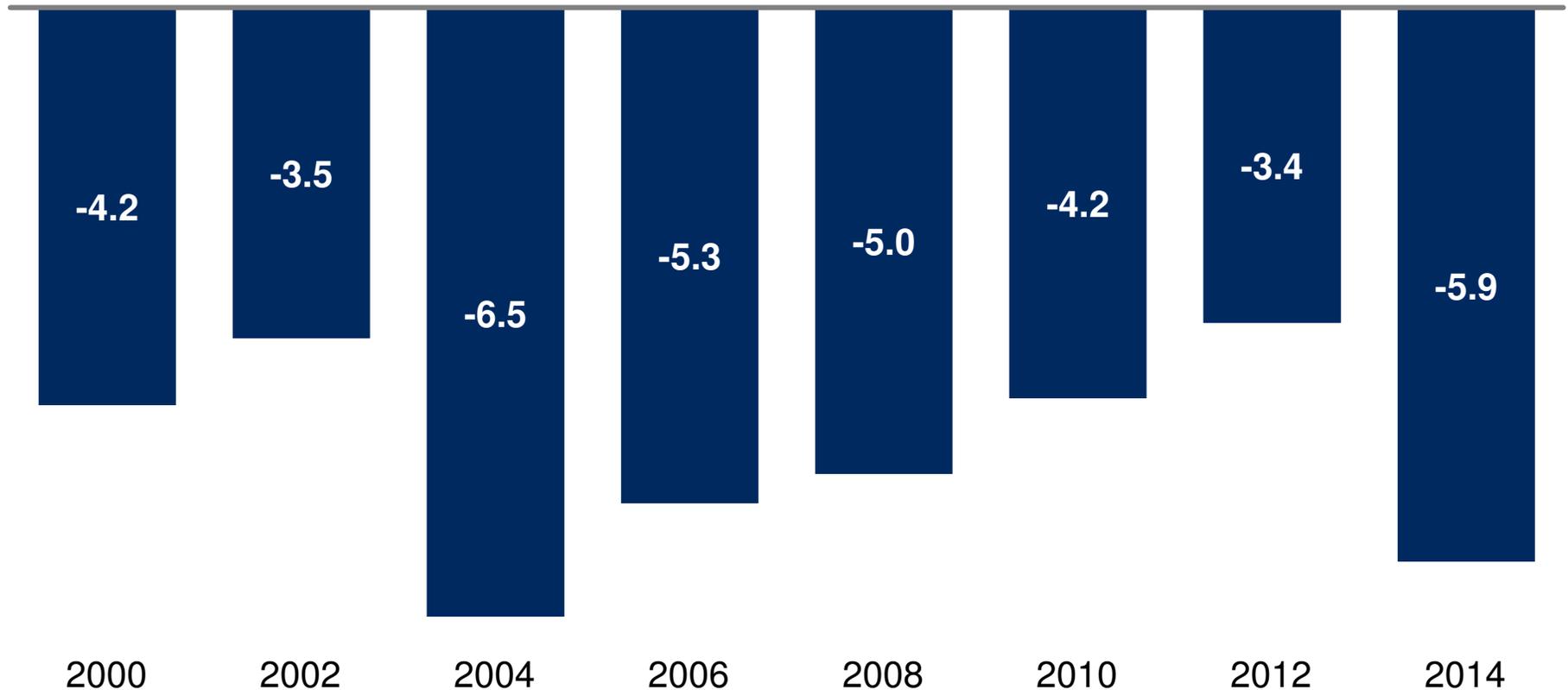
	2013 ¹ Indicator	Country ranking
Overall	① Emigration rate	-5.9/1,000 ■ 197 out of 228
	Population growth rate	-0.1% ■ 209 out of 228
Self-sufficiency	② Unemployment rate	18.5% ■ 188 out of 206
	Youth unemployment	33.1% ■ 182 out of 206
Equity and health	Income inequality (Gini)	30.9 ■ 27 out of 141
	③ Poverty	35.8% ² n/a
	Life expectancy	74 ■ 116 out of 228
Social Cohesion	Judicial independence	n/a ■ 108 out of 142
	④ Size of shadow economy	40% ■ 124 out of 162

1 2008 data for GINI 2 Share of population below poverty line

SOURCE: World Bank, CIA World Factbook, Transparency International; Armbanks: "Armenian shadow economy share is 35-40 percent", 19.06.2010

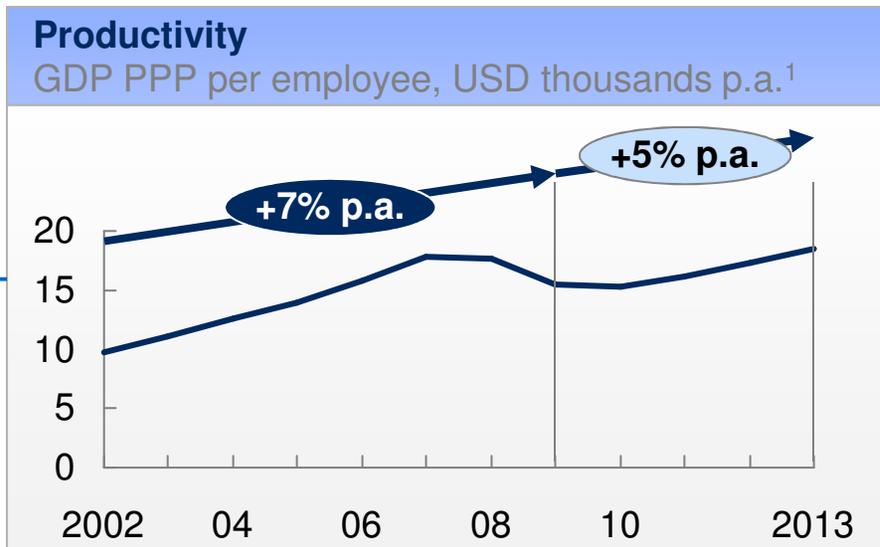
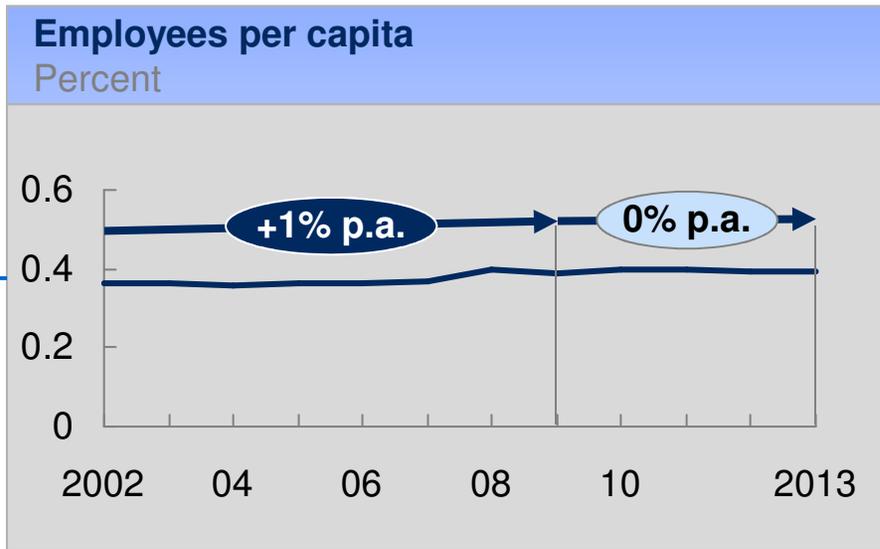
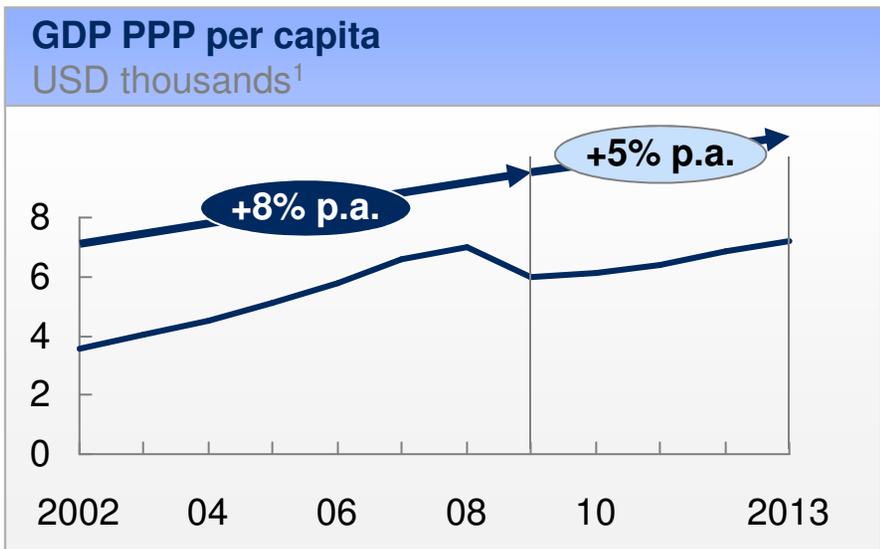
1 The relatively strong economic growth over the last years could not reduce the constantly high emigration rate in Armenia

Net migration rate per 1,000 population, Republic of Armenia



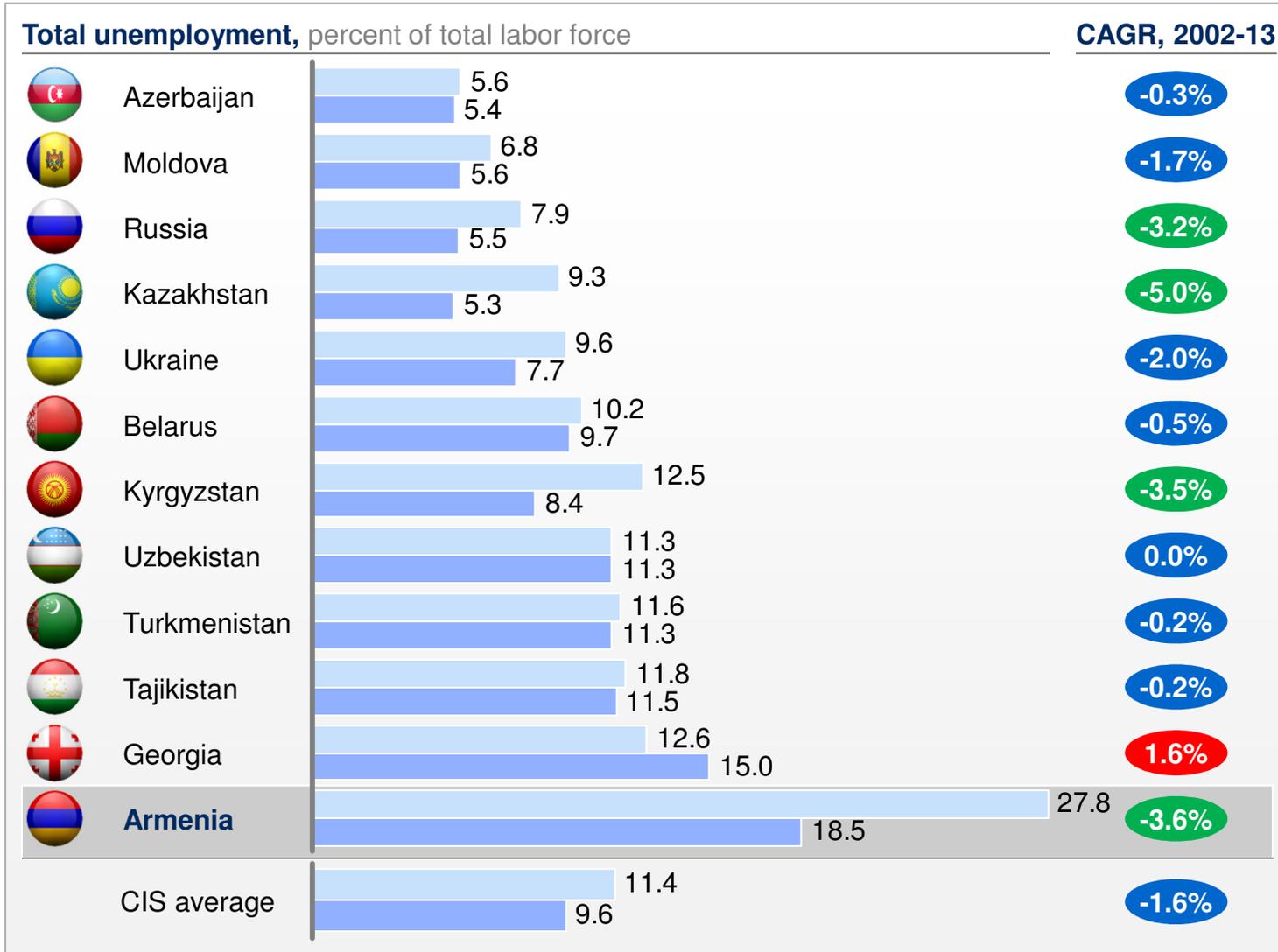
2 Armenia's growth has been driven by productivity gains only, while the economy failed to create new jobs

■ Detailed on next slides



¹ Constant 2010 USD

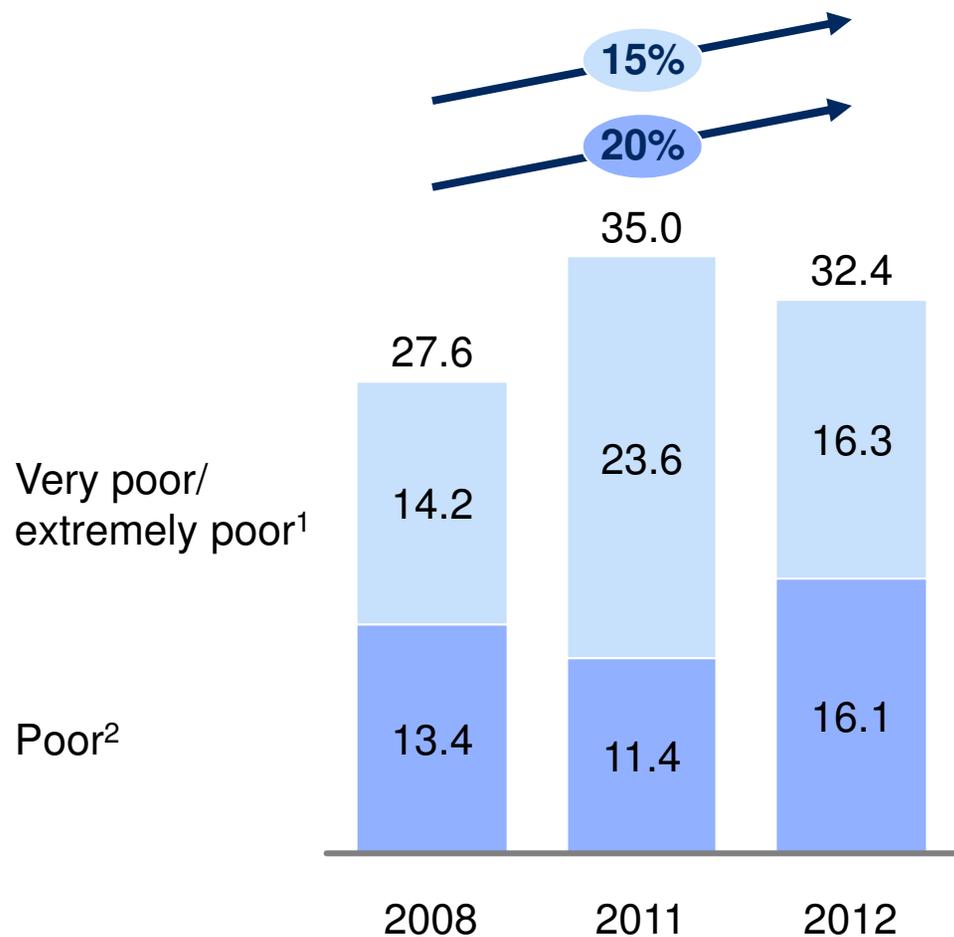
2 While decreasing, Armenia still has the largest unemployment rate in the region



Decrease in unemployment rate higher than increase in employees/capita as <____> capital also factor economically active population and labor participation in (both stable over last decade)

3 In Armenia, every third person is poor and poverty even increased over the last years

Percent of total population



- In 2012, almost **every third person in Armenia was poor**
- From 2008 to 2012
 - **Poverty in Armenia increased by 20%**
 - **Extreme poverty increased by 15%**
- Increases are due to the **financial crisis whose effects could not be compensated** by the economic growth over the last years
- **Extreme poverty could be reduced in recent years**, leading to a brighter outlook for the years ahead

¹ Very poor: Consumption per adult below the lower poverty line of AMD 24,400 in 2008 and 30,500 in 2012

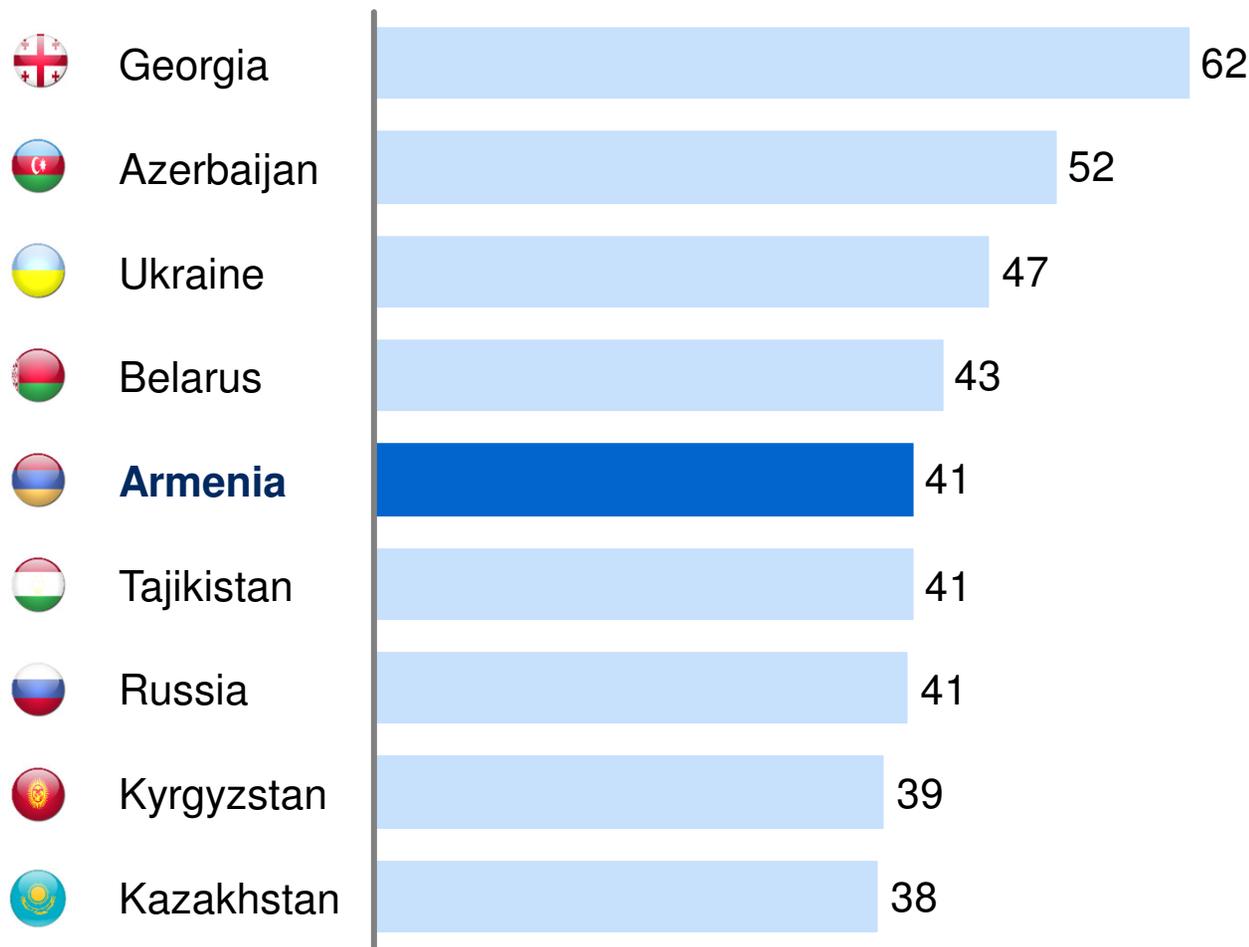
Extremely poor: Consumption per adult below the food poverty line of AMD 17,600 in 2008 and 21,700 in 2012

² Consumption per adult below the upper poverty line of AMD 29,900 in 2008 and 37,000 in 2012, but above the lower poverty line

4 Armenia with a high share of informal economy – in line with the trend in the region

ESTIMATES

Size of informal economy
Percent of official GDP, 2007¹



- Armenia could reduce the size of its shadow economy over time (from ~46% in 2000), however still ranks **124 out of 162 countries** today
- As per Aristomene Varoudakis, Head of World Bank's Yerevan office, Armenia's informal economy in 2010 stood at **35-40%**

¹ Latest year available

SOURCE: Friedrich Schneider: "Shadow economies all over the world", 2010; Armbanks: "Armenian shadow economy share is 35-40 percent", 19.06.2010

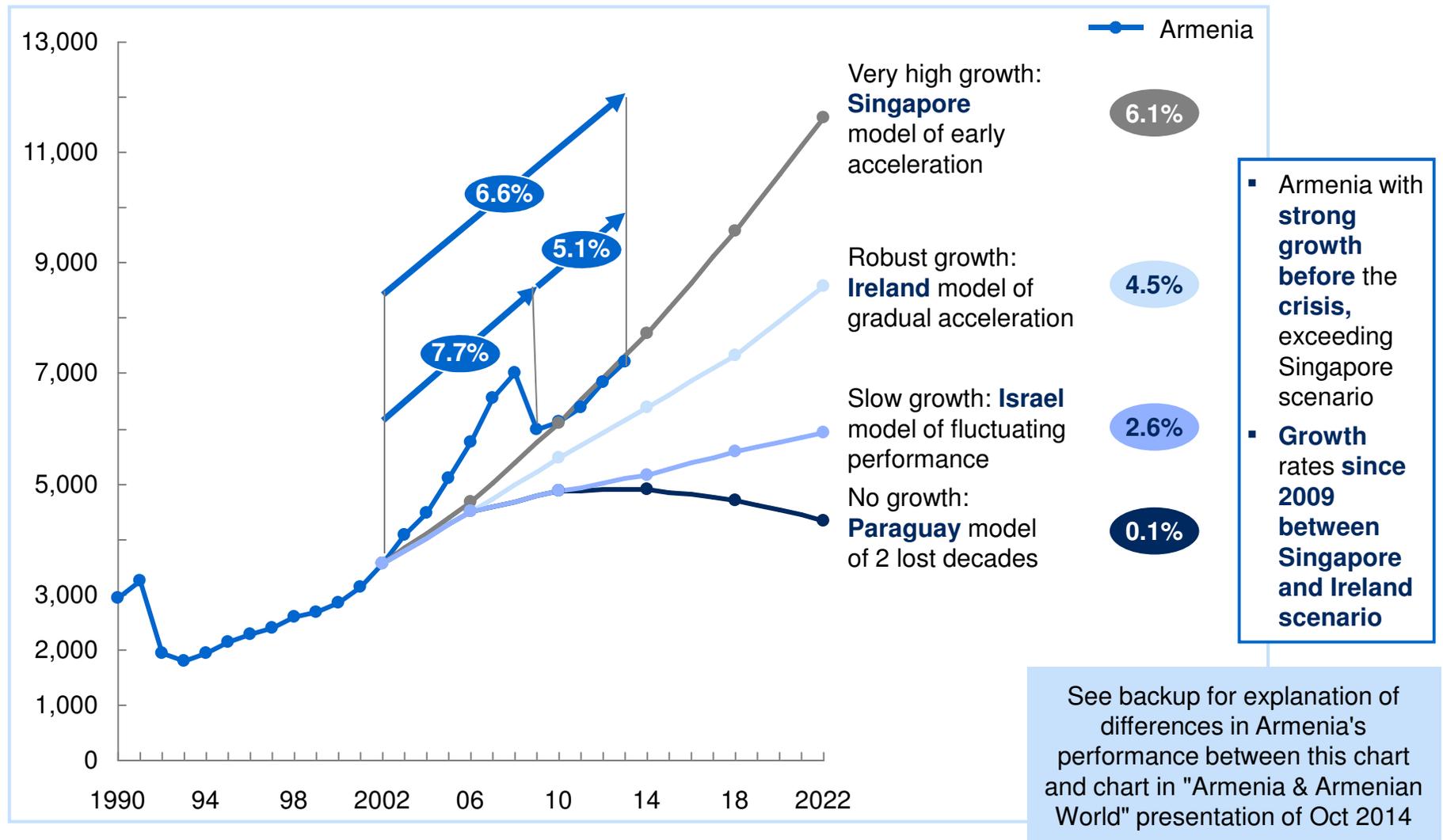
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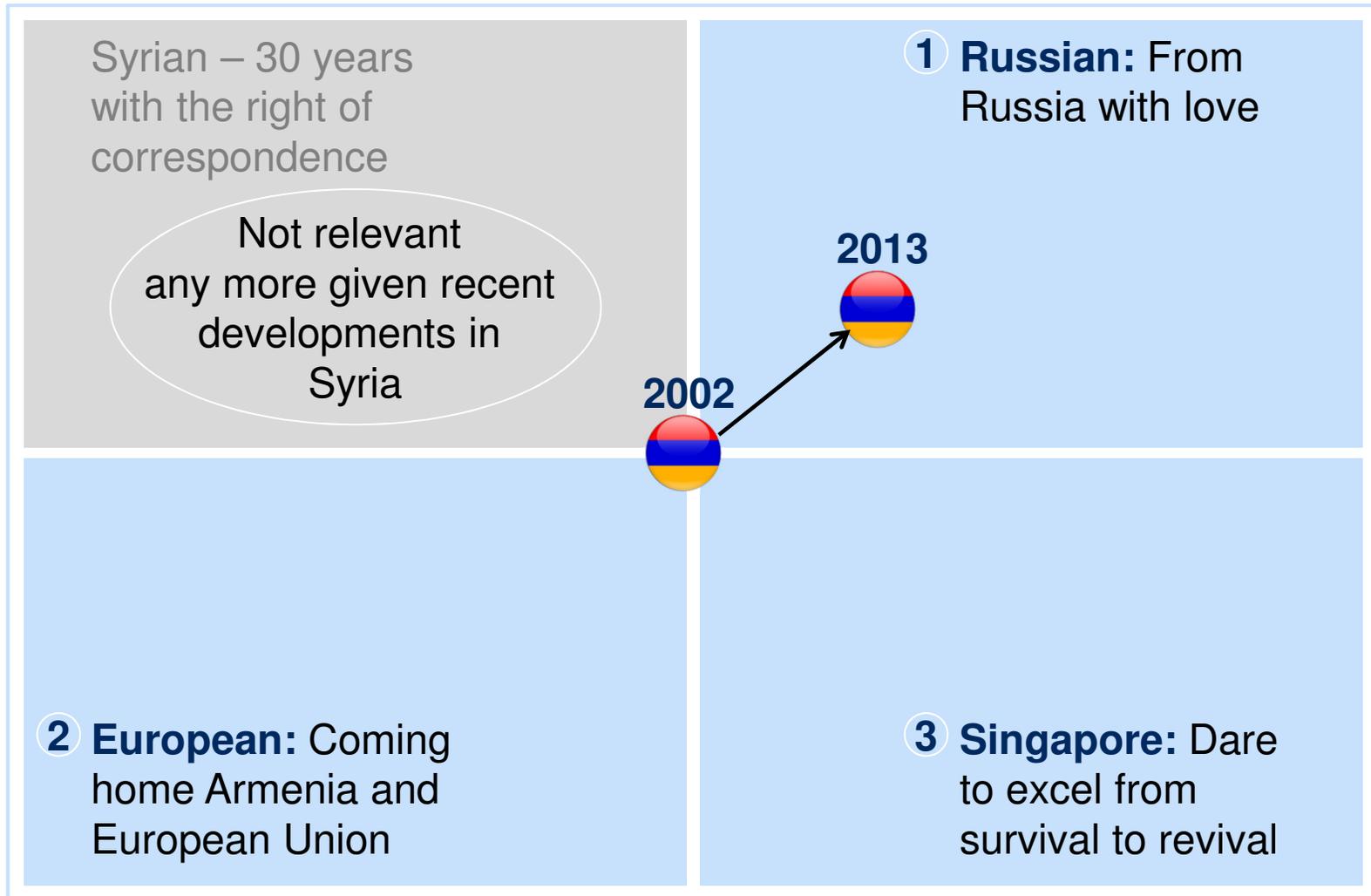
Armenia's growth exceeded the Singapore scenario developed during Armenia2020

GDP PPP per capita, constant 2010 USD

X% CAGR, 2002-13;
Armenia 2002-09 and 2009-13



However, Armenia reached its strong growth not by following the Singapore model – instead, it integrated more and more with Russia



Armenia2020 – scenarios

4 development scenarios for Armenia

Syrian: 30 years with the right of correspondence

Dominant role of a **centralized state** and a **strong army**. In an underdeveloped rule-of-law state, much of the economy goes into the **informal sector**, controlled by strong "**clans**". The cheap manpower and dirigiste measures can ensure **short-term growth**. This, however, will be followed by **stagnation** due to **regional isolation** and the **lack of investment** needed for the reproduction of human and technological capital

2 European: Coming home Armenia and European Union

Armenia, together with Azerbaijan and Georgia, **meet the criteria for joining the EU** (depending upon its economic situation, level of democracy and a rule-of-law state). Armenia's accession to this larger and more developed economic space brings **stable growth**. In order to meet the integration requirements, Armenia **liberalized its economy**, which accelerated its development given its relatively **cheap yet productive source of manpower**. The adoption of European standards **strengthened democracy and civil society**, as well as **boosted investment in science and education**

1 Russian: From Russia with love

Russia extends its political and economic influence in the post-Soviet space and becomes a guarantor of stability and security in various regional conflicts. Armenia will **develop economically due to its highly skilled manpower, investment in education and scientific research, and extensive support from the diaspora**. However, this growth will not be consistent because Armenia will be affected by the **chronic hostility of its neighbors**, a low **level of regional integration**, active **emigration**, and Armenia's high transaction costs which affect the final price of its products

3 Singapore: Dare to excel. From survival to revival

Armenia is rapidly transitioning to an innovation development model through the application of the latest technologies in all spheres of life. This model boosts economic development due to cheap manpower, large investments in education and infrastructure, as well as consistent liberalization of the economy. It also depends upon the leading role of a centralized state, extensive transit trade, and more attention to critical stages in production

Note: Syrian scenario analysis in backup

1 Russian: From Russia with love

● Not realized in Armenia
 ● Fully realized in Armenia

Elements of scenario	Assessment for Armenia	Evidence
<ul style="list-style-type: none"> ▪ Use of Russian language 	<ul style="list-style-type: none"> ●▪ Armenian is the official language and spoken as by majority ▪ Russian is still by far the best known foreign language 	<ul style="list-style-type: none"> ▪ Widespread knowledge of Russian language in Armenia <ul style="list-style-type: none"> – 24% advanced – 59% intermediate – 11% beginner
<ul style="list-style-type: none"> ▪ Debt settlement with Russia in assets 	<ul style="list-style-type: none"> ●▪ Debt settlement in assets mainly through transfer of energy companies/plants in 2002 to 2014 	<ul style="list-style-type: none"> ▪ 2002: debt settlement of USD 100 million (incl. Hrazdan thermal power plant) ▪ 2014: debt settlement of USD 155 million (ArmRosgazprom)
<ul style="list-style-type: none"> ▪ Investments in Armenia by diaspora living in Russia 	<ul style="list-style-type: none"> ●▪ While FDI decreased after the financial crisis, share of Russian FDI constantly increasing 	<ul style="list-style-type: none"> ▪ Today, >50% of FDI stock held by Russian investors
<ul style="list-style-type: none"> ▪ Establishment of a macroregional market on post-Soviet territory 	<ul style="list-style-type: none"> ●▪ Creation of Eurasian Economic Union as of 2015 	<ul style="list-style-type: none"> ▪ Detailed on next page
<ul style="list-style-type: none"> ▪ High dependence on Russian energy sources 	<ul style="list-style-type: none"> ●▪ Armenia highly dependent on Russia and dependence likely to further increase 	<ul style="list-style-type: none"> ▪ Gas: domestic consumption needs 100% fulfilled with Russian gas ▪ Oil: Russian share 30%, but likely to increase due to new cooperation agreement allowing duty-free exports of oil, gas, and diamonds from Russia to Armenia
<ul style="list-style-type: none"> ▪ Armenia as Russia's offshore banking zone <ul style="list-style-type: none"> – Highly improved investment attractiveness – Largest financial and stock market in the Middle East 	<ul style="list-style-type: none"> ●▪ Armenian stock market growing, but still insignificant for region 	<ul style="list-style-type: none"> ▪ Stocks traded <1% of GDP (2013 USD 45 million, 14 companies traded) ▪ Armenia's rank for financial market development <ul style="list-style-type: none"> – 2003: 102th out of countries – 2013: 97th out of 144 countries

1 E.g., natural, technologic, social emergencies, and terrorist attacks

1 The Eurasian Economic Union will create a single economic market on post-Soviet territory

- **Internal market:** development of a single market with the “4 freedoms: free movements of goods, capital, services, and people

- **Competition:** equal competitive conditions in the commodity markets of the Single Economic Space; harmonization and improvement of legislation in regard to competition policy

- **Monetary Union:** closer coordination of economic and monetary policy, incl. the potential use of a common currency in the future (5-10 years)

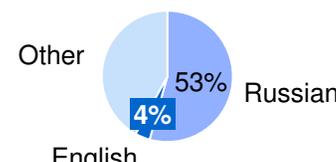
- **Energy:** creation of a single energy market

- **Sky:** the Single Eurasian Sky program, outlines the creation of a single market for air services and a single air traffic zone

- **Agriculture:** coordination of agricultural policymaking between member states and ensuring collective food security

2 European: Coming home Armenia and the European Union

● Not realized in Armenia ● Fully realized in Armenia

Elements of scenario	Assessment for Armenia	Evidence
Renewed surge in diaspora commitment in business investments	● Decline in FDI over time	FDI <ul style="list-style-type: none"> 2003: 4.3% of GDP 2013: 3.5% of GDP
Opening of formal negotiations with EU	● Before, its decision to join the Eurasian Economic Union, Armenia took several important steps leading to stronger ties with the EU	2004: Armenia as part of EU's European neighborhood policy 2009: Armenia enters EU's Eastern partnership 2010: Armenia and EU start negotiating on Association Agreement, which might include free trade
Most young adults speak 3 languages	● While the popularity of English is growing, it is still far behind Russian	Second language 
Legislative changes enacted to achieve EU compliance	●	Rule of law 2003 and 2013: Armenia 50th percentile (the lower, the better) Regulatory quality 2003 and 2013: Armenia in 40th percentile
Corruption declines, but bureaucracy increases	● While reforms have been implemented, Armenia struggles to improve	Control of corruption 2003 and 2013: Armenia in 60th percentile Government effectiveness Armenia improved from 2003 (50th percentile) to 2013 (40th percentile)
Several Armenia companies succeed to enter the top 3 of their sector globally	● No Armenian company as global leading player	No Armenian company within top 20 of its sector (in terms of revenues)
Armenia joins EU, Euro adopted as currency	● Armenia decided to join the Eurasian Economic Union as of January 2015; Association Agreement with EU put on hold	n/a

SOURCE: 2011 Armenia census; WEF Global Competitiveness Report; World Bank Worldwide Governance Indicators; Bloomberg

3 Singapore: Dare to excel. From survival to revival

 Not realized in Armenia
  Fully realized in Armenia

Elements of scenario	Assessment for Armenia	Evidence
<ul style="list-style-type: none"> Economic development as most prominent national agenda item and institutionalized at all levels of government; institutions created to support economic development 	<ul style="list-style-type: none"> While economic development is an important topic, it is not no.1 priority Institutions such as NCFA and ADA¹ have been created, but with mixed impact and success 	<ul style="list-style-type: none"> N/A
<ul style="list-style-type: none"> Focus on transparency (tax, legislative, and judicial process) 	<ul style="list-style-type: none"> While reform have been implemented, Armenia still struggles to improve 	<ul style="list-style-type: none"> Rule of law 2003 and 2013: Armenia 50th percentile (the lower, the better) Regulatory quality 2003 and 2013: Armenia in 40th percentile Control of corruption 2003 and 2013: Armenia in 60th percentile
<ul style="list-style-type: none"> Government one of most attractive, smallest, and most effective employees 	<ul style="list-style-type: none"> Government not known to attract high potentials 	<ul style="list-style-type: none"> Monthly base salary of government employees USD 160 vs. USD 330 in public sector According to the World Bank, application statistics share low level of interest in public sector jobs
<ul style="list-style-type: none"> Dozens of specialized export-oriented industry clusters (e.g., IT, tourism, jewelry) with active multinational companies 	<ul style="list-style-type: none"> While a few number of free zones exist, no cluster development Export heavily dependent on low value-add products/natural resources 	<ul style="list-style-type: none"> 70% of exports from low value-add products, metals and ore, diamonds, alcoholic beverages Goods export increased, but still relatively low <ul style="list-style-type: none"> 2003: XX% of GDP 2013: 14.4% of GDP
<ul style="list-style-type: none"> Sharp increase in FDI 	<ul style="list-style-type: none"> Increase until 2008, but constant decrease over last years. However, Armenia ranks high compared to its regional peers 	<ul style="list-style-type: none"> FDI net inflows as percentage of GDP <ul style="list-style-type: none"> 2002: 4.7% 2008: 8.1% 2013: 3.3% Armenia ranks 3 out of 8 CIS countries in terms of FDI stock as percentage of GDP
<ul style="list-style-type: none"> Highly educated, trilingual workforce 	<ul style="list-style-type: none"> Armenia ranks constantly low on quality of education Widespread knowledge of Russian as second language, however, only 4% with advanced proficiency of English 	<ul style="list-style-type: none"> Quality of primary education <ul style="list-style-type: none"> 2006: 85th out of 144 countries 2014: 83rd out of 144 countries Quality of higher education <ul style="list-style-type: none"> 2006: 68th out of 144 countries 2014: 86th out of 144 countries

¹ Armenian Development Agency

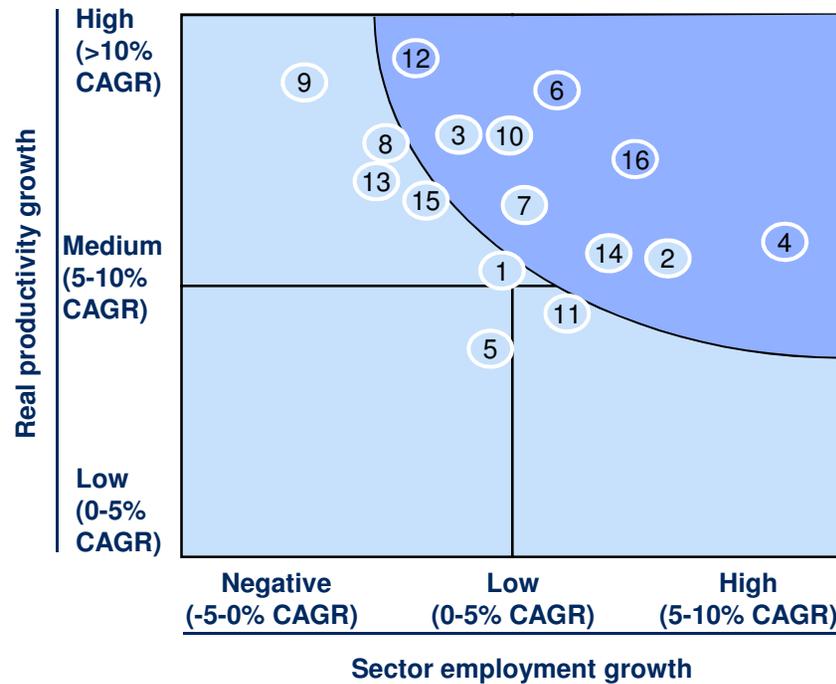
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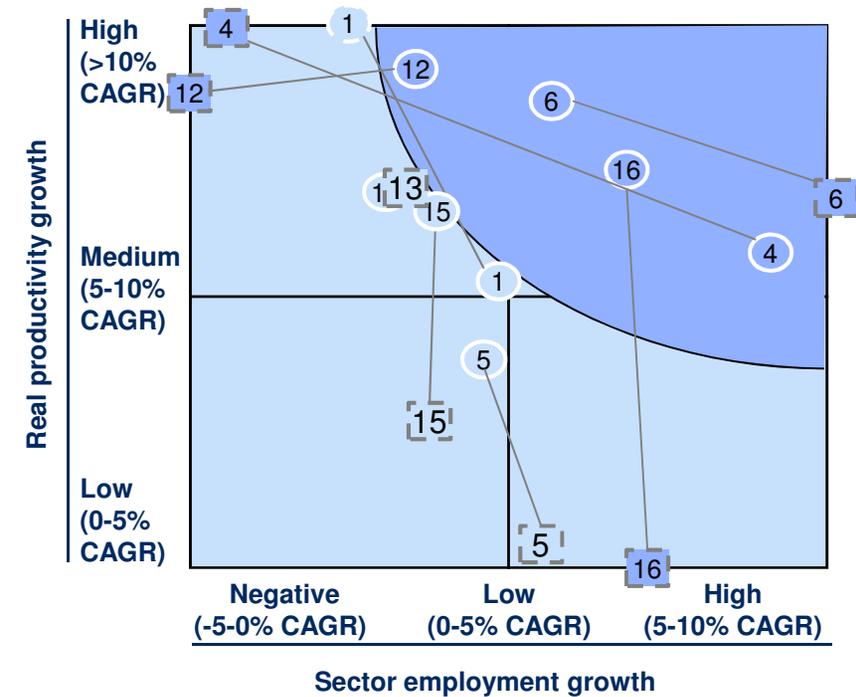
Many sectors did not exploit their productivity and employment growth potential identified in Armenia2020

- Key sectors, detailed on next slides
- Growth potential 2003-10
- Actual growth 2003-10

Productivity and growth potential for key sectors identified in Armenia2020 (as of 2003)



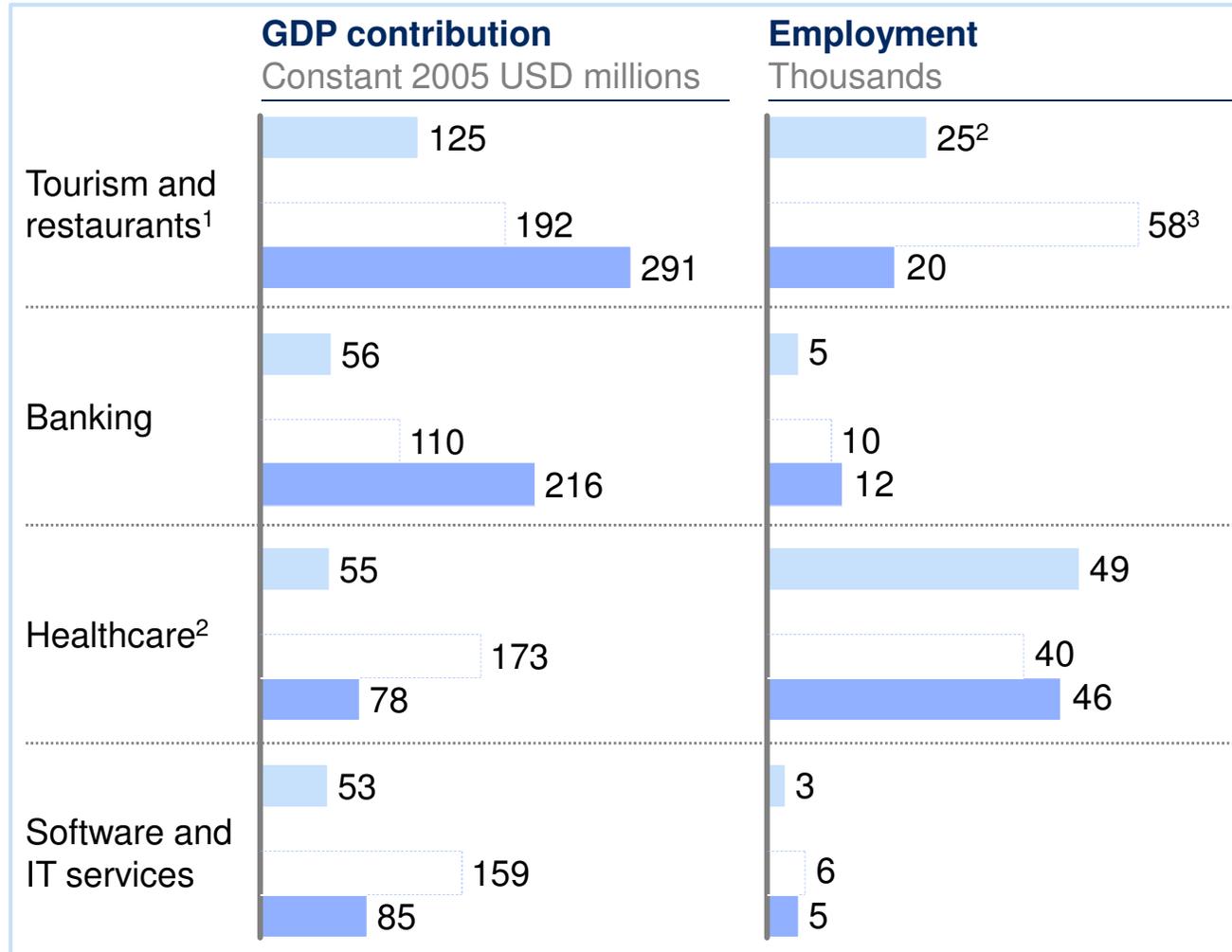
Actual growth of these sectors¹ between 2003 and 2010



- | | | | |
|----------------------------------|--------------------------------|------------------------------|------------------------------------|
| 1 Mining | 5 Construction | 9 Industrial machinery | 13 Retail and wholesale |
| 2 Metals | 6 Banking and insurance | 10 Electronics and precision | 14 Jewelry and diamonds |
| 3 Telecommunications | 7 Food processing | 11 Construction materials | 15 Transportation |
| 4 Tourism and restaurants | 8 Textiles and apparel | 12 Healthcare | 16 Software and IT services |

1 Showing sectors for which 2010 data is available

Among the growth drivers identified in Armenia2020, the banking and tourism sectors have gained the most



- **Banking sector has strong GDP growth of 19% p.a., driven by**
 - **Productivity growth of 7% p.a.**
 - **Employment growth of >10% p.a.**
- **Tourism sector has strong GDP growth of 10% p.a., driven by increased productivity**
- **All other sectors performed below their potential** in terms of productivity and employment

1 2008 data
 2 Changed compared to original analysis in Armenia2020
 3 Estimate, based on revised actual employment 2003

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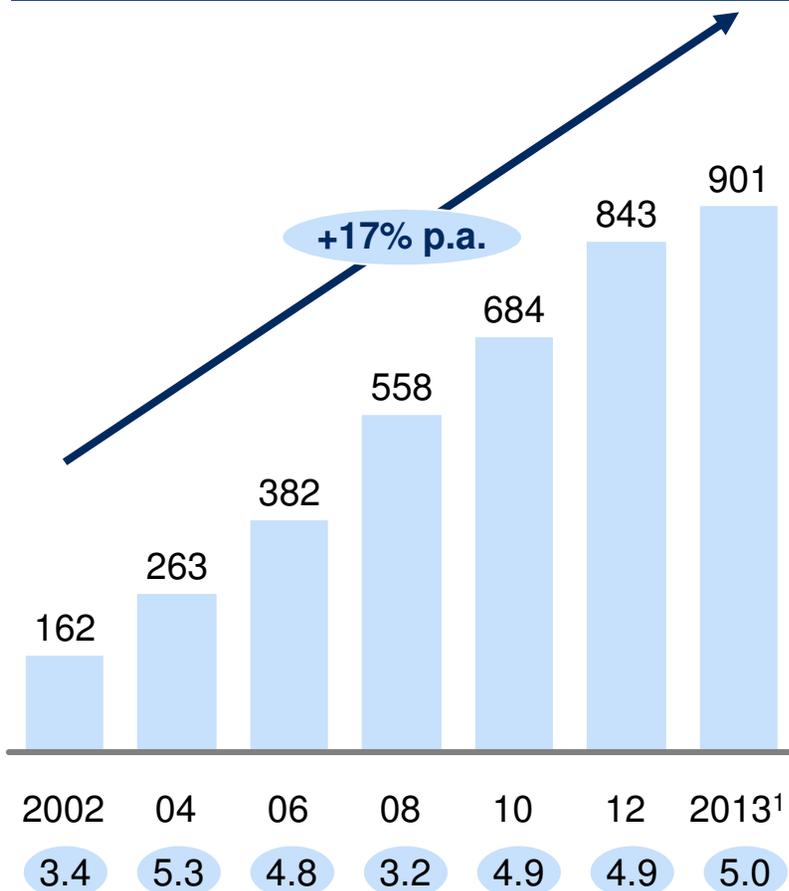
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The tourism sector has strongly grown over the last decade and has continuously improved its competitiveness

X Percent of GDP

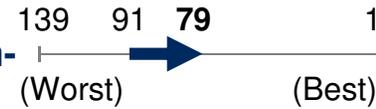
The number of international tourists visiting Armenia has continuously increased ...

Thousands



... and recent improvements in the sector's competitiveness could facilitate further growth

Overall rank in travel and tourism competitiveness



- Tourism regulatory framework
- Tourism business environment and infrastructure
- Human, cultural, and natural resources



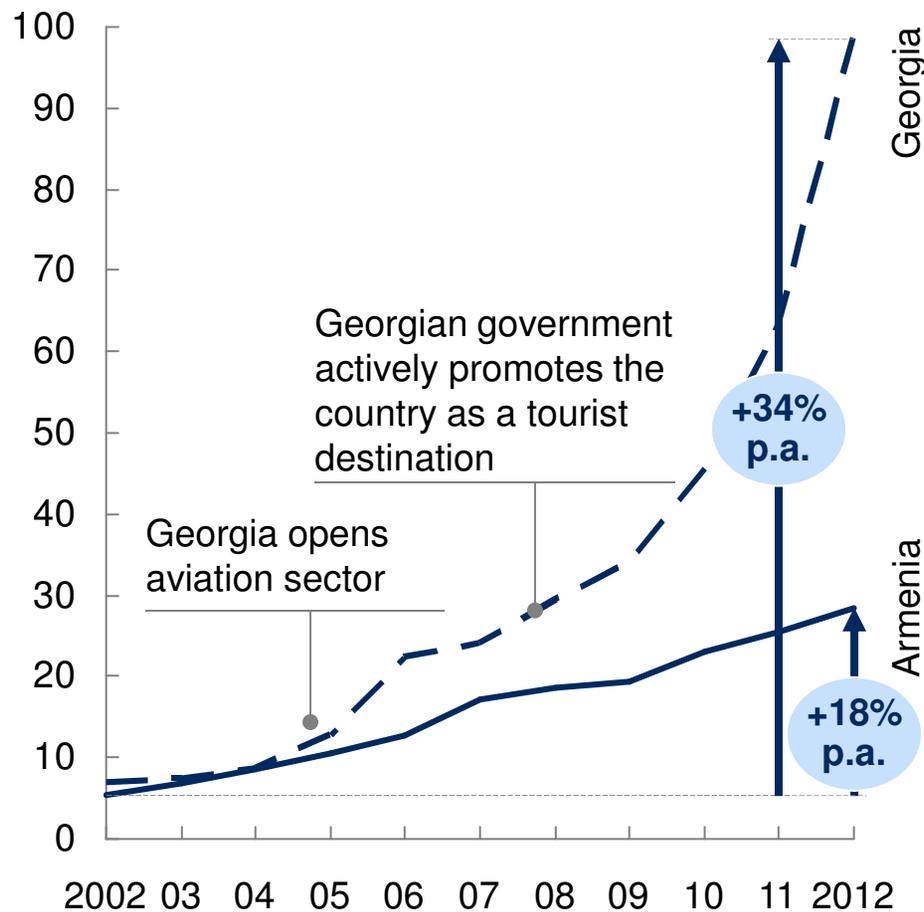
- Tourism is an important and fast-growing sector
 - 5% of GDP in 2013
 - 10% CAGR from 2002 to 2013
- Government actively supports the growth of the sector through policy changes, infrastructure improvements, and collaboration with the private sector

¹ Estimated based on IATA passenger growth

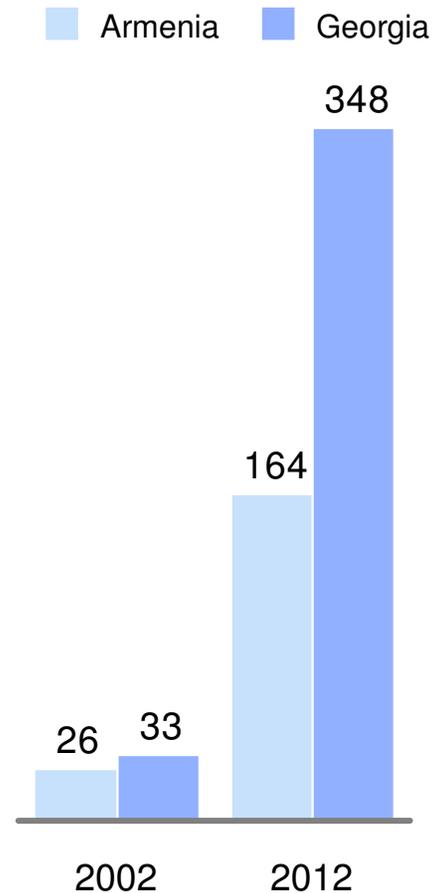
Tourism in Georgia shows that there is significant further growth potential for the tourism sector

International tourist arrivals

Visits per capita



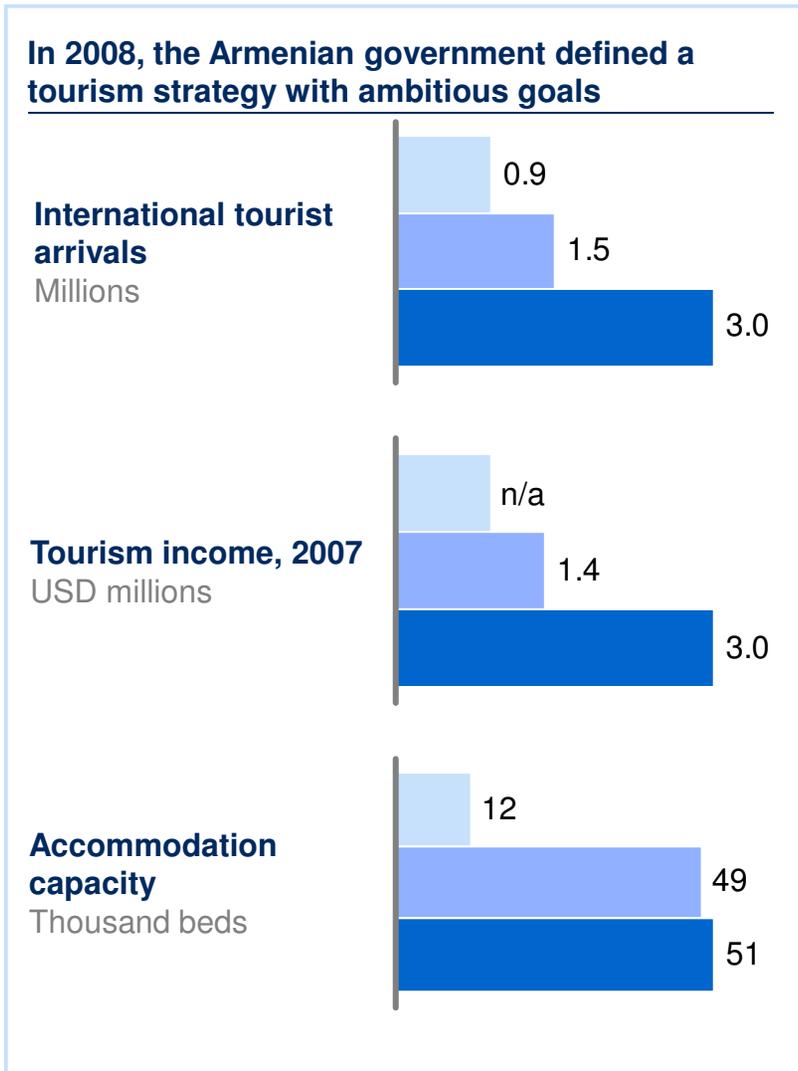
Income per capita from international tourism, USD



- The government of **Georgia** successfully supported the **tourism sector**, e.g., by
 - **Opening the aviation sector** and attracting foreign airlines
 - Internationally **promoting Georgia** as a **tourist destination**
- **Armenia** could **increase** its **visitor numbers** to **~3 million** by **closing the gap to Georgia**

The Armenian government considers tourism a key sector for the economy and actively supports its development

- 2013
- Goal 2020
- Goal 2030
- Detailed next slide



... which should be achieved by addressing several areas

Description	Examples
Promote Armenia as a tourist destination	<ul style="list-style-type: none"> ▪ Country branding strategy ▪ “Armenia, the Land of Noah”: documentary on CNN
Improve accessibility and transportation	<ul style="list-style-type: none"> ▪ Simplified visa requirements ▪ Introduction of Open Skies
Improve infrastructure	<ul style="list-style-type: none"> ▪ Armenian monument awareness project: development of tourism sites ▪ Construction of roads and infrastructure, e.g., to Tatev
Improve workforce skills	<ul style="list-style-type: none"> ▪ Partnership with World Federation of Tourist Guide Association to establish training center
Improve business and investment environment	<ul style="list-style-type: none"> ▪ Support of PPPs and private sector engagement ▪ Improvement of regulations, such as taxation reductions

A country branding strategy has been defined and is implemented together with private investors and development agencies

Goal: Increase the percentage of the most profitable segment – leisure tourism – from 15% to 35% by 2017

Branding strategy has 3 objectives

Update **tourism product** and improve **user experience**

- Focus marketing on high-quality providers
- Improve workforce skills

Increase awareness in source markets

- Promote Armenia as a yet-to-be-discovered destination

Penetrate special-interest **sales channels**

- Focus sales activities on special-interest tour packages

Example: NCFA actively promotes Armenia as a tourist destination

- Air France featured Armenia in its inflight magazine



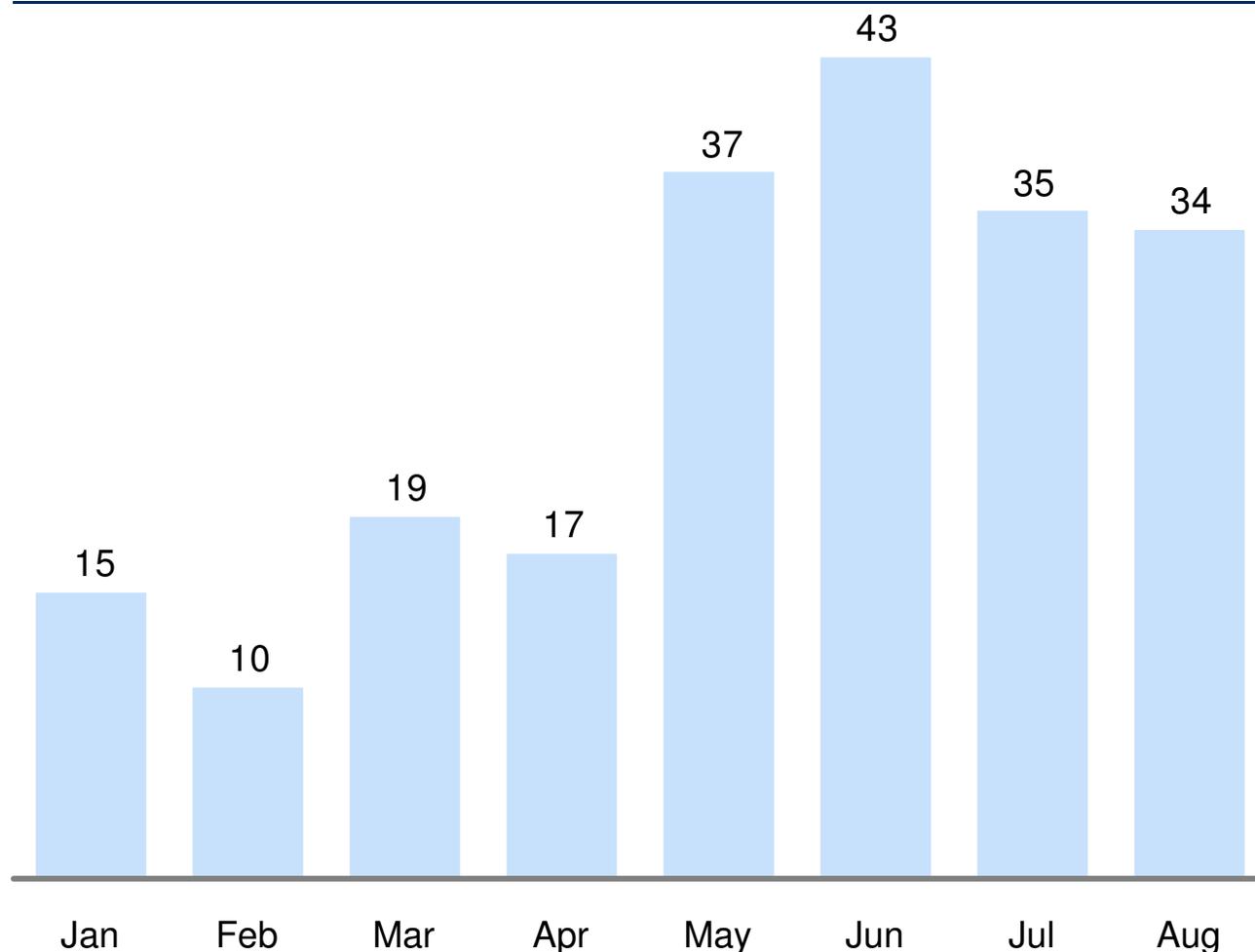
- Participation at international travel fairs



The introduction of Open Skies in October 2013 sparked significant growth in passenger arrivals to the country

Number of passengers

Percentage increase, 2013-14



- In October 2013, the Government of Armenia announced the **liberalization** of the **aviation sector** (Open Skies) to enable
 - **Reduction of air ticket fares**
 - **Increased number of routes** to/from Armenia
 - **Increased frequency of flights**
- Overall goal was the **connectivity** and **accessibility of Armenia** for tourists and Armenians

Lighthouse projects by private investors develop the tourism infrastructure and build Armenia's reputation as a tourist destination

Example projects	Description	Status	Size
 Zvartnots International airport	<ul style="list-style-type: none"> ▪ New, ultra-modern airport, modeled after Munich airport ▪ Named the Best Emerging Airport of Russia, CIS & Baltic States in 2012 	New terminal opened in 2006/2007	Total investment: USD 100 million
 Tatev	<ul style="list-style-type: none"> ▪ Access to Tatev monastery by cable car ▪ World's largest cable car ▪ Attracting >75,000 visitors per year 	Cable car in operation	Total planned investment: USD 80 million
 Tufenkian hotel chain	<ul style="list-style-type: none"> ▪ The region's first luxury boutique hotel chain (Dilijan, Dzoraget, Tsapatagh, Yerevan) with an ethnic theme ▪ Business model focused on job creation in the regions 	4 hotels in operation (Yerevan, Dilijan, Dzoraget, Tsapatagh)	n/a
 Two Hyatt Place hotels	<ul style="list-style-type: none"> ▪ Hyatt Place – the second internationally managed hotel in Yerevan¹ – opened in Yerevan ▪ Second Hyatt Place will be situated in Jermuk mountain resort, a resort currently being developed by the Armenian government 	Yerevan opened in January 2014; Jermuk to open in 2015	Total planned investment: USD 15 million

1 After the Marriott hotel

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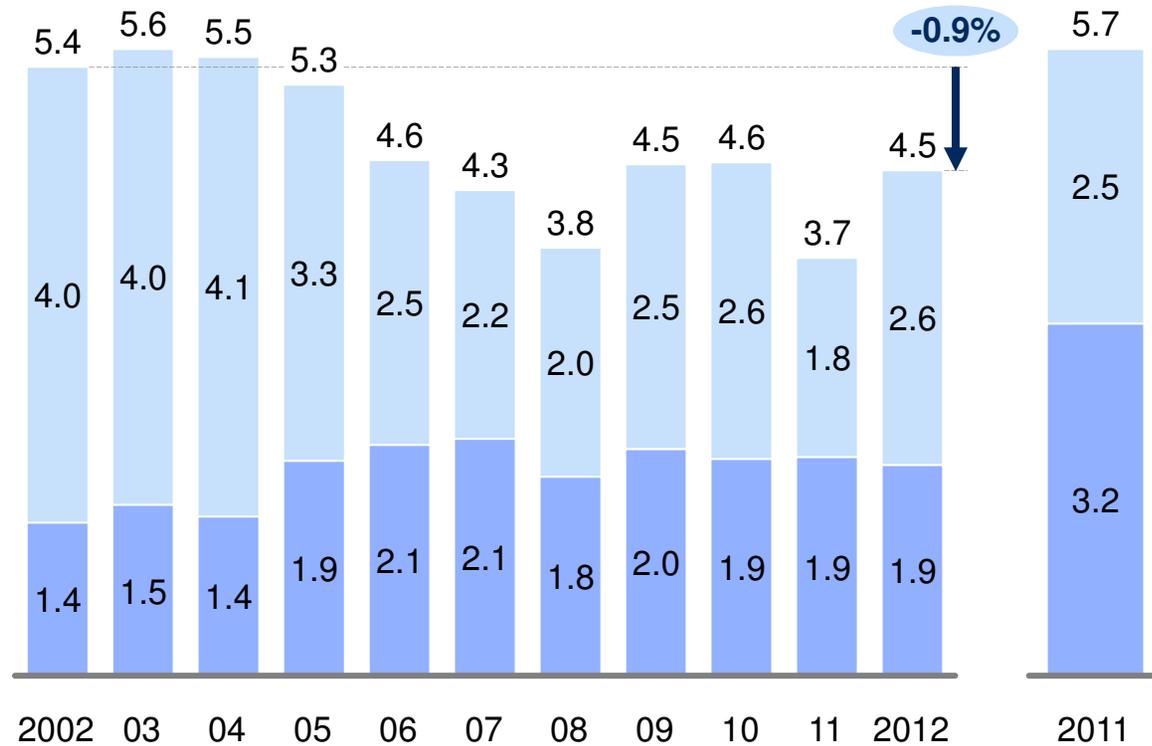
The Armenian healthcare system lacks quality and availability, caused by inadequate regulation and insufficient spending

Private
Public

Spend in healthcare sector, percent of GDP

Overall spend relative to the GDP has declined in Armenia mainly due to reduced private spending ...

... and is now below the CIS average



1 Health provision

- Despite several reforms by the government, the **quality** and **availability** of **health-care** provision has **not improved**
- Financial austerity** prevents the **government** from **increasing** health **expenses**
- Limited** (public and private) **insurance** leads to **high private expenses** and high share of **informal payments**

2 Pharma market

- ~20% of the total spend on healthcare, with an expected **market growth** of ~5%
- While **dominated** by **foreign companies**, successful **Armenian companies** are **emerging**

1 Government reforms have hardly improved the healthcare provision in Armenia

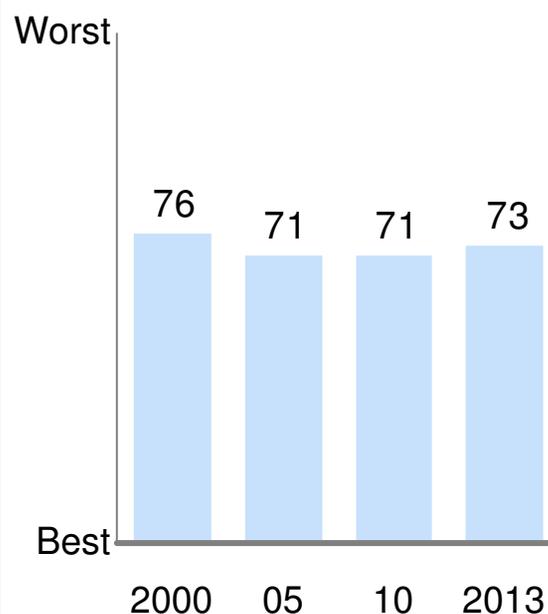
■ Detailed next slides

Recent government reforms (examples)

- **2006** – improving **access** to **primary care** services and extending basic benefits package
- **2008** – obstetric care state certificate program to **improve mother and child health** and **reduce informal payments**
- **2010-12** – introduction of **co-payments** to **reduce informal payments**
- **2011** – **extension** of obstetric care **program** to **children**
- **2012** – social **package** for **civil servants**, incl. support for **additional health insurance**

... did not improve the overall healthcare provision

Rank in HDI¹ Health Index out of 199 countries



Issues in Armenia's healthcare system

- **Low availability** of healthcare
- Lack of **health insurance** system and large **informal payments**
- **Low quality** of services, particularly in **rural areas**

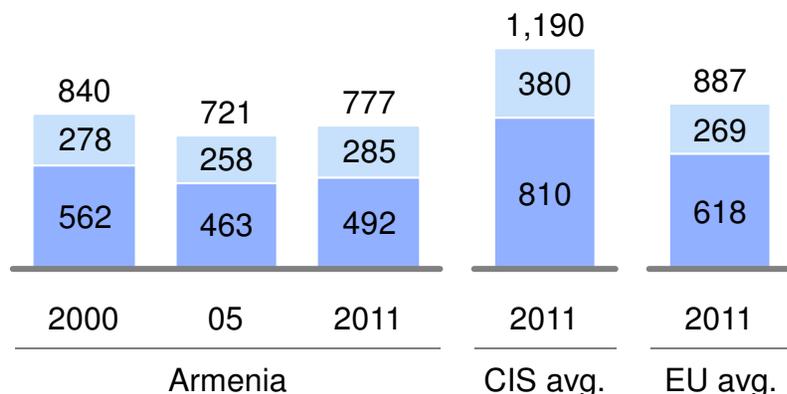
¹ Human development indicator

1 Armenia has one of the lowest availabilities of healthcare in the region

Physicians
Nurses

The number of health worker shas further decreased...

Workers per 100,000 inhabitants



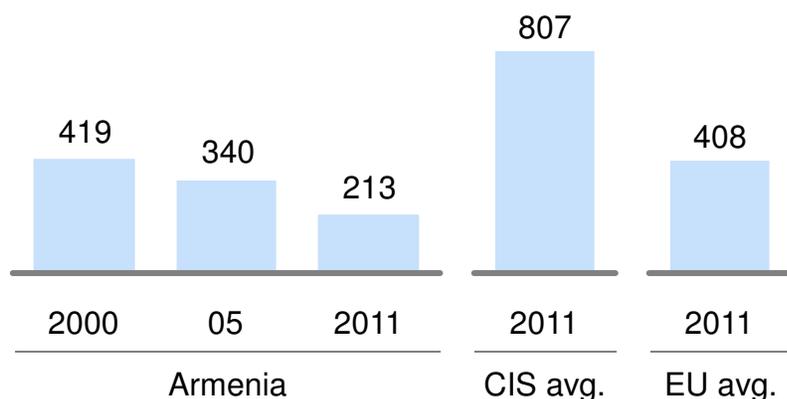
Key developments

- **Doctors are not well paid:** average salary of **USD 88** per month¹ is **not sufficient** to support a household
- Particularly in **rural regions**, Armenia **lacks doctors** and **nurses**

- **Availability of physicians and adequate medical facilities is slowly improving**, but remains on a low level

... as well as the number of hospital beds

Beds per 100,000 inhabitants



Key developments

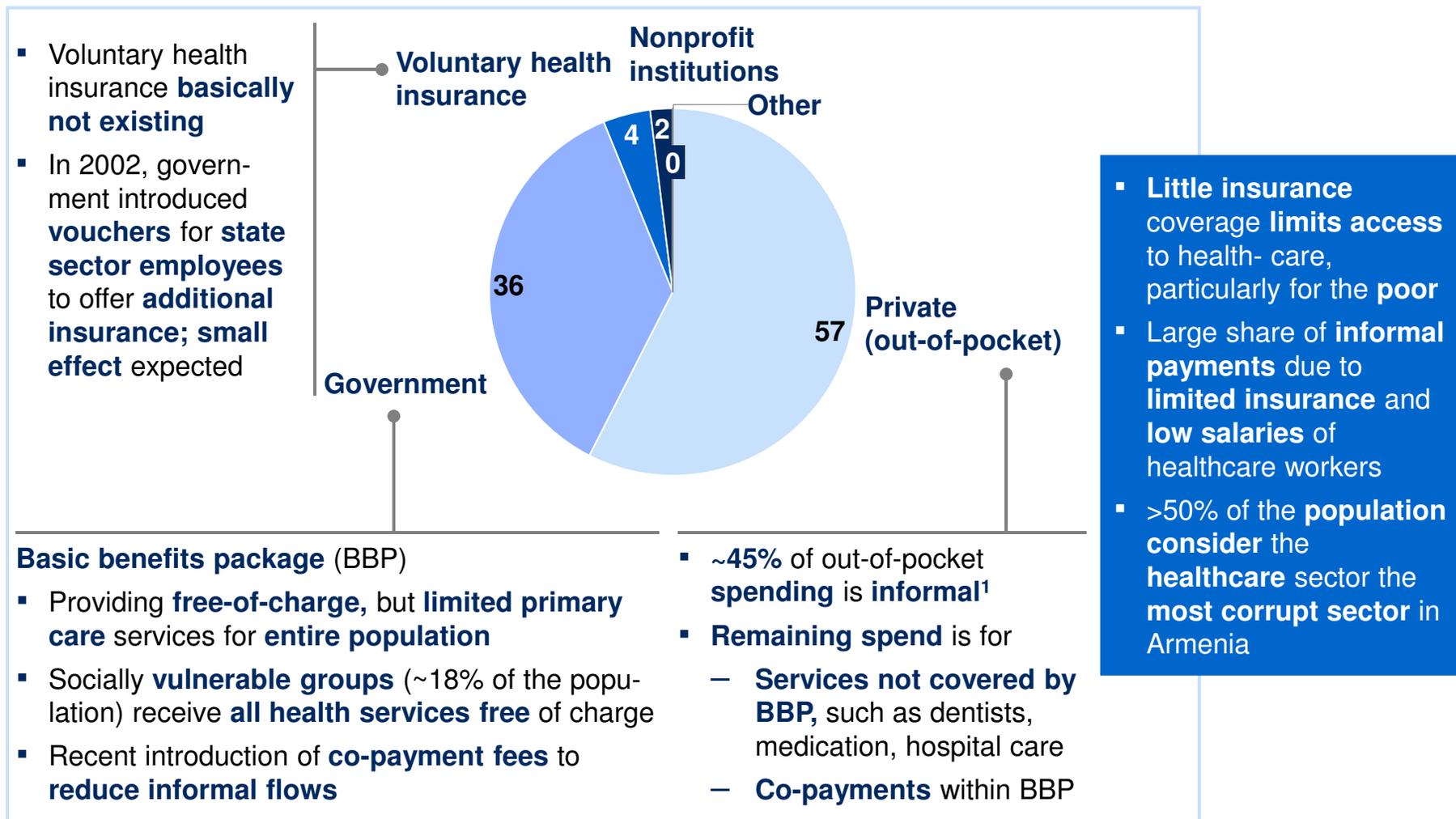
- Many **former Soviet hospitals closed**, which often **lacked even basic equipment**
- Today, Armenia's **hospital capacity is below** the **CIS** or **EU** averages
- **Reduction of hospitals** and **training of local administrative skills** have **improved hospital efficiencies**; occupancy rate increased from 32 to 61%
- In recent years, **2-3 modern hospitals** open each year

- **Efficiency of healthcare provision has increased** in recent years

1 ASOL 2011

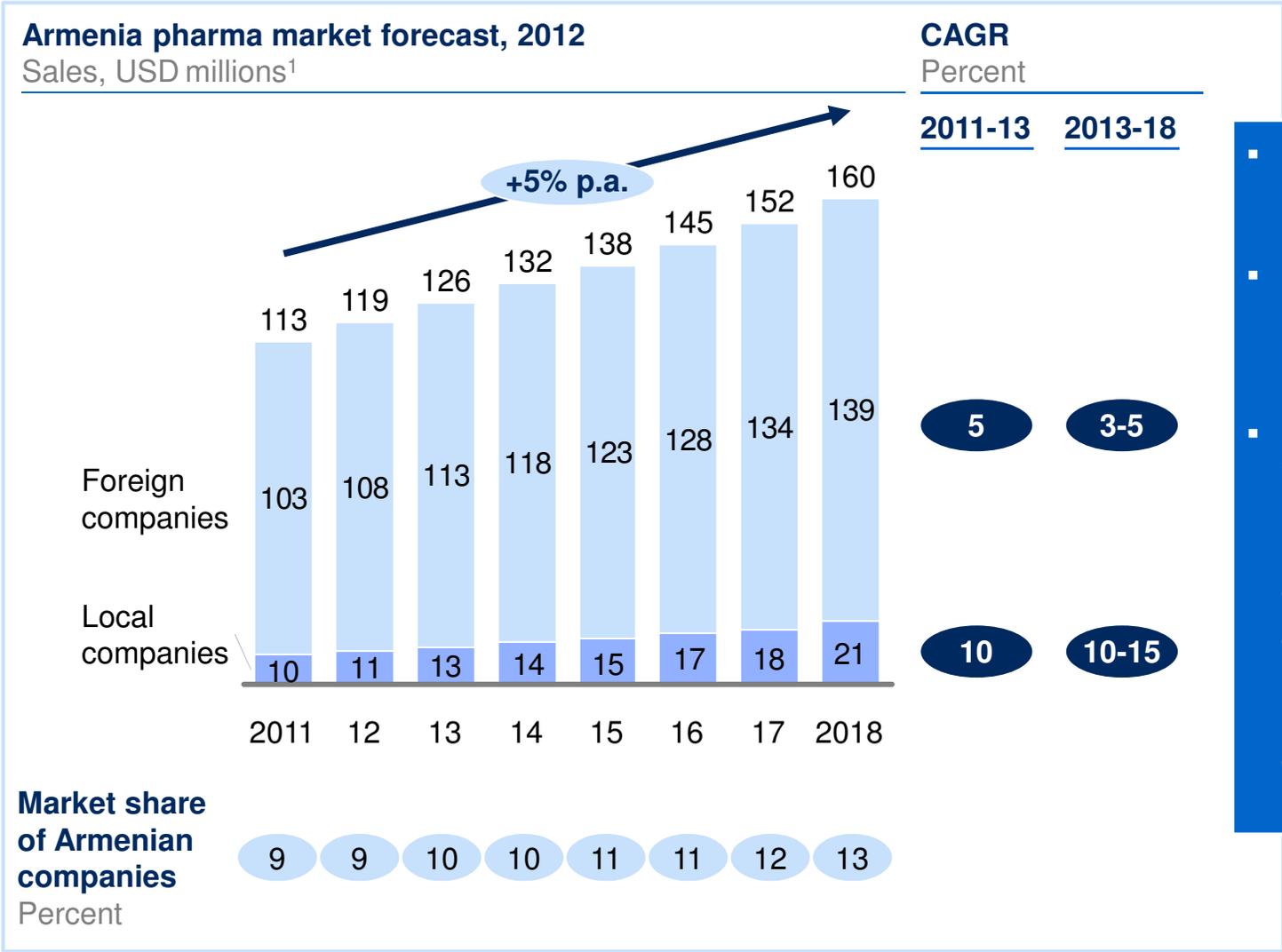
1 Low salaries of healthcare workers and very limited insurance lead to high private health expenses with large informal payments

Share of health expenses, 2011



¹ As of 2008

2 The Armenian pharma market is expected to grow by ~5% p.a., with Armenian companies increasing their market shares



- Pharma market is expected to **grow by ~5% p.a.** until 2018
- Today, the market is **dominated by foreign companies**, with a market share of ~90%
- Armenian companies with above-average growth of ~10-15% p.a.**, driven by
 - Lower prices
 - Increasing acceptance of products
 - New product launches (3-4 p.a.)

¹ Exclude wholesalers

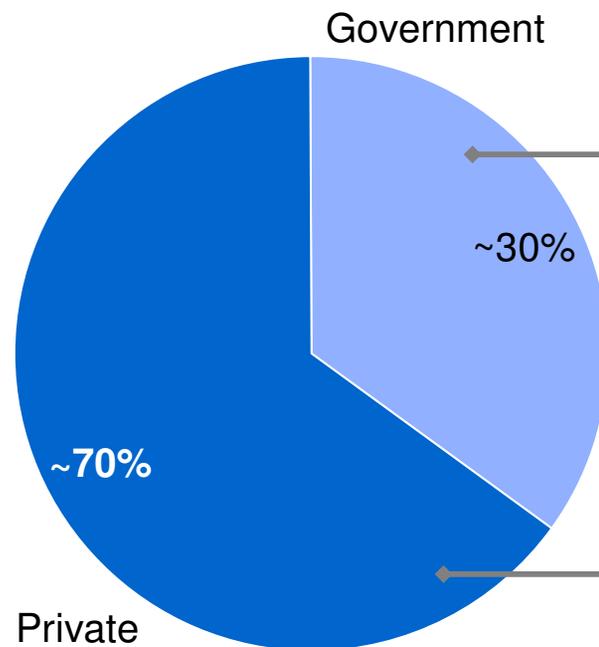
2 The market is dominated by retail out-of-pocket sales, as government expenses are limited to medication used in hospitals

Armenia market structure, 2012

Percent

Description

100% = USD 119 million



- **Purchasing policy** set by **Ministry of Health** and **implemented by hospitals** through **tenders**, leading to **challenging pricing**
- **GlaxoSmithKline** is **market leader** together with local partner **PharmaTek**; **Roche** is a close second
- Primarily **branded generics** sold through **pharmacy chains**
- Local **Armenian** companies typically **focus** on **lower-priced branded generics** in higher-volume categories, e.g., anti-infectives and pain relievers
- **Takeda** is **market leader**; **Sanofi** recently entered with focus on OTC products

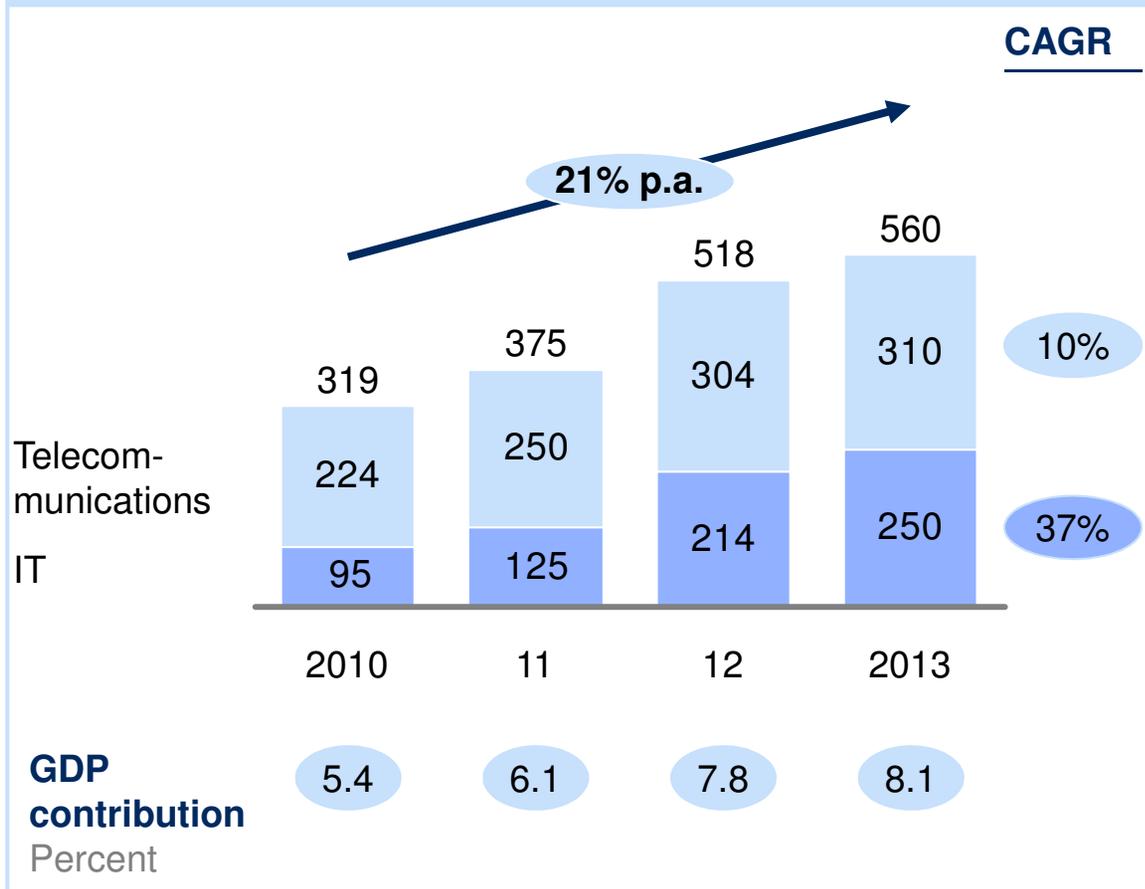
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The information and telecommunications (ICT) sector has shown double-digit growth in recent years, mainly driven by the IT industry

Industry turnover has increased in recent years

Constant 2010 USD, PPP, thousands



Telecommunications and IT saw different developments have developed differently

1 Telecommunications

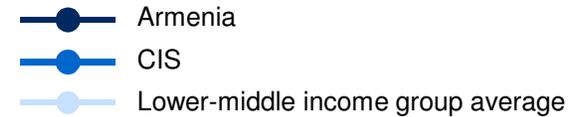
- Growth of ~10% p.a. since 2010
- Liberalization of market in 2004 triggered strong growth
- Market saturation in recent years

2 Software and IT services

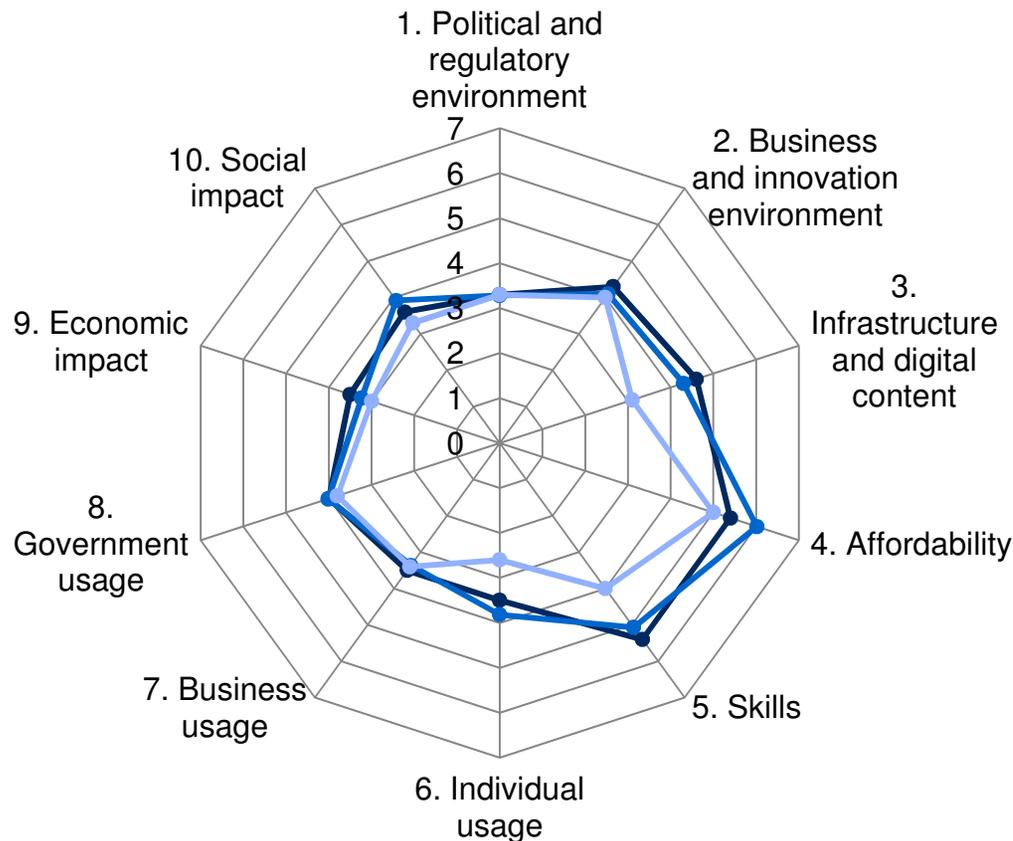
- Strong growth of ~35% p.a. since 2010
- Improved telecommunication infrastructure and government support fueled growth and attracted investors

Armenia's ICT competitiveness has improved significantly and the country is now considered a “rising star”

Network Readiness Index 2014



Armenia ranks higher than its peer group in all categories of the Network Readiness Index



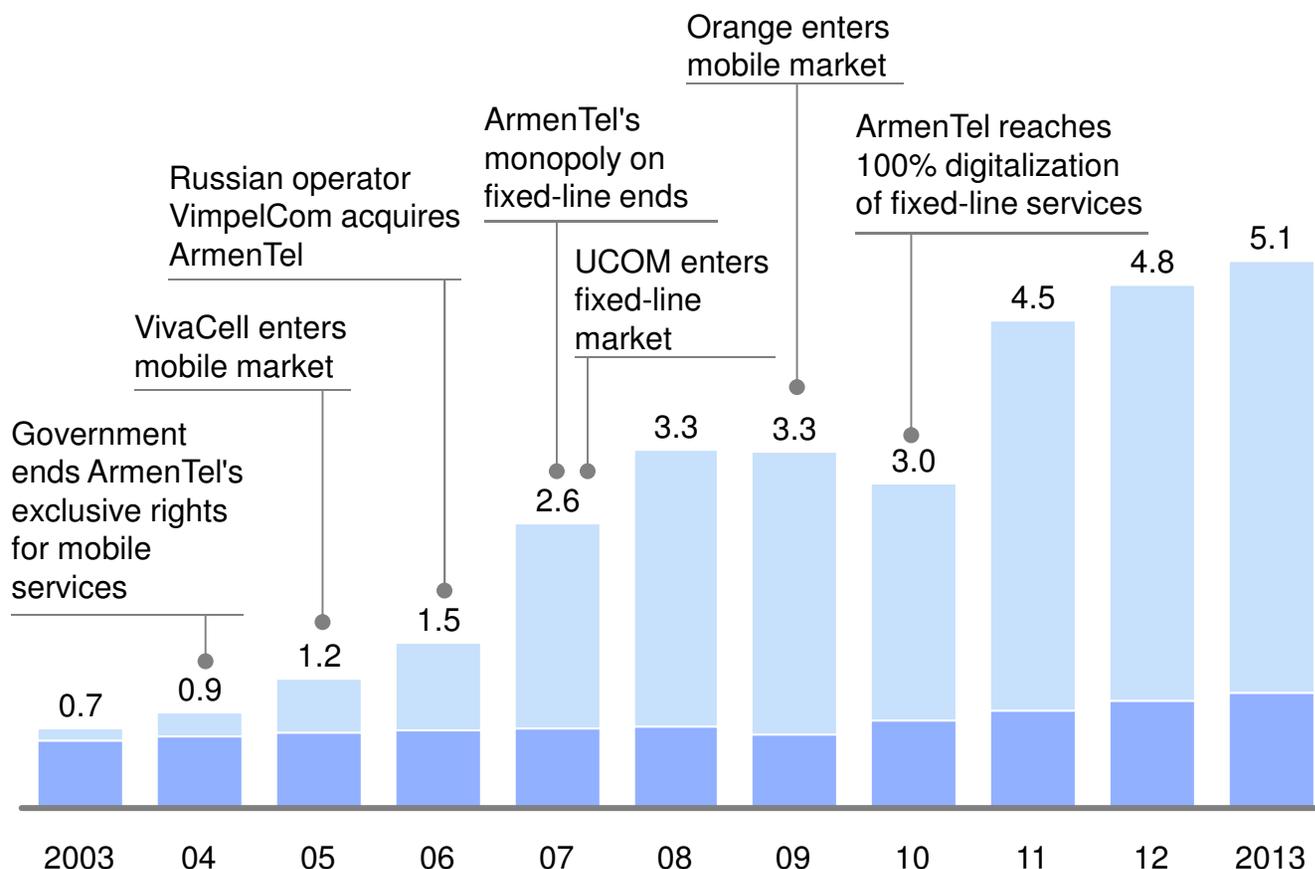
- Armenia's **ICT competitiveness has improved** significantly over the last years
 - Armenia now **ranks 65 out of 144** countries (2008: 114)
 - Considered “**rising star**” by WEF
- Armenia **ranks particularly high** in
 - **Workforce skills**
 - **Telecommunications infrastructure**
 - **Ease to start new businesses**
- However, the **competitiveness remains constrained** by
 - Low **judicial independence**
 - **Difficulty to enforce contracts**
 - **Low quality and availability of staff training and management schools**

1 Liberalization of the telecommunications market sparked strong growth and made services more affordable

Millions of subscribers

■ Mobile
■ Fixed line

Both mobile and fixed-line subscribers increased with the liberalization of the market



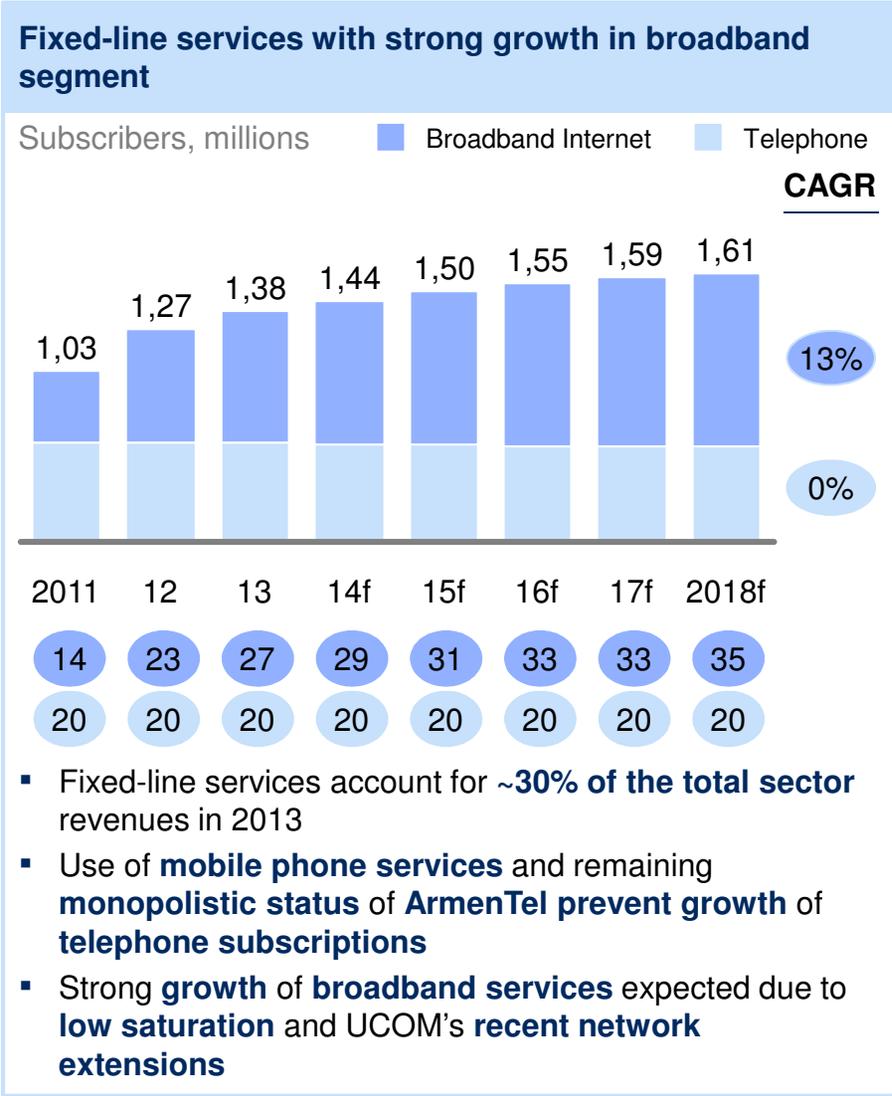
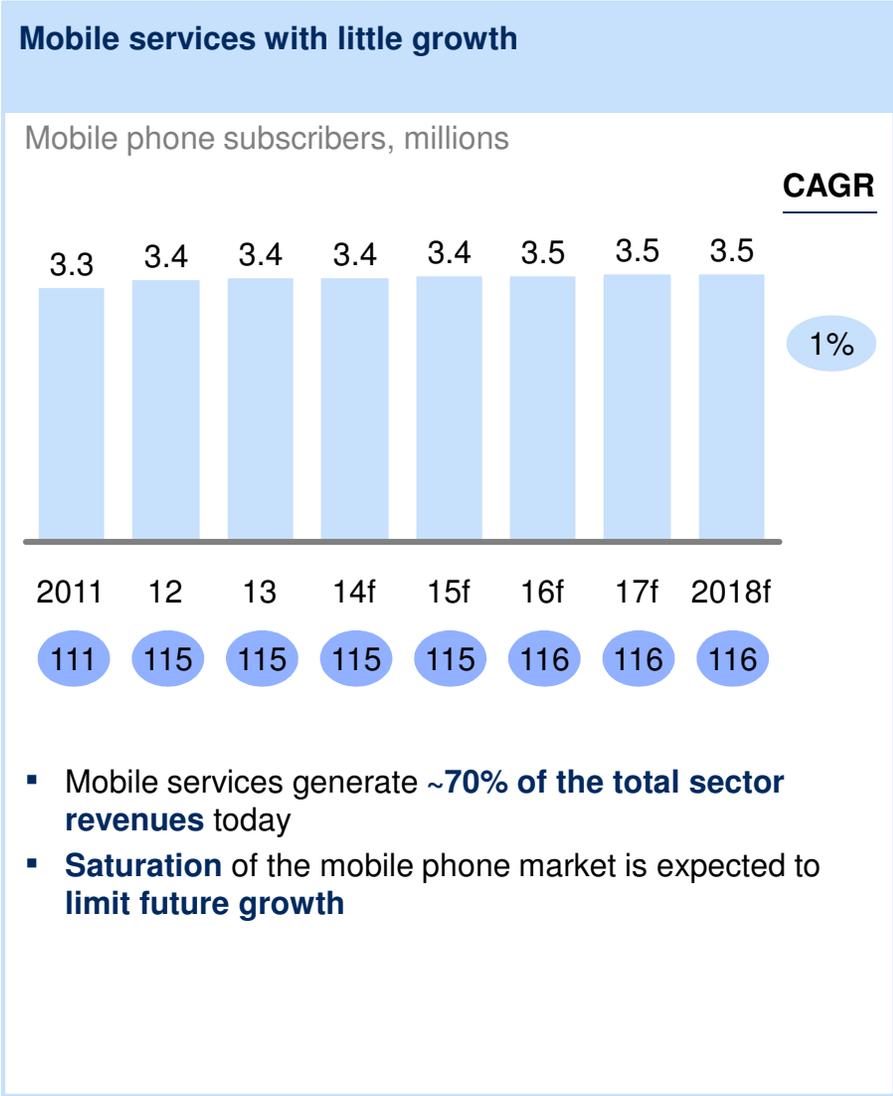
- **Liberalization** of the telecommunications market **fueled growth** and **improved Armenia's connectivity** of Armenia's
 - **Mobile** phone **penetration** reached **100%** in 2008
 - Between 2009 and 2011, **cost of Internet decreased by ~80%**, **cost of mobile services** by **~50%**
- **Mobile services** now is a highly **competitive market**¹
- **Fixed-line** services are still **dominated** by **former monopolist**²

1 Market shares as of 2013: K-Telecom: 64%, ArmenTel (Beeline): 20%, Orange Armenia: 16%

2 Market shares as of 2013: ArmenTel: 74%, UCOM: 24%

1 Future growth will be driven by growing broadband Internet use, while the mobile market is relatively saturated

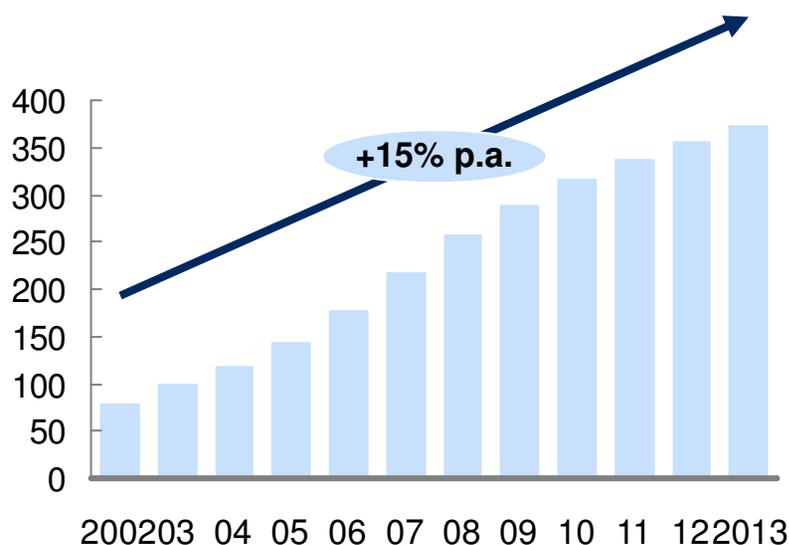
xxx Subscribers per 100 capita



2 The number of foreign and local companies in the IT sector increased, creating jobs for a highly skilled workforce

The increasing number of IT companies in Armenia ...

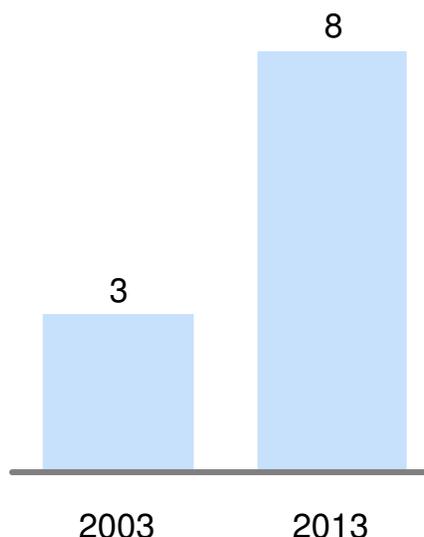
Number of companies



- Success of early movers like Synopsys encouraged other investors
- ~60% of revenues generated by foreign companies

... creates jobs for a highly skilled workforce

Thousands



- >60% of the workforce have a master's degree
- The salary in the IT sector is ~5 times higher than the average salary

- IT is a **key sector** for the Armenian economic development due to its **strong growth** and by providing **jobs** for **highly skilled employees**
- **Availability of talent** and a **low cost base** make Armenia a possible outsourcing destination for programming and IT services
- However, even **stronger growth is hindered** by several factors
 - **Supply** of highly skilled **IT graduates**
 - Access to **financing**
 - Access to **international** markets

2 The government actively promotes the development of the IT sector, supported by development agencies and the private sector

Focus areas of the IT industry development strategy of the Armenian government

- Building competitive **ICT infrastructure**
- Improving **quality** of IT graduates
- Providing **financing mechanisms** for **start-ups**
- Attracting **foreign companies**
- Making the **Armenian IT sector visible** on the **global market**

Example interventions

Enterprise incubator foundation

- Established 2002 with support of the World Bank
- Goal is to support the IT sector development, e.g.,
 - By attracting foreign investors and channeling investments
 - By supporting start-ups with training and financially
 - Through IT consulting
 - Through workforce development
- Partners (examples):



SUN educational laboratories

- Goal is to prepare skilled graduates for the IT industry
- Establishment of educational and research facilities at Armenian universities and research centers
- Training of ~200 students between 2008 and 2009; all graduates found jobs within 3 months after program completion
- Partner universities (examples):



2 Armenian success stories show that the IT sector moves from outsourcing services to local product development companies

2004: US-based Synopsys establishes R&D capabilities in Armenia

- Synopsys is a **world leader** in **semiconductor design software** with a revenue of ~USD 2 billion
- Synopsys selected **Armenia** for its **major offshore development office** because of
 - **Low cost** base
 - **Government support** of IT sector
 - Availability of **skilled engineers** and **software developers**
- Today, Synopsys is the **biggest IT company in Armenia**, with **~600 employees**
- Synopsys **partners** with **Armenian universities** to **develop highly skilled graduates**, supporting >60 professors and >600 students

SYNOPSYS®

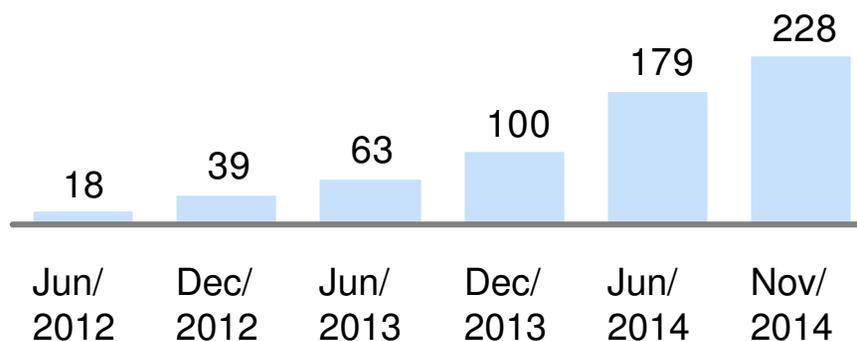
Further regional hubs and R&D centers by Microsoft, VMWare, Samsung, National instruments

2011: Startup PicsArt is launched in Yerevan

- PicsArt is a **mobile photo app** combined with a **social network**
- The company's **main office** is based in **Yerevan** and has **~25 employees**; an **office in California** has 6 employees
- The numbers of users has increased significantly and surpassed Instagram on iPhones in 2014

PicsArt's user base is quickly expanding

Number of installations, millions

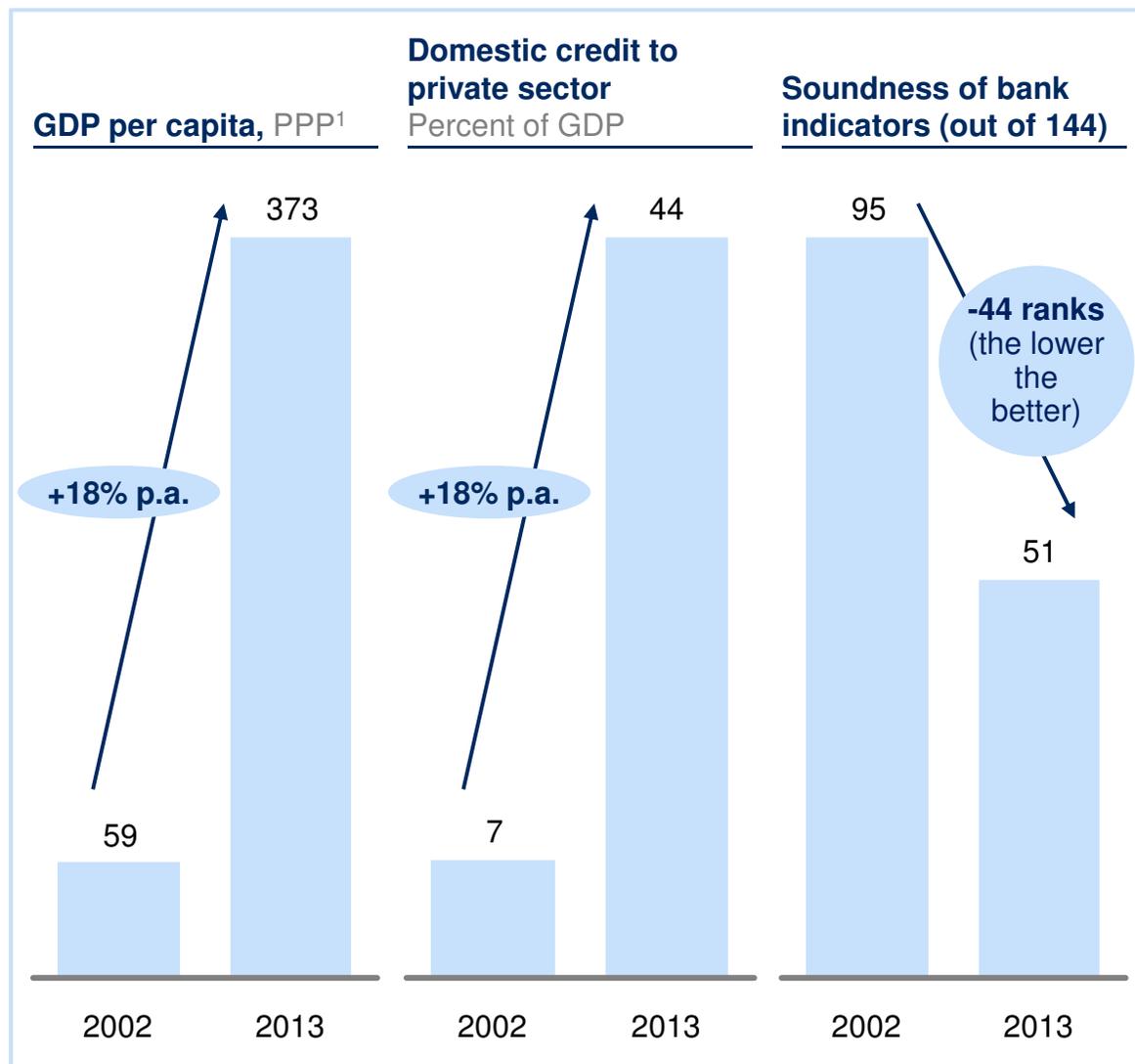


PicsArt

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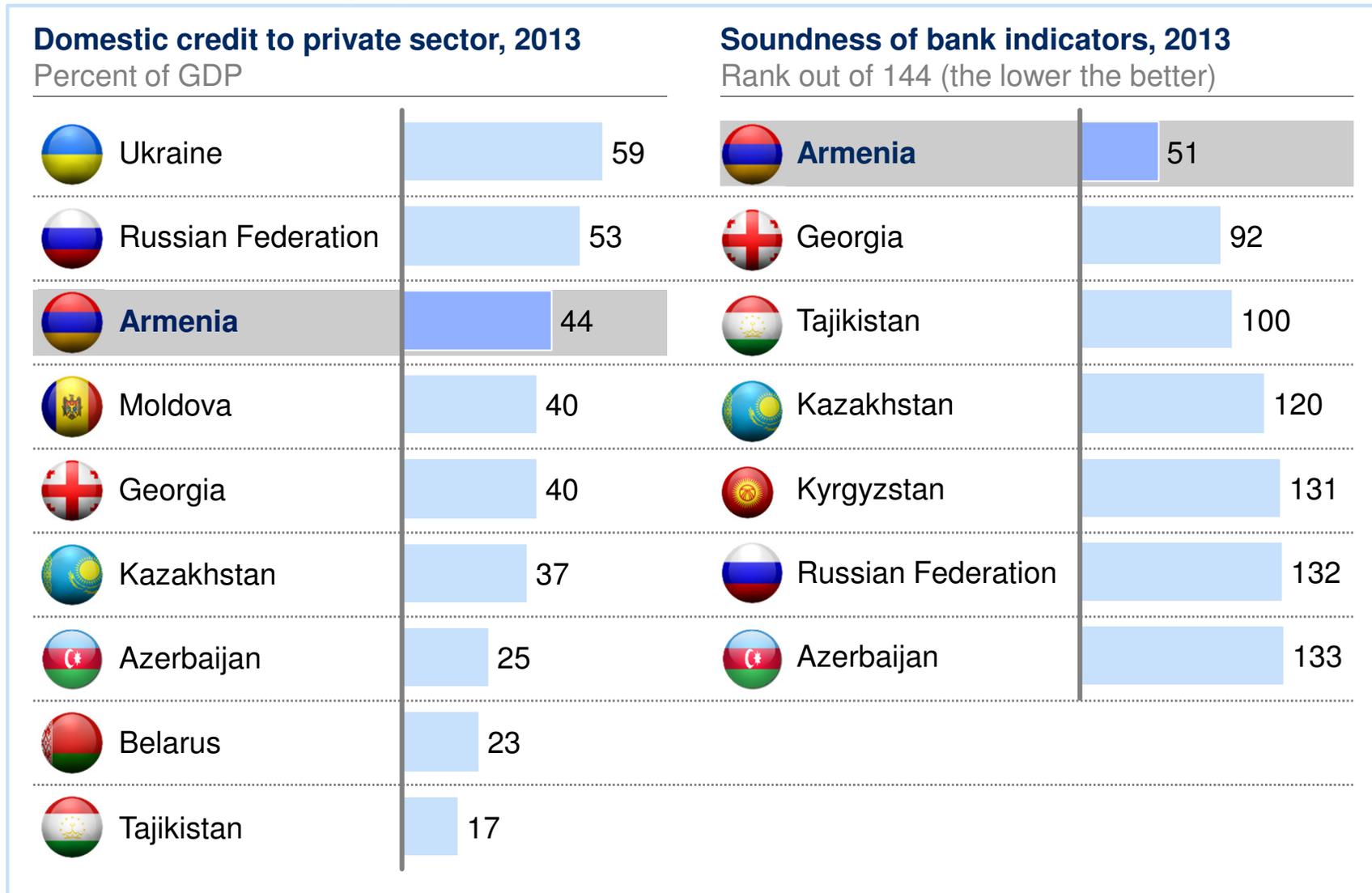
The Armenian banking system has shown an impressive growth over the last decade



- Armenia's banking system has **grown rapidly** over the last decade and is **sound** – ahead most of its CIS peers (see next slide)
- Growth has been driven by well-functioning and supportive Central Bank
- Well-resourced and skilled CBA – the independent body regulating the banking sector
- Additionally, several legislative initiatives mark the possibility of **significant change in other sectors of the financial market**
 - Introduction of obligatory **car insurance** (2011)
 - **Insurance law reforms** to bring legislation close to European standards and attract international brands (ongoing)
 - Mandatory **medical insurance** (to come)
 - **Pension law** with a mandatory component for public sector employees and shift from pay-as-you-go to multipillar pension system (2014)

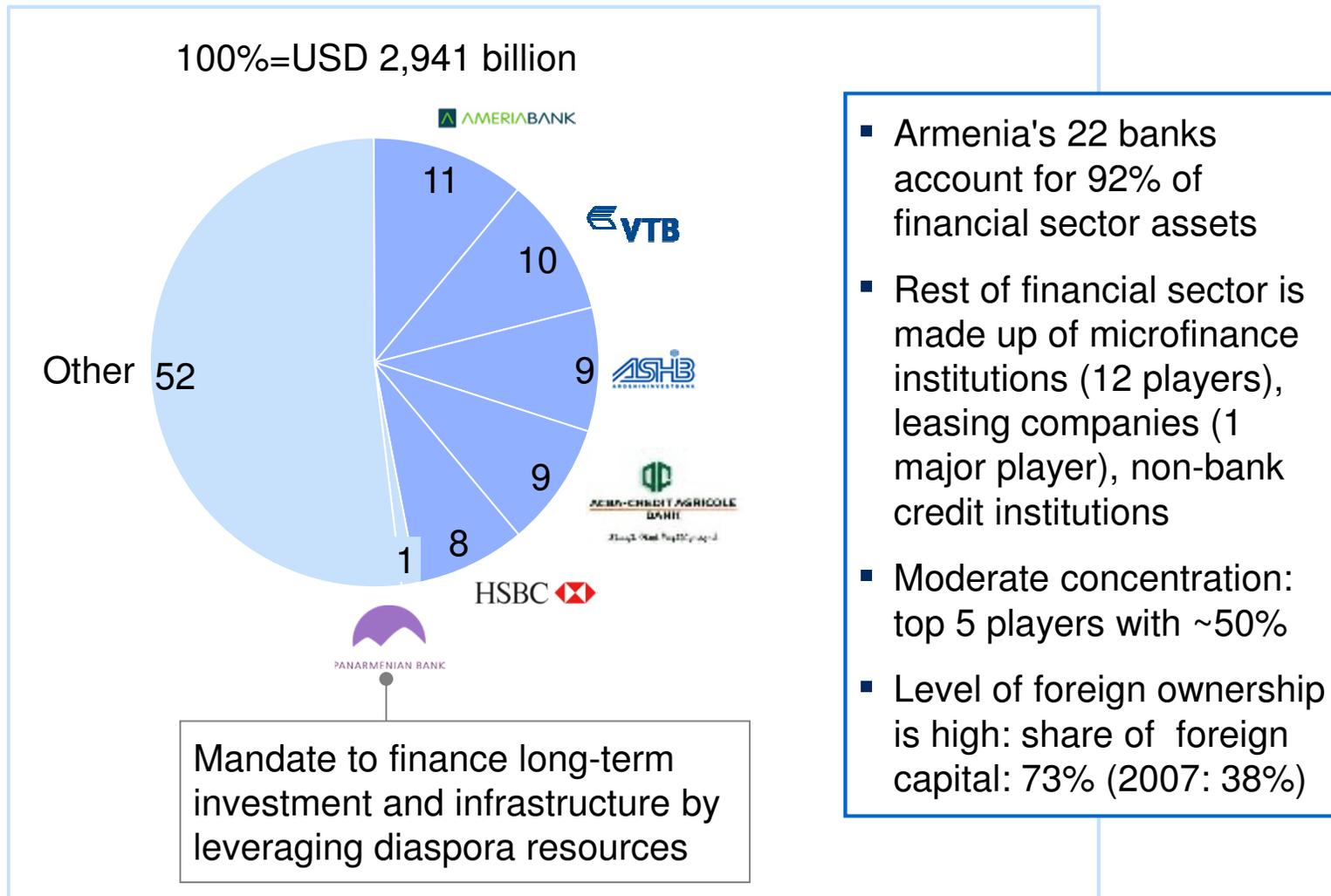
¹ Constant 2010 USD

Today, Armenia compares favorably to its peers in terms of size and health of its banking system



Armenia's banking system shows moderate concentration and includes several local and international reputable brands

Assets of Armenian banks, AMD 2013, percent

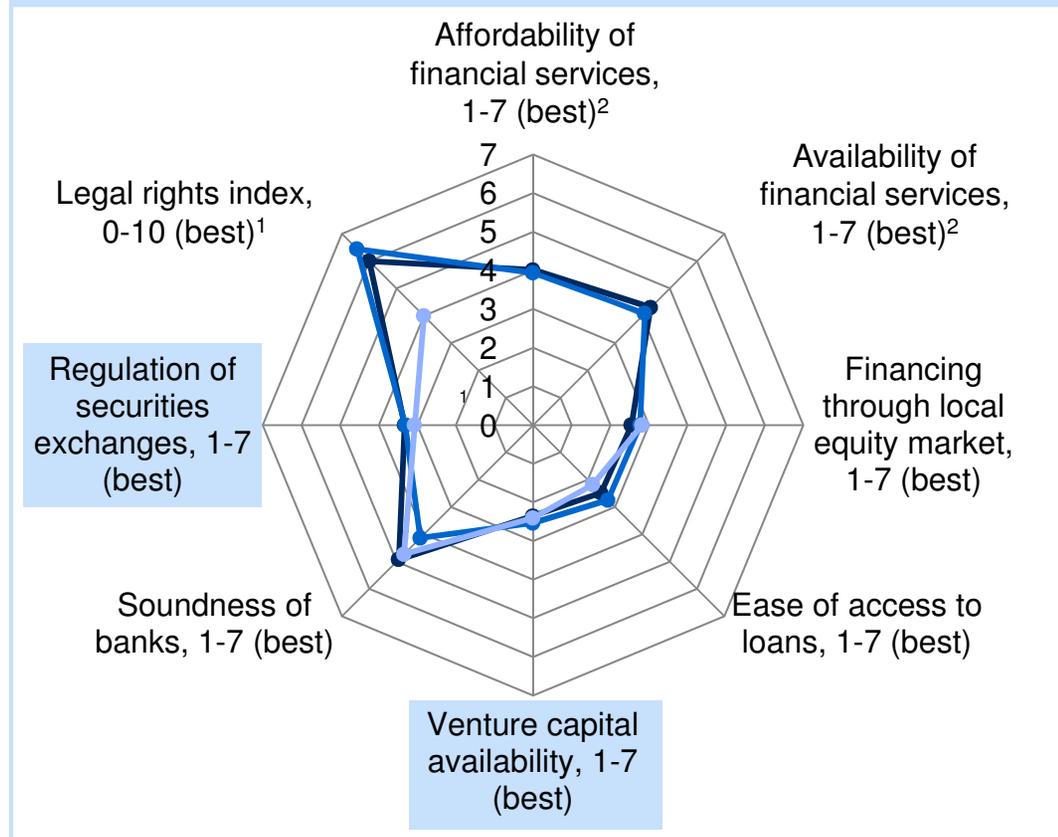


While Armenia ranks low on bank-related indicator, it still lacks an equity and risk capital market

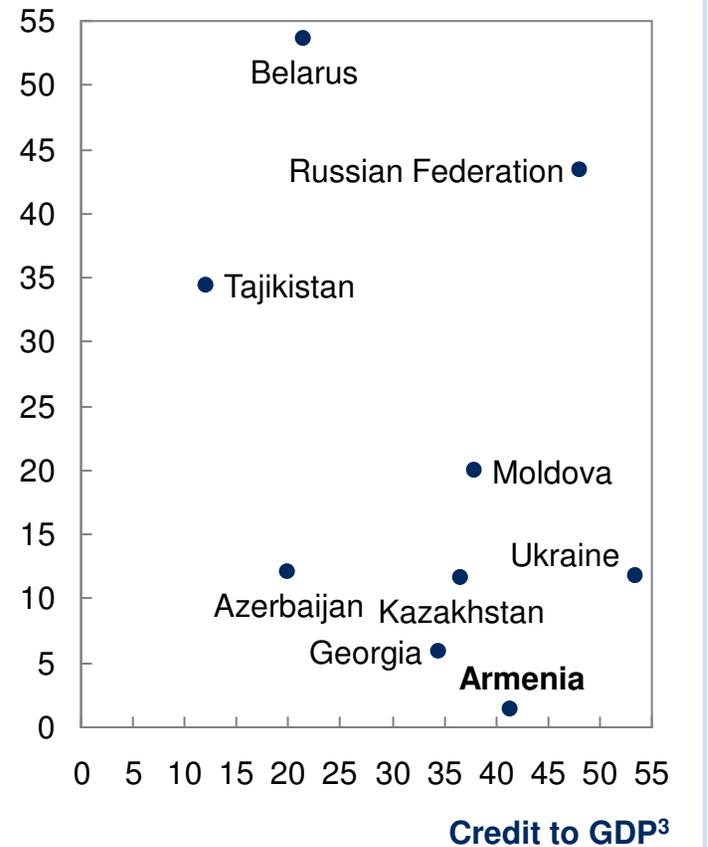
Financial Market Development Index 2014

■ Detailed on next page
 ● Armenia 2014
 ● CIS 2014
 ● Armenia 2006

Armenia ranks higher than its peer group in all categories of the Network Readiness Index



Stock market capitalization to GDP



1 2007 data
 2 Historical data not available
 3 Domestic credit to private sector

While Armenia's banking sector is well developed, other parts of the financial sector are still undeveloped

Private equity and venture capital

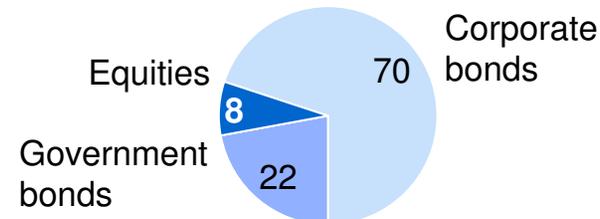
- 1 local fund: **Granatus Ventures Fund I**
 - Fund size: USD 6 million
 - 2 investments in Armenia¹
- 1 International fund: **Caucasus Growth Fund**
 - Fund size – USD 40 million
 - Investments in Georgia, Armenia, Azerbaijan
 - 1 investment in Armenia: **New Force, a distribution company**

No government support system for private equity venture capital; availability of risk capital is minimal

Stock exchange

- Stock exchange established in 2000 and acquired by Nordic stock exchange operator NASDAQ
- Stock market **very illiquid** with only **few equities** trades

Tradings 2012



- **Very low market capitalization of <1% of GDP**

Rudimentary state of market due to

- Lack of institutional investors managing long money
- Lack of transparency in companies/no sufficient level of corporate governance in order to qualify for stock exchange
- Failure to channel privatization through capital markets; many government-owned companies are making losses and are not attractive enough for a successful public placement

¹ WiCastr, a wireless mobile engagement platform, SoloLearn, a mobile platform comprising a series of learning apps

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Armenia could follow one of 4 new growth models, which have succeeded in diversifying their growths

Chile – economic liberalization

- Broad **economic liberalization** (liberalizing trade and banking sector, pension privatization, labor reforms)
- Active **state support** (R&D, training, financing, marketing) of target industries
- **Export** drove growth, especially **resource-based manufacturing** (e.g., food and beverages, basic metals)
- Growth in **financial sector** as crucial enabler for growth in other sectors

Malaysia – export-oriented manufacturing

- Diversification away from **resource-based** towards a **manufacturing exports economy**
- Assisted through **export processing zones (EPZs)**, and aggressive courting of **FDI** and **multinational corporations** (e.g., through favorable investment climate; investment tax credits)
- Significant **improvements in education** helped provide educated workforce required

Morocco – foreign markets

- Increased **connection to foreign markets** both as source of **FDI** and **demand** (manufacturing, tourism)
- Balance of cross-cutting **"transversal" reforms** (e.g., free trade agreements) and **sector development** (e.g., Special Economic Zones (SEZs), vocational training)
- Specialized policies for sector development generally included liberalization, infrastructure, and financial incentives, e.g., **tourism**: tax subsidies, aid for training and land, and liberalized air transport
- Government created **vocational training institutes** to produce talent for target sectors

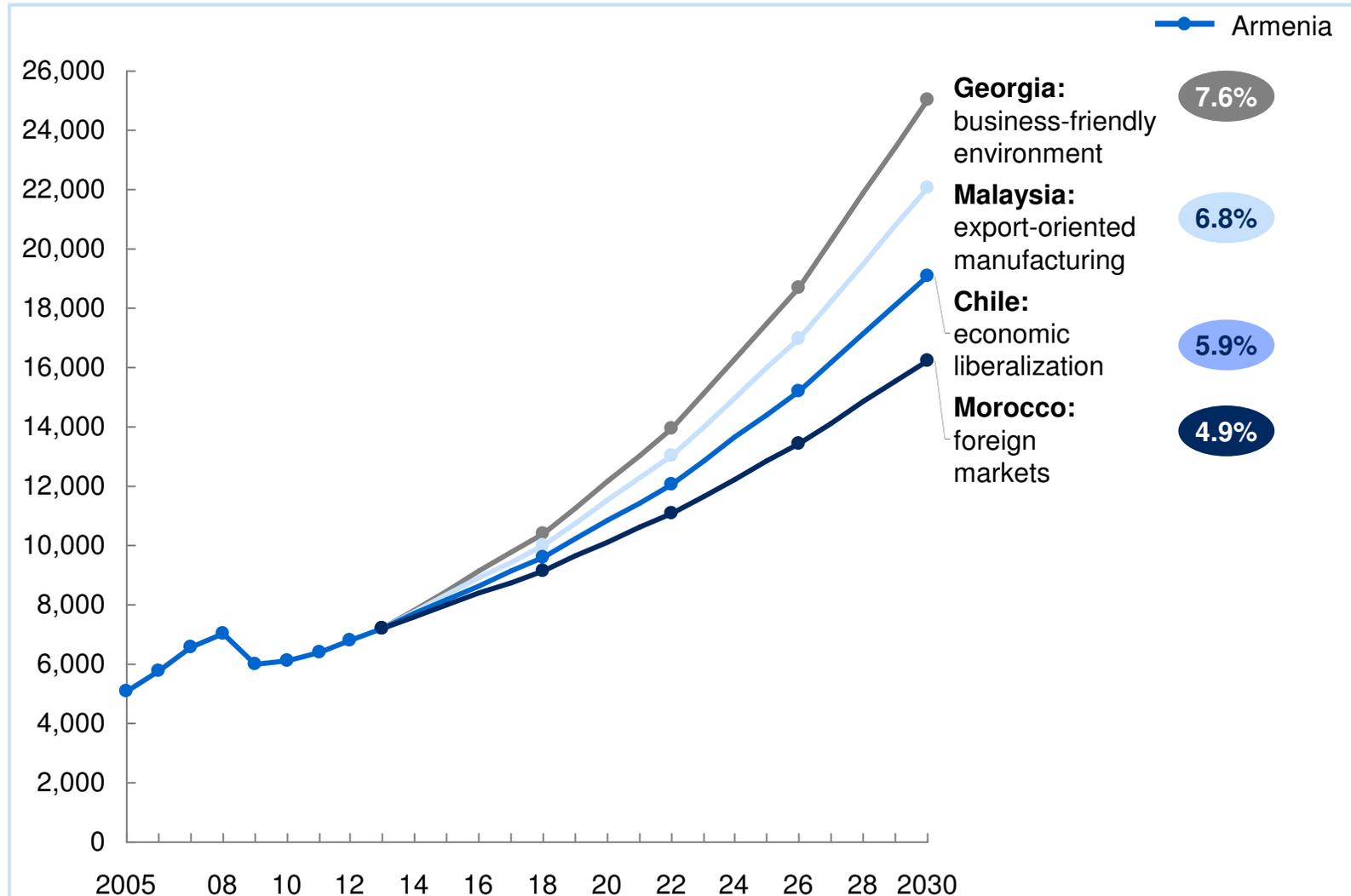
Georgia – business-friendly environment

- Create **business-friendly environment in non-business-friendly, but fast-growing area CIS**
- Neoliberal approach focusing on **general enablers** (e.g., improving government services, **reducing corruption**, creating low flat tax, liberalizing trade law) rather than selecting industries
- Improvements in **infrastructure** and **service levels** through **privatization** and **deregulation** most successful in areas with relatively fewer stakeholders, e.g., finance

The 4 new growth models – where Armenia could be in 2030

GDP PPP per capita, constant 2010 USD

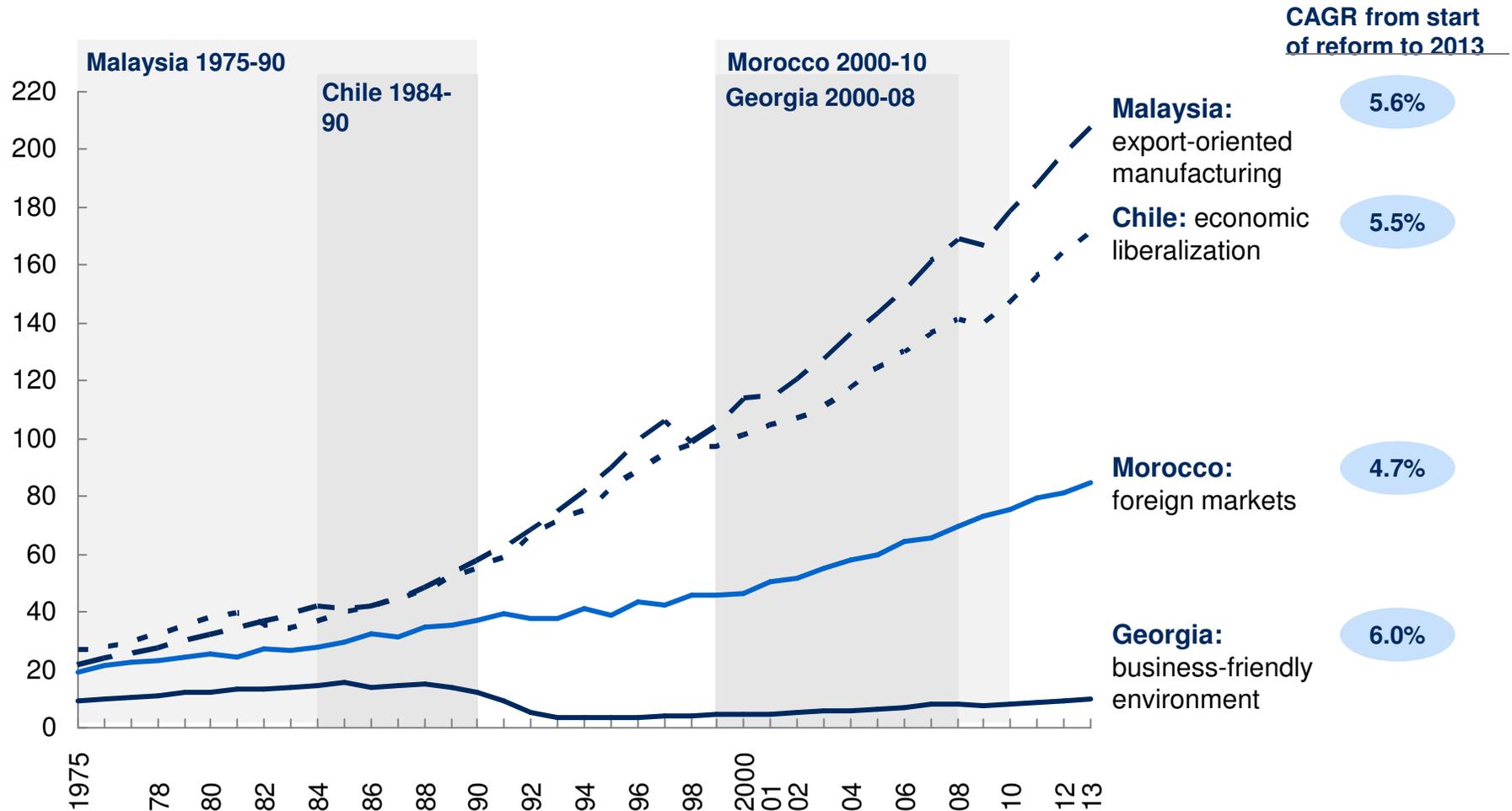
X% CAGR¹



1 Georgia: 2000-08; Malaysia: 1975-90; Chile: 1984-90; Morocco: 2000-10

The 4 new growth models show a long-term growth, suggesting that ingredients for success can be derived from all 4 growth stories

GDP, constant 2005 USD billions



Country Economic Development strategy heat map – overview of new growth models



		Chile 1984-90	Malaysia 1975-90	Morocco 2000-10	Georgia 2000-08
1 Overarching strategy	Level of state intervention in economy	Low	High	Medium	Low
	Market for growth	Exports	Exports	Exports/foreign	Domestic and trade
	Funding for growth	FDI	FDI	FDI	FDI
2 Export and domestic sectors	Key industries	Manuf., agric., mining	Manuf., esp.:electr.	Manuf., agric., tourism, BPO	Trans., infra., manuf., energy
3 Enabling sectors	Infrastructure (communication, utilities, logistics)	Low	High	High	High
	Human capital (health, education)	Low	Medium	Medium	Medium
	Financial services	High	High	High	High
4 Enabling policies and institutions	Labor markets and property security	High	Low	Low	High
	Monetary, fiscal policy	High	Medium	High	High
	Promoting innovation, SMEs, or trade	High	High	Medium	High
	Sustainability	Low	Low	Low	Low
	SEZ	Low	High	High	Low
5 Implementation	Strong system leaders	High	High	High	High
	Rigorous self-assessment/diagnostic	High	High	High	Low
	Prioritization with quick wins	Low	Low	High	High
	Cocreation of implementation plan	Low	Low	High	Low
	Targets and routines for monitoring	Low	Medium	Medium	High
	Delivery unit (new or existing)	Medium	High	High	Low
	Build capabilities	Low	Low	Medium	High
	Change story	High	Medium	Low	Low
	Finance linked to strategy and performance	Medium	High	High	High
	Private sector involvement	High	High	High	High

Chile's growth during the 1980s was driven by economic liberalization



1 Overarching strategy

- Broad economic liberalization (privatization, liberalizing trade and banking sectors, pension privatization, labor reforms)
- Controls on inflows of FDI to increase stability
- Active state support (through R&D, training, financing, and marketing) of targeted non-traditional industries
particular success in salmon and wine, together ~2.5% of GDP growth
- Copper industry remained nationalized to fund state

2 Export and domestic sectors

- Exports drove strong growth across all sectors, with strong domestic growth in support
- Biggest growth in natural resource-based manufacturing (food and beverages, basic metals), mining (copper), and financial services

3 Enabling sectors

- Early growth in financial sector was a crucial enabler for growth in all other sectors: broader and cheaper access to capital

4 Enabling policies and institutions

- Liberalization, privatization, political stability (although authoritarian), and close ties to US all contributed to high levels of FDI

6 Impact/achievements

- Immediate impact on real economic growth from 1984-90
 - 5.9% real GDP CAGR
 - Boom in exports: from 24% of GDP to 34%
 - FDI as percent of GDP doubled on average between 1984 and 1990, and was 4 times the Latin American average
- Set the basis for strong continued social and economic growth
 - 6.5% real GDP growth throughout the 1990s
 - By 2009, eliminated USD ~2/day poverty (down from 1/4 of population prior to the reforms)
 - Life expectancy at birth increased from 69 to 79 years (largely due to drop in infant mortality)
 - Increased tertiary enrollment from 12-55%

5 Implementation

- Authoritarian, military government had total control over economy and institutions during most radical reform periods (Phase I and Phase II)
- Cold War politics insured high levels of investment from US and Japan
- No comprehensive delivery unit, although Fundación Chile established to drive development of new target industries (e.g., salmon)



Malaysia's growth was led by export-oriented manufacturing sectors

1 Overarching strategy

- Economic development was a priority to provide economic opportunities for all racial groups and provide funds for redistributive policies
- The overall strategy was to diversify – away from a resource-based economy towards a manufacturing exports economy
- This was assisted by the development of EPE's, aggressive courting of FDI, and multinational corporations with the aim to receive technology transfer and FDI from these companies to spur growth

2 Export and domestic sectors

- Malaysia shifted dramatically from a resource exporting economy towards a manufacturing economy
- In 1970, ~95% of Malaysia's exports were resource based, in 1990 only ~50% were natural resource-based with manufacturing taking over
 - Electronics was the largest single contributor to growth
 - Rubber and palm oil products continued as a significant but shrinking proportion of the economy
 - Mining, primarily Tin, was also a large but shrinking proportion

3 Enabling sectors

- Large investments in transport infrastructure, in part funded by portfolio FDI, helped lay the ground work for export-led growth
- Significant improvements in education have helped provide the educated workforce required while training centers and higher learning centers, often partly government funded, sprung up around EPZs to provide skilled labor

4 Enabling policies and institutions

- The establishment of 3 EPZs in Penang, Klang Valley, and Johore from 1972 greatly supported manufacturing
- FDI was deliberately courted and a favorable investment climate established through the Investment Incentives Act and Promotion of Incentives Act
- Multinational corporations in particular were courted to take advantage of the abundant educated labor with incentives such as pioneer status, investment tax credits, accelerated depreciation allowances, and export refinancing facilities in EPZs

5 Implementation

- Implementation was very top down driven with Prime Minister Mahathir personally driving certain projects
- The Prime Ministers Office' Economic Planning Unit (EPU) had input and a view across all development work and crucially also controlled the development budget which sits separately to the operating budget
- The Ministry of International Trade and Industry (MITI) played a leading role in implementing industrial policy and the EPZs and regularly sought private sector feedback in improving implementation

6 Impact/achievements

- Real GDP growth of 6.8% p.a. between 1975 and 1990
- Per capita GDP growth of 4.1% in the same time period
- Increase in life expectancy of 6 years from 64 to 70 between 1975 and 1990
- Increase in adult literacy a from 69.5% in 1980 to 82% in 1991
- Major shift from resource-based economy to manufacturing economy



Morocco's growth was focused on export and foreign markets

1 Overarching strategy

- Morocco's growth strategy focused on catalyzing growth in sectors where it had a competitive advantage
- Increased connection to foreign markets both as source of capital (FDI) and demand (BPO, manufacturing, tourism)
- Balance of cross-cutting "transversal" reforms and focused sector development
 - Transversal reforms include economic stability with prudent fiscal and monetary policies, free trade agreements
 - Sectors developed with focused incentives and reforms, SEZs, vocational training, and infrastructure

2 Export and domestic sectors

- Specialized policies to promote selected sectors generally include liberalization, infrastructure and service enablers, and financial incentives
 - Tourism: tax subsidies, aid for training and land, liberalized air transport
 - Agriculture: land reform and introducing aggregators to help subsistence farmers move to commercial farming
 - Manufacturing: special economic zones created with administrative efficiency, tax incentives, vocational training, services, and infrastructure

3 Enabling sectors

- Reduced gov. ownership in financial industry and opened to foreign ownership, increasing availability of credit
- Built highways to facilitate internal trade and ports to facilitate external trade and act as hub
- Created vocational training institutes to produce talent for target sectors

4 Enabling policies and institutions

- Prudent monetary policy reduced inflation and interest rate volatility
- Fiscal policy enabled debt reduction and investment in growth
- Liberalized trade with free trade agreements with the EU, the US, Turkey, Middle East
- Provided tax breaks and investment incentives
- SEZs – clusters created to provide a more business-friendly environment for FDI
- Privatized creation and operation of SEZs to be more flexible and efficient.

5 Implementation

- Reforms led by the King and Prime Minister focused on catalyzing broad support and circumventing bureaucracy
- Focused on quick wins with competitive advantages, high willingness to reform, and high job potential
- Formed committees involving stakeholders to plan sectoral reforms; committees reported to PM
- SEZ implementation units were private or public firms, financed by the government and private sector partners

6 Impact/achievements

- Real GDP growth of 4.9% p.a. (2000-10)
- Exports increased from 28% of GDP to 37% of GDP (2000-07)
- 5 fold increase in FDI (2000-08)
- Stable economic growth – grew above 3.5% throughout global financial crisis
- Secondary school enrollment increased from 38% to 56% in 2000-10



Georgia's growth was based on a truly neoliberal approach

1 Overarching strategy

- Since mid-1990s, gradual liberalization – joined WTO
- After Rose Revolution (2004), focus on creating a business-friendly environment to attract FDI and leverage location in non-business-friendly but fast-growing area – on shortest route between CIS and Europe neoliberal policy focusing on general enablers such as improving gov. services, creating low flat tax, and reducing corruption
- Believed had 1 year to capitalize on revolution momentum – used unplanned and decentralized approach for speed

2 Export and domestic sectors

- Neoliberal approach focusing on general enablers rather than selecting industries
- Growth occurred in sectors sensitive to location, efficient government and low taxes: driven by trade, transport, and manufacturing (notably non-metallic materials)

3 Enabling sectors

- Reforms focused on improving infrastructure and service levels using privatization and deregulation
- Only sector with overall proactive government policy was energy due to strategic importance
- Difficulties reforming controversial/complex areas such as education and healthcare
- More success in areas with relatively fewer stakeholders, e.g., finance

4 Enabling policies and institutions

- Established rule of law, e.g., reduced corruption using no-tolerance approach – fired 40,000 traffic policemen and instituted jail time for petty corruption
- Liberalized labor and trade laws and introduced low flat tax rate
- Ran prudent fiscal and monetary policy to promote economic stability

6 Impact/achievements

- Real GDP CAGR of 7.6% leading to 80% increase in GDP per capita (2000-08)
- 11% increase in secondary school enrollment (2000-08)
- Ease of doing business ranking from 114 to 8 (2005-10)
- FDI increase from 130 million to 1.6 billion (2000-08) – CAGR of 36%
- Time for container clear customs from 52 to 2 days (2006-10)
- Only 3% of Georgians paid bribe in 2010
- Time to start a business fell from 25 to 3 days (2004-08)

5 Implementation

- Customer-centric approach to government focused on improving services and reducing corruption
- Focus on getting things done immediately and visibly, rather than careful planning and strategizing – encouraged public sector units to innovate and develop own initiatives, not wait for top-down instruction
- One consolidated budget and aligned incentives to outcomes, e.g., bonuses related to increasing process efficiency
- Improved public sector caliber by firing corrupt officials, increasing salaries, and providing exit opportunities

Success factors from new country growth stories (1/3)

Success factors

Examples

1 Ensure strong leadership: make sure that system leaders at the highest level are publicly committed to the transformation and are substantially engaged in driving the progress

- **Malaysia:** powerful prime minister, associated with and engaged in reform program

2 Get the facts on the table: start with a rapid, pragmatic health and performance assessment, creating clarity on root causes to be addressed

- **Chile:** El Ladrillo – self-assessment of economic situation in Chile
- **Morocco:** 6-month "country diagnostic" before start of reform program

3 Focus, focus, focus: focus on a few, highly catalytic interventions by prioritizing visible quick wins and high returns on investment

- **Morocco:** focus on target sectors
- **Chile:** privatization of financial sector and utilities
- **Georgia:** prioritization by improving government effectiveness and eliminating corruption

4 Push the supporting sectors: early growth in financial sector allowing for cheap access to capital; investments in infrastructure to lay the groundwork for export-led growth and internal trade

- **Chile:** early growth in financial sector through deregulation and foreign capital flows as crucial enabler for growth in all other sectors
- **Malaysia:** large investments, in part funded by joint ventures with private sector, in transport infrastructure helped lay the groundwork for export-led growth

Success factors from new country growth stories (2/3)

Success factors

Examples

- | Success factors | Examples |
|--|---|
| 5 Institutionalize a delivery engine: use a new or existing organization to set clear targets, monitor progress, hold individuals accountable, and intervene as necessary to remove bottlenecks or resolve issues | <ul style="list-style-type: none">▪ Malaysia: the Prime Minister's Office EPU had input and view across all development work and controlled development budget▪ Morocco: Implementation units for SEZs autonomous from government – financial, operational, and pay flexibility enabling hiring of high-caliber people |
| 6 Align the stars for implementation: ensure working-level collaboration in planning and implementation across public institutions as well as the private sector | <ul style="list-style-type: none">▪ Malaysia: innovative delivery-lab approach to breaking down silos and cocreating plans |
| 7 Empower entrepreneurs to drive change – both in the private and in the public sector | <ul style="list-style-type: none">▪ Chile: setup of a national incubator ("Fundación Chile") to nurture private sector growth |
| 8 Learn as you go: build capabilities and capacity in private and public sectors by applying adult-learning principles and integrate learning directly into working | <ul style="list-style-type: none">▪ Morocco: model factories for SMEs▪ Georgia: improved public sector caliber by firing corrupt officials, increasing salaries and providing exit opportunities |
| 9 Make the money support your ambitions: ensure that all fundings – government budgeting, private finance, and ODA – supports the strategic plan and incentivizes effective implementation | <ul style="list-style-type: none">▪ Malaysia: EPU holds development budget to fund 5-year plan |

Success factors from new country growth stories (3/3)

Success factors

Examples

-
- | | |
|---|--|
| 10 Educate workforce: educated workforce is a prerequisite for long-term growth but not its driver | <ul style="list-style-type: none">▪ Malaysia: significant improvements in education helped provide the educated workforce required, multinational corporations in particular were courted to take advantage of the abundant educated labor |
| <hr/> | |
| 11 Create a favorable business environment: create an environment that is very conducive towards businesses, incl. legislation and institutions | <ul style="list-style-type: none">▪ Georgia: far-reaching reforms, incl. labor market, monetary and fiscal policy, liberalized trade laws, and anticorruption efforts, improved business environment to most favorable in the CIS region▪ Morocco: investor-friendly policies focusing on ease of trade, stability, and incentives to attract FDI resulted in 500% growth in FDI from 2000-08 |
| <hr/> | |
| 12 Gain access to larger economic areas: integration and access to larger and wealthier trade area(s), both as a source of capital and demand | <ul style="list-style-type: none">▪ Morocco: free trade agreements with the EU, the US, Turkey, and the middle East led to increased connection to foreign markets both as source of capital (FDI) and demand (BPO, manufacturing, tourism) |

**Details country analysis to be found in
separate document *New growth models***

Contents

- Snapshot of the Armenian economy today and its development over the last 10 years
- Armenia's development in context of Armenia2020's models of growth
- Sector deep dives – actual development vs. potential
- Emerging new models of growth
- **Armenia's way forward**

Research has shown that 4 areas must be addressed to ensure sustainable growth

Business environment, institutions, and policies

- Government capability building
- Establishing professional networks to support the economic growth, leveraging Dolphyn's own network and expertise

Financial market and availability of capital

- Funding start-ups
- Facilitating investments

Infrastructure

- Facilitating large-scale investments and PPPs in selected key sectors

Human capital

- Improving quality and enrollment in education to ensure well-trained workforce and availability of talent

Armenia and Dolphyn have many opportunities to create a more sustainable growth environment (1/2)

RECOMMENDATIONS

Country

Business environment institutions and policies	<ul style="list-style-type: none"> ▪ Diversify away from resource-based exports by supporting the creation of highly skilled jobs <ul style="list-style-type: none"> – Support start-ups and the creation of SMEs in selected sectors such as IT (e.g., through facilitation of credits, tax incentives) – Improve the business environment (e.g., reduce incentives to join the informal sector, remove barriers to entry and competition)
Financial market and availability of capital	<ul style="list-style-type: none"> ▪ Improve the business and investment climate ▪ Approach multinationals in manufacturing and tradable services and incentivize them to relocate activities to Armenia
Infra-structure	<ul style="list-style-type: none"> ▪ Work with private companies to realize large-scale investments ▪ Improve the business environment to attract FDI flowing into infrastructure ▪ Incentivize infrastructure investments, e.g., through tax incentives

Dolphyn

- Create a **national development roadmap**, supporting Armenia's sectors with the strongest potential for GDP and job growth (e.g., IT, tourism)
- **Support companies in these focus sectors in their development**, e.g., by
 - Pairing domestic institutions with skilled diaspora for expert advice, source of talent, and funding
 - Being an advocate for fair market competition (e.g., communicate publicly if companies supported by Dolphyn face unfair competition)
- **Support companies in attracting more FDI**
 - Connect diaspora to Armenian entrepreneurs
 - Support potential investors in navigating the Armenian bureaucracy
- Create an **incubator** to provide **start-ups** with **financial** and training **support**
- Attract **multinationals** to Armenia and support them with setting up their operations
- Establish an **investment board to facilitate large-scale investments and PPPs** in selected key sectors
- **Support companies** in selected sectors such as IT to establish **required infrastructure**

Armenia and Dolphyn have many opportunities to create a more sustainable growth environment (2/2)

RECOMMENDATIONS

Country

Human capital

- **Improve the quality of teachers**, e.g., through regular training post university
- Engage employers in the **design of academic curricula**
- **Institutionalize vocational training**

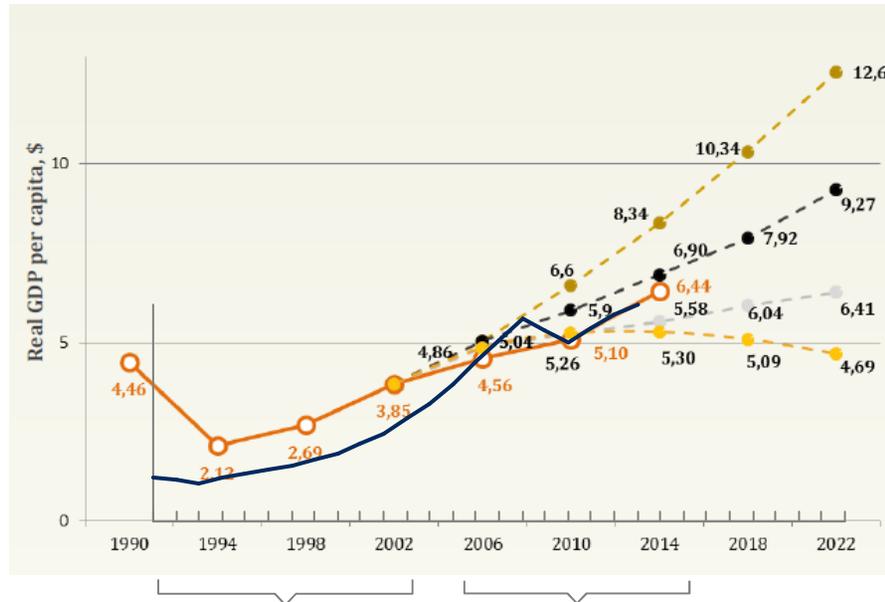
Dolphyn

- **Support the systematic improvement of Armenia's school system**
 - Get involved in the design of a modern curriculum that serves the needs of the economy in partnership with the government
 - Centers to train teachers and support their professional development, e.g., through classes, forums, peer learning
- **Improve the vocational training system**
 - Establish own vocational training institutes, potentially in cooperation with employers
 - Support training of workforce in cooperation with their employers
- **Improve the higher education system**
 - Connect Armenian universities with employers in Armenia and the diaspora to foster exchange and design of a modern curriculum incl. practical elements
 - Support universities to establish English as the main language to attract international students and ensure that graduates are attractive for future employers
 - Provide scholarships to Armenian and international students

Backup

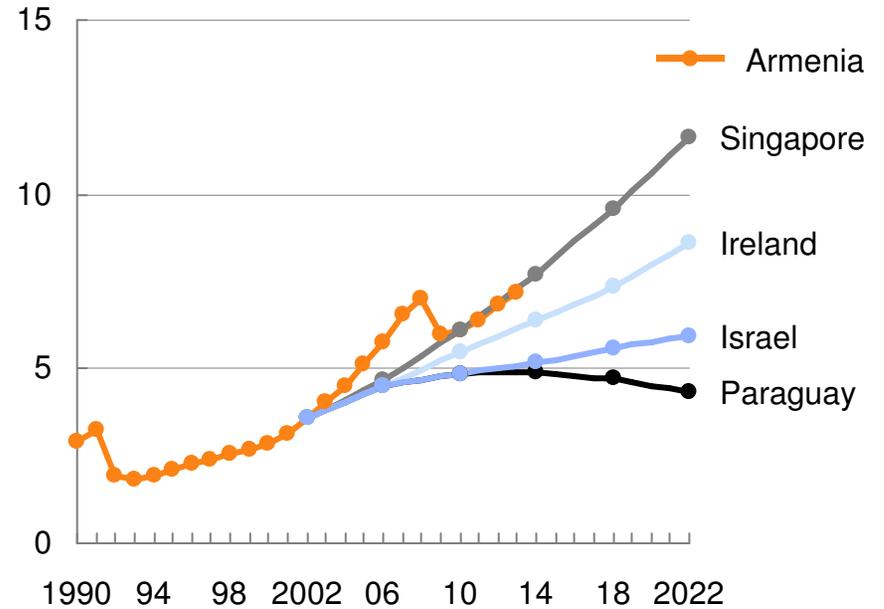
A mismatch in GDP units showed Armenia's development worse than in reality

The updated scenario chart was based on incorrect units for the Armenia GDP development¹



○—○ **Original data until 2002:** GDP PPP per capita in constant 2002 USD
●—● **Updated data since 2006:** GDP PPP per capita in current international dollars as reported by IMF

We updated the diagram with consistent units



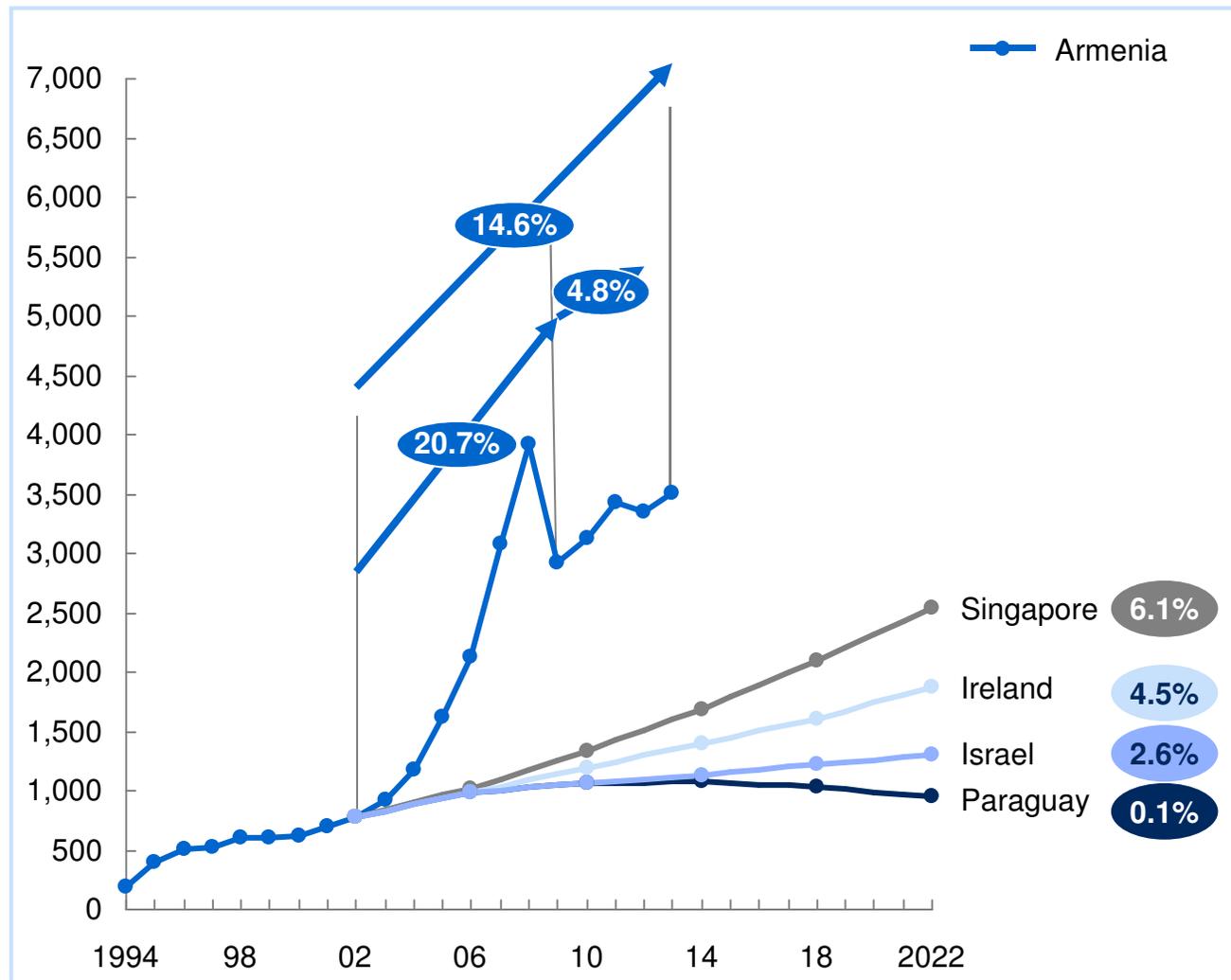
●—● **Consistent units for all curves:** GDP PPP per capita in constant 2010 USD

1 Screenshot: Armenia and Armenian world, RVVZ and IDeA, Oct 2014

Armenia's GDP growth was significantly higher in nominal terms due to the relatively high inflation rate in recent years

GDP per capita, current USD

X% Growth rates (based on growth rates for real GDP)



- 3 different units are typically used for the GDP
 - Nominal: GDP in the current value of a currency
 - Real: removes effect of inflation of the local currency on the GDP
 - PPP adjusted¹: accounts for different purchasing power of different currencies
- Due to the relatively high inflation rate of ~5-8% in Armenia during the last years, the nominal GDP per capita grew significantly stronger than in real values
- The growth rates assumed for the 4 scenarios are based on real GDP, i.e., do not consider the effect of inflation
- Showing PPP-adjusted values does not change the growth rates

1 PPP: purchasing power adjusted; can be used both in nominal and in real units

Similarities of new models of growth with Armenia

 Similarity

	<u>Armenia</u>	<u>Chile</u>	<u>Malaysia</u>	<u>Morocco</u>	<u>Georgia</u>
Population	2.98 million	17.62 million	29.72 million	33.0 million	4.48 million
Income level¹	7,500	21,400	22,600	7,000	6,900
Political system	Semipresidential republic; 23 years independence	Presidential constitutional republic; 204 years of independence	Constitutional monarchy; 57 years of independence	Constitutional monarchy; 58 years of independence	Semipresidential republic; 23 years of independence
Natural resources	Limited: construction materials, metals, agriculture	Limited: copper, some timber	Metals, natural gas, agriculture	Limited: phosphates, metals, salt, fish	Farming, minerals, metals, fish
Access to sea	Landlocked	Pacific ocean	South China Sea, Gulf of Thailand, Andaman Sea	Mediterranean Sea, Atlantic Ocean	Black sea
External environment	Strong dependence on Russia, hostility towards Turkey and Azerbaijan	Some border tension with Peru and Antarctica	Border tension with Philippines, disputes with Singapore over raw water	Dependence on France and Spain, sovereignty conflict over Western Sahara	Tensions with Russia
Presence of diaspora	5-6 million people of Armenian descent abroad	Less than 1 million Chileans abroad	Up to 1.5 million Malaysians abroad	4.5 million people of Moroccan descent abroad	More than 3 million Georgian diaspora members

¹ GDP per capita, PPP (constant 2011 international dollar)

Syria – 30 years with the right of correspondence

 Not realized in Armenia
  Fully realized in Armenia

	Elements of scenario	Assessment for Armenia	Evidence
Country level	Red tape and inefficient administration	 Lowered burden of governments regulation in Armenia, but still high bureaucracy	Burden of government regulation 2006: rank 69/144 countries (lower rank = better) 2014: rank 34/144 countries Bureaucracy: 2006 and 2014 lowest 20th percentile
	Strong army	 Military expenditures increased, however, country not led by strong army	Military expenditures 2003: 2.7% of GDP 2014: 4.1% of GDP
	Trade restrictions with Turkey and Azerbaijan	 No major development over last decade – trade restrictions in place	n/a
	No liquid stock markets	 While growing, Armenian stock market still insignificant	Stocks traded <1% of GDP (2013: USD 45 million, 14 companies traded)
Industry level	Monopolies and unfair competition	 Monopolies still prevalent in Armenia	Effectiveness of antimonopoly policy 2006: rank 114/144 countries 2014: rank 105/144 Ethical behavior of firms 2006: rank 100/144 countries 2014: rank 90/144 countries
	Large informal economy	 Stable share of large informal economy	2003: 44% of GDP (rank 124/151 countries) 2013: up to 40% of GDP
Company level	Poorly trained labor	 Armenia ranks constantly low on quality of education	Quality of primary education 2006: rank 85/144 countries 2014: rank 83/144 countries Quality of higher education 2006: rank 68/144 countries 2014: rank 86/144 countries
	Low level of investments	 Stable investment ratio, but low compared to regional peers	Gross capital formation 2003: 24% of GDP 2013: 22% of GDP Rank 9 out of 10 regional peers ²

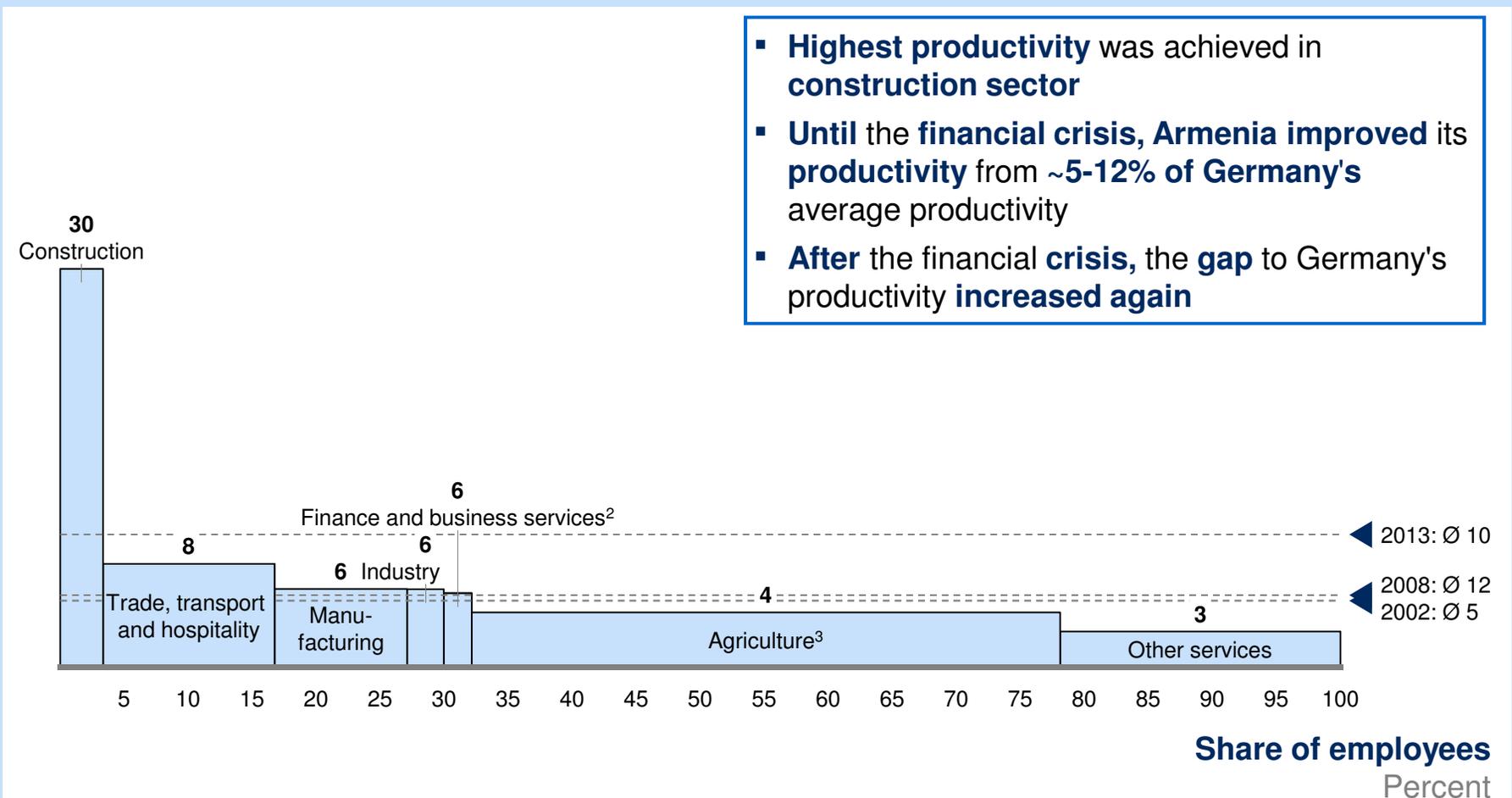
1 Latest data available

2 Belarus, Kyrgyzstan, Kazakhstan, Georgia, Azerbaijan, Moldova, Uzbekistan, Tajikistan, Russia

3 The Armenian productivity has always been significantly lower than that of Germany across all sectors and even declined after the financial crisis

Productivity¹, 2003

Germany = 100%



- Highest productivity was achieved in construction sector
- Until the financial crisis, Armenia improved its productivity from ~5-12% of Germany's average productivity
- After the financial crisis, the gap to Germany's productivity increased again

1 GDP per employee 2 Incl insurance 3 Incl forestry and fishing
Note: Detailed sector allocation in backup

Productivity comparison between Armenia and Germany: Sectors matched based on data availability

Aggregated categories based on data availability

	Individual Armenia components	Individual Armenia components
Finance and business services	<ul style="list-style-type: none"> ▪ Agriculture, hunting and forestry ▪ Fishing 	<ul style="list-style-type: none"> ▪ Agriculture, hunting, forestry and fishing
Industry	<ul style="list-style-type: none"> ▪ Mining and quarrying ▪ Electricity, gas and water supply 	<ul style="list-style-type: none"> ▪ Mining and quarrying ▪ Electricity, gas, steam and air conditioning supply ▪ Water supply, sewerage, waste management and remediation activities
Manufacturing	<ul style="list-style-type: none"> ▪ Manufacturing 	<ul style="list-style-type: none"> ▪ Manufacturing
Construction	<ul style="list-style-type: none"> ▪ Construction 	<ul style="list-style-type: none"> ▪ Construction
Trade, transport and tourism	<ul style="list-style-type: none"> ▪ Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods ▪ Hotels and restaurants ▪ Transport and communication 	<ul style="list-style-type: none"> ▪ Wholesale and retail trade; repair of motor vehicles, motorcycles ▪ Transportations and warehouse economy ▪ Accommodation and food service activities ▪ Information and communication
Finance and business services	<ul style="list-style-type: none"> ▪ Financial intermediation ▪ Real estate, renting and business activities 	<ul style="list-style-type: none"> ▪ Financial and insurance activities ▪ Real estate activities ▪ Professional, scientific and technical activities ▪ Administrative and support service activities
Other services	<ul style="list-style-type: none"> ▪ Public administration ▪ Education ▪ Health and social work ▪ Other community, social and personal service activities ▪ Activities of private households as employers and undifferentiated production activities of private households 	<ul style="list-style-type: none"> ▪ Public administration ▪ Education ▪ Human health and social work activities ▪ Arts, entertainment and recreation ▪ Other service activities ▪ Activities of private households as employers and undifferentiated production and services activities of private households for own consumption