UZBEKISTAN | 2035

BUYUK KELAJAK

Development Strategy Framework of the Republic of Uzbekistan by 2035

February 18, 2019

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Note: 1 - "Third parties" mean any physical persons or legal entities

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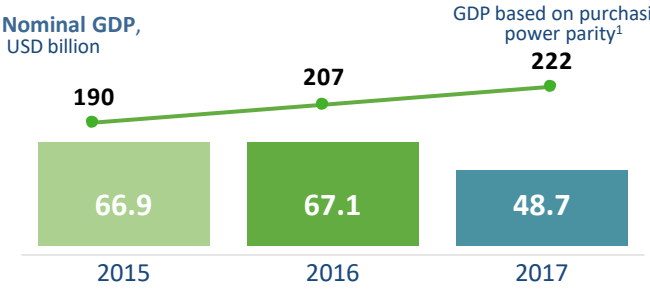
Nominal GDP, USD billion



GDP based on purchasing power parity[1]

Employment by sector

Economic indicators[2], 2017

13.9 USD billion
Export

14.3 USD billion
Import

GDP per capita
1,485 USD per year
123 global ranking

Inflation
14%

FDI
0.91 USD billion

Tax revenue
5.4 USD billion

Social indicators[3], 2017

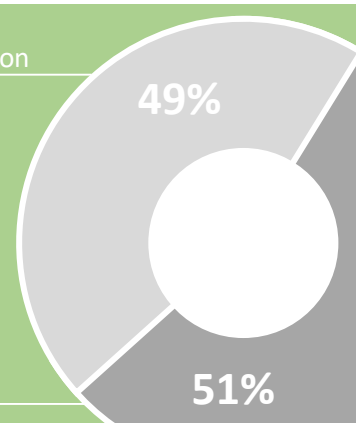
32.8 million people
Population size

72.3 years
Average life expectancy

1.6%
Population growth rate

8.9% of able-bodied population
Registered unemployment

70%
Under 25 years old



International ratings, 2017

157 place
Out of 180
CORRUPTION PERCEPTIONS INDEX 2017

165 place
Out of 180
2017 World Press Freedom Index
REPORTERS WITHOUT BORDERS
FOR FREEDOM OF INFORMATION

74 place
of 190
DOING BUSINESS

114 place
of 193
UN Telecommunication Infrastructure Index (TII), 2018

105 place
of 189
Human Development Index

81 place
of 193
E-Government Development Index, 2018

Note: 1 - GDP based on purchasing power parity is the calculation of GDP by the purchasing power parity, that is, taking into account the purchasing power of the national currency
Sources: 2 - World Bank, 3 - State Statistics Committee

Evaluation of the current development level of the Republic of Uzbekistan

Current indicators of the Republic of Uzbekistan compared with other countries, 2017

Economic development

Nominal GDP, USD billion

Uzbekistan	Singapore	Yu. Korea
48.7	297	1,530

GDP per capita, USD per capita

Uzbekistan	Singapore	Yu. Korea
1,485	57,719	29,891

Doing Business Index, global ranking

Uzbekistan	Singapore	Malaysia
74	2	24

Economic output

Agroindustrial complex output, USD **Per** employed person

Uzbekistan	Singapore	Yu. Korea
2,247	22,512	22,875

Industrial output, USD **Per** employed person

Uzbekistan	Singapore	Malaysia
4,672	111,471	17,145

Service sector output, USD **Per** employed person

Uzbekistan	Singapore	Yu. Korea
3,452	85,301	42,851

Quality of life

Registered unemployment, % of labor force

Uzbekistan	Singapore	Yu. Korea
8.9	1.8	3.7

Share of the population below the poverty line (USD 1.95 per day), %

Uzbekistan	Malaysia	Yu. Korea
10	0.2	0.3

Position in UN rating Human Development Index, position

Uzbekistan	Singapore	Yu. Korea
105	9	22

Development scenario for the Republic of Uzbekistan

Preconditions for development scenarios of Republic of Uzbekistan

Favorable foreign market conditions, absence of crises

Absence or unsuccessful implementation of reforms

Successful implementation of reforms

Evolutionary scenario

Favorable foreign market conditions with unsuccessful implementation of reforms

- The favorable external market condition determines the **inconsiderable acceleration of Republic of Uzbekistan** development as compared to the current rates
- **Attracting investments** (USD 515-623 billion) depends on the economy developing under favorable market conditions
- **Inflation**: gradual consistent decrease from 19.2% in 2018 to 10% in 2025 and the subsequent gradual decrease to 4.5% in 2033 (the decrease rate according to IMF forecast for 2018-19)
- **Dollar exchange rate**: stable at the level of 2018: UZS 8,065 per 1 USD (the average exchange rate, absence of acute fluctuations due to the foreign market condition)
- **Population growth rate** : 1.55% a year (the average between the current (2012-2017) and the growth rate of the dynamic scenario)
- **Nominal GDP** is calculated based on the consensus forecast of the Ministry of Economy of the Republic of Uzbekistan, Euromonitor, IMF, historic growth rates of the countries of the Early-demographic dividend category according to the data of World Bank, including India, Mexico, Argentina, Turkey, etc.

Dynamic scenario

Implementation of reforms with favorable foreign market conditions and a considerable amount of investments

- The favorable foreign market condition and the successful implementation of reforms is critical in determining the possibility of **achieving the goal of entering the top 50 countries** in terms of nominal GDP
- **A considerable amount** of **investments** raised: USD 993-1,213 billion
- **Inflation**: the implementation of reforms, including the independent and efficient Central Bank, makes it possible to successfully target inflation as low as 5% in 2026 and 4.5% since 2031.
- **Dollar exchange rate**: stable at the level of 2018: UZS 8,065 per 1 USD (the average exchange rate, the stability is supported by the equal outflow and inflow of capital)
- **Population growth rate**: 1.4% a year (decrease in the population growth rate as compared to the current growth due to the higher quality of life, the growth rate based on the Euromonitor forecast)
- **Nominal GDP** is calculated based on the **goal to enter the top 50 countries** (on the basis of Euromonitor and EIU forecasts)

Pessimistic scenario

Unfavorable foreign market conditions and external crises, but successful implementation of reforms

- The negative foreign market condition and the absence or unsuccessful implementation of reforms determines the **slowdown in the Republic of Uzbekistan development rates** as compared to the current rate, **attracting investments is hard** (USD 222-272 billion)
- Once every 6 years, **crisis phenomena** negatively affect the GDP growth rate (minus 5.4% in the crisis year, analogous to the fall of the global GDP in the last crisis year 2015, the most conservative figure is adopted, 6 years constitute the average period of time between the global crises 1982-2015)
- **The return** to the pre-crisis rates takes **2 years** due to the inefficient state governance
- **Inflation**: gradual consistent decrease from 19.2% in 2018 to 10% in 2025 and the subsequent gradual decrease to 4.5% in 2033 (the decrease rate according to IMF forecast for 2018-19)
- **Dollar exchange rate**: stable at the level of 2018: UZS 8,065 per 1 USD (the average exchange rate, the stability is supported by the absence of capital outflow and inflow)
- **Population growth rate**: 1.7% a year (the current growth rate of 2012-2017 is preserved, there is no growth rate slowdown analogous to the developing countries with the low quality of life)
- **Nominal GDP** is calculated based on the evolutionary scenario taking into account the crises

Progressive scenario

Implementation of reforms against the background of unfavorable foreign market conditions and external crises

- The successful implementation of reforms makes it possible to achieve **accelerated rates of economic development** as compared to the current and provides the investments raising (USD 600-733 billion)
- Once every 6 years, **crisis phenomena** negatively affect the GDP growth rate (minus 5.4% in the crisis year, analogous to the fall of the global GDP in the last crisis year 2015, the most conservative figure is adopted, 6 years constitute the average period of time between the global crises 1982-2015)
- **The return** to the pre-crisis rates takes **1 year** due to the efficient state governance
- **Inflation**: the implementation of reforms, including the independent and efficient Central Bank, makes it possible to successfully target inflation as low as 5% in 2026 and 4.5% since 2031.
- **Dollar exchange rate**: stable at the level of 2018: UZS 8,065 per 1 USD (the average exchange rate, the stability is supported by the modern measures regulating the capital outflow and inflow)
- **Population growth rate** : 1.55% a year (the average between the current (2012-2017) and the growth rate of the dynamic scenario)
- **Nominal GDP** is calculated based on the dynamic scenario taking into account the crises

Unfavorable foreign market conditions, presence of crises

Source: analysis of the Project Team

Development scenario for the Republic of Uzbekistan

Nominal GDP of the Republic of Uzbekistan

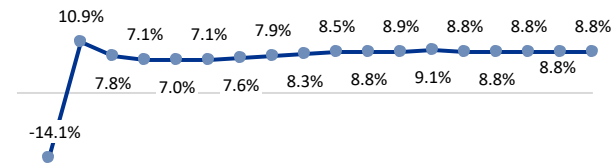
Favorable foreign market conditions, absence of crises

Absence or unsuccessful implementation of reforms

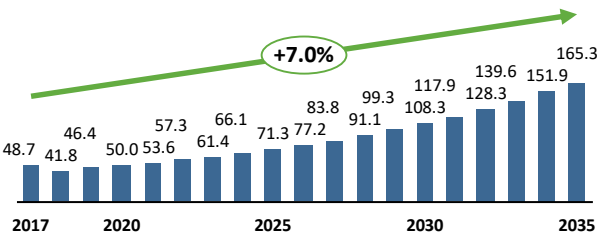
Successful implementation of reforms

Evolutionary scenario

GDP nominal growth rate, %

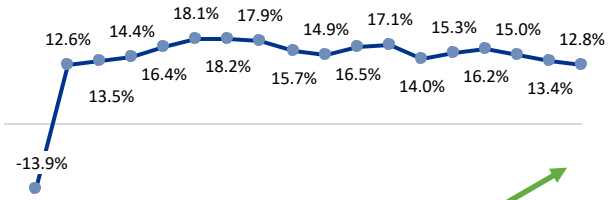


Nominal GDP, USD billion

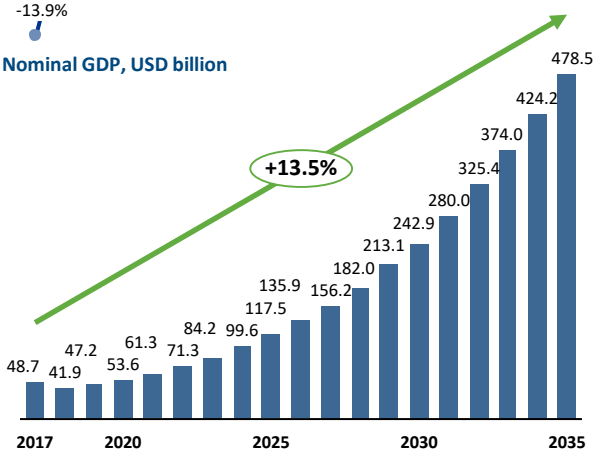


Dynamic scenario

GDP nominal growth rate, %

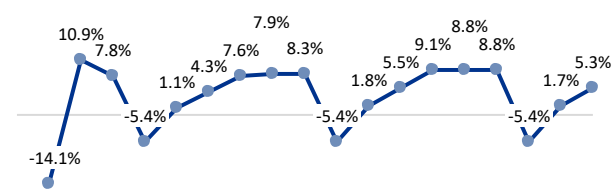


Nominal GDP, USD billion

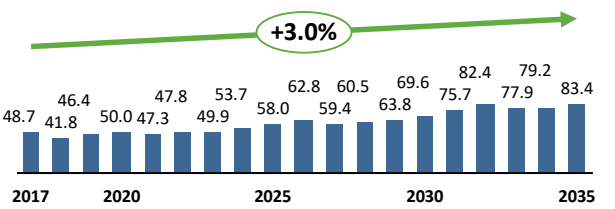


Pessimistic scenario

GDP nominal growth rate, %

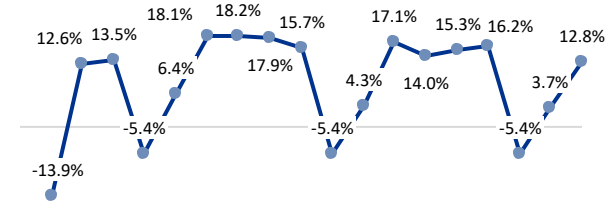


Nominal GDP, USD billion

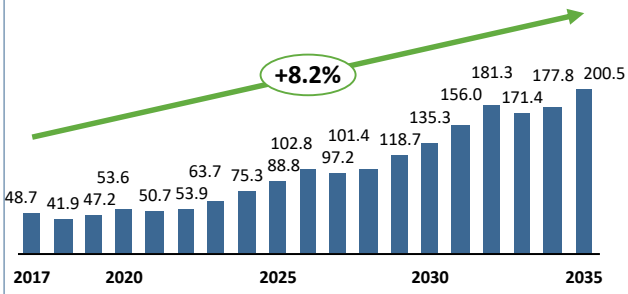


Progressive scenario

GDP nominal growth rate, %



Nominal GDP, USD billion



Unfavorable foreign market conditions, presence of crises

Source: analysis of the Project Team

Development scenario for the Republic of Uzbekistan

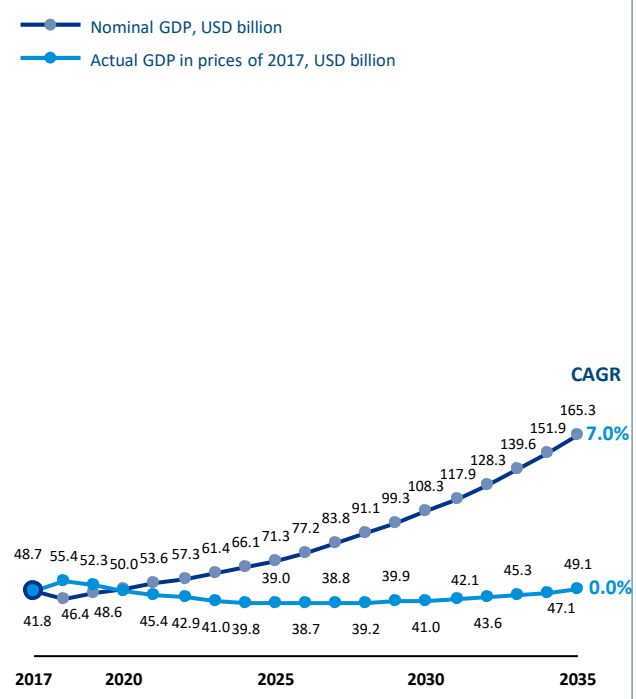
Comparison of the nominal and actual GDP of the Republic of Uzbekistan

Favorable foreign market conditions, absence of crises

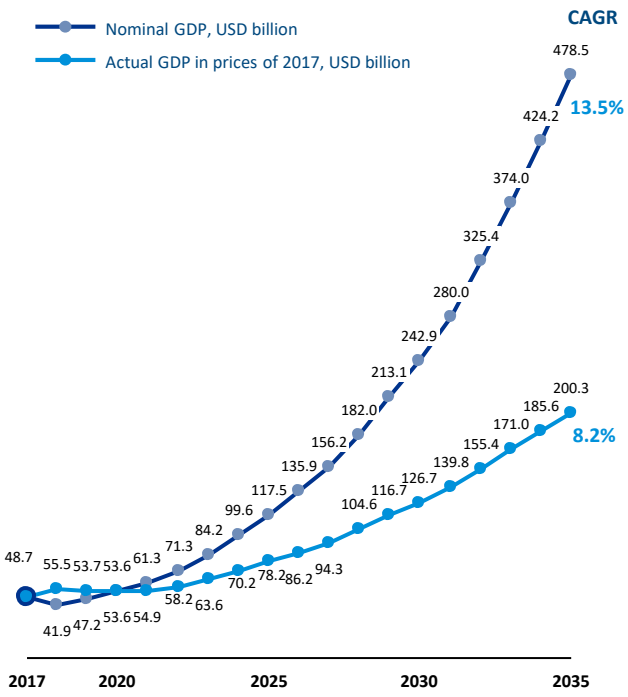
Absence or unsuccessful implementation of reforms

Successful implementation of reforms

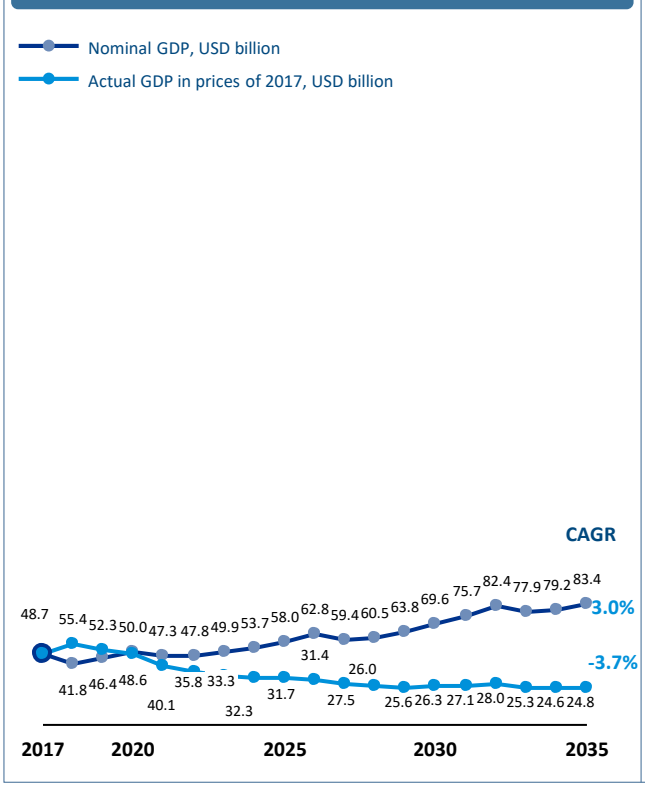
Evolutionary scenario



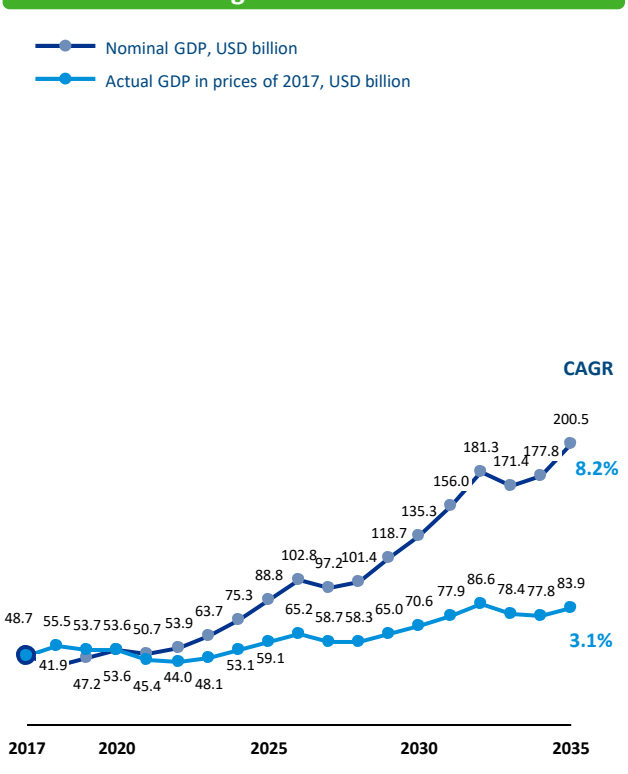
Dynamic scenario



Pessimistic scenario



Progressive scenario



Unfavorable foreign market conditions, presence of crises

Source: analysis of the Project Team

Development scenario for the Republic of Uzbekistan

Macroeconomic indicators of the Republic of Uzbekistan

Favorable foreign market conditions, absence of crises

Absence or unsuccessful implementation of reforms

Successful implementation of reforms

Evolutionary scenario

	2017	2035
Nominal GDP, USD billion	48.7	165.3
Actual GDP, USD billion	48.7	49.1
Cumulative investments, USD billion	-	515-623
Population, million people	33.3	43.2
GDP per capita, USD thousand	1.5	3.8
Ranking in the world in terms of nominal GDP	85	67
GDP based on PPP, USD billion	222	528
GDP based on PPP per capita, USD thousand	6.8	12.2

Dynamic scenario

	2017	2035
Nominal GDP, USD billion	48.7	478.5
Actual GDP, USD billion	48.7	200.3
Cumulative investments, USD billion	-	993-1,213
Population, million people	33.3	42.1
GDP per capita, USD thousand	1.5	11.4
Ranking in the world in terms of nominal GDP	85	50
GDP based on PPP, USD billion	222	701
GDP based on PPP per capita, USD thousand	6.8	16.7

Pessimistic scenario

	2017	2035
Nominal GDP, USD billion	48.7	83.4
Actual GDP, USD billion	48.7	24.8
Cumulative investments, USD billion	-	222-272
Population, million people	33.3	44.4
GDP per capita, USD thousand	1.5	1.9
Ranking in the world in terms of nominal GDP	85	78
GDP based on PPP, USD billion	222	303
GDP based on PPP per capita, USD thousand	6.8	6.84

Progressive scenario

	2017	2035
Nominal GDP, USD billion	48.7	200.5
Actual GDP, USD billion	48.7	83.9
Cumulative investments, USD billion	-	601-735
Population, million people	33.3	43.2
GDP per capita, USD thousand	1.5	4.6
Ranking in the world in terms of nominal GDP	85	66
GDP based on PPP, USD billion	222	346
GDP based on PPP per capita, USD thousand	6.8	8.01

Unfavorable foreign market conditions, presence of crises

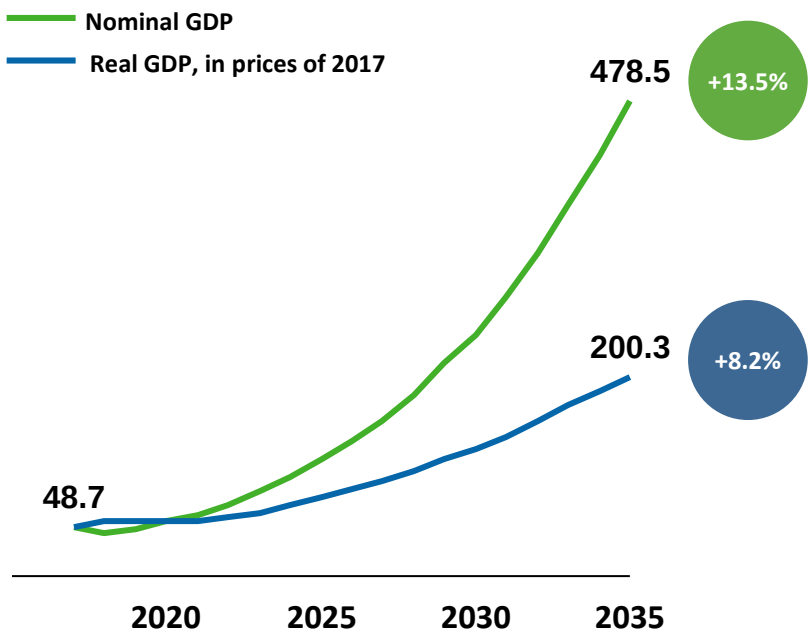
Source: analysis of the Project Team

Development scenario for the Republic of Uzbekistan

The dynamic scenario of the Republic of Uzbekistan development is chosen as the target scenario in the Strategy

GDP trend

USD billion



CAGR

+13.5%

+8.2%

Main characteristics

- Development of agriculture and industry and improved infrastructure are basis for the growth
- Development will be based on growth in human capital
- Private funds are the main source of investments
- The total amount of investments will reach 993-1,213 USD billion

Global ranking[1]

2017				2035			
84		Slovenia	48.9	49		Denmark	525.8
85		Uzbekistan	48.7	50		Uzbekistan	478.5
86		Lithuania	47.3	51		New Zealand	477.9

+35 Positions

Sources: 1 - International Monetary Fund (IMF)

Development scenario for the Republic of Uzbekistan

The strategic goal of the Republic of Uzbekistan in 2035 is to enter the Top 50 global economies

GDP

Government management

Economy

Society

Innovations

Examples of indicators

Indicators

- Global Indicators of Regulatory Governance
- Democracy Index
- Doing Business
- E-government Index
- Corruption Perceptions Index

• • •

- Worldwide Press Freedom Index

Indicators

- GDP per capita
- AIC output
- Electricity generation
- Volume of exported textile products
- Automobile production volume

• • •

Indicators

- Registered unemployment
- Health care expenses
- Child mortality
- Gini index

• • •

- Cultural Influence Ranking

Indicators

- R&D expenditures
- Number of patents
- Global Innovation Index
- Number of scientists (researchers)
- Research citation rate

• • •

- Number of publications

- GDP is the common goal
- The goal complies with SMART principles

S Certain

M Measurable

A Achievable

R Relevant

T Limited in time

Sources: 1 - International Monetary Fund (IMF)

Development scenario for the Republic of Uzbekistan

The indicators of the Republic of Uzbekistan development in the dynamic and pessimistic scenarios

Indicator	Actual, 2017	Dynamic scenario, 2035	Pessimistic scenario, 2035
Stable macroeconomy			
GDP (nominal), billion US billion	48.7	479	83
GDP (based on PPP), USD billion	222	701	303
GDP per capita, USD billion	1,486	11,362	1,879
Budget revenues, USD billion	8	147	26
Contribution of AIC to gross added value (GAV), billion US billion	8	36	14
Contribution of industry to GAV, USD billion	15	148	25
Contribution of service sector to GAV, USD billion	20	242	35
Share of AIC in GAV, %	19	8	19
Share of industry in GAV, %	33	35	33
Share of service sector in GAV, %	47	57	47
Agroindustrial complex output, USD USD per employed person	2,247	15,585	3,049
Industrial output, USD USD per employed person	4,672	27,046	6,421
Service sector output, USD per employed person	3,452	21,968	4,604
Unemployment rate, % of able-bodied population	8.9	6.2	7.0
Employment rate in AIC, % of employed persons	29.0	12.2	29
Employment rate in industry, % of employed persons	23.9	29.1	23.9
Employment rate in the service sector, % of employed persons	47.1	58.7	47.1
Population size, million people	33	42.1	44
State debt share in GDP, %	16.0	38.7	23.9
Inflation, %	14.4	4.5	4.5
Share of SMEs, per 1,000 people	7.1	25	7.9
Value added per 1 SME, USD USD/SME	113	273	127
Annual amount of investment, USD billion	12	129	23
Export of goods and services, USD billion	13.9	136.5	23.8
Import of goods and services, USD billion	14.4	116.7	20.3

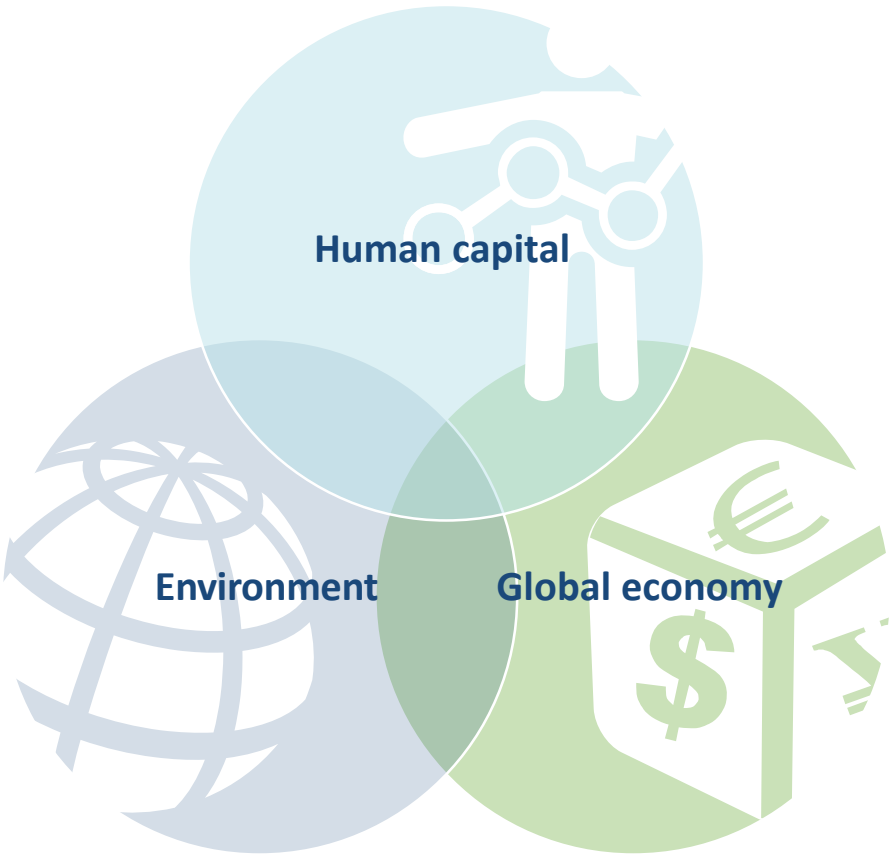
Development scenario for the Republic of Uzbekistan

The indicators of the Republic of Uzbekistan development in the dynamic and pessimistic scenarios

Indicator	Actual, 2017	Dynamic scenario, 2035	Pessimistic scenario, 2035
Corruption Perceptions Index, global ranking	157	46	81
World Press Freedom Index, global ranking	165	43	102
Doing Business Index, global ranking	74	< 20	<50
Living standards			
Share of the population below the poverty line (USD 1.95 Per day), %	10	0.5	10
Gini index, %	35.3	31.6	35.3
Infant mortality rate, per 1,000 newborns	31.3	6	31.3
Number of children involved in forced labor, million people	2	0	0
Population growth rate, average annual %	1.6	1.4	1.7
Life expectancy, years	70	81	70
International migrant flow, % of total population	3.9	1.6	3.9
Health care expenses, % of GNI	5.8	10	5.8
Education expenses, % of GDP	6.4	7.5	6.4
Share of children who entered primary school, per 100 people	100	100	100
Share of children who entered secondary school, per 100 people	95	100	95
Share of graduates who entered colleges and universities, per 100 people	9	80	21
Line in UN rating Human Development index, line	105	Top 50	Top 100
Population with access to drinking water, urban/rural, %	98/81	100/100	98/81
Infrastructure and resource efficiency			
Water resources yield capacity, GDP/m3 of pure water	0.53	35.0	0.91
Annual water intake for agricultural needs, % of total amount	90	70	90
Subscribers connected to mobile communications, subscribers per 100 people	73	120	105
Progress Index of the UN Sustainable Development Goals, score (of 100)	71.2	80.2	71.2
R&D expenses, % of GDP	0.2	4	0.6

Global trends affecting the development of the Republic of Uzbekistan

Megatrends



- Demography
- Personal development
- Technological potential

- Economic interrelations
- Public debt
- Change in economic centers

- Climate change
- Scarcity of resources
- Urbanization

Source: analysis of the working group

Human capital

Human capital

Demography

Will the state be able to provide respectable pay to pensioners?

Increased life expectancy and declining birth rates **increase** the **share of elderly people** around the world, which **reduces the paying capacity** of **social security systems**, including pensions and health care.

In 2011–2035, pension support around the world **will grow** by:

1.3%
GDP in developed countries

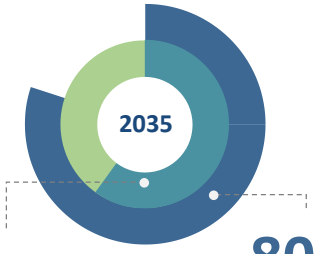
2.2%
GDP in emerging markets

Some regions face the **problem of integrating** a large number of young people into saturated labor markets.

Personal development

How does the state improve provision of services? How can I affect this process?

Achievements in education, health care, and technology helped raise a **new generation** that makes **higher demands for transparency and wants to take part** in the decision-making process. These **changes** will **continue,** and by 2035, there will be more **middle-class people** than poor.



60%
of middle-class population

80%
of global middle-class population will live in emerging markets

Technological potential

What will my children do in 2035?

of global information has been created in the last two years

Information and communications technology (ICT) has transformed society **over the last 30 years.** A new wave of technological achievements today **creates new opportunities** and tests the **state's ability** to use technological advantages and provide **reasonable oversight of the development of technology.**

More pensioners

If the **current population growth rate maintains, the population of Uzbekistan** will be **42.1 million people** by 2035, while the **number of working people** per 1 pensioner will **decline**. While in **2017** there were **6 working people** per [1] pensioner[2], by 2035 this ratio will drop **to 1:4**. The pension fund amount of the Republic of Uzbekistan is USD 743 per one pensioner. (in South Korea: USD 80,000 per 1 pensioner).

Middle-class reserve

The middle class is **not the dominant class** in Uzbekistan; **its current share** in Uzbekistan is about **28–30%**. However, the largest population group (45–48%) consists **of a middle-class** reserve – citizens who will become the major class in the country subject to further growth in prosperity and economic growth. One of the main **problems in the** middle-class reserve development is the **absence of social ladders.**

Innovations and ICT

In Uzbekistan, the ecosystem facilitating the development of innovation and ICT is practically nonexistent. In particular, technology parks, business incubators, crowdfunding platforms, and other necessary elements of **innovative infrastructure** are **at the initial stage of development**. **ICT use** is also in the development stage: Uzbekistan is ranked **95th in the world** in the ICT Development Index.

Notes: 1 – men aged up to 60 years and women aged up to 55 years; 2 - men aged 15-59 years and women aged 15-54 years

Sources: World Bank, Center for Economic Research, International Telecommunication Union, Population Pyramid, analysis of the working group

Global economy

Global economy

Economic interrelations

How will the state facilitate the development of international relations?

An interconnected global economy will demonstrate further growth in international commerce and investments, but it requires development of international cooperation for progress and mutually advantageous economic benefits

Exports from Asia are expected to double to:

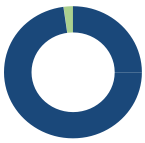
39%

of total global exports by 2035

Public debt

How does the state balance the decline in foreign debt and stimulation of economic growth?

Should the existing trends continue, **global government debt** will reach



98%

GDP by 2035.

Government debt is expected to become a **significant limitation for governments.** Government ability to **control foreign debt and at the same time find** new ways to provide public services will determine the **success of the response** by the governments of these countries to the main social, economic, and environmental problems.

Change in economic centers

How does the state adjust to a new economic order?

The **level of prosperity** in emerging markets is **growing**, which creates a **significant influence** on the global economy. Thanks to **changes** in the **balance** of economic points of growth**,** national governments must pay more attention to **supporting** the **transparency of their activities and increasing inclusiveness.**

Emerging markets will comprise 440 clusters responsible for

47%

global GDP growth in 2035.

Growth in international trade

In 2017, Uzbekistan has commercial relations **with over 160 countries**. The trade balance is positive: USD 880 million. The country's **foreign trade turnover** in 2017 **grew by 11%** to USD 26.9 billion Export from Uzbekistan amounts to USD 13.9 billion and has been stable **since 2010.** Methodical work is being conducted to **prepare for accession to the WTO**, and a respective road map has been adopted.

Foreign debt

Uzbekistan's foreign debt at the end of 2017 was **about USD 16.9 billion** The Republic of Uzbekistan is ranked 99th in the world by **gross foreign debt. National debt to GDP ratio is low,** 16%. It might increase, which would reduce the **lending cost** by attracting international loans.

Public governance efficacy

There are factors in the Republic of Uzbekistan that **negatively affect the efficacy of the system of executive authority**, which include a high level of **corruption**, the absence of a comprehensive **goal achievement control system**, low effectiveness of parliamentary control, **excessive control** over mass media, and the absence of a developed system for training senior executives, which **reduces** the results of government projects and leads to **inefficient use** of **funds.**

Sources: State Statistics Committee of the Republic of Uzbekistan, Central Bank of the Republic of Uzbekistan, CIA, World Poverty Clock, data from open sources, analysis of the working group

Environment

Environment

Climate change

How will the government ensure the protection of personal and business assets from the consequences of climate change?

Greenhouse gas emissions, which increase the **average annual temperature**, as well as **desertification** and other climate changes impose additional **costs** on the state.

By 2035, global government spending on fighting the consequences of climate change may reach

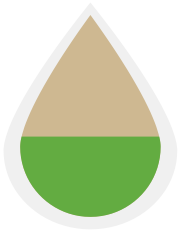
1% **of global GDP each year**

For most countries, achieving the **right combination of climate change adaptation policy and mitigation** of its **consequences by 2035** will be a difficult challenge.

Scarcity of resources

How do we provide children with enough food, drinking water, and energy?

Population growth, economic growth, and **climate** change **will increase** the **burden on the main natural resources,** including water, food, crop lands, and energy. **Sustainable management of resources** will be **central** to new government programs.



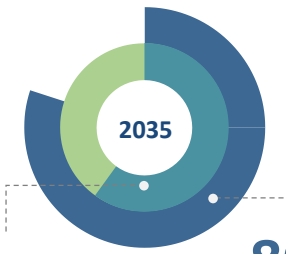
40%

Predicted lack of drinking water by 2030

Urbanization

How should we design infrastructure to make it modern, efficient, and eco-friendly?

Nearly **2/3 of the global population** will live in cities by 2035. Urbanization **creates significant opportunities** for socioeconomic development and more stable life, but it also increases the **burden on infrastructure and resources**, especially on water and energy resources.



60%

of the population will live in cities

80%

of urban population growth will be concentrated in Africa and Asia in the next 20 years

Rising air temperature

The air temperature growth rate in Uzbekistan is **twice** the global rate and has been at **0.29 degrees per decade since the 1950s. The frequency of extreme weather phenomena is the** highest in the area of Karakalpakstan. The Aral catastrophe **aggravated the climatic conditions** in the region: in the Aral Sea region, the number of days with a temperature above 40 degrees has doubled (vs. 1.5 times on average around the country).

Access to water

Over **30%** of **households** do not have quality drinking water, and **over 1,000 settlements** have no drinking water at all. The water quality is low, and water is **contaminated with microbes and chemicals** due to poor waste water treatment and water purification infrastructure. Contamination increases amid high temperatures and leads to an increased number of gastrointestinal illnesses during the summer.

Share of urban population

In recent years, the share of the **urban population** in the total population **has slightly decreased** (2011: 51.2%; 2017: 50.6%). This is due to extra **natural growth** of the rural population **over the** urban population and the absence of **artificial conversion** of some rural settlements into urban settlements.

Sources: The Center of the Hydrometeorological Service under the Cabinet of Ministers of the Republic of Uzbekistan, UN, State Statistics Committee of the Republic of Uzbekistan, analysis of the working group

Key challenges of the Republic of Uzbekistan

Sources: analysis of the working group

Key challenges of the Republic of Uzbekistan

Political challenges

01	Violation of the principle of separation of powers	• The Republic of Uzbekistan is ranked 158th out of 165 countries in the Democracy Index 2017
02	Inefficient spending of public funds	• There are no modern project management systems
03	High level of corruption at all levels of public administration and civil life	• The Republic of Uzbekistan is ranked **157th out of 180 countries** in the Corruption Perceptions Index 2017.
04	Poor quality of legislation	• Few **specifics**, ambiguous **interpretations**
05	Failure to observe human rights, including freedom of speech and fair trials	• The Republic of Uzbekistan is ranked **165th out of 180 countries** in the World Press Freedom Index 2018.

Economic challenges

01	Obsolete and complicated access to infrastructure	• **Over 35%** of water lines and water supply networks need urgent repairs, internet speed is **1 Mbps** compared to the average global speed of **9 Mbps**, electricity loss rate during transmission is **15%**
02	Lack of investments	• In 2017, gross fixed capital formation amounted to USD **12 billion,** which accounted for **25% of GDP**, while in other countries, such as Turkey and South Korea, the amount of investments equals or exceeds **30% of GDP**
03	High share of gray economy	• As estimated by experts and representatives of public authorities, the share of the gray economy in certain sectors may reach **up to 50%**
04	High level of state participation in the economy	• The share of state ownership **exceeds 50%** in the following sectors: banking, mining, energy industry, food industry, cotton industry
05	Nonconformity of competencies to the strategic goals of economic development	• Lack of able-bodied population with skills in engineering, economics, and business: **36%** • Low labor efficiency

Sources: 1) https://www.cable.co.uk/broadband/speed/worldwide-speed-league/, analysis of the working group

Key challenges of the Republic of Uzbekistan

Social challenges

01	**Significant labor migration**	• A significant portion **(almost 1/3)** of the able-bodied population of the country works abroad **(85% of them in the Russian Federation)**
02	**Unequal access to health care**	• The health care financing system mostly relies on private payments. Personal expenditures in the healthcare system **account for up to 45%**
03	**Undeveloped social infrastructure**	• Uzbekistan is an **outsider in the rating of capital investments** in health care, and there is no ICT mainstreaming
04	**High level of poverty and unemployment**	• **About 10% of the population** of Uzbekistan live in conditions of extreme poverty (less than USD 1.95 /day), and the estimated level of unregistered unemployment is **35%**
05	**Water shortage**	• **Over 10% of the** rural population does **not have access to drinking water**

Technology challenges

01	**Lack of highly educated specialists**	• In the **employed** population of Uzbekistan, research scientists account for **0.12% compared to the** median of **0.65%** in the leading countries
02	**Limited financing of R&D**	• R&D financing in Uzbekistan amounted to USD **133 million** in 2015 (in Sweden: USD 16.2 billion, in the USA: USD 599 billion)
03	**Problems with intellectual property protection**	• **Unfair competition** occurs often in the field of intellectual property, including **duplication** of **products** of international companies
04	**Limited access to preschool and higher education**	• The level of access to higher education in Uzbekistan is low: **9.2% of the population** (in Japan: 63%)
05	**Poor development of high-tech and science-based production**	• The share of innovative enterprises in 2016 was **0.85% of the total number of companies** (in EU: about 49%)

Sources: analysis of the working group

Concept of the Development Strategy of the Republic of Uzbekistan by 2035

Development Strategy of the Republic of Uzbekistan until 2035

Development of public governance

- Executive authority: strict compliance with laws and focus on the result
- Independent legislative and judicial authority

Economic development

- High-tech and export-oriented agroindustrial complex (AIC)
- Industry: sustainable transition to industry 4.0
- Tourism without limits
- Modern infrastructure
- SME support and development1
- Free financial market

Social development

- Public-private health care
- Targeted social policy
- Human capital as the main growth factor
- Culture: bring up a generation
- Environment: change of paradigms and transformation of views

Development of innovations and technology

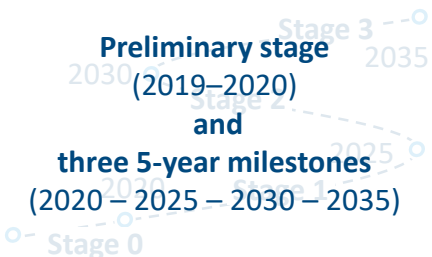
- Science, technology, and innovations: on the path toward innovative development

Macroeconomics and financial support

- Fiscal policy for business growth
- Balanced monetary policy
- Floating rate currency policy
- Unique opportunities for investments
- Phased privatization

Key milestones of the Strategy

Preliminary stage
(2019–2020)
and
three 5-year milestones
(2020 – 2025 – 2030 – 2035)



Sources: analysis of the working group
Note: SME - small and medium enterprises

Concept of the Development Strategy of the Republic of Uzbekistan by 2035

Development Strategy of the Republic of Uzbekistan until 2035

Development of public governance

- **Executive authority:** implementation of top-down initiatives, strict compliance with laws and focus on the result, transparency and control, creation of the Reform Management Center of the Republic of Uzbekistan (under the President's Administration)
- **Legislative authority:** independence of the branches of powers, optimization of the legislative framework
- **Judicial authority**: observance of human rights and consolidation of the rule of law

Economic development

- **Agriculture:** hi-tech agriculture through the development of middle-size economic entities and agricultural clusters taking into account the influence of climate change
- **Industry:**
  - **Textile industry:** specialization in branded products using available raw materials
  - **Energy industry:** increasing the share of renewable energy sources (RES) and setting up a water-power consortium
  - **Fuel industry and mining and metallurgical industry:** engagement of international players
  - **Automotive industry:** attraction of a large number of international automotive concerns and export-oriented production using new technology
  - **Transport:** arrival of private players, privatization of non-core assets, and reduction in cost of logistics
  - **Chemical industry**: production and export of hi-tech polymeric, cosmetic, and medicinal products
- **Infrastructure:** renovation and construction through public-private partnership (PPP)
- **Tourism:** implementation of touristic potential, facilitation of visa scheme, and creation of infrastructure through PPP
- **SME and private entrepreneurship:** mixed financial and nonfinancial support to reduce the shadow economy and to increase the number of enterprises and ensure their growth
- **Financial system:**
  - **Banking system:** gradual liberalization of the banking sector along with the creation of development institutes at the intermediate stage
  - **Pension system:** transition to a three-level pension system similar to Australia and the USA
  - **Insurance system:** development of compulsory forms of insurance to increase the overall prosperity of citizens and to reduce the state's influence

Sources: analysis of the working group

Concept of the Development Strategy of the Republic of Uzbekistan by 2035

Development Strategy of the Republic of Uzbekistan until 2035

Social development

- **Health care:** mixed public-private model: availability of compulsory health insurance, development of private service providers, focus of the state on the needy
- **Social policy:** high targeted coverage through nonfinancial measures and development of corporate social responsibility (CSR)
- **Human capital:** maintaining affordable public education along with development of private providers, export of highly skilled workforce
- **Culture:** bringing up a cultural generation and formation of the country's national brand by developing the highest-level demand for intellectual services, art, and creative work
- **Environment:** elimination of accumulated damage and migration to careful use of natural resources by introducing restrictive government measures and raising people's environmental awareness

Development of innovations and technology

- **Science, technology, and innovations:** creation and development of an innovation center in the sectors driving Uzbekistan's economic growth by involving international companies and experts

Macroeconomics and financial support

- **Fiscal policy:** decrease in the share of indirect taxes and transition to long-term tax administration
- **Monetary policy:** gradual decline in the key rate from 16 to 9% and increase debt from 16 to 38.7%
- **Currency policy:** floating exchange rate
- **Investment:**
  - **Total amount:** USD 993-1,213 billion for 17 years
  - **Main sources:** direct investment, including PPP, public investment, and investment from corporate securities
  - **Main expenses:** agriculture and industry, infrastructure, education, health care, and social sphere
- **Privatization:** phased complete privatization and creation of a state operator (single state foundation) with migration to financial holding
- **Budget policy**: limitation of budget expenses growth rates in 13.5%; tax reform implementation; budget surplus since 2024.

Sources: analysis of the working group

Concept of the Development Strategy of the Republic of Uzbekistan by 2035

Development Strategy of the Republic of Uzbekistan until 2035

Initiatives within the matrix of the key management solutions will help to achieve the goal to enter the Top 50 global economies

Action strategy for 2017–2021

	By 2025	By 2030	By 2035
Economic development	• To provide the long-term rights to land and real estate and to guarantee the inviolability of all property rights, including the rights to real estate ✓ • "Made in Uzbekistan" brand in agriculture and textiles ✓ • Infrastructure modernization ✓ • Support of entrepreneurship ✓ • Production localization ✓ • Renewable energy sources ✓ • Initial public offering of the key mining and metallurgical companies ✓	• Land privatization • Increase in labor output (agriculture) • Processing depth (agriculture, MMI[1], FEC[2]) • Insurance development • Energy efficiency • Export-oriented clusters • Water and energy balance • Electric vehicles and gasoline	• Economy digitalization • Agriculture automation • Sustainable production that helps minimize adverse environmental impact
Development of innovations and technology	• Basic science ✓ • Intellectual property protection ✓ • Engagement of international companies in creation of R&D centers and design engineering bureaus	• Creation of an innovative ecosystem	• Infrastructure facilitating the expanded use of technology (technology transfer centers)
Social development	• Compulsory medical insurance ✓ • Development of private education ✓ • "Water" national project ✓ • Implementation of measures to prevent the consequences of climate change	• Implementation of pension reform • Targeted social support • Urbanization of the population	• Raising environmental awareness
Development of public governance	• Reform Management Center ✓ • Development institutes ✓ • National Privatization Fund ✓ • Furthering democratic reforms ✓	• Meritocracy • Zero tolerance to corruption • "Smart regulation" • Freedom of speech and independent media	• E-government • Pluralism of opinions • Enhanced role of democratic institutions
Financing	• Privatization ✓ • Capital amnesty ✓ • Implementation of tax reform ✓	• Public-private partnership • Private investments • Development of capital markets	• Private investments

Note: 1 - mining and metallurgical industry; 2 - fuel and energy complex
Source: international benchmarking, analysis of the working group

✓ **Implemented at the present time**

Creation of the Reform Management Center of the Republic of Uzbekistan (in the structure of President's Administration)

Structure of the Reform Management Center of the Republic of Uzbekistan

President of the Republic of Uzbekistan

Reform Management Center of the Republic of Uzbekistan
(to be established under the Administration of the President)

Director

- **State and Law**
- **Economy**
- **Social Sphere**
- **Technology and Innovations**

Does not require additional costs to establish: the Project Office is organized under the Administration of the President, and current competencies are sufficient to launch it

KPIs setting system

Dashboard of the President of the Republic of Uzbekistan
Control of 10 KPIs

Government

Prime Minister
Responsible for 10 KPIs

Ministers and managers of state-owned companies
Cascaded KPIs
(5–7 KPIs per 1 manager)

Regional authorities
Cascaded KPIs
(all KPIs of the Government broken down by region)

10 KPIs of the Government

1. GDP
2. GDP per capita
3. Inflation
4. Amount of investment
5. Unemployment
6. Share of disadvantaged population
7. Doing Business Index
8. Corruption Perceptions Index
9. Health care expenses
10. Education expenses

The total base of KPIs will comprise over 1,000 KPIs: cascaded KPIs from 10 KPIs of the President of the Republic of Uzbekistan

Macroeconomic parameters

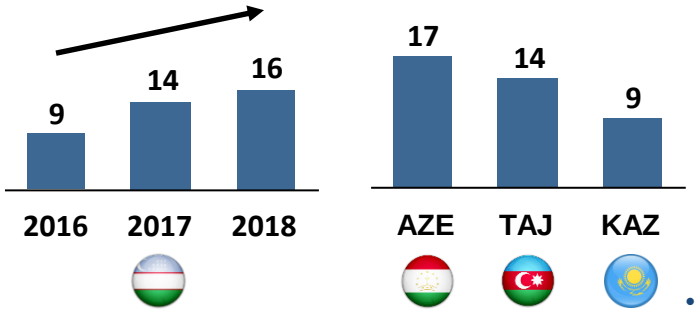
Fiscal policy

	2017		2035
Total tax burden, % of income	38%	»	29%
Public expenses, % of GDP	16.1%	»	17.8%

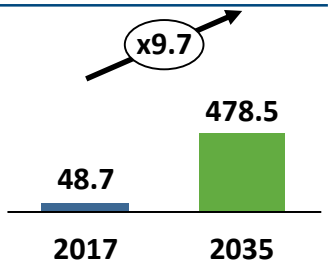
- Uzbekistan must reduce the tax burden on businesses to stimulate private sector growth
- At the same time, it is necessary to increase public transfers to improve societal living standards

Monetary policy

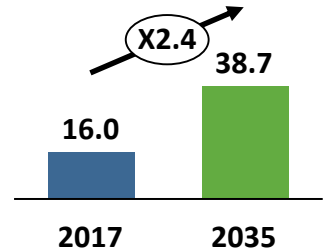
Refinancing rate, 2018



GDP, USD billion



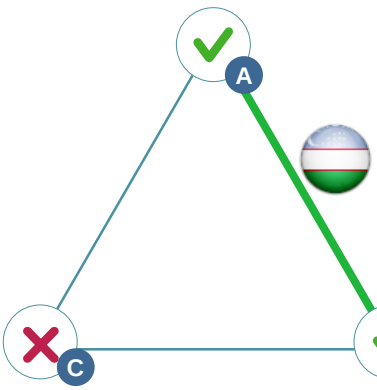
Public debt to GDP, %



- Uzbekistan must reduce its refinancing rate gradually because a high rate significantly restricts business development and household consumption. Gradual decline of the refinancing rate from 16% to 9% (2016 level): with economic growth and decreased volatility of the national currency exchange rate
- Decrease in the cost of lending may become possible by attracting international loans. The debt burden must increase from 16.0% to 38.7%. With the growth of nominal GDP, the opportunities for Uzbekistan to increase its state debt will grow as well

Currency policy

Free flow of capital



A + B Free inflow of capital as a result of regulation of the relative attractiveness of investment in the absence of exchange rate control

B + C Control of the exchange rate and monetary policy of the country, but capital outflow in case of nonconformity of the monetary policy conditions to the level of relative competitiveness

A + C Control of the exchange rate and flow of capital, but impossibility to influence the country's monetary policy

- **Uzbekistan must retain a floating exchange rate** since it **favors the inflow of foreign capital** and at the same time maintains **the possibility to implement an independent monetary policy**

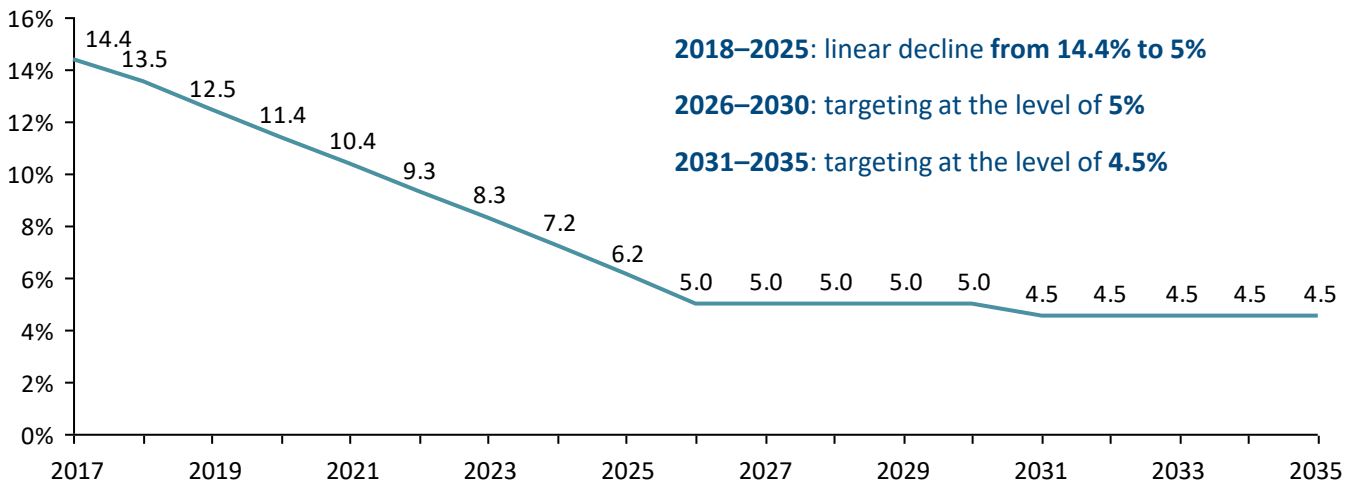
Sources: World Bank data, Ministry of Economy of the Republic of Uzbekistan, Oxelheim, analysis of the working group

Macroeconomic parameters

Target inflation levels amid the targeting policy

Target inflation levels in Uzbekistan

per calendar year, %

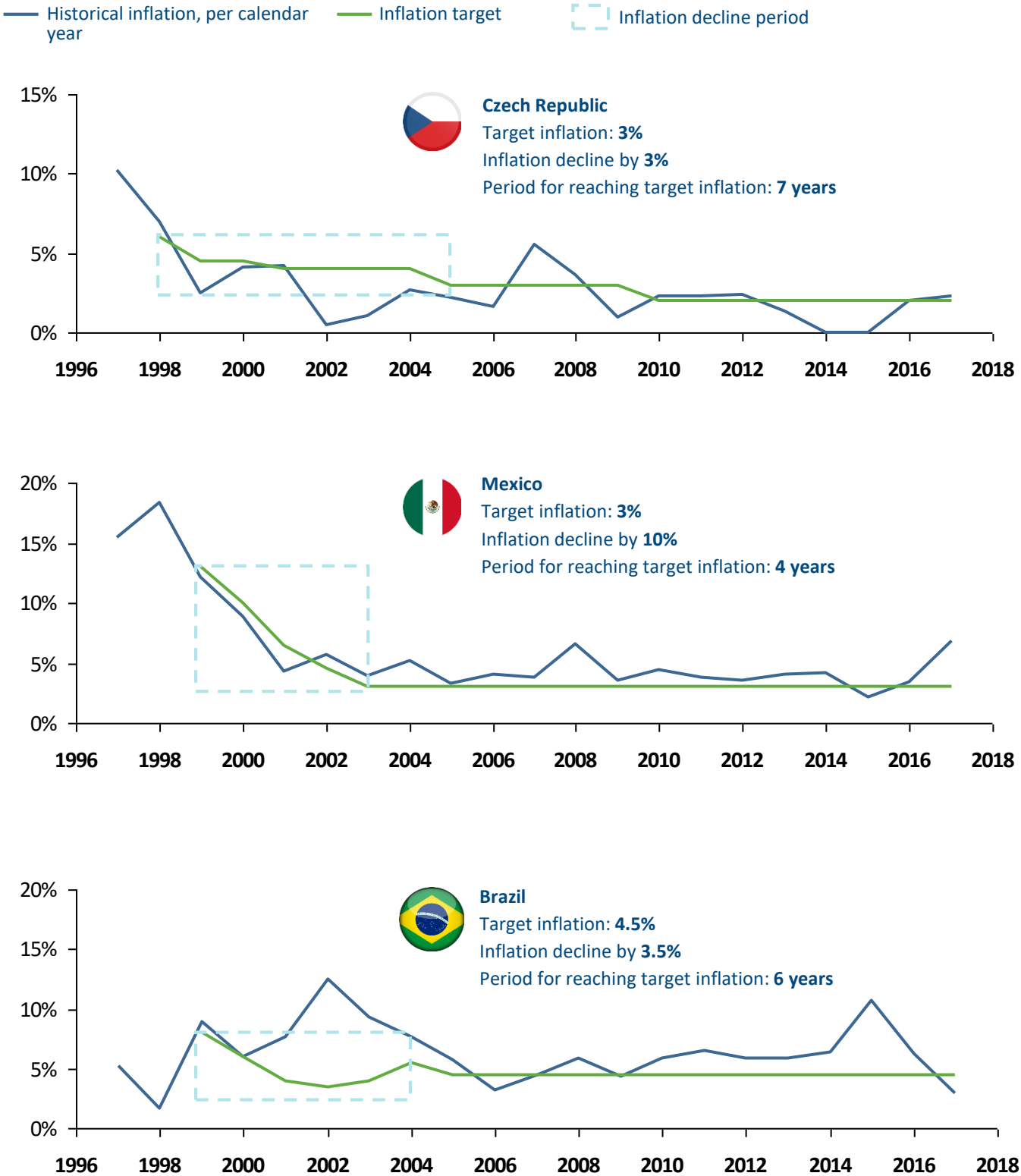


- Target inflation will be 4.5% by 2035. This indicator was calculated based on international benchmarks, including Singapore and Brazil
- In the longer term, the target inflation indicator may be 2%–3%, which is an optimal value amid a stable economy.
- The period for reaching the target inflation rate in the Republic of Uzbekistan will be about seven years after the start of the targeting policy. A similar period of inflation decline was observed in the Czech Republic and in Brazil.
- The suggested scenario for reaching the target inflation is more conservative compared to Mexico where target inflation was reached within three years.
- The interest rate of the central bank on short-term loans remains the main tool of inflation targeting. The increase in this rate will reduce lending to the real sector of the economy. As a result, the population and business reduce their expenses, and the demand for goods and services declines, which contributes to the slowdown of price growth.
- The preservation of a high interest rate may have an adverse effect on the national economy. Based on the example of Brazil, inflation targeting by the high key rate instruments caused a decline in economic growth and the deterioration of a number of macroeconomic indicators, including national debt.
- Additional inflation targeting instruments facilitating a reduction in lending to the real sector may include an increase in required reserves and withdrawal of funds from the financial market through the sale of government securities.
- Successful targeting requires a number of external factors affecting inflation to be considered:
  - Rising prices for key imports.
  - Growth of prices for agricultural goods caused by a bad harvest
  - State regulation of prices for certain goods
  - Increase in government expenditures
  - Existence of monopolies in some industries

Sources: EIU, data of central banks, analysis of the working group

Macroeconomic parameters

International examples of inflation targeting



Sources: EIU, data of central banks, analysis of the working group

Tax system

Current level of development

Key challenges

- High tax burden
- Frequent changes in tax rates
- Complexity and instability of the tax legislation (The Tax Code is not a directly applicable law.)
- Significant difference in the level of tax burden between the simplified tax system and the common tax system
- Wide use of "tax schemes" to evade taxation
- Widespread practice of supporting business entities through tax and customs benefits
- Lack of taxation concepts recognized at the international level
- Imperfection of tax control and administration

Key findings

- Indirect taxes provide 54% of the budget. Their share in the tax revenue increases, and the share of direct taxes decreases. (VAT provides more than one-third of the budget.)
- The main taxpayer is industry that provides 65.7% of tax payments among large entities. In industry, more than 52% of taxes are provided by the food and fuel industries.
- Frequent changes in tax rates negatively affect the investment climate.
- The Tax Code is not a directly applicable law, which leads to a significant number of bylaws. Tax rates are annually established by decisions of the president of the Republic of Uzbekistan.
- The Republic of Uzbekistan has a high tax burden that hinders the development of the economy, in particular, the marginal rate on investments is 49% (23% in Georgia).
- The high tax rate on the wages fund leads to concealing the real number of employees and the wages fund by taxpayers (about 50% of the nominal salary level).
- The practice of supporting business entities through tax and customs benefits, including individual ones, which negatively affects fair competition due to the absence of an effective system of monitoring and control of the efficacy of such benefits (the total amount of targeted fiscal benefits in 2017 is more than UZS 48 trillion).
- Significant difference in the tax burden level between the business entities that pay taxes under the simplified and common tax systems
- The widespread use of "tax schemes" for tax evasion expressed primarily in the artificial splitting of a business into small companies that can apply a more favorable simplified tax system (confirmed by the ratio of the number of entities applying the "simplified tax system" to the number of entities applying the standard regime, 1 to 10)
- Significant share of the shadow economy as well as developed corrupt practices
- Uzbekistan ranks 64th among 190 countries in the Tax System Efficiency section of the Doing Business rating.
- Imperfect information exchange mechanisms between the government bodies and organizations, forms and methods of electronic tax administration and tax control

Tax system

Tax policy reform concept

On June 29, 2018, the president of the Republic of Uzbekistan with his Decree No. UP-5468 approved the Tax Policy Reformation Concept of the Republic of Uzbekistan.

According to the President's Decree, from January 1, 2019:

- Reduction of the tax burden on the labor remuneration fund through
- improved taxation of the payers of common and simplified taxes with the optimization of turnover (revenue) taxes and improved criteria for starting application of the simplified tax system
- Implementation of measures to mitigate the adverse impact of tax policy improvement on the taxpayers of the simplified tax system
- Improvement of the calculation and payment procedure of value added tax and excise tax

The main areas of tax policy improvement according to the President's Decree are:

- reduction of the tax burden on the economy;
- elimination of disproportions in the tax burden level between the business entities that pay taxes under the simplified and common tax systems;
- Optimization of the number of taxes through their unification and consolidation
- Assurance of macroeconomic stability
- Simplification of tax laws, elimination of discrepancies and collisions
- Assurance of tax legislation stability and direct application of the Tax Code
- Retention of a favorable regime for foreign investors
- Improvement of tax control forms and mechanisms

- The concept does not affirm the principles of long-term tax administration. (Further changes in tax rates are possible.)
- There are no specific time frames and volumes for reduction of tax and customs benefits.
- The predominance of indirect taxes in the structure of tax revenues of the budget remains.
- There is no source of financing the off-budget funds after cancellation of payments to them.

Comparison of the current and suggested tax rates and other mandatory payments

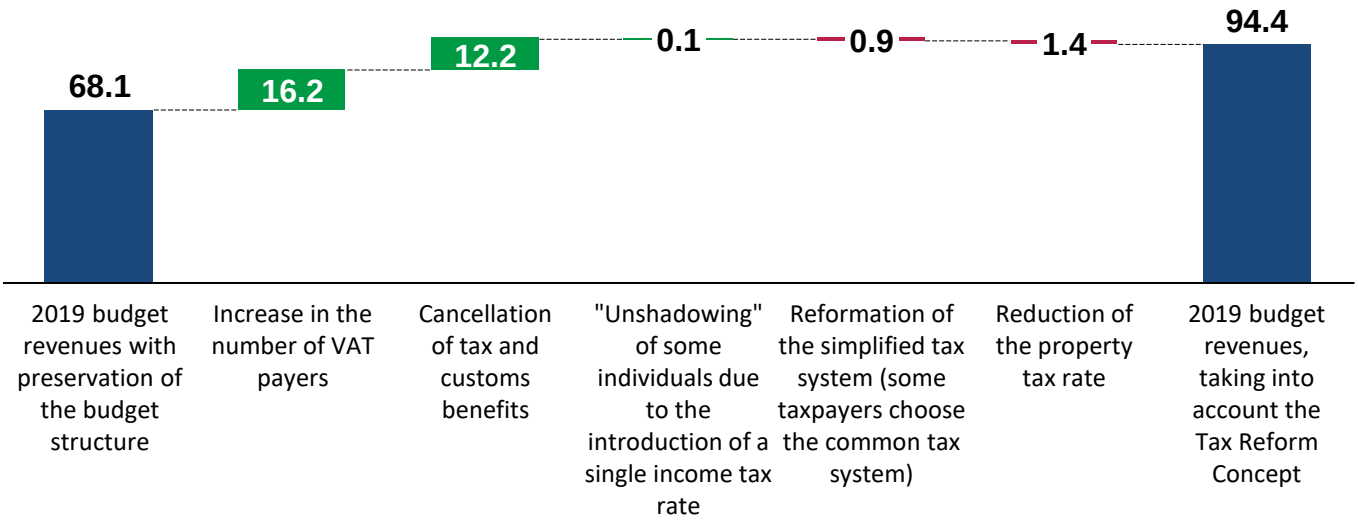
Tax/mandatory payment	Current rates	Proposed rates	Difference
Income tax	14%	12%	-2%
Tax on income in the form of dividends and interest	10%	5%	-5%
Unified tax payment	5%	4%	-1%
Mandatory contributions to state special-purpose funds	3.2%	0%	-3.2%
VAT	20%	20%	0%
Property tax	5%	2%	-3%
Personal income tax	7.5%–22.5%	12%	
Unified social tax	25% / 15%	12%	-3%
Insurance contributions of citizens	8%	0%	-8%

Sources: data from open sources, analysis of the working group.

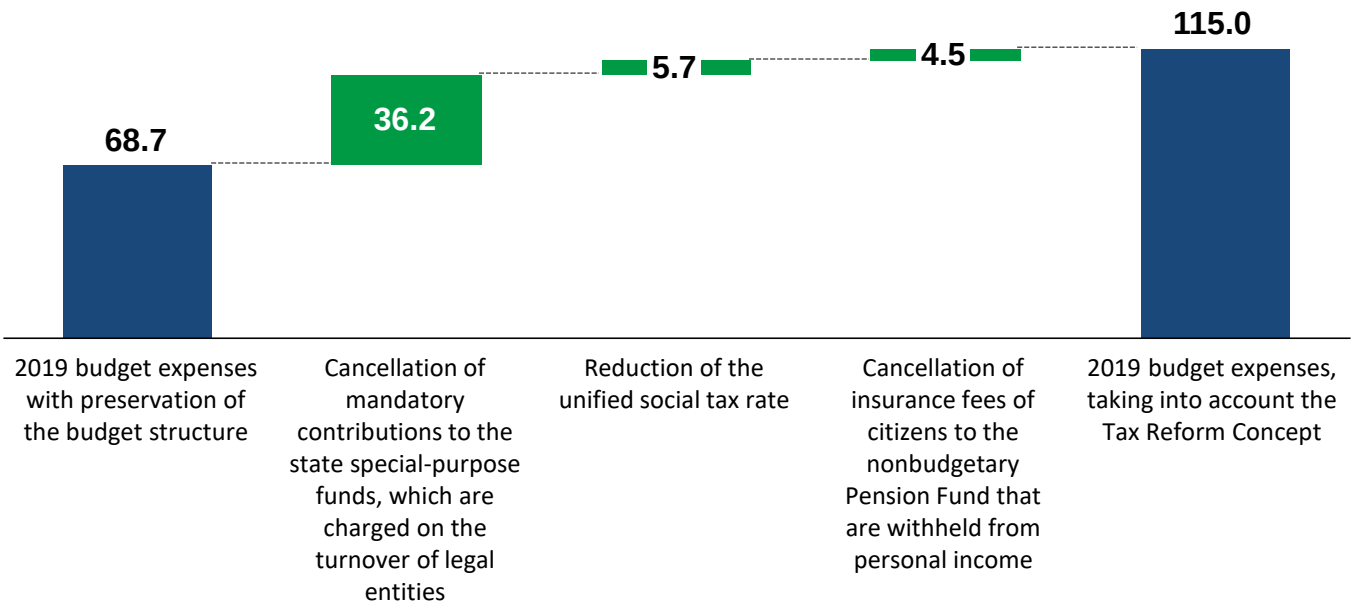
Impact of the Tax Reform Concept on the budget

Implementation of the Tax Reform Concept will increase budget revenues by UZS 26.3 trillion in 2019. However, it will require expenses to be increased by UZS 46.3 trillion in the same period.

Revenues of the state budget of the Republic of Uzbekistan, excluding targeted funds, UZS trillion



Expenses of the state budget of the Republic of Uzbekistan, excluding targeted funds, UZS trillion



Sources: data from open sources, analysis of the working group.

Tax system

Strategic options

1

Anglo-Saxon option

Characteristics: Prevalence of direct taxes

Examples of countries:


billion


UK

- Relative stability and predictability

- Tax burden imposed on citizens

2

Target development option

Mixed option

Characteristics:

- Combines the features of various models
- Diversification of the revenue structure of the state budget

Examples of countries:


South Korea


Japan

- Independence of the budget revenues from specific taxes or group of taxes and, as a result, flexible tax and budget policy

- Possible frequent amendments to the regulatory framework
- Potentially high expenditures on tax administration

- **The mixed model is optimal for economies in which budget revenues are highly dependent on the situation in foreign markets.**
- **The mixed model allows rapid adaptation to changes in external factors by manipulating interest rates, expanding the base of taxpayers, granting/canceling benefits, etc.**

3

Continental option

Characteristics:

- Priority of indirect taxes
- High contributions to social insurance

Examples of countries:


Germany


The Netherlands

- Relative stability and predictability
- High level of social protection of the population

- High tax burden

4

Latin American option

Characteristics:

- Typical of inflation economies
- High share of indirect taxes

Examples of countries:


Chile


Peru

- Protection from inflation phenomena

- Due to the specifics of indirect tax collection, savings on tax administration

Tax system

Target vision of the tax system in 2035

Goal:

Creation of the modern soft tax system stimulating growth of investments and revenues of the budget of the Republic of Uzbekistan

Objectives:

- Further optimization of the tax burden by reducing the share of indirect taxes to 35%
- Compliance with a tax regime that ensures growth in tax revenues to the budget and allows competing in capital markets to attract foreign investments
- Transition to the principles of long-term tax administration
- Development of a special mechanism for investors with freezing of tax rates
- Development of an effective mechanism for granting benefits to taxpayers engaged in priority sectors of Uzbekistan's economy
- Further optimization and simplification of the tax legislation to ensure its stability and predictability for taxpayers

Figures

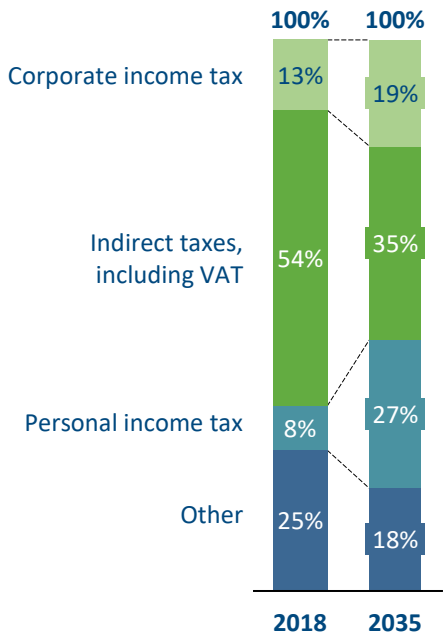
	2017/2018	2035
Doing Business rating	74	Top 20
Taxation rating (Doing Business, DB)	64	Top 20
Index of procedures after filing reports and paying taxes (0 - the lowest, 100 - the highest)	48.17 points	> 80 points
Share of indirect taxes in tax revenues of the budget	54%	<35%

Areas of tax system reformation:

- **General tax system structure:** transition to long-term tax administration; improvement of taxation principles and the legal regulation of the tax system
- **Tax structure:** reduction in the share of indirect taxes; increase in the share of personal income tax in the long term
- **System of taxes and fees:** identification of conceptual problems broken down by individual taxes, implementation of the best global practices and trends in the field of taxation (BEPS, automatic tax information exchange, MLI, CbCr, CFC, TP, etc.)*
- **Tax and customs benefits:** cancellation of targeted benefits; introduction of industry benefits to stimulate certain industries
- **Special mechanisms for investors:** development of special mechanisms (similar to SPIC)** with freezing of tax rates for investors to attract long-term investments
- **Tax control and administration:** improvement of tax control procedures and settlement of tax disputes through the introduction of ICT and automation tools as well as advanced training of employees of tax authorities
- **System of legal liability:** improvement in the system of legal liability for the violation of tax legislation

Tax structure,

% of tax revenues of the budget



Changes in the tax structure:

- The target state is calculated based on the benchmark of Japan and South Korea
- Increased personal income tax is associated with a 1.4-fold increase in the number of employed people by 2035, the legalization of incomes, and the increased level of wages. (An increase in personal income tax is the practice of developed countries.)

Note: *BEPS - Base erosion and profit shifting (transfer of revenues and profits to jurisdictions with low taxes); MLI - multilateral convention to implement tax treaty-related measures to prevent BEPS; CbCr - country-by-country reports on BEPS; CFC - controlled foreign company; TP - transfer pricing; **SPIC - special investment contract.
Sources: data from open sources, analysis of the working group.

Investment: Main areas

	Sources of expenditures	2019–2035 *USD billion*
1	Executive authority	0,5 – 0,6
2	Legislative authority	0,4 – 0,5
3	Judicial authority	-
4	Agriculture	67,9 – 83,0
5	Textile industry	21,0 – 25,6
6	Fuel and energy complex	70,2 – 85,8
7	Mining and metallurgical industry	43,2 – 52,8
8	Automotive industry	41,6 – 50,9
9	Chemical industry	40,6 – 49,6
10	Transport	28,7 – 35,0
11	Construction industry and infrastructure	129,9 – 158,7
12	Tourism	39,6 – 48,4
13	Small business and private entrepreneurs	30,0 – 36,8
14	Banks and compliance	17,4 – 21,2
15	Insurance system	4,8 – 5,8
16	Pension system	0,6 – 0,8
17	Capital markets	10,8 – 13,1
18	Health care	132,2 – 161,5
19	Social policy	44,7 – 54,6
20	Human capital	145,6 – 178,0
21	Culture	10,3 – 12,6
22	Environment	5,9 – 7,2
23	Science, technology, and innovations	50,9 – 62,2
	Total expenses: (USD billion)	**940 – 1 149**

Sources: World Bank data, open data of the UN, the Central Bank of Uzbekistan, analysis of the working group

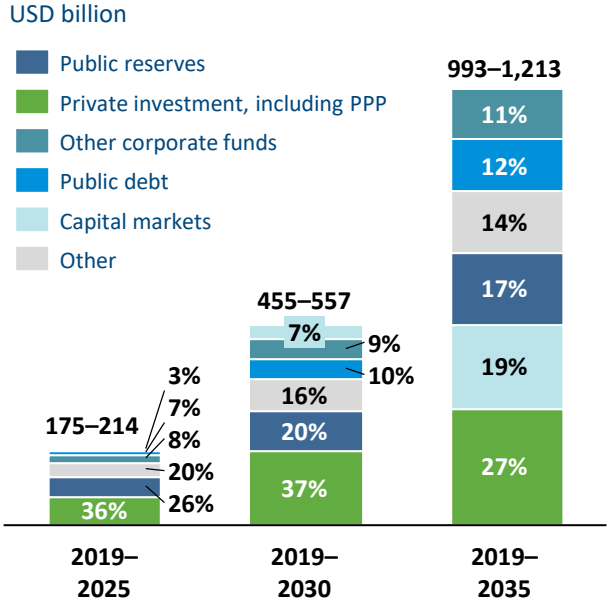
Investment: main sources

Sources of financing	USD billion 2019	Dynamic scenario 2019–2035 USD billion
1 Private investments, including public-private partnership (direct foreign, corporate and private investment, investment of public-private partnerships)	4.0 Including PPP	263–322 157–191
2 Public reserves	4.8	166–202
3 Capital markets (investment in corporate securities)	0.082	192–234
4 Other corporate funds (investment of insurance funds and deposits of legal entities)	1.1	112–137
5 Other funds of individuals (deposits of individuals and international money transfers)	1.7	113–138
6 Public debt (borrowings in the foreign market)	0.9	122–149
7 Funds from privatization (proceeds from the sale of state property)	5.4	25–31
8 Funds under the programs of international organizations (transfers and grants under the programs of international organizations)	0.004	0.05–0.06

Average GDP growth rate: 13.5%

Total investment received: 993–1,213

Investment attraction trend for the period



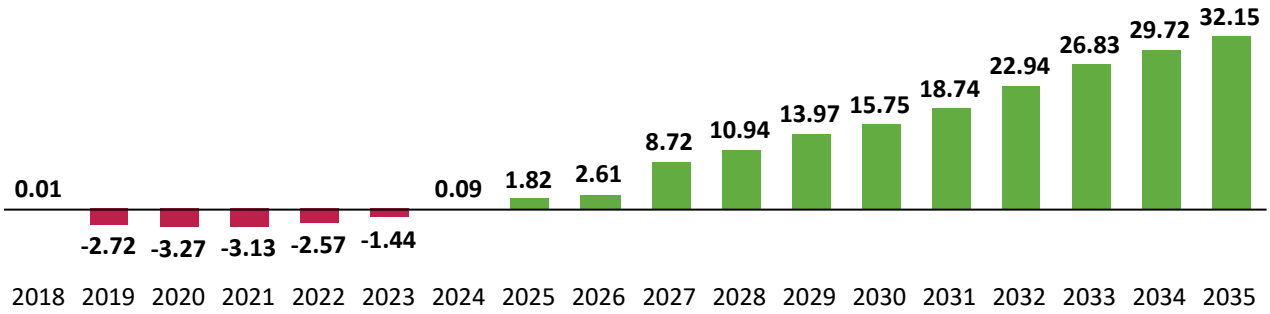
- At the early stages, in 2020–2025, **considerable investment inflow** will be observed **both** under PPP programs and thanks to the **arrival of international companies in the market**. High **economic growth makes public borrowings** at a relatively low cost possible
- In 2026–2030, the **state will play a less significant role**. **Local** banks and **capital markets increase** their influence gradually by supporting economic growth together with corporate investors
- In 2031–2035, thanks to the active development of market mechanisms and the establishment of the financial system, the **role of project financing and indirect investment in the corporate sector through the capital market grows**

Sources: World Bank data, open data of the UN, the Central Bank of Uzbekistan, analysis of the working group

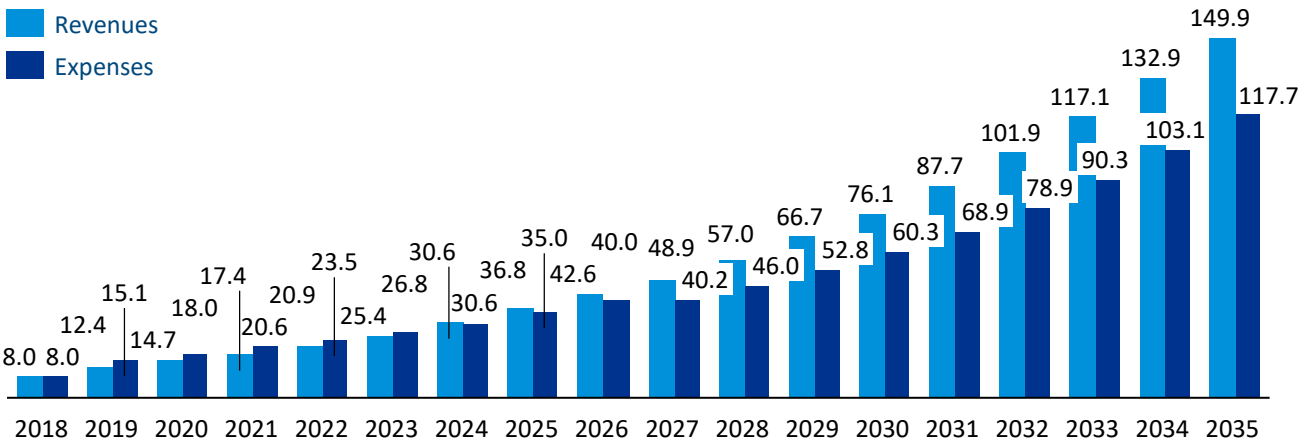
State budget

Forecast of the state budget of the Republic of Uzbekistan

Forecast of the surplus/shortage of the state budget with retention of the budget structure* and with due regard for the tax reform concept, USD billion



Forecast of the surplus/shortage of the state budget with retention of the budget structure* and with due regard for the tax reform concept, USD billion



- A **budget shortage** will be observed until 2024
- Implementation of tax reform leads to a **significant increase in budget expenditures** in 2019
- To reach a budget surplus within 6 years, starting from 2025, it will be necessary to limit the **growth rate** of budget **expenditures** to 13.5% annually.
- The tax reform concept provides for a **significant increase in the burden on the state budget**, in particular, due to the cancellation of mandatory contributions to state special-purpose funds, which are charged on the turnover (revenue) of legal entities; cancellation of insurance fees of citizens to the nonbudgetary Pension Fund; reduction of the unified social tax rate for business entities from 25% (15%) to 12%, which will require UZS 46.3 trillion (USD 6 billion) to be allocated from the budget to cover the expenses that were previously covered from nonbudgetary funds.
- The **main increase in budget revenues** is provided through the expansion of the circle of VAT payers (UZS +16.2 trillion in 2019, or USD 2.1 billion) and cancellation of targeted fiscal benefits. (Upon cancellation of 25% benefits, the cumulative increase in budget revenues will make UZS +12.2 trillion or USD +1.6 billion.)

Note: * Not including special-purpose funds and the Reconstruction and Development Fund
Sources: data of the Ministry of Finance, analysis of the working group

Capital amnesty

Current situation

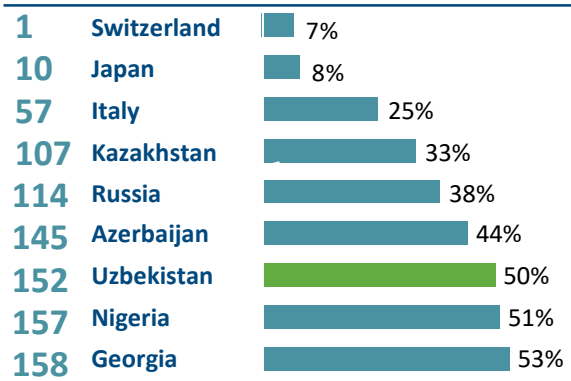
Key challenges

- High share of informal economy: up to **50%** of GDP
- Low inflow of foreign investments: USD **0.91** billion (for 2017)
- Excess of import over export: net export USD **-1.7** billion (for 2017)
- Low lending from the banking sector: only **11%** of fixed capital investment are financed by commercial banks (for 2017)

Key findings

- The Republic of Uzbekistan has a high share of the informal economy, that is, business activity that takes place outside the legal framework and is not subject to taxes and duties. According to the Ministry of Economy, the informal economy's share may be up to 50% of the current GDP level and is ranked 152nd in the world by this indicator (IMF rating)
- Such high proportion of the informal economy is a serious obstacle to the development of the financial system and the economy as a whole because it does not contribute to the volume of bank assets and tax base
- The high share of the informal economy is due to a number of factors, including:
  - Low level of trust in the state agencies and financial system
  - High level of corruption
  - High level of legal nihilism
  - Lack of privacy in the banking system and tax authorities
  - High taxes and mandatory payments

Size of informal economy as % of GDP and world ranking (of 159 countries in the list)



The IMF calculates the size of the informal economy and publishes the annual trends. As a specialized unit of the UN, the IMF is an authoritative source in the field of evaluation and forecasting of macroeconomic statistics

- The Republic of Uzbekistan is not officially included in the rating of countries by the level of the informal economy and is included in the IMF rating based on the Ministry of Economy's assessment
- The share of the informal economy reaches 50% of GDP, while the average is 32% based on the estimate of 159 countries

Share of funds in accounts and deposits and cash as % of the money supply at the start of 2018

	Non-cash money	Cash money	Ratio
	15%	27%	0.55
	49%	20%	2.45

Potential growth of funds in the banking system by reducing the circulation of cash x4.45

- In the Republic of Uzbekistan, there is a high share of cash in the structure of the money supply and a low share of noncash funds
- The high proportion of cash impedes the implementation of measures against corruption, informal economy, and tax evasion
- The ratio of noncash money to cash (0.55) is very low even compared to Russia (2.45), which is one of the most important indicators of the high share of the informal economy according to the IMF's methodology

Sources: International Monetary Fund

Capital amnesty

Strategic options

1

Target option for amnesty

Confidential amnesty of capital

Capital legalization through the payment of a tax in the amount of 2.5% of assets value or through the acquisition of state securities in the amount of 12% of the value. The state guarantees full confidentiality and cessation of prosecution by the tax authorities

Examples of countries:

Italy

+

- Strong results of the amnesty program

−

- Legalization of funds obtained by criminal means is possible
- High level of public criticism, including demonstrations

Strong results of programs for capital legalization within the country and offshore capital repatriation

2

Amnesty of funds and property with mandatory declaration of their sources

Legalization of capital, affecting both cash assets and real estate and other assets. Return of funds to the national banking system is untaxed (provided that the funds will be maintained in accounts for 5 years), real estate is taxed as a one-time fee of 10% of the value. Civil servants are exempt from prosecution. The source of funds must be disclosed

Examples of countries:

Kazakhstan

+

- Significant results of the program for capital amnesty within the country

−

- Low effectiveness of the program for capital repatriation from abroad

Strong results of programs for capital legalization within the country

3

Capital amnesty with mandatory declaration of sources of income not applicable to officials

It is possible to deposit funds into the banking system with payment of 1% to the state budget. Mandatory declaration of sources of funds. Persons who gained their income by criminal means and officials of the country are not allowed amnesty

Examples of countries:

Georgia

+

- Legalization of capital gained by criminal means is not allowed

−

- Low effectiveness of the amnesty program (collected funds are 100 times less than the expected amount)

Low effectiveness of the program with mandatory declaration of sources of income and not applicable to officials

Sources: analysis of the working group

Capital amnesty

Target vision of capital amnesty in the Republic of Uzbekistan

The basis of successful capital amnesty is anonymity and decriminalization as well as early warning of increased liability for tax evasion

Resolution

- Signing of the law on tax amnesty and capital repatriation is carried out from March to December 2019
- Public speech by the President of Uzbekistan announcing the beginning of capital amnesty

Stages and methods of legalization

The return of capital under the amnesty program is possible through:

- **Placement of funds in resident banks** of Uzbekistan with the condition of keeping funds in accounts for at least 5 years and the right to receive interest on the balance in any available currency
- **Purchase of securities** of issuers of Uzbekistan (in particular, Eurobonds) or securities of the central government with the condition of holding them for at least 3 years
- Purchase of assets **in the framework of the state program of privatization**
- Or instead of the above mentioned measures, payment of compensation in the amount of 5% of the value of the amnestied property/asset

It is necessary to guarantee the following:

- **exemption from filing a declaration**, payment of tax debts, and verification of funds obtained before legalization
- **liquidation** of **tax debt records,** fines, and penalties for assets submitted for legalization
- **complete confidentiality** of all asset transfers to tax authorities and other government bodies and other persons

All current and former citizens of the Republic of Uzbekistan, including self-employed persons, entrepreneurs, and officials**, are admitted to the capital legalization program**

Pursuant to the recommendations of FATF, the capital amnesty program shall not extend to illegally obtained funds or funds channeled to the financing of terrorism

Work must begin upon signing an **agreement on tax information exchange and cooperation** in the field of combating tax fraud with friendly jurisdictions (Luxembourg, Switzerland, and others)

Target result

- Additional fund raising to the banking system and capital markets of Uzbekistan in the amount of USD 15–25 USD billion
- Reduced share of the informal economy and reduced corruption

Note: 1 - policy of intolerance to corruption, illegal enrichment, and tax evasion, which provides for the deprivation of the right to hold socially important positions in the Republic of Uzbekistan and partial confiscation of property in the amount corresponding to the scale of the crime

Capital amnesty

Best practices in the world and Central Asia

Italy

Description of the situation and problems

- High proportion of income concealed from taxation
- Significant amount of expatriate capital
- Need for additional financing of the state budget
- High level of corruption in administrative bodies

Resolution

The **Italian Senate** approved Law No. 186 dated December 15, 2014, which provides for voluntary disclosure of information, possibility of legalizing assets located abroad, and significant reduction in fines

Stages and methods of legalization

The 2014 program (Law No. 186 dated 2014) is designed specifically for capital repatriation from abroad as well as combating offshore tax evasion and illegal receipt of funds. This program **lasted** for **one year** and can be considered the **most progressive and comprehensive**

Assets disclosed under this law **were taxed at the full rate** with significant exceptions regarding monetary penalties for undeclared taxes and immunity from prosecution for tax crimes.
However, participating taxpayers were required to provide their name and bank information and name intermediaries to allow the authorities to verify the origin of the assets

In 2015, Italy also **signed an agreement with Switzerland**, a privileged location for tax evaders from Italy, which provides for **measures for tax information exchange and cooperation in combating tax fraud.** In 2018, a system of automatic tax information exchange between the two countries was introduced. Under this agreement, Italy removed Switzerland from its blacklist of countries, with respect to which companies had to provide additional evidence on their transactions with companies.

Target result

- As of the end of 2014, income from repatriated assets and declared taxes under the program reached EUR 4 billion
- In total, over EUR 70 billion was collected under the capital legalization programs

Source: Ernst & Young (2015), Il Sole 24 Ore (2014, 2015)

Capital amnesty

Best practices in the world and Central Asia

Kazakhstan

Description of the situation and problems

- High share of the informal economy
- Reduction in the inflow of foreign investment
- Decrease in trade balance and current account balance
- Reduction in lending by the banking sector

Resolution

On June 30, 2014, The President signed a law on amnesty for citizens of the Republic of Kazakhstan, oralmen[1], and people with a residence permit in the Republic of Kazakhstan in connection with the legalization of their property

Stages and methods of legalization

Legalization **began on September 1, 2014, and was to end on December 31, 2015, but the deadline was extended to December 31, 2016.** All basic material assets – money, securities, shares in companies, real estate – **were subject to legalization**

At the first stage of legalization**, an owner of shadow funds must transfer them to a special savings accounts in** second-tier banks or in Kazpost and then choose a scenario for further amnesty

The main scenario assumes that the **legalized funds will be held in accounts in banks** or Kazpost **for five years**

If the owner does not want to hold the funds in accounts for five years, **any securities placed on the Kazakhstan stock exchange may be purchased**

According to the third scenario**, it is possible to legalize funds by buying objects in the second stage of state privatization**

An accelerated version of legalization is possible: capital amnesty by paying the state 10% of the value of legalized property

Civil servants are also exempt from disciplinary liability for violations of the rules for declaration of property and income

Target result

- The total amount of legalized property reached USD 20 billion, 7,8 billion of which was cash
- Significant results were achieved in the legalization of property within the country, but not in the expatriation of property moved from abroad

Note: 1 - oralmen are expat Kazakhs returning from abroad

Capital amnesty

Best practices in the world and Central Asia

Georgia

Description of the situation and problems

- Large number of taxes and low transparency of legislation
- Low level of confidence in the current administration
- Need for additional financing of the state budget

Resolution

December 24, 2014 The President of **Georgia signed** a **Law** on amnesty and legalization of undeclared tax liabilities and property

Stages and methods of legalization

Amnesty meant the termination of proceedings initiated in all investigative bodies of cases related to violations of tax legislation for persons who voluntarily participated in this program
The cancellation of criminal records in connection with tax crimes in the manner established by law was also announced

A person taking part in the amnesty program had the right until the end of the year:

- **to submit to the tax authorities a declaration reflecting their property status and to pay a fine in the amount of 1% of the market value of the concealed property**
- **to transfer funds in national or foreign currency to fixed term or savings deposits in commercial resident banks in Georgia by depositing cash or transferring funds from abroad**

The law was not applied to:
a) persons who obtained income (property) by criminal means, such as drug and arms trafficking, terrorism, human trafficking, and other transnational crimes
b) officials

Target result

- **Instead** of the **expected USD 4 million,** the national budget receives from businessmen who evaded taxes **only USD 35,000 billion**
- **Amnesty failed** not because the relevant law was defective but **because of businessmen's distrust of the government**

Source: Forbes

Privatization and the Unified National Fund

Government property

- **Privatization and the Unified National Fund**

Liquid assets

- Highly liquid assets, such as: shares and interest in companies, especially in fuel and energy, extraction and processing of resources

Nonliquid assets

- Low-liquid or nonliquid assets such as obsolete buildings, nonfunctioning property complexes

- Sale of assets at minimum cost
- Maintaining the production profile of the asset for 3–5 years after sale to a private investor
- Investor's assumption of investment obligations in connection with the acquired asset. For example, the creation and maintenance of jobs for citizens of Uzbekistan

Strategic assets

- Assets in sectors critical to the development strategy of the Republic of Uzbekistan: industry, fuel and energy, infrastructure

Key objective: growth and development of Uzbekistan's economy; reduction in the government's share

Suggested steps:

- Attraction of active investors to coinvesting
- Privatization in three stages (25% + 25% + 50% – 1)
- Control of persons who are allowed to participate in privatization

Nonstrategic assets

- Assets beyond the scope of the development strategy

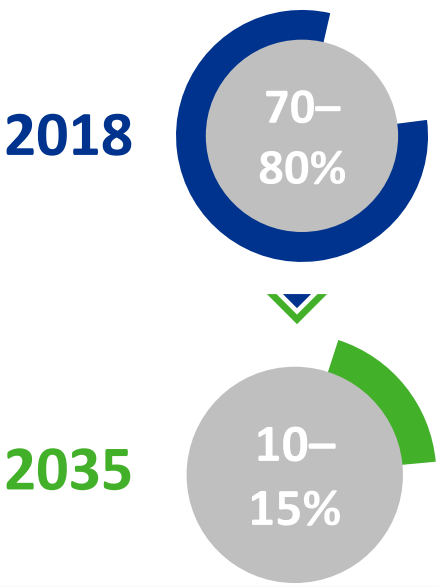
Key objective: cash inflow to the budget of the Republic of Uzbekistan; reduction in costs of the state budget

Suggested steps:

- Attraction of strategic/portfolio investors
- Phased privatization
- No strict control of persons who are allowed to participate in privatization

Share of the state in key sectors of the economy

2018–2035



Strategic investor's criteria

- International company
- Presence of significant experience in this industry
- Presence of relevant assets in the strategic portfolio (horizontal or vertical integration)
- Developed CSR
- Observance of sustainable development principles
- Access to funding sources and expert reviews
- "History of Success"

Privatization and the Unified National Fund

Privatization stages

+13.5%

Average annual growth of GDP in the dynamic scenario

"Wholesale privatization"

- Wholesale privatization will **not provide for the maximum cost** of assets sold.
- **Will** allow **property transfer to** potentially **undesirable investors.**
- Will lead to **shock phenomena** in the key economic areas.

Retention of state property

- **Will hinder access** to additional sources of investment at the beginning of development.
- **Hinders** private international investment.
- **Requires additional financing for** ineffective entities.

Phased complete privatization

- **Sends investors a signal about** economic **"denationalization."**
- Allows one to **obtain a "fair" value** for the block of shares of the asset being sold.
- Allows **one to get rid of inefficient assets** without shock phenomena.

"25% + 1"	"50%–1"	"Golden share"
Investor enters the capital of the asset and facilitates its enhanced performance. Investor has no veto power.	Investor will increase the ownership share and will facilitate the increase in market potential and value. The state reserves the right to a final decision.	Investor will buy back the property from the state. The state reserves the "golden share", that is, veto power and dividends, but disengages itself from operational control.

Implementation of phased privatization **requires** the **establishment** of the **Unified National Fund for the Management of State Assets and Privatization**, which will also attract individual and corporate investors to the country and coordinate work with industry consultants

Structure and functions of the Unified National Fund for the Management of State Assets and Privatization

Unified national fund

- **Attraction of investors**
- **Management of privatization**
- **Engagement of expert review**

Activity	Characteristics
Participation in the authorized capital of companies	Effective management
Placement of free funds for implementation of investment projects	Efficient use of funds
Cooperation with foreign associations of engineers	Growth in the value of assets under control
Formation of consortiums	Maximization of budget earnings from privatization

Macroeconomics

Key strategic initiatives

2025

- Privatization of state property
- Amnesty of capital
- Establishment of special administrative areas (CAP) providing for a simplified procedure for registration of legal entities
- Repeal of the ban on opening branches of foreign commercial banks on the territory of the Republic of Uzbekistan
- Perfection of the practice of conformity between the fiscal and budgetary and monetary and credit policies
- Perfection of treasury compliance with the State Budget through management of the liquidity of the Uniform Treasury Account of the State Budget
- Perfection of the legal regulation of relations in the area of public borrowings and management of the state debt and state financial assets

2030

- Reformation of the tax system

2035

- PPP development

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Trade development

Stimulation of internal and external trade

Incentives for stimulating internal and external trade

Sales

Internal

- Development of an institutional environment
- Stimulation of investment flows
- Support of business activity of the population

External

- Creation of favorable conditions for export
- Support of national exporters
- Establishment of foreign trade development institutes

Stimulation of export development

Financial support

1. Insurance
2. Financing
3. Warranties
4. Settlement/currency

Nonfinancial support

1. Information and educational block
2. Search for partners
3. Research
4. Support of export supplies (customs, IS, logistics, adaptation)

Unified Export Support Center

OR

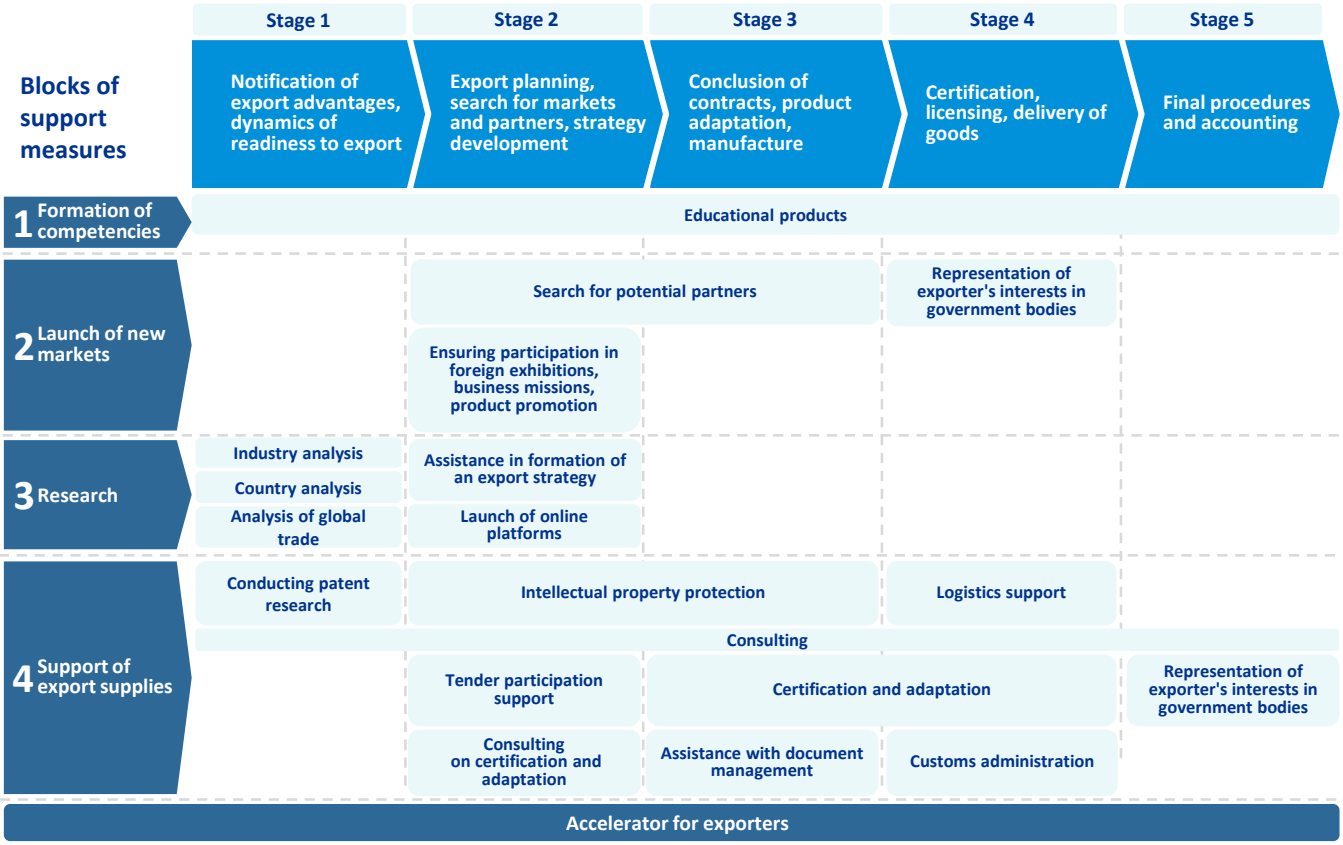
- Export-Import Bank
- Export Loans Insurance Agency
- Fund for Support of Export of Small Businesses and Private Enterprises
- Uzimpexaloka
- National Export Promotion Agency

Sources: analysis of the project team

Trade development

Stimulation of internal and external trade

Support instruments broken down by export cycle stages and blocks of nonfinancial support measures



Financial support tools

Insurance

- Insurance of a supplier's loan
- Insurance of a loan to export-oriented production
- Insurance of Uzbek investments abroad
- Insurance of a loan to a buyer
- Insurance of a confirmed letter of credit (SR)
- Insurance of export factoring
- Insurance of a loan for replenishing an exporter's working capital
- Insurance of guarantees
- Insurance of security deposits
- Insurance of a confirmed letter of credit (Multiple)
- Insurance of a risk of non-return of leasing objects
- Insurance of a risk of non-return of goods
- Insurance of a guarantor (counter guarantee)
- Insurance of an untied loan to a foreign buyer

Financing

- Financing of expenses under an export contract
- Financing of current expenses under export supplies
- Financing of an exporter's commercial loan
- Financing of commercial turnover with foreign buyers
- Direct loan to a foreign buyer
- Financing through a confirmed letter of credit
- Loan to a foreign buyer's bank
- Financing of an exporter's commercial loan
- Financing of factoring
- Investments into exporters' debt instruments
- Investment loans for local development

Warranties

- Tender guarantee
- Advance repayment guarantee
- Guarantee of proper performance under an export contract
- Payment guarantee
- Other guarantees
- Guarantees for the issuance of debt instruments

Settlement/currency

- Currency risk hedging

Sources: analysis of the project team

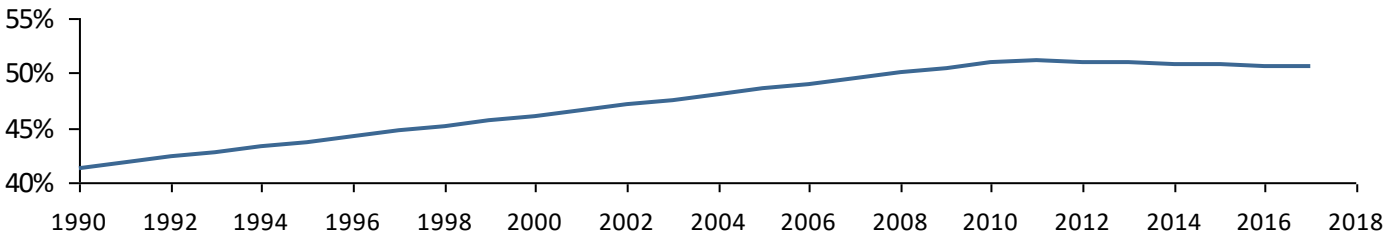
Urbanization

Urbanization

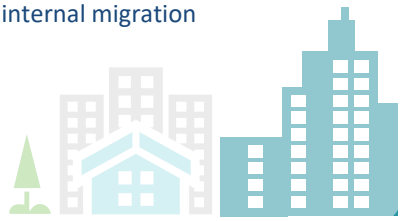
As estimated by UN, by 2050 68% of the world population will live in cities, and the urban population in Asia and Africa may increase by 90%. Urbanization is also expected to affect the population of Uzbekistan and produce a positive effect on the national economy

Uzbekistan has prerequisites for increasing the level of urbanization

Share of urban population, %

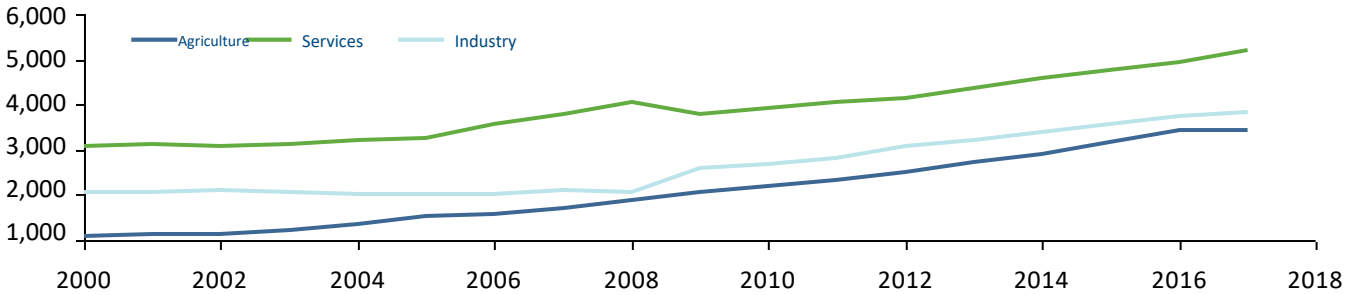


- As of 2017, Uzbekistan **meets three main prerequisites** contributing to increased urbanization:
  - Low level of urbanization **– the share of the urban population is 51%**
  - Low GDP level per capita – the indicator **is 6,865 international dollars** by purchasing power parity
  - Low level of economic industrialization**: over 19.2% of the economy is composed of agriculture**[1]
- The main **barriers constraining urbanization** in Uzbekistan remain as follows:
  - **Restrictive administrative measures**, e.g., registration system creating barriers to internal migration
  - **Absence of a large number of career opportunities** in the cities
  - **Low level of industrialization** in the cities



Urbanization may become one of the economic growth drivers

Real added value per one employed person, USD, in 2010 prices



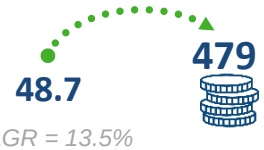
- Urbanization **contributes to change in the GDP structure towards** an increase in the **share of industries with a higher labor output**, which also stimulates economic growth. Based on the example of China and India, urbanization growth **by 1% corresponded to growth of GDP per capital by 10% and 13%, respectively**
- Despite a high level of state subsidies, **agriculture in Uzbekistan remains a less productive industry**. In particular, in 2017 the added value per one person employed in agriculture **was USD 1,800 less** than in service industries

Notes: 1 - proceeding from the share of agriculture in the total gross added value
Sources: World Bank, UN, analysis of the working group

Target development indicators of the Republic of Uzbekistan in 2035

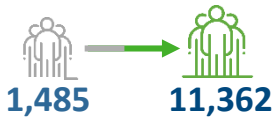
Stable macroeconomy

GDP (nominal), USD billion



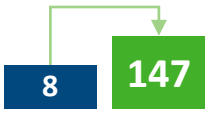
CAGR = 13.5%

GDP per capita, USD per capita



CAGR = 12.7%

Budget revenues, USD billion billion

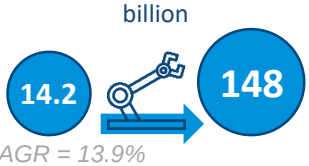


CAGR = 18.7%

Contribution of agricultural industry to GAV[1], USD billion

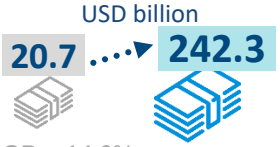
CAGR = 8.4%

Contribution of industry to GAV, USD billion



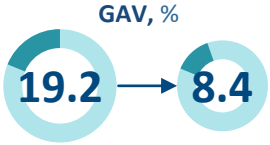
CAGR = 13.9%

Contribution of service sector to GAV, USD billion



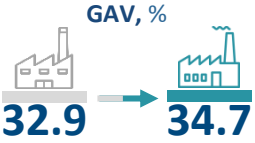
CAGR = 14.6%

Share of AIC in GAV, %



CAGR = -4.5%

Share of industry in GAV, %



CAGR = 0.3%

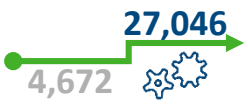
Share of service sector in GAV, %

CAGR = 1%

Agroindustrial complex output, USD per employed person

CAGR = 10.6%

Industrial output, USD **Per** employed person



CAGR = 10.9%

Service sector output, USD **Per** employed person

CAGR = 11.5%

Employment rate in the service sector, % of employed persons

CAGR = 1.2%

Employment rate in AIC, % of employed persons

CAGR = -4.7%

Employment rate in industry, % of employed persons

CAGR = 1.1%

Sources: World Bank, State Statistics Committee of the Republic of Uzbekistan, data from open sources, analysis of the working group
Note: 1 = GAV (gross value added) means the difference between the value of goods and services produced (output) and the value of goods and services fully consumed in the production process

Target development indicators of the Republic of Uzbekistan in 2035

Stable macroeconomy

Population size, million people

32.79 → 42.1

CAGR = 1.4%

Unemployment rate, % of able-bodied population

8.9 → 6.2

CAGR = -2%

State debt share in GDP, %

16 → 38.7

CAGR = 5.0%

Inflation, %

14.4 → 4.5

CAGR = -6%

Share of SMEs, per 1,000 people

7.1 → 25

CAGR = 7.2%

Value added per 1 SME, USD thous./SME

113 → 273

CAGR = 5.0%

Annual amount of investment[1], USD billion

12 → 129

CAGR = 14%

Export of goods and services, USD billion

13.9 → 136.5

CAGR = 13.5%

Import of goods and services, USD billion

14.4 → 116.7

CAGR = 12.3%

Corruption Perceptions Index, global ranking

157 → 46

CAGR = N/A

World Press Freedom Index, global ranking

165 → 43

CAGR = N/A

Doing Business Index, global ranking

74 → < 20

CAGR = N/A

Sources: World Bank, State Statistics Committee of the Republic of Uzbekistan, data from open sources, analysis of the working group

Note: 1 = in this situation, investments are understood as gross fixed capital formation per year

Target development indicators of the Republic of Uzbekistan in 2035

Living standards

Share of the population below the poverty line (USD 1.95 per day), %

CAGR = -100%

Gini index[1], %

CAGR = -0.6%

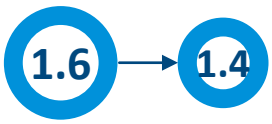
Infant mortality rate, per 1,000 newborns

CAGR = -8.8%

Number of children involved in forced labor, million people.

CAGR = -100%

Population growth rate, average annual %

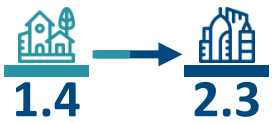


CAGR = -0.7%

Urban population, % of total population

CAGR = 2.3%

Urban population growth rate, % of total population

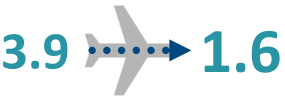


CAGR = 3.7%

Life expectancy, years

CAGR = 0.8%

International migrant flow, % of total population



CAGR = -4.8%

Healthcare expenses, % of GNI

CAGR = 3.1

Physician density, doctors per 1,000 people

CAGR = 0.6

Education expenses, % of GDP

CAGR = 0.9

Sources: World Bank, State Statistics Committee of the Republic of Uzbekistan, data from open sources, analysis of the working group
Note 1: shows the degree of inequality of different income distribution options

Target development indicators of the Republic of Uzbekistan in 2035

Living standards

Share of children who entered primary school, per 100 people

CAGR = 0%

Share of children who entered secondary school, per 100 people

CAGR = 0.3%

Share of graduates who entered colleges and universities, per 100 people

CAGR = 12.9%

Position in UN rating Human Development Index, position

Population with access to drinking water, urban/rural, %

CAGR = 1.2%

Infrastructure and resource efficiency

Water resources yield capacity, GDP/m3 of pure water

CAGR = 26.2%

Annual water intake for agricultural needs, % of total amount

CAGR = -1.4%

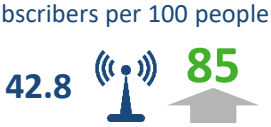
Subscribers connected to mobile communications, subscribers per 100 people

CAGR = 2.8%

Progress Index of the UN Sustainable Development Goals, score (of 100)

CAGR = N/A

Communications subscribers who use mobile internet, subscribers per 100 people



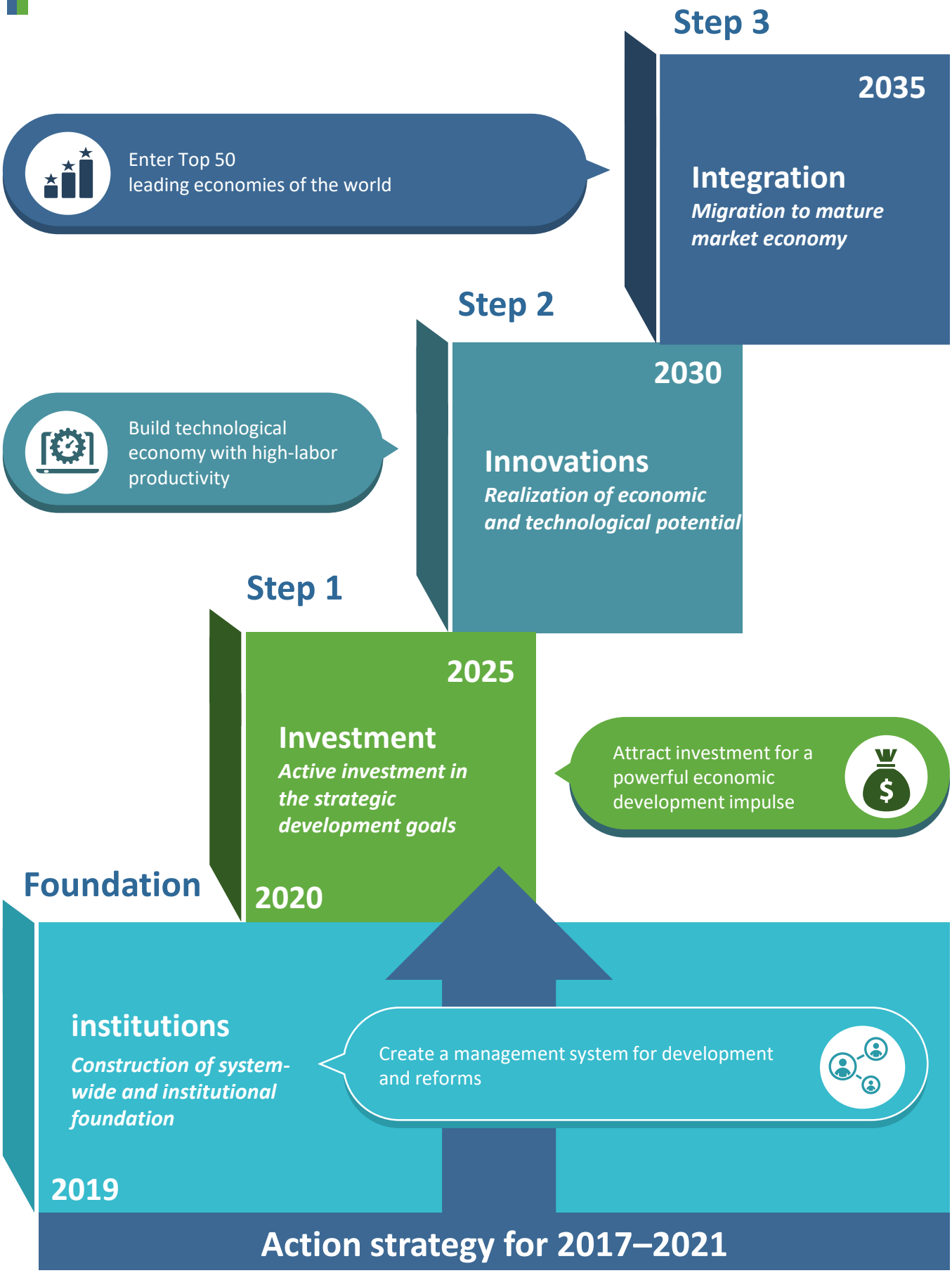
CAGR = 3.9%

R&D expenses, % of GDP

CAGR = 18.1%

Sources: World Bank, State Statistics Committee of the Republic of Uzbekistan, data from open sources, analysis of the working group

Key milestones of the Strategy: "Strategic ladder"



Required steps in 2019–2020

01 institutions

- Creation of the Reform Management Center of the Republic of Uzbekistan (in the structure of President's Administration)
- Establishment of Development Institutions:
  - Unified SME support institution
  - Development bank
  - Managing company Invest in Uzbekistan
- Establishment of a single national fund for privatization

02 Finance

- Privatization
- Capital amnesty
- Implementation of tax reform

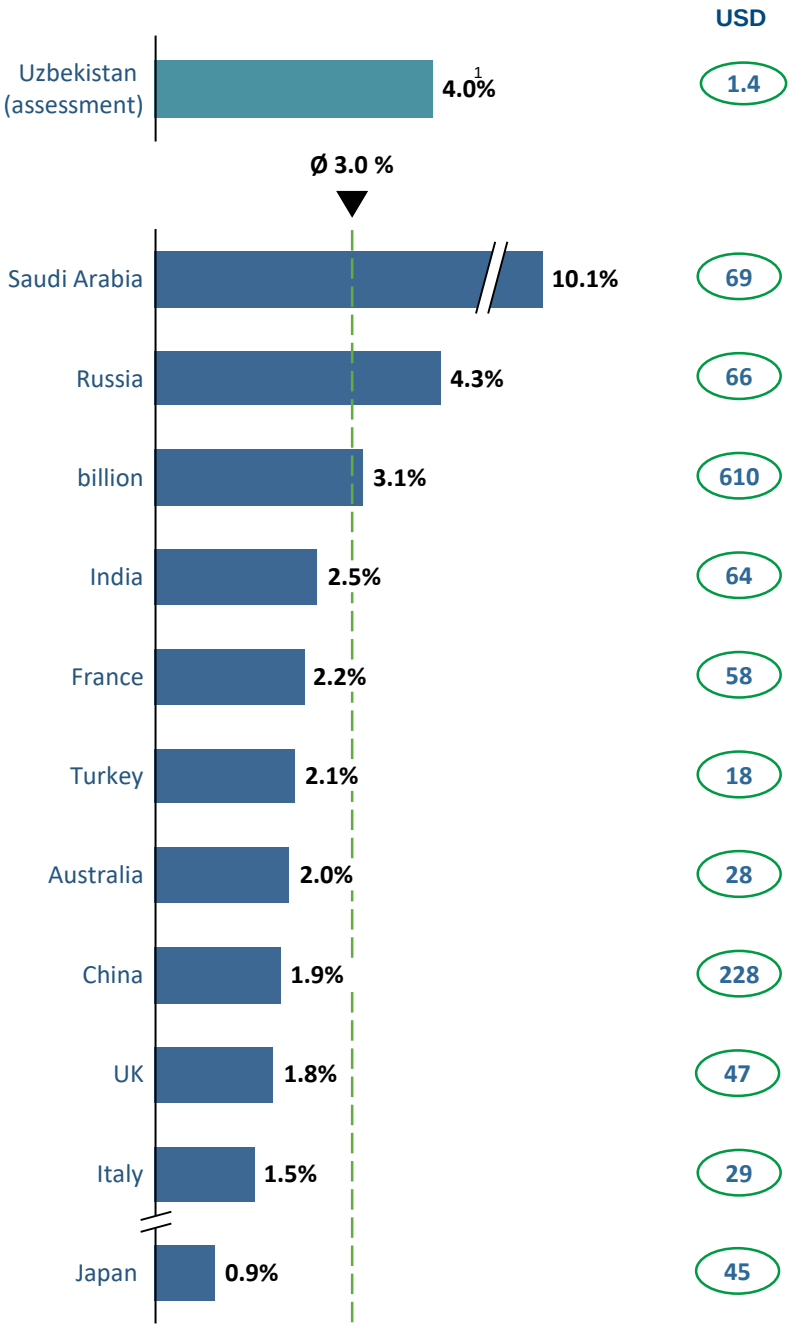
03 Society

- Introduction of compulsory medical insurance
- Implementation of pension reform
- Reform of public and development of private education
- "Water" national project
- Continuation of the political and legal reforms

Expenses on supporting Uzbekistan's military-industrial complex are high compared to other countries

Share of military spending in the country's GDP, 2017

The share of military spending in GDP in Uzbekistan exceeds the average military spending of some of the top 15 countries in the world



Comments

High level of military spending in Uzbekistan will allow the following goals to be achieved:

- Increase combat readiness and fighting capability of troops
- Provide troops with modern weapons and military equipment
- Modernize existing weapons
- Promote military and military-technical cooperation with countries of the region and the world as a whole
- Develop infrastructure of military camps, systems for technical and logistical support of troops
- Social security of military personnel, their families, and veterans of the armed forces

Sources: Statista, IMF, data from open sources, analysis of the working group
Note: 1 - as estimated by Deputy Head of the Main Department of the State Budget Ismonzhon Mamazhonov

National security

The main principles of Uzbekistan's national security, which are set out in the Defense Doctrine, are the maintenance of defense sufficiency and preservation of neutrality, but there is a need to finalize a number of key documents

Main national security documents

1. National security concept

Status: document version from 1997 is currently used; a new concept is being developed

2. Defense doctrine

Status: approved by Law of the Republic of Uzbekistan No. ZRU-458 dated January 9, 2018

3. Economic security doctrine

Status: no information available

4. Food security doctrine

Status: no information available

5. Cyber security doctrine

Status: no information available

Key principles of the defense policy of Uzbekistan

- Nonuse of military force against other countries, except in cases of suppression and deflection of military aggression
- Indivisibility of security; prohibition on strengthening our own security at the expense of the security of other countries
- Noninterference in the internal affairs of other countries; peaceful settlement of possible disputes
- Nonparticipation in military-political blocs; reserving the right to withdraw from any interstate organization in the event of its transformation into a military-political bloc
- Defense sufficiency
- Adequacy of military capabilities to the nature of modern military conflicts
- Renunciation of production, acquisition, storage, proliferation, and deployment of nuclear and other weapons of mass destruction
- Commitment to the principles of the Nuclear-Weapon-Free Zone Treaty in Central Asia
- Prevention of the deployment of foreign military bases and facilities on our territory
- Nonparticipation of the armed forces in peacekeeping operations and military conflicts abroad
- Reliance on spiritual and moral values and cultural and civilizational identity of the people

approved

under development

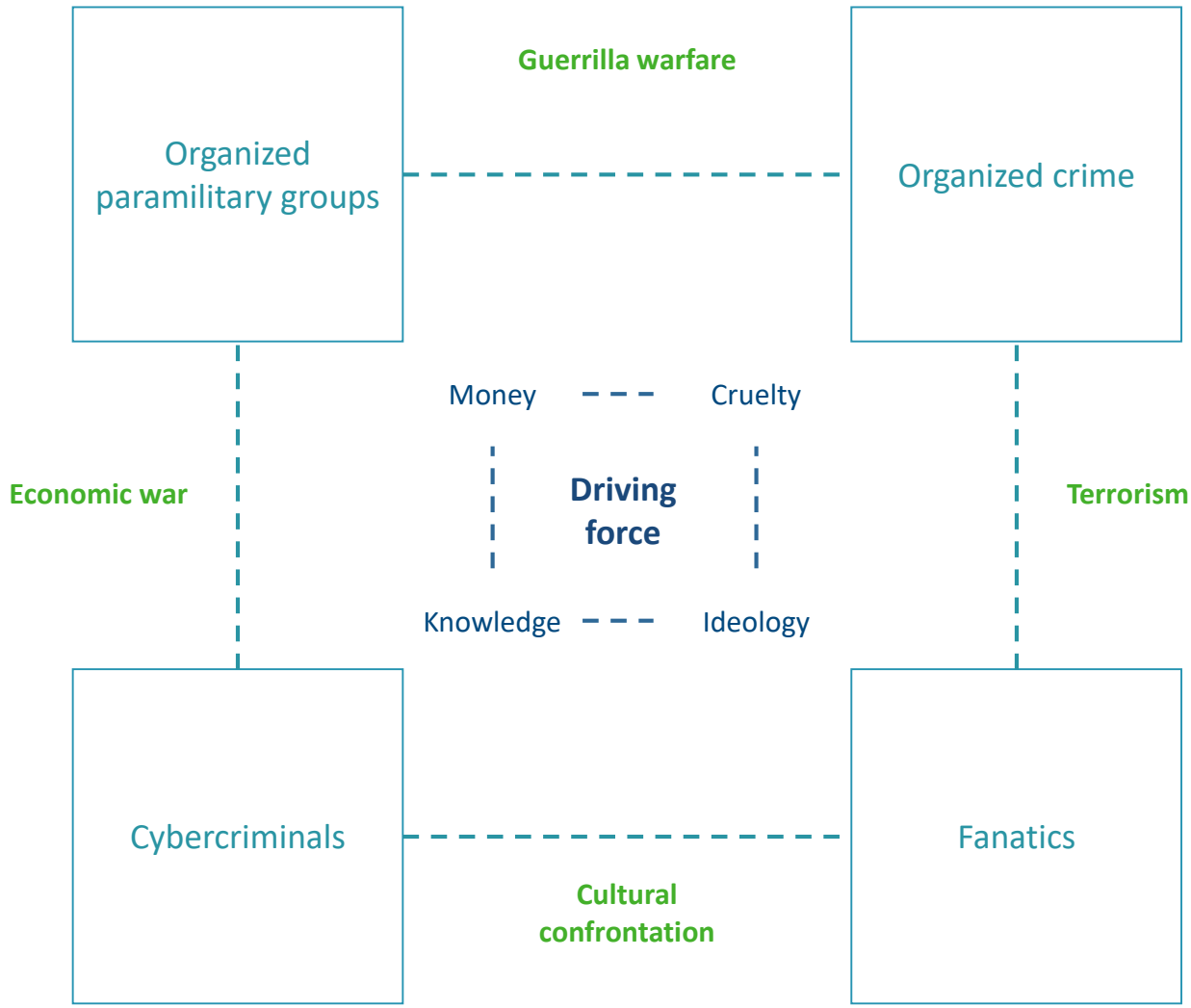
No information in open sources

Sources: Law of the Republic of Uzbekistan No. ZRU-458 dated January 9, 2018 "On the Defense Doctrine of the Republic of Uzbekistan," analysis of the working group

National security

Implementation of the main principles of Uzbekistan's national security will allow timely identification of and response to threats.
Depending on the driving forces, different combinations of threats are possible: from guerrilla warfare to cultural confrontation, from terrorism to economic war

National security threats



Examples of cyber crimes

At the present time, cyber crimes pose a new threat to Uzbekistan. Among the examples of such crimes we can point out the following:

- In 2014, the system of the US retail store chain Home Depot was hacked, and data from 50 million credit cards were disclosed
- In 2015, unauthorized access to the US Internal Revenue Service's system led to the theft of over 700,000 social security numbers and other confidential information
- In mid-2017, the WannaCry virus affected more than 500,000 computers and the computer system of the UK's National Health Service

Sources: speeches of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, analysis of the working group

National security

Dynamic scenario

A wide range of potential threats affect various elements of national security

Example of potential threats to national security	National security elements
⚠ Remote military operations, including by means of drones ⚠ Armed conflicts for resources • Civil war • Guerrilla warfare • Invasion by a foreign country's armed forces • Terrorism directed at the population and key infrastructure • Growth in organized crime and drug trafficking • Environmental and natural disasters	Physical security
⚠ Cyberattacks on the national financial system ⚠ Rise in unemployment and reduction in incomes of the population • Depreciation of the national currency • Economic instability of key industries • Economic sanctions, including by embargoes imposed on national products	Economic security
⚠ Cyberattacks aimed at sabotaging the political system • Political pressure from another country • Radical political groups • Religious conflicts • Information wars • Espionage	National values

⚠ More pressing threats against Uzbekistan

Sources: analysis of the working group

National security

A stable economy provides the necessary support for key elements of national security

Sources: analysis of the working group

National security

Focus of the economic security doctrine of developed and developing countries

Developed countries in their economic doctrines pay more attention to the fight against external threats, while developing countries focus on the fight against internal threats

Internal threats

- Instability of economic growth
- Poverty of the population
- High inflation
- High unemployment
- Low education
- Administrative and fiscal barriers to business development
- Low investment activity

External threats

- Foreign competition for sales markets
- High dependence on foreign trade conditions
- Lagging behind in the development and implementation of advanced technologies
- Restrictive economic measures of foreign countries

Examples of countries:


Russian Federation


Kazakhstan


USA


Japan


France

Components of the economic security doctrine

According to international practice, economic security doctrines include the following main elements:

Achieve internal economic stability and strengthen positions on the international level

- Domestic **economic stability** is an important part of economic security that contributes to **stable growth** and makes it possible to **avoid crisis phenomena**
- Strengthening of positions in international markets indicates **increased competitiveness** of the country's economy

Possibility of state control over the movement and use of national resources

- Efficient **use of resources** is the basis for the effective functioning of the economy; significant violation of the use of resources leads to a crisis
- **Control over the sale of resources abroad is** necessary **to reduce the dependence** on fluctuations in international markets and the loss of strategic resources

Meet the economic needs of the population

- **Human capital** is the basis of the economy, and the development of this resource can significantly **increase the country's potential**
- Creation of a **sustainable social environment** is one of the prerequisites for the country's economic prosperity

Sources: National Security Strategy of the United States of America dated December 2017, National Security Strategy of Japan dated December 13, 2013, Decree of the President of the Russian Federation No. 208 dated May 13, 2017 "On the Economic Security Strategy of the Russian Federation until 2030," Y. Lifshitz (2003) Economic Elements in Israel's National Security Doctrine. In: The Economics of Producing Defense. Springer, Boston, MA, M. A. Zhanabergenova, T. A. Azatbek International Experience in Ensuring Economic Security – 2016, N. V. Artemyev Evolution of Economic Security Doctrines – 2015

National security

Economic security
United States (as part of the National Security Strategy of the United States of America, December 2017)

Objectives	Guidelines for action
Stimulating the national economy	• Reducing the regulatory burden • Promoting tax reform • Upgrading and modernizing the infrastructure of the U.S. • Reducing debt through changes in fiscal policy • Maintaining educational scholarship programs
Promoting free, fair, and mutually beneficial economic relations	• Signing new trade and investment agreements and renewing current ones • Counteracting unfair trade practices • Counteracting foreign corruption • Working with partner countries • Promoting new market opportunities
Leadership in research, technology, invention, and innovation	• Developing an understanding and forecasting of global trends in science and technology • Attracting and retaining inventors and innovators • Using private capital and experience to create and implement innovations • Rapid implementation of inventions and innovations
Developing and protecting the U.S. innovation base	• Identifying and monitoring threats to the innovation base • Intellectual property protection • Tightening visa procedures for foreigners to preserve intellectual property • Protecting data and related infrastructure
Stimulating the national economy	• Reducing regulatory barriers • Promoting exports • Ensuring energy security • Ensuring people and businesses have access to energy • Increasing the U.S. technological advantage in energy

Economic security
of Japan as part of the current National Security Strategy, December 2013

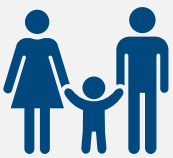
Objectives	Guidelines for action
Prosperity of Japan and its citizens through economic development	• Strengthening the free trade scheme for economic development through free trade and competition • Maintaining an environment that provides stability, transparency, and predictability
Strengthening and expanding Japan's role and capabilities in the world	• Strengthening cyber security • International cooperation in the field of defensive weapons and technologies • Ensuring the sustainable use of outer space and supporting its use for security purposes • Enhancing technological capabilities
Strengthening national security and promoting domestic and global peace	• Maintenance and strengthening of the defense production and technological bases • Developing an intellectual base (in particular, via interaction of the state, higher educational institutions, and research centers)

Sources: National Security Strategy of the United States of America dated December 2017, National Security Strategy of Japan dated December 13, 2013

National security

Theses of the economic security doctrine of the Republic of Uzbekistan

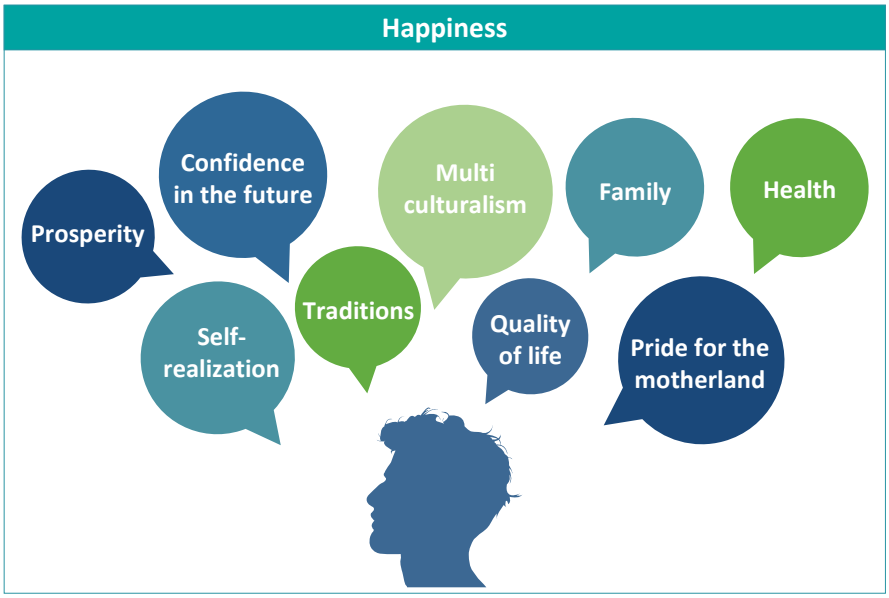
Economic security is an integral part of national security. Implementing the goals will make it possible to achieve sustainable economic development independent from internal and external threats

Objectives	Guidelines for action
 **Achieve internal economic stability and strengthen positions on the international level**	• Continuous economic growth and optimal economic structure • Effective monetary and fiscal policy • Sociopolitical stability and economic sovereignty • No restrictions on international trade • High scientific and technical potential • Support for export and exporters
 **Possibility of state control over the movement and use of national resources**	• Effective system of public governance • Rational allocation of resources • Food security • Sufficient level of the resource base and diversification of sources
 **Meet the economic needs of the population**	• Stable employment • Access to social security • High level of human capital development

National idea

The national idea should unite Uzbeks and ensure a common goal

- It is a national challenge to solve the task of entering the Top 50 countries
- It requires motivation and a uniting idea for the whole country
- The national idea is a common goal that is clear and valuable for each citizen of Uzbekistan
- The task of the Strategy 2035 is to ensure happiness for each citizen of Uzbekistan



Shavkat Mirziyoyev
President of the Republic of Uzbekistan

Rich people – rich country: "Based on the principle 'If the people are rich, the state will be rich and powerful' and to ensure the sustainable development of the country, new opportunities and incentives are being created for the development of entrepreneurship and radical improvement of the business environment."

Government for the citizens: "We make every decision concerning the life of the country on the basis of direct dialog with the people, taking into account the views of society. The cornerstone of our work is the following principle: 'It is not the people who serve the state bodies but the state bodies who serve the people'."

Macroeconomic stability and entrepreneurship: "The most important priority is to further strengthen macroeconomic stability and maintain high rates of economic growth, including balance of the state budget at all levels, stability of the national currency, and the price level in the domestic market... It is necessary for the entire macroeconomics to ensure that constant field visits become normal, to study the possibilities of each family to engage in business activities, to solve problems of expanding financing, and to provide practical assistance to entrepreneurs."

Safety for everyone: "Based on the concept 'Safe city – safe country,' we are carrying out large-scale work aimed at ensuring public order in the country. That is why a new structure was created – the National Guard."

Raising a harmonious generation: "Bringing up a healthy and harmoniously developed generation, purposeful and energetic youth, able to take responsibility for the fate and future of the motherland and to direct all their knowledge and potential to this, is a vital issue for us."

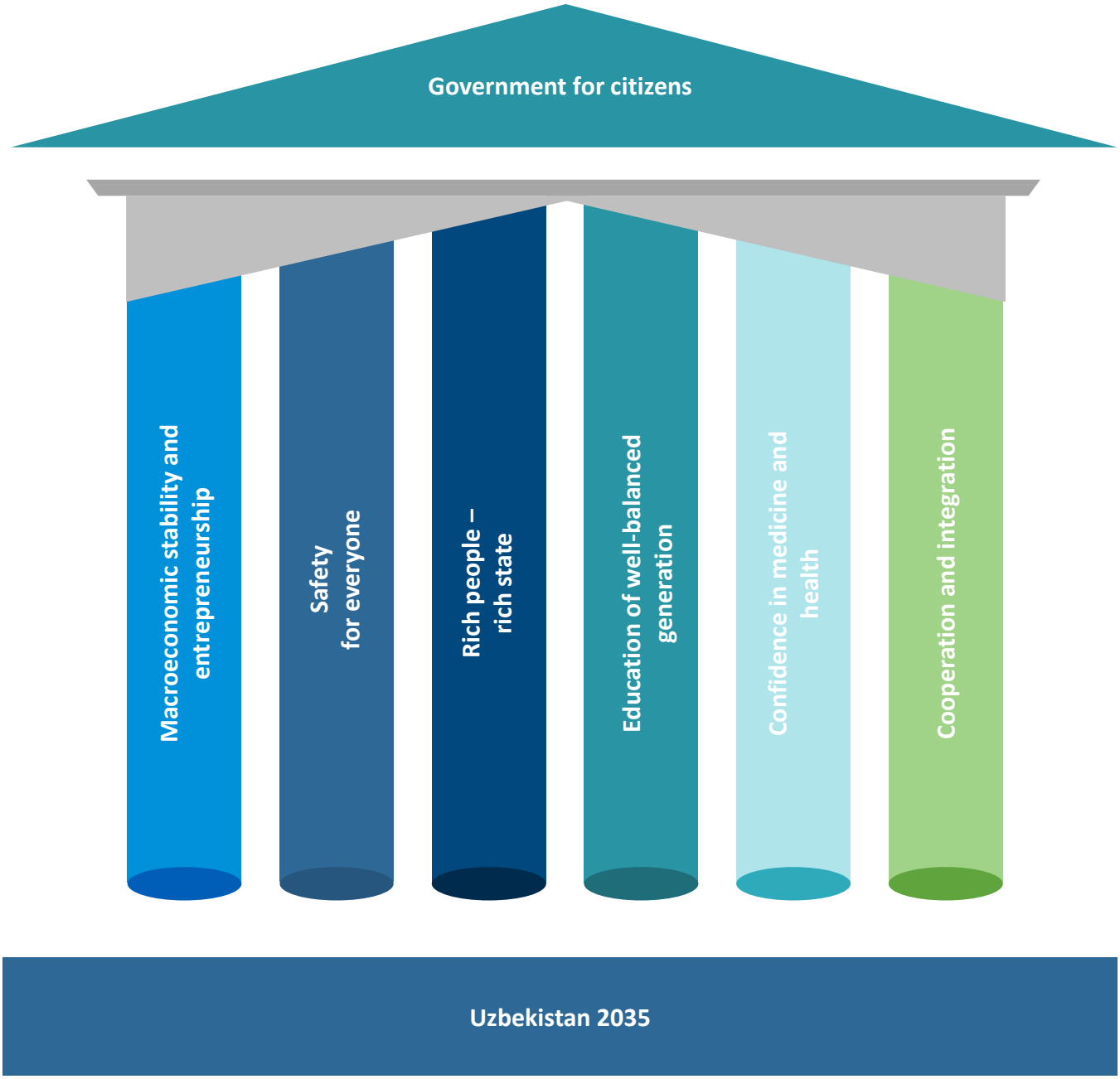
Confidence in medicine and health: "When it comes to health care, we must remember one truth: health workers are the guardians of our health. The people must trust them, and they must win the trust of the people. Ensuring the observance of constitutional norms in the protection of the health of citizens who are our greatest wealth must become a priority of state policy."

Cooperation and integration: "I consider it necessary to affirm once again Uzbekistan's readiness to expand and deepen the open, mutually beneficial and close cooperation with the countries of our region. This is the main priority of our foreign policy."

Sources: speeches of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, analysis of the working group

National idea

Uzbekistan 2035 is aimed at implementing the basic principles of public governance established by the President



Sources: speeches of the President of the Republic of Uzbekistan Shavkat Mirziyoyev, analysis of the working group

Detailed Information by Area

Development Strategy Framework of
the Republic of Uzbekistan until 2035

BUYUK KELAJAK

1. Development of public governance

Development Strategy Framework of the Republic of Uzbekistan until 2035

1.1

Executive authority

Development of public governance

Executive authority

Current level of development

Key challenges

- Personnel shortage, poor staff training, and lack of motivational stimuli
- Internal control of executive authority bodies is underdeveloped
- External control of executive authority bodies by legislative authority and society is underdeveloped
- Poor availability of electronic public services for the population
- Ineffective implementation of government programs and projects
- High level of corruption

Key findings

- There is no comprehensive **system for strategic planning** and setting of long-term and mid-term goals for government bodies in the Republic of Uzbekistan
- There are factors that **negatively affect** the **efficacy of the executive authority system**, including the following:
  - **The absence** of a comprehensive system for monitoring goal achievement for government bodies and their chief executives
  - **Poor resulting quality of parliamentary control due to the lack of independence of legislative authority**
  - **Lack of freedom of mass media hinders public control** of the executive authority's activities
  - **The absence of a developed administrative staff training system**
  - Deficiencies in the project **management** system reduce the resulting quality of government projects and lead to **inefficient use of funds**
- **In general, an unfavorable investment climate is observed** due to the high level of corruption, which also hinders economic development

Government Effectiveness Index

World Bank

Public governance efficiency rating, 2016

150 **out of 214 countries**

- This index shows the perception of the quality of government services, quality of civil service, quality of elaboration and implementation of government policies, and adherence of the government to the elaborated policies
- The concept of administrative reform approved by Decree of the President of the Republic of Uzbekistan UP-5185 dated September 8, 2017, meets the above challenges and contains the necessary sets of elements for optimizing the public administration system. However, implementation of this concept is slow in coming. It is necessary to create and launch a mechanism for accelerated implementation of the concept of administrative reform

Corruption Perceptions Index

TRANSPARENCY INTERNATIONAL

Corruption Perceptions Index, 2017

157 **out of 180 countries**

- This index shows the level of corruption perception
- The existing anticorruption program for 2017–2018 is the start of work on fighting corruption, but extensive measures need to be taken to implement a long-term policy in this area

Sources: World Bank, Transparency International, data from open sources, analysis of the working group

Executive authority

Current level of development

Press Freedom Index

Worldwide Press Freedom Index, 2018

165

out of 180 countries

- This index shows the degree of media freedom, quality of the legislative framework in the field of mass media, and the level of pressure on journalists
- The media is an important institute of public control over the activities of executive authorities. The absence of a free and independent media in the Republic of Uzbekistan hinders the work of the mechanism for improving performance of the executive authority by public control

Telecommunications Infrastructure Index

UN Telecommunication Infrastructure Index (TII), 2018

114

out of 193 countries

- This index is a part of the E-Government Development Index and shows the level of telecommunications infrastructure development in the country
- Low level of telecommunications infrastructure in the Republic of Uzbekistan (internet speed in the country is 10 times slower than the average speed in the CIS) hinders widespread use of electronic public services by population

Doing Business Index

Doing Business Index (ranking), 2018

74

out of 190 countries

- Each country is assigned a corresponding rank in the ease of doing business rating. The higher the country position for this rating, the more favorable the business environment for opening and running an enterprise. The rank of each country is determined by ordering the cumulative scoring in ten areas.
- Uzbekistan has the lowest rating in "Obtaining construction permits" and "International trade"

Telecommunications Infrastructure Index

E-Government Development Index, 2018

81

out of 193 countries

- E-Government Development Index (EGDI) is prepared every two years by the UN Department for Economic and Social Development. The index consists of three subindices characterizing the state of ICT infrastructure, human capital, and online government services.
- The telecommunications infrastructure level has the lowest rating among all subindices in Uzbekistan

Sources: UN, World Bank, data from open sources, analysis of the working group

Executive authority

Current level of development

There is a problem with the lack of highly educated personnel in the executive authority system

Over the last **2** years, the Republic of Uzbekistan has created at the republic level:

- **3** ministries
- **4** state committees
- **3** agencies

It is necessary to form a pool of high-skilled personnel for new government bodies

During an interview, **80%** of ministries and departments mentioned the personnel problem as one of the most pressing

15% of departments[1] have vacant positions for deputy head

Due to the lack of highly educated staff, officials are transferred between departments too **quickly**[2]

Note: 1 - Estimated figure according to data from the websites of state bodies; 2 http://uzxalqharakati.com/ru/archives/22914

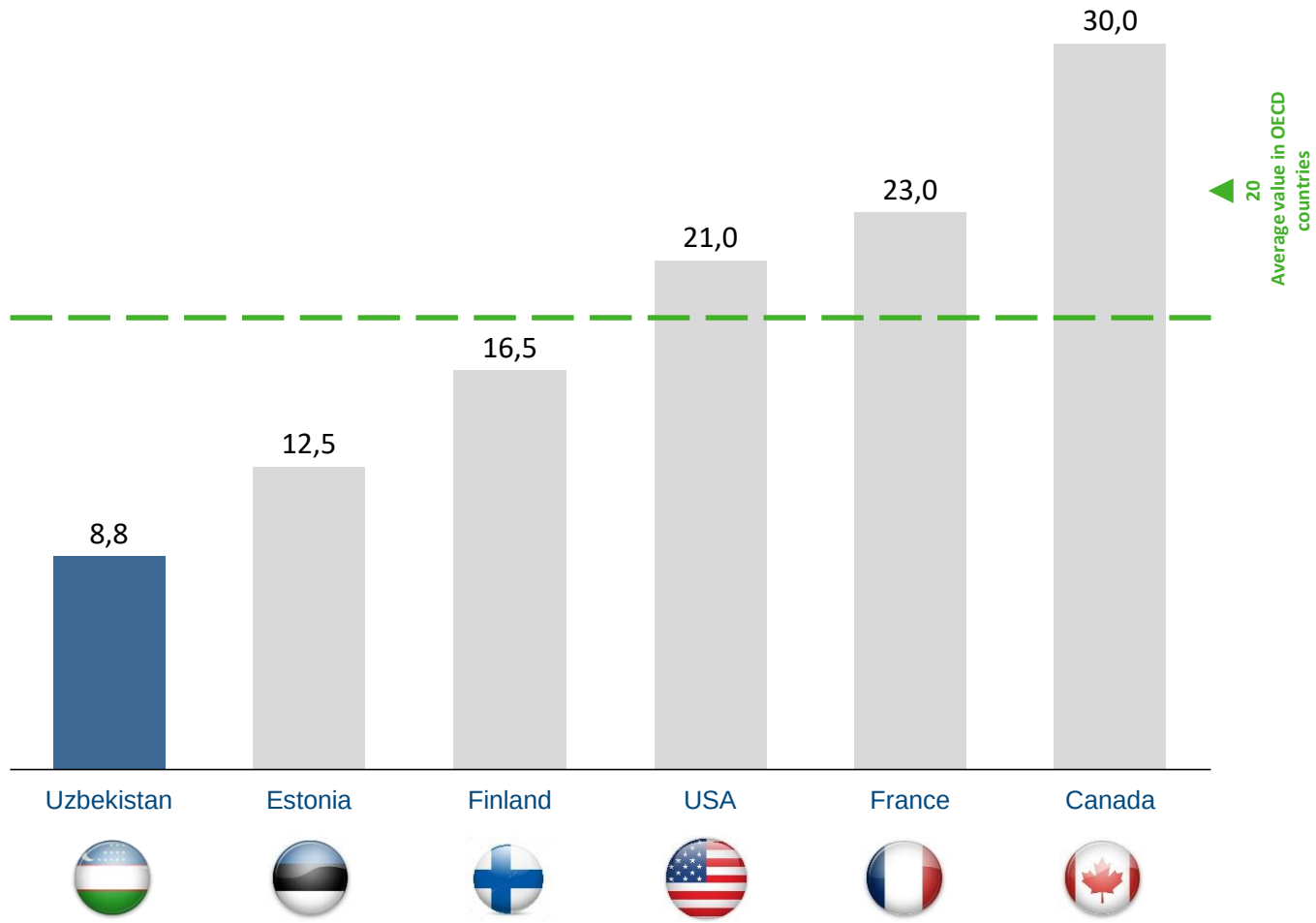
Executive authority

Current level of development

Low level of financial compensation for civil servants hinders the attraction of high-skilled staff

Monthly salary of top managers[1]

thousand nominal dollars based on PPP



- The problem with low pay for employees of government bodies was noted in Decree of the President of the Republic of Uzbekistan No. UP-5185 dated September 8, 2017.
- The level of compensation for civil servants in Uzbekistan is less than half the average compensation in developed countries by purchasing power parity, which:
  - Leads to a mismatch of the social position of civil servants to the level of responsibility imposed on them
  - Reduces the "prestige" of public service and hinders attraction of high-skilled personnel
  - Contributes to staff outflow
  - Increases the risk of corruption
- Different wages are observed in different departments in positions of the same level

Notes: 1 - based on data of Government at a Glance (2017 edition), data on Uzbekistan is given based on an interview with government bodies (USD 2,000 adjusted based on PPP)

Source: OECD, based on estimates of the representatives of government bodies of the Republic of Uzbekistan

Executive authority

Current level of development

The existing educational system for civil servants is selective and does not allow for a prompt "quality" breakthrough in increasing the skill level of the government apparatus (1/2)

Educational institutes for civil servants

Global experience

Civil Service College Singapore

Civil Service College (CSC)
in Singapore offers **468** training programs covering over **43,000 students**

Singapore

ANZSOG

The Australia and New Zealand School of Government
In the 2017 academic year, training at ANZSOG was completed **by 7,300 people**

New Zealand

Australia

These institutes also actively provide consultancy services for government bodies.

Uzbekistan

АКАДЕМИЯ ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ ПРИ ПРЕЗИДЕНТЕ РЕСПУБЛИКИ УЗБЕКИСТАН

- ✓ Uzbekistan has the Academy of Public Administration under the President of the Republic of Uzbekistan
- ✗ The **Academy** offers only **3 training programs**
- ✗ Training is completed by **180 people a year**, which is **less than 0.1%** of the total number of civil servants
- ✗ Foreign cooperation is undeveloped
- ✗ Provision of consultancy services for government bodies is undeveloped

✓ Positive factors ✗ Negative factors

Source: www.csc.gov.sg; www.anzsog.edu.au; www.dba.uz/ru/

Executive authority

Current level of development

The existing educational system for civil servants is a points-based system that does not allow for a prompt "quality" breakthrough in increasing the skill level of the government apparatus (2/2)

Educational institutes for civil servants

Global experience

Singapore

Public Service Commission in Singapore develops and supports talent in the field of public service.

- The commission issues 16 types of scholarships for education in Singapore and abroad, which cover the cost of education, accommodation, and transportation
- Programs for accelerated career development in government bodies upon completion of education

billion

- Mayor's Graduate Scholarship Program (New York City)
- Federal Employee Education and Assistance Fund Scholarship Program

The programs cover expenses for part-time and full-time education of civil servants

UAE

Study Leave Program for Abu Dhabi Government Employees

- The program covers expenses for civil servants' full-time studies abroad

Uzbekistan

- ✓ Uzbekistan has selective programs supporting education of civil servants.
  Example: JDS Program. It provides an opportunity for civil servants to earn a master's or doctorate degree at Japanese universities. In 2018, Japan allocated USD 2.4 million to finance this program. During 18 years of its existence, 311 civil servants completed training under it
  Some ministries and departments implement personnel training programs on their own, which are short-term advanced training courses
- ✓ There is no comprehensive system of educational support for civil servants based on national and/or foreign higher educational institutions
- ✗ There are no accelerated programs for career development after receiving an education
- ✗

✓ Positive factors ✗ Negative factors

Source: www.csc.gov.sg; www.anzsog.edu.au; www.dba.uz/ru/

Executive authority

Current level of development

There is a system of personnel development elaborated in Uzbekistan, but adoption of the necessary laws is being delayed

Creation of the National Personnel Reserve

Personnel reserve is the institute providing centralized selection, training, retraining, and advanced training of personnel for public service as well as monitoring and facilitating career development of civil servants.
The training base of the national personnel reserve will be built based on a government order for educational services to higher educational institutions.

Organization of regular advanced training of civil servants with government funds

Training programs for the personnel reserve will allow one to obtain a master's degree.
Upon completion of studies, civil servants will be required to work for a certain time in the government bodies or will have to compensate the cost of education in proportion to their nonfulfilled obligations.

Creation of the National Agency for Public Service Affairs

The National Agency will coordinate and provide methodical guidance for the activities of advanced training organizations and will approve training programs

Assignment of qualification ranks only upon completion of relevant training programs

Career advancement will directly depend on the education and expertise of civil servants

The law is intended to solve the key problems in the staffing system, yet it has remained a draft law for about a year!

Source: Draft law "On Public Service"

Executive authority

Current level of development

The government of the Republic of Uzbekistan realizes the importance of the corruption problem and is taking steps aimed at elaborating a comprehensive approach to fighting corruption

Law "On Countering Corruption"

On January 3, 2017, the Law of the Republic of Uzbekistan No. 419 "On Countering Corruption" was **adopted.** The main areas for fighting corruption are:

- Formation of zero tolerance to corruption in society
- Implementation of measures to prevent corruption
- Ensuring the principle of inevitable liability for corruption

Government Program For Countering Corruption for 2017–2018

On February 2, 2017, the Government Program for Countering Corruption for 2017–2018 was adopted

- The Program contains a road map consisting of 51 steps[1]

The status of program implementation will be determined after receiving data from the government bodies

Interdepartmental Commissions

To implement the Government Program for Countering Corruption, the following interdepartmental commissions **were set up[2]:**

- Republican Interdepartmental Commission
- Interdepartmental Commission in the Republic of Karakalpakstan
- Interdepartmental Commission in Tashkent

Positive factors

Negative factors

Source: 1 = Decree of the President of the Republic of Uzbekistan PP-2752 dated February 2, 2017; 2 = Law of the Republic of Uzbekistan No. 419 dated January 3, 2017

Executive authority

Strategic options for improved performance of the executive authority

1

Target development option

Model based on the top-down approach to initiative implementation

The model provides for identification of the key areas at the highest administration level of the executive authority, elaboration of goals for each department, development of detailed KPIs, strict control of their achievement on a weekly basis, establishment of an individual body of executive authority to control the results of reforms, independent audit, and public control

Examples of countries:

Government Transformation Program (GTP) is the program implemented in **Malaysia** in 2010.

+

- Ability to deliver great results
- High speed of implementation
- Clear development priorities
- Openness and transparency for society

–

- Concentration of a wide scope of powers in the controlling body
- Resolution of a limited circle of problems identified as priority problems

Quick achievement of results using the body that implements and monitors the reform process

2

Model based on the bottom-up approach to initiative implementation

The model provides for elaboration of long-term goals (5 years) by the departments, annual plans for their achievement, and presentation of annual reports. The departments set goals and determine ways to achieve them on their own. Control over the system is exercised by the legislative and executive authority. The model involves elements of nongovernmental control.

Examples of countries:

Government Performance and Results Act (GPRA) is the system implemented in the **USA** in 1997.

+

- Commitment to results
- Comprehensive approach
- Nongovernmental control
- Little labor effort
- Limited powers of the controlling body

–

- Slow implementation
- Control lacks toughness
- Risk of blurring priorities in goal setting
- Possible lack of coordination of goals and activities of various departments
- Potential inconsistency

Achievement of results in a developed economy by the ministries and departments on their own

3

Mixed model

The system constitutes the scope of agreements between the controlling body of executive authority, financial regulatory body of executive authority, and line ministries and sets mid-term (3 years) goals, indicators for their achievement, the necessary resources, and a "value-for-money" estimate. Control is exercised on a semiannual basis. The system involves an independent audit

Examples of countries:

Public Service Agreements is the system implemented in the **UK** in 1998–2010.

+

- Commitment to results
- Independent audit
- Comprehensive approach
- Low labor input
- Assessment of cost effectiveness

–

- Slow implementation
- Control lacks toughness
- Poor coordination of activities of various departments

Joint work on setting goals and elaborating the ways to achieve them at the top level of executive authority and line ministries

Sources: data from open sources, analysis of the working group.

Executive authority

Target vision 2035

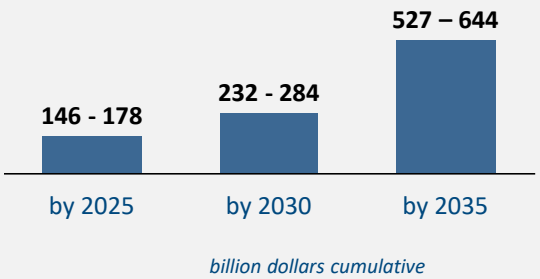
Implementing a comprehensive system for setting goals and tasks for the executive authorities, improving the resulting quality of the government projects and programs, developing a system of internal and external control of the executive authorities, developing a comprehensive staffing system, fighting corruption, improving the availability of public services for the population, and complying with the principles of alternation of power and retention of constitutional foundations

- Creating the mechanism for continuous control of the achievement of target performance indicators of the government bodies
- Increasing the independence of the media and developing nongovernmental control
- Creating a personnel pool, high-quality training and re-training of government staff
- Improvement of the professional structure of state officials by establishing a dignified and sufficient level of compensation for the society
- Developing telecommunications infrastructure and digitalization of the executive authority
- Reducing corruption through anticorruption programs and process optimization
- Taking a set of measures intended to raise the prestige and social attractiveness of the state service

Figures

	2016/17/18	2035
World Bank Governance Indicators (ranking)	150	Top 50
Corruption Perceptions Index (ranking)	157	Top 50
World Press Freedom Index (ranking)	165	Top 50
Telecommunication Infrastructure Index (ranking)	114	Top 50
Doing Business Index (ranking)	74	Top 20
E-Government Development Index (ranking)	81	Top 30

Investment

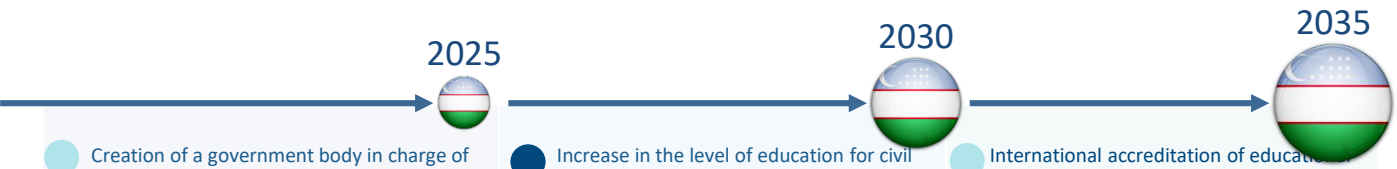


billion dollars cumulative

Sources: data from open sources, analysis of the working group.

Executive authority

Key strategic initiatives



2025

- Creation of a government body in charge of elaboration and implementation of goal-achievement programs and monitoring of their fulfillment (Reform Management Center)
- Drastic perfection of the system of professional development of civil officers (increasing the number of graduates from 180 to 8,000 people, updating educational programs, increasing the number of educational programs from 3 to 400)
- Implementation of a comprehensive staffing system (identification of hiring needs, attraction of specialists with international experience)
- Development of a culture of meritocracy in the government bodies (transparent stages of selection and implementation of criteria of conformity to positions)
- Implementation of the Government Program for Countering Corruption approved by Decree of the President of the Republic of Uzbekistan No. PP-2752 of February 2, 2017, and obliging the state and major private organizations and entities to implement the program countering corruption
- Improvement in the legislative framework, elimination of duplicate legal acts
- Increase in freedom of speech and nongovernmental control through the media (enter Top 120 of World Press Freedom Index)
- Introduction of a National Identification Number to simplify data tracking of tax payments, use of public services, etc.
- Reformation of the state statistic service
- Holding of a census of the population of the Republic of Uzbekistan

2030

- Increase in the level of education for civil servants (implementation of international practical trainings, bringing educational programs in line with international practices)
- Implementation of an up-or-out system for civil servants, increasing competition for filling vacant positions inside the government bodies
- Creation of an environment where corruption makes no economic sense for business
- Bringing up new staff in the public service system, formation of zero tolerance for corruption, change in the "image" of government bodies through educational programs, holding internal training, toughening of legislation, and cooperation with the media (enter Top 80 of Corruption Perceptions Index)
- Formation of independent institutions of nongovernmental control (grants for nongovernment organizations, independent media, etc.) (enter Top 80 of World Press Freedom Index)
- Comprehensive digitalization of public services, including through artificial intelligence and blockchain technology, implementation of ICT to organize the work of ministries and departments, decision making based on big data analysis (enter the Top 50 countries of the E-Government Development Index and the Top 70 countries of the Telecommunication Infrastructure Index)

2035

- International accreditation of educational institutions training future civil servants
- Elaboration of zero tolerance to corruption in society, changing society's mindset (collaboration with the media and educational institutions) (enter Top 50 of Corruption Perceptions Index)
- Migration to electronic delivery of public services, including comprehensive use of artificial intelligence and blockchain technology in project management and in delivery of public services (enter Top 30 of E-Government Development Index and Top 50 of Telecommunication Infrastructure Index)
- Drastic increase in performance of the executive authority (enter Top 50 of Government Effectiveness Index)
- Creation of a favorable environment for conducting business (enter Top 20 of Doing Business Index)
- Support for independent media, freedom of speech, creation of a developed system of nongovernmental control of the activities of executive authorities (involvement of organizations in discussions on the current work of ministries and departments, taking into account their opinions in the adoption of laws) (enter Top 50 of World Press Freedom Index)

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

1.2

Legislative authority

Development of public governance

Legislative authority

Current level of development

Key challenges

- The legislative authority in the Republic of Uzbekistan is not fully independent
- The level of political culture in the Republic of Uzbekistan lags behind democratically developed countries
- The quality of the legislative framework is not stable and requires improvement
- The scant application of evidence-based policy instruments and "smart regulation" principles in the development of legislative acts reduce their quality
- The lack of coordination of government bodies in the course of law-making and the low level of scientific support of the government bodies reduce the quality of the regulatory legal acts
- Poor development of parliamentary control
- Poor accessibility to public platforms for discussion of laws

Key findings

- **There are a number of restrictions on** free formation **of the representative authorities and their powers** in the Republic of Uzbekistan. These restrictions **reduce the independence of the legislative authority**
- **Poor quality of the legislative framework** due to the lack of "directly applicable" laws**.** Poor detailing of the legal rules in the primary legislative acts leads to the need for their detailed elaboration in the acts of the executive authorities that are not always able to elaborate them deeply enough because of heavy workload
- **Discrepancies in** the **legislation** due to the lack of coordination between the government bodies in the course of legislative activity
- **Excessive administrative load on the population and poor efficiency and resulting quality of the legislation due** to the lack **of** application **of** evidence-based policy instruments, such as Regulatory Impact Analysis (RIA) and "smart regulation" principles
- **Poor quality of the elaborated regulatory acts** due to the lack of scientific support, low professional skills, and poor provision of resources to the parliamentarians
- Due to the lack of a digital database of international contracts, their provisions are **not always taken into account in the elaboration of legislative acts**
- Poorly developed telecommunications infrastructure and deficiencies in the digitalization of the legislative framework complicate the population's access to the legislative acts and **hinder public discussion of legislative initiatives**

Democracy Index

The Economist

Democracy Index, 2017

158 **out of 167 countries**

- This index shows the level of democracy in the country and covers such areas as elections, political pluralism, civil liberties, government functioning, participation in political processes, and development of political culture in the country.
- Political culture in the Republic of Uzbekistan requires further development. There are restrictions on free registration of political parties and limitations on independence of the representative government bodies in the country; heads of executive and legislative authorities practice concurrent service at a regional level, which hinders independence of the legislative authority

Global indicators of public regulation quality

World Bank

Global Indicators of Regulatory Governance, 2016

74–80 **out of 186 countries**

- The indicator reflects the quality of the legislative process, the quality and accessibility of the legislative framework for the population
- It is necessary to increase society's involvement in the legislative process, improve the quality of elaboration of the legislative acts, and optimize the legislative framework
- On August 8, 2018, the Republic of Uzbekistan approved the Concept for Improving Legislative Activity, which is in line with the best global practices and – subject to its implementation – will lay a foundation for improving the legislative activity and the legislative framework in the country

Sources: World Bank, The Economist, data from open sources, analysis of the working group

Legislative authority

Current level of development

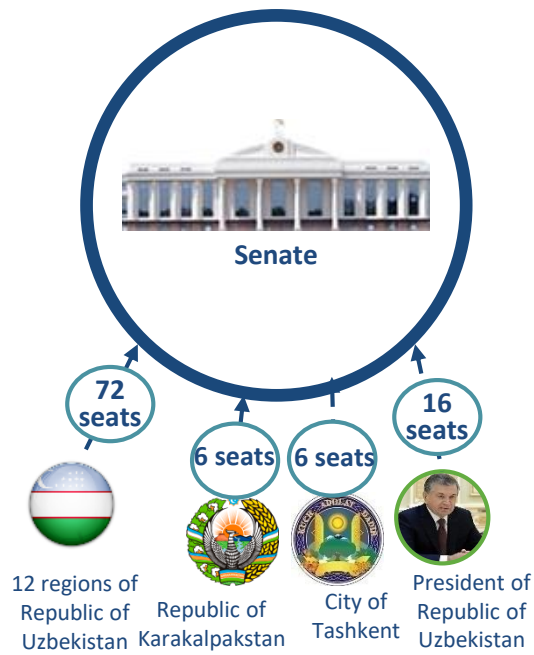
The legislative authority in the Republic of Uzbekistan is not fully independent, which compromises the quality of the legislative and controlling activity

- Liberal Democratic Party
- Democratic Party
- People's Democratic Party
- Social Democratic Party
- Ecological Movement of Uzbekistan

- The Legislative Chamber consists of **150** deputies:
  - **135** deputies are elected on the basis of a universal, equal, and direct electoral right in secret voting in territorial single-seat electoral districts on a multiparty basis
  - **15** deputies are elected from the Ecological Movement of Uzbekistan

- The principle of incomplete electiveness of the Legislative Chamber allows the appointment of 15 deputies and is in conflict with the practice of countries with developed democracy[1]
- A prohibition on nominating independent candidates allows the Legislative Chamber to be formed from among the candidates of registered parties only[2]
- The process of registering parties is not transparent and hinders registration of new political parties[3]
- The President has the right to dismiss the Legislative Chamber[4]

The existing mechanism hinders independence of the Legislative Chamber and complicates performance of controlling and legislative functions



The Senate consists of **100** senators:

- **84** senators are elected through voting by deputies of the regional representative authorities
- Each region elects **6** senators
- **16** senators are appointed by the President of Uzbekistan

- The representative government bodies in the regions, districts, and cities (Kengashes [Councils] of People's Deputies) are headed by hokims, which is are conflict with the principle of separation of powers and leads to inefficient operation of the representative bodies
- Hokims (governors) of the regions are also senators, which greatly reduces the effectiveness of the senate in terms of exercising controlling power and making decisions on the activities of local executive authorities
- The principle of appointment of 16 senators reduces the independence of the Senate from the executive authority

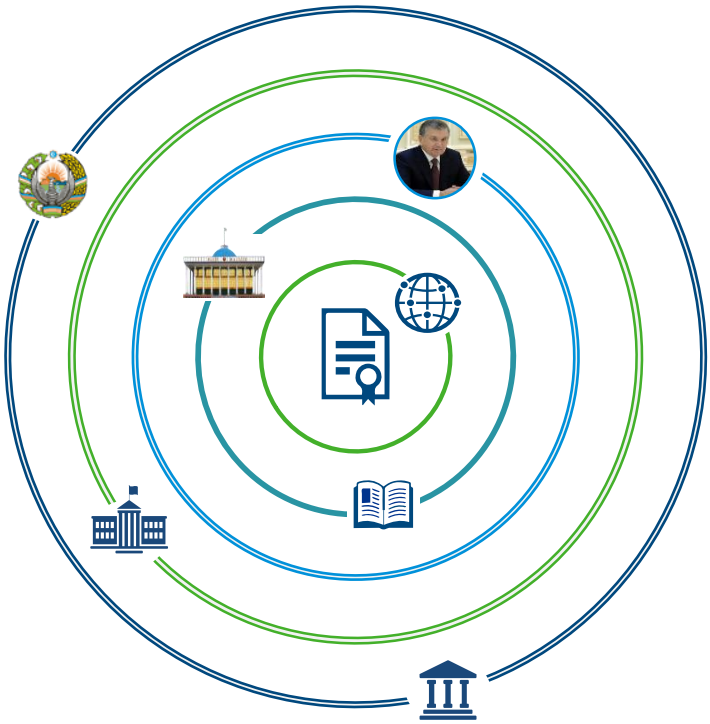
The existing mechanisms hinder the independence of the Representative Body of the Republic of Uzbekistan (Oliy Majlis) and the Representative Bodies of local authorities, and complicate the exercise of controlling and law-making functions

Sources: 1 - Clause 7.2 Of the Document of the Copenhagen Meeting of the Conference on the Human Dimension of the OSCE; 2 - Article 20 of the Law of the Republic of Uzbekistan "On Elections to the Oliy Majlis (Supreme Assembly)"; 3 - OSCE Observation Mission Final Report for Parliamentary Elections December 21, 2014; 4 - the Constitution of the Republic of Uzbekistan

Legislative authority

Current level of development

Hierarchy of the regulatory acts of the Republic of Uzbekistan



I legislative level

II legislative level

III legislative level

IV legislative level

V legislative level

Resolutions of the Cabinet of Ministers, acts of the Republican ministries and departments

Decrees of the President of the Republic of Uzbekistan

Constitution of the Republic of Uzbekistan

Decisions of local authorities

International contracts and treaties

Laws of the Republic of Uzbekistan

Laws and Orders of the Republic of Karakalpakstan

Codes of the Republic of Uzbekistan

There are a number of **problem areas regarding observance of the hierarchy**:

- Regulatory acts published by the executive authority often replace laws
- The bodies in charge of law enforcement are primarily guided by the Decrees of the President of the Republic of Uzbekistan and Decrees of the Cabinet of Ministers
- International agreements and treaties are not given priority

Sources: Constitution of the Republic of Uzbekistan; Law of the Republic of Uzbekistan "On Regulatory Acts"

Legislative authority

Current level of development

The existing system does not provide for the full-fledged application of international treaties, which complicates the international integration of the Republic of Uzbekistan

Uzbekistan participates in more than **4,000** international treaties

The Ministry of Foreign Affairs is the main governmental body that accumulates international treaties

The Ministry of Foreign Affairs does not maintain a public electronic database of international treaties available for other government bodies and the general public

The absence of a full-fledged electronic database of international treaties greatly complicates their application by the government bodies, parliamentarians, and courts

Provisions of international treaties are not fully reflected in the legislative base of Uzbekistan, which hinders their implementation

Sources: UNDP Project "Support to enhancement of law making, rulemaking, and regulatory impact assessment/Phase-2"

Legislative authority

Current level of development

To solve the problems, on August 8, 2018, the President of the Republic of Uzbekistan approved the Concept of the Improvement of Legislative Activity that generally conforms to the best global practices

	Elements of improvement in legislative activity	Implementation deadline
Legislative framework	• Reduction of regulatory acts, revision of inactive acts, elimination of unreasonable limitations and unnecessary administrative procedures	Details not provided
	• Implementation of effective mechanisms for adoption of "directly applicable" laws	**December 1, 2018**
Legislative activity	• Phased migration to the application of a "smart regulation" model, formation of Regulatory Sandbox legal regime	**by January 1, 2019**
	• Implementation of a system for compulsory assessment of the regulatory impact of draft regulatory acts, including cost-benefit analysis	**December 1, 2019**
	• Further improvement and detailing of the procedures for adoption and consideration of civil initiatives regarding the establishment, alternation, or abolishment of legal rules by the government bodies	**October 1, 2018**
	• Appointment of a single organization to coordinate the implementation and use of evidence-based policy instruments and "smart regulation" instruments	**August 1, 2019**

Comments

- The concept contains the main elements for improving the legislative framework and legislative process, which are in line with the practice of developed countries. Implementation of this concept is expected to produce a positive effect on the legislative activity and the legislative framework
- Some elements of the concept are set out in a declarative manner and require a detailed description of particular steps, time frames, and responsible persons

Sources: UNDP Project

Legislative authority

Current level of development

As a result of poor elaboration of the rules in the laws, detailing is provided at the level of by-laws, which reduces the quality of the legislation and leads to discrepancies and corruption

Primary legislation

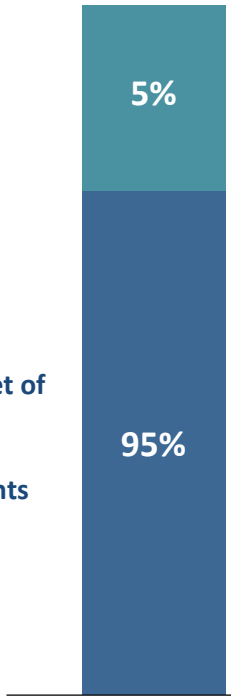
Laws and Codes of the Republic of Uzbekistan

Secondary (delegated) legislation

Decrees of the President

Resolutions of the Cabinet of Ministers, acts of the Republican ministries and departments

Decisions of local authorities



Poor detailing

- The legislative framework is of **moderate quality** (ambiguous interpretation, excessive regulation, complicated application, etc.)
- There is a **problem with discrepancies between the legislative acts**
- **Laws are often substituted** with by-laws
- Poor detailing also creates **conditions for the emergence of corruption**

Restrictions on free speech and independent media in Uzbekistan hinder public control of the activity of legislative bodies and enforcement of laws

No database of legislative acts in English

- The absence of legislative acts in English makes it difficult to attract foreign investors

No legal support

- The database lex.uz does not provide a full, interactive list of related documents, by-laws, or court resolutions so that users can fully understand issues of interest on their own

Not all legislative acts are included in the electronic database

- Incomplete digitalization of legislative acts complicates access thereto by the population, for example, many international treaties are not included in the electronic database of legislative acts

Undeveloped IT infrastructure hinders the population's access to electronic databases of laws

- Slow internet speed and its poor coverage hinder the improvement of legal literacy of the population and reduce the efficacy of laws. In 2018, Uzbekistan ranked 114 out of 193 countries according to the UN ICT Infrastructure Development Index

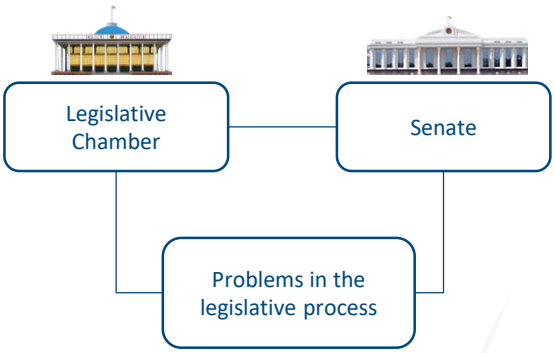
Sources: Law of the Republic of Uzbekistan "On Regulatory Acts"; 1 UNDP Project “Support to enhancement of law making, rulemaking, and regulatory impact assessment/Phase-2”

Legislative authority

Current level of development

Pressure points in the legislative process of the Republic of Uzbekistan

Legislative process in the Oliy Majlis



- There is no **special division** in the structure of the Oliy Majlis that conducts studies and consults parliamentarians
- Insufficient application of **evidence-based policy** instruments, including Regulatory Impact Analysis (**RIA)**
- Insufficient use of "smart regulation," for example, such principles as:
  - "One in one out"
  - "Regulatory guillotine"
  - "Sunset clause"
- **Problems with interaction of** chambers in the Oliy Majlis[1]

Areas of interaction

Interaction with the branch-specific bodies of executive authority

- Absence of the body that would coordinate the law-making process and application of evidence-based policy instruments
- Absence of an ICT platform for interdepartmental interaction

Discussions with the academic community

- Lack of involvement of the academic community
- Absence of platforms for discussion

Interaction with the population

- Lack of attention to comments from the general public (**53%** of comments on regulations.gov.uz remain unnoticed)[2]
- Poor development of IT infrastructure complicates people's access to the discussion of draft laws on online platforms

Record-keeping of provisions of international treaties

- Absence of a complete digital database of international treaties does not allow their reflection in draft laws

Note: 1 - based on interview results: draft laws are considered by the Senate for 4 months, while the Legislative Chamber usually considers a draft law within 1 month on average; 2 - UN Project "Support to enhancement of law making, rule making, and regulatory impact assessment / Phase-2"

Legislative authority

Current level of development

Parliamentary control in Uzbekistan is characterized by poor focus on filing queries and by its advisory nature

	Elements of the parliamentary control system (international experience)	Examples	Status in Uzbekistan[1]
Subjects	• **Both chambers of parliament, deputies** (senate members), **parties, factions**		**Conformity** to international practices
Subjects	• The **structure and powers of the committees** responsible for parliamentary control are established **by area**		**Only the Budget** and Economic Reforms Committee is statutorily prescribed, and control **instruments are not identified**
Forms of control	• **Hearing** mandatory government reports		**The duty of government representatives to deliver regular reports is prescribed**
Forms of control	• Filing **parliamentary queries, conducting parliamentary audits**, studies, etc.		The parliament is **not focused on filing parliamentary queries**[2], and there is no information on the number of queries
Forms of control	• **Vote of no confidence**		Deputies of the lower chamber **can express** a **vote of no confidence** in the Prime Minister
Responsibility	• Ability to initiate **legal proceedings**, existence of **administrative and criminal liability** for refusal to provide information		The law provides for the **advisory nature** of control directives; the executive authorities ignore the requests of the deputies and fractions

Comments

- Over the last two years, the Oliy Majlis sent only 6 parliamentary requests, which characterizes a **low level of parliamentary control**. For comparison, in more developed countries like France and the UK this indicator in 2015 was about 25,000 and 30,000, respectively
- There are also no established control procedures, the focus is on "hearings" instead of on audits and queries, and the directives are of an advisory nature
- Additional problems highlighted in the area of parliamentary control are:
  - The absence of sufficient administrative resources for parliamentary control (deputies do not have their own staff to assist them in drawing up queries, etc.)
  - The absence of coordination between parliamentary control at the republican and regional levels

Note: 1 - Law of the Republic of Uzbekistan "On Parliamentary Control," 2 - based on estimates of UN representatives
Sources: Constitution of the Republic of Uzbekistan; Law of the Republic of Uzbekistan "On Parliamentary Control," expert interviews

Legislative authority

Strategic options for balancing the executive and legislative branches of authority

1

Separation of powers with concentration of authority in the legislative branch

The greatest scope of powers is held by the parliament. The parliament forms the government and controls its work. The head of state is often elected by the parliament. Developed political culture; observance of rights and freedoms of citizens; open elections; the government of the state elects legitimate representatives of the people; high level of government transparency; *media* freedom.

Examples of countries:


Germany


Italy

+

- Low risk of long-term concentration of authority in one government
- Protection of rights and freedoms of citizens
- Strong control of the activities of the executive authority

–

- Possible instability of the political policy
- Possible frequent change of the government
- Complicated coordination, especially during crises

Model for a high degree of development of political culture in the country

2

Target development option

Balanced system with an independent parliament

The head of state is elected by the people. The head of state forms and controls the activities of the government. The parliament exercises parliamentary control of the executive authority, including budget control, has veto and impeachment power Observance of rights and freedoms of citizens; open elections; the government of the state elects legitimate representatives of the people; high level of government transparency; media freedom

Examples of countries:


billion


South Korea

+

- High speed of decision making and stability
- Control over the activities of the executive authority
- Separation of powers
- Protection of rights and freedoms of citizens

–

- Risk of long-term concentration of power in one government
- Possible opposition of the executive and legislative branches
- System's high dependence on the head of state

High level of external control of the executive authority's activities by the legislative branch

3

Highly centralized system

Absence of political pluralism; poor development of democratic culture; media restrictions; limitation on the freedom of elections; failure to comply with the principle of separation of powers; the government is not controlled by and not accountable to the people

Examples of countries:


China


North Korea

+

- Strong government capable of quick making and implementation of decisions
- Stability, order, and security

–

- Failure to observe rights and freedoms of citizens
- Lack of control over government activity
- High risk of authoritarianism
- High risk of corruption

Absence of a check-and-balance system, absence of external control over the executive authority's activities

Sources: data from open sources, analysis of the working group.

Legislative authority

Target vision 2035

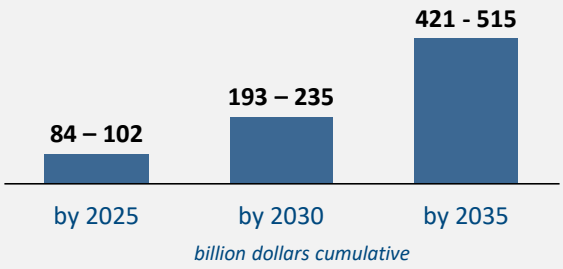
Increasing the independence of the legislative branch of the government, development of political culture in the Republic of Uzbekistan, optimization of the legislative framework, increasing the quality of the law-making process, further digitalization of the legislative framework, and facilitating access thereto by the population

- Development of the parliamentary control function through development of the practice of parliamentary queries and creation of publications by the parliament following monitoring and analysis
- Introduction of mandatory assessment of the regulatory impact of adopted acts
- Reduction in discrepancies between the legislative acts
- Digitalization of the law-making process
- Increased involvement of civil society in the law-making process (public hearings)

Figures

	2016/17/18	2035
Democracy Index (ranking)	158	Top 50
Global Indicators of Regulatory Governance (score)	3.0	5.0

Investment



billion dollars cumulative

Sources: analysis of the working group

Legislative authority

Key strategic initiatives

Sources: analysis of the working group

1.3

Judicial authority

Development of democratic institutions

Judicial authority

Current level of development

Key challenges

- Lack of understanding of the fundamental importance of an independent judicial system
- Lack of public and investor confidence in the ability to ensure a fair process
- Lack of understanding of the inevitability of punishment; the presence of corruption
- Lack of traditions and knowledge of ways to ensure a fair trial as well as openness and transparency of court decisions
- Lack of transparency in court rulings and the issue of openness and transparency of access to court rulings
- Deep-rooted (Soviet) tradition of the presence of law enforcement agencies performing the functions of the court
- Lack of appropriate material and technical base and professional personnel and judicial personnel education system
- Formal approach and inefficient activity of some institutions of the judicial system: People's assessors, Constitutional Court, etc.
- Weak legal ethics, which must be enshrined in the respective rules of law.

Key findings

- Courts are not independent of law enforcement agencies. Pressure on judges is often exerted not from the outside but from the inside, through justices of the court or higher judicial authorities
- Guarantee the independence of the Supreme Judicial Council, the system of selection and appointment of judges, as well as develop a system for training and advanced training for the professional judiciary and a unified examination of national justice.
- Judges may be disciplined for decisions that undermine the possibility of an independent decision
- Courts return acquittals quite rarely, and statistics may include acquittals that were later reversed.
- Judges are overloaded and cannot consider cases in a quality manner in the time allotted for one case. Due to judges excessive workload, there are gross legal errors and violations of human rights.
- In Uzbekistan, legal sciences are not developing at an adequate level, training of specialists is based on the old system of education, and the issue of the gap between theory and practice has not been resolved.
- Corruption and pressure on judges through corrupt methods are widespread.
- In practice, the judicial process is insufficiently accessible to the public, except for persons involved in the process, and there is no open database of court decisions on reviewed cases.
- The judicial system of Uzbekistan uses the developments of contemporary information technologies to an inadequate degree, while the use thereof would make it possible to significantly decrease paperwork, in a literal sense, and save time and other resources
- The principle of legal certainty is not sufficiently applied in judicial practice, and different decisions can be made for similar cases.
- Reform the institution of people's assessors, systematize the work of the Presidium and Plenum of the Supreme Court of the Republic of Uzbekistan, the Supreme Judicial Council, the Qualification Board of Judges, and other structures, excluding duplication of their functions.
- An increase in the influence and status of the institution of the Bar will ensure the competitiveness of the process, fair case handling, and the equality of parties.
- The Constitutional Court needs reforms that will transform it into an efficient and reputable institution for ensuring the constitutional rights and freedoms of citizens where ordinary people whose rights have been violated can turn, and whose main purpose is to make people respect the Constitution and protect it.

Judicial authority

Current level of development

The current level of development of judicial authority[1]

- To prevent the illegal intervention in the process of selection and appointment of judges and to create a transparent and competitive system, the High Council of Judges was established. The Council exercised substantive public control over the selection and appointment of candidates for judges
- Guided by the extended experience of developed countries, for the first time in the history of Uzbekistan, the practice of appointing judges was implemented. Due to that, guarantees of the independence of judges for protection of the rights of citizens were strengthened
- To improve the responsibility of tribunals to the public of the Republic of Uzbekistan, relevant public and local activists consult with recently appointed judges. Candidates for judges are appointed only subject to the positive opinion of citizens
- For the purpose of independent compliance with the principle of independence of judicial authority, financial and logistical support of judges, the Court Support Department was established at the Supreme Court of the Republic of Uzbekistan. The Department was entrusted with financial and logistical support of judges and employees of judicial bodies, provision of financial and technical assistance to the courts, establishment of the necessary conditions for the courts, and improvement of labor conditions
- Within the framework of the best practices of developed countries, subsequent perfection of the institution of Habeas Corpus strengthened oversight over investigation and preliminary investigation. Powers for the issue of permits for tapping and telephone tapping were transferred from the prosecutor's office to court to strengthen the protection of the constitutional rights of citizens
- A suit filed in the courts for economic, administrative, civil, and criminal cases represents online, regional, and centralized online monitoring, centralized reporting for applications (motions) and court cases in online mode; and for monitoring of all procedures and due dates, an online electronic database was launched
- From the moment each document is received in the court through the uniform electronic database until the moment it is archived, monitoring is performed without intervention in the content of a case. Adopted rulings are brought to attention of the parties, and the system of allocating timely performance to bailiffs was introduced. The ability to receive a daily online report was established
- For the purpose of the subsequent enhancement of confidence of citizens, an internal procedure of the Supreme Court ensuring the transparency of the court activity was developed. Pursuant to that arrangement, the Supreme Court may monitor online sessions on the internet. 12 courts in the Surkhandaryinskaya, Khorezmskaya, and Namanganskaya regions, which are the most remote areas at present, were connected to that system.
- Also, the systemic announcement of court rulings was introduced on the website of the Supreme Court of the Republic of Uzbekistan
- After the announcement of a court ruling that has taken effect, its interpretation for participants of the judicial process was introduced into judicial practice
- To provide information to the public and mass media about the courts' activity, chairpersons of regional courts and their heads arrange quarterly meetings in all regions

Sources: data of the Supreme Court of the Republic of Uzbekistan

Judicial authority

Current level of development

Chart/Diagram 1

86	Танзания	0.47
87	Ливан	0.47
88	Филиппины	0.47
89	Россия	0.47
90	Доминикана	0.47
91	Узбекистан	0.46
92	Мексика	0.45
93	Сьерра-Леоне	0.45

- Uzbekistan's rating in the Rule of Law Index – The World Justice Project: The Rule of Law Index 2017, 91st place. In 2018, the study covers 113 countries and jurisdictions. Kazakhstan is ranked 64th, and Kyrgyzstan, 82nd.
- The number of judges per capita in Uzbekistan is 1 per 23,810 people (2018), while in France it is 1 per 11,000, in the USA, 1 per 9,000, and in Germany, 1 per 4,000.
- The number of acquittals increased from 7 for the period of 2012–2016 (probability of acquittal was slightly above 0%) to 590 for 9 months of 2018.
- There is no access in Uzbekistan to court rulings that are being issued and the procedural schedule of cases. Since 2009, Kazakhstan has been publishing all types of court decisions on the internet. Such practice was established a long time ago in neighboring Russia and Kyrgyzstan.
- There are no legal ethics in Uzbekistan. Legal ethics must be enshrined in the respective rules of law

Strategic options

1

Ensure the independence of the judicial authority

The independence of the judicial authority from any nonprocedural influence, both from the inside and outside, must be ensured. Judges must be free and independent in making their decisions and must be governed only by the law. Courts must be the body determining one's guilt. It is necessary to adopt a separate law on the status of judges with the unified rules, which would not be a part of the law governing the court system. A separate law must govern the selection of and requirements for candidates for the position of judge, bringing judges to liability; it must define a disciplinary offense, sanctions, and other issues to avoid the use of different interpretations as the instrument of pressure on judges.

The judicial system shall be based on the principle of accessibility for the petitions of ordinary citizens. The work of the Constitutional Court needs to be reformed and transformed into an authority of the sanctity of constitutional human and civil rights and freedoms to which anybody who feels their rights have been violated can turn.

Examples of countries:
UK, Germany

- Judicial bodies as reputable and efficient institutions of society
- Citizens' trust and social stability
- Investment attractiveness
- Higher positions in various world rankings
- The Constitution as a guarantor of rights and freedoms of a human being and citizen

- Significant review of the role of the court is required
- A long-term reform process is required
- Investors will not immediately see changes

Such measures will allow the courts to become a truly independent institution, which could be an example of successful judicial reform

Judicial authority

Strategic options

2

A higher quality of the system of education, selection, lifetime employment, and immunity to being replaced provides high authority and independence of judges

Reforming the system for training legal personnel in the country, the development of legal sciences, and close cooperation and partnership of educational institutions with production will help provide the judicial system with qualified and highly motivated legal personnel.

The system of training and selecting judges through a transparent fair process will lead to appointment of judges who are competent lawyers with high morals and the ability to independently make decisions based on facts and the law.

It is necessary to review the procedure for judges to hold life-long offices: life-long appointment must have only an initial probationary period. Irremovability is also an important criterion ensuring the independence of judges.

Examples of countries:

Poland, USA, Federative Republic of Germany, UK, Japan

+

- The judicial system will receive highly professional personnel with high moral standards and legal ethics
- The judicial system and judges enjoy high standing and trust in society
- Independence of the court is ensured; the law is protected by the court

–

- Review of the training system is required
- The criteria and, in general, the system for selection of candidates for judges shall be revised
- Additional resources are required, including temporary ones

Guarantees for judges will make it possible to form a judicial authority capable of ensuring the rule of law, human rights, and high confidence of the population and investors in Uzbekistan's judicial system

Chart/Diagram 2

According to the official data for 2017, the Supreme Judicial Council evaluated the activities of 667 judges, 500 of which were recognized as "conforming to the position of judge," and 390 were appointed to the position.

Strategic options

3

Reduce the workload of judges, increase court costs proportionally, and successfully use alternative means of dispute settlement and arbitration

To further improve the work of the courts, it is obviously necessary to increase the number of judges as well. Today, the population of Uzbekistan is approaching 33 million people, and the current number of judges are not able to consider the increasing number of cases. Consequently, the increase in the number of judges will decrease the burden on the courts, which will become the foundation for making well-considered and fair judgments. The limits of judges' workload must be elaborated.

In Uzbekistan, court costs are often meant to compensate for court expenses for the consideration of a case, not the expenses of the party in whose favor a decision is made. In such developed countries as Japan, the UK, and the USA (depending on the US state), the amount of court costs is high, which compels the parties to reconcile or settle disputes in an alternative way. In Uzbekistan, when measuring court costs, it is also necessary to take into the account actual expenses and the complexity of the case, establish the minimum cost of the lawsuit, etc.

In 2007, the Law on Arbitration Courts was adopted in Uzbekistan, and in 2018, the Law on Mediation. An increase in the number of economic and civil cases considered by the arbitration courts will also alleviate the workload of the state courts. For a number of reasons, arbitration courts cannot resolve all cases in practice; therefore, the adoption of the Law on Arbitration under the UNCITRAL Model Law and combining matters of arbitration proceedings and international arbitration in that law is required

It is necessary to increase the categories of cases for which the legislation would provide for compliance with mandatory pretrial procedure and the successful use of alternative methods of dispute settlement and arbitration as well as development of a local school for professional mediators. In connection with this, it is worth considering the issue of the ratification of the Singapore Convention by Uzbekistan.

Reforming and perfecting the activity of the institution of people's assessors will facilitate the formation of efficient collegial consideration of cases and improvement of the reputation and confidence of the society in the judicial system.

Examples of countries: Japan, USA, Singapore, UK, Germany, Italy

- An increase in the number of judges and development of alternative methods of dispute resolution will promote the improvement of the quality of judgments issued
- The number of pretrial settlements of disputes between parties will increase in judicial practice
- Human rights in Uzbekistan are firmly protected by the court

- Additional resources are required, including temporary ones
- Increased court costs fall on the shoulders of ordinary citizens
- Acute shortage of highly qualified specialists

Uniform workload distribution on judges will ensure justice, comprehensive review of cases, and fair decisions based on the letter of the law and the duty and honor of a judge

Judicial authority

Strategic options

4

A fair judicial process and a fair judgment are a standard in Uzbekistan; broad implementation of contemporary IT solutions in the judicial system will make it possible to increase transparency and decrease corruption risks and the cost of resources, which will result in high confidence of investors and citizens

Uzbekistan has a unique historical opportunity to ensure the creation of a judicial process that meets all international standards, both in terms of the organization, progress of the process and its results. Assigning the right for courts to issue an order for a search and wiretap of phone conversations of suspects, humanizing criminal justice.

Providing open access to the adopted judicial decisions and implementing an electronic service for the population: submission of electronic documents to courts, tracing the status of pending cases, etc. will significantly decrease paperwork, ensure accessibility and transparency, and will serve as a method of prevention of corruption risks.

Development and implementation of advanced IT solutions in the judicial system (including development of artificial intelligence for translation of the legislative base, judgments issued, etc. from the Uzbek language to other languages) will promote understanding of the legislation by potential investors and attractiveness of the country as a reliable and open partner.

Examples of countries: Not only the countries based on the Anglo-Saxon legal system but also those based on the continental legal system, such as France, Germany, or Spain, regularly bring court decisions to the public's attention.

- Status and credibility of the court will significantly improve
- Rights of citizens are fully protected
- Investment climate is significantly improved
- Public supervision over the courts is ensured
- Judges strive to be highly qualified
- Saving of resources, including temporary resources

- Additional resources are required
- Critical analysis of various problems in the process is required
- Highly qualified personnel is required

Uzbekistan is becoming a country that has successfully conducted an efficient judicial reform having a fair judicial process and an accessible and clear judicial system with a low level of corruption risks

Judicial authority

Target vision 2035

Uzbekistan has an independent judiciary that ensures the rule of law, protects human rights, and enjoys an impeccable reputation of citizens and investors

- Enter the Top 10 countries in various international ratings related to the rule of law (Rule of Law Index, etc.)
- The entrance of Uzbekistan and Tashkent International Arbitration Center (TIAC) to the list of arbitration centers and jurisdictions successfully practicing arbitration
- Enter the Top 10 countries in anticorruption ratings, including in the justice system
- Receive positive feedback from various independent experts, including UN bodies
- Presence of lawsuits in Uzbekistan's courts between large corporations, which thereby confirm the credibility of Uzbekistan's judicial system as a fair arbitrator
- Use of the norms of international law, both public and private, by the courts of Uzbekistan
- Judges and other lawyers in Uzbekistan take an active part in international courts, tribunals, and UN bodies along with lawyers from other countries
- 1 judge per 5,000 people

Figures

2020	2030	2035
20,000	12,000	5,000

1 judge per number of people

Road map

Court formation — 2025

- Acceptance and implementation of a road map for reform of the judiciary as an institution ensuring institutional independence
- Final acquittals reach the level of 20%–30%
- Accession to all procedures that allow the submission of individual communications within the UN
- Reform of legal education to provide Uzbekistan with highly qualified, world-class lawyers dedicated to their profession

Rule of law — 2030

- Achievement of complete eradication of the gap between law and practice
- Adoption of a mechanism that would allow direct application and interpretation of the rules of international treaties by Uzbekistan's judges
- Achievement of the full functioning of the Constitutional Court in Uzbekistan, which is an active participant in the formation of Uzbekistan's legal landscape

International level — 2035

- Uzbekistan's judicial system reaches the level of the best example in Eurasia at the level of Western countries, including the United Kingdom, Switzerland, and the Netherlands
- Achievement of participation of Uzbekistan's judges and other lawyers in various international tribunals, courts, and arbitration courts based on competence, high ethical standards, and earned reputation
- International law is an integral part of Uzbekistan's legal system and is directly applicable to judges in resolving all types of cases

personnel · finance · technologies · legislation and state regulation · infrastructure

2. Economic development

Development Strategy Framework of
the Republic of Uzbekistan until 2035

BUYUK KELAJAK

2.1

Agriculture

Economic development

Agriculture

Current level of development

Key challenges

- Change in climate conditions
- Problem of food security (1.9 million undernourished people in 2016)
- Lack of water resources against the backdrop of a growing population and wasteful use of water
- Lack of cultivated lands, pastures, fodder due to high salinity and soil erosion
- Low agricultural productivity (USD 2,247 per agricultural worker)
- Losses during storage and transportation of vegetables and fruits
- High regulatory barriers for the development of entrepreneurship in agriculture
- Lack of credit resources
- Poor development of staff training centers

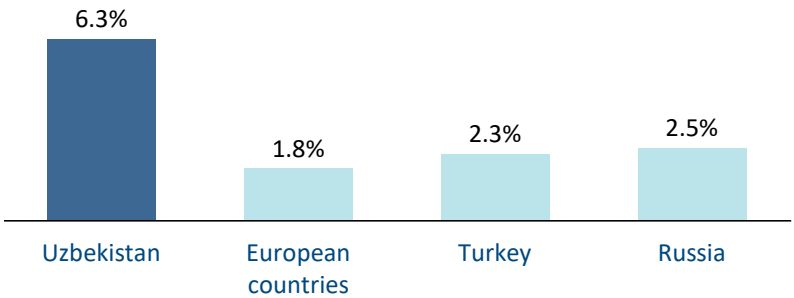
Key findings

- Uzbekistan **ranks 78th** in the Food Security Index 2017**.** The index calculates the accessibility and quality of food resources in terms of affordability and availability of healthy food in 113 countries
- Uzbekistan holds **leading positions** in the production of many crops: cotton, apricots, cherries, sultana grapes
- At the present time, cultivated lands are being released from **cotton in favor of fruits and vegetables**
- **The yield of croplands** used to grow various fruits and vegetables **lags behind the indicators of developed countries**
- At the present time, all **lands are 100% owned by the state, and** farmers **lease them**
- Infrastructure problems also exist – exhaustion of the working capacity of the **irrigation system**[1]
- **The drying of the Aral Sea** and a rise in the level of subsoil waters, increasing the salinity of river water, and irrational use of water contribute to subsequent salinization of soil and harvest failure due to salt storms
- Presence **of a large amount of eroded soil** due to the use of **toxic defoliants** in the past

Food security

Prevalence of malnutrition

% of population, 2016[2]

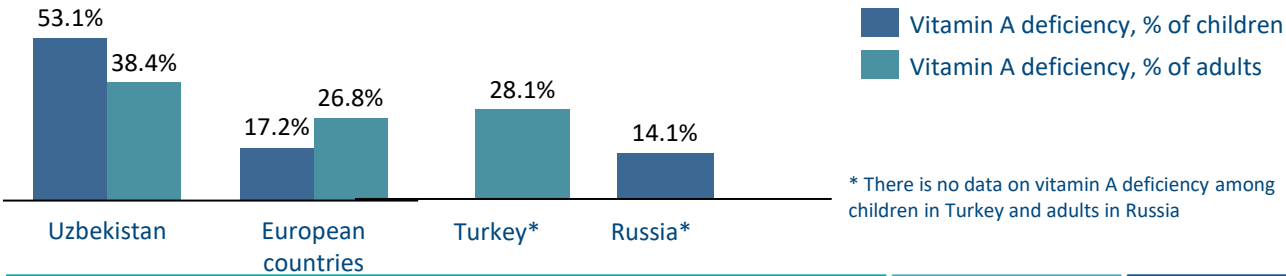


Comments

- The prevalence of malnutrition in Uzbekistan is 2–3 times higher than in Western countries, Turkey, and Russia, and includes 1.9 million people
- The deficiency of certain micronutrients is also greater than in other countries
- Anemia rate among women reaches 100% in Karakalpakstan

Deficiency in individual micronutrients

% of population, 2016[2]



* There is no data on vitamin A deficiency among children in Turkey and adults in Russia

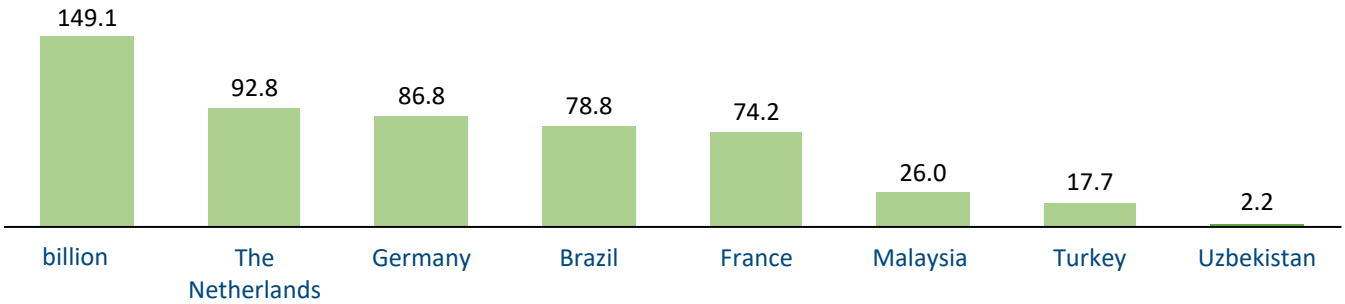
Sources. 1 - State Inspectorate for Control and Supervision of Water Management Facilities; 2 - Report of the Food and Agricultural Organization of the United Nations (FAO) – State of Food Security and Nutrition in Europe and Central Asia, analysis of the working group

Agriculture

Current level of agricultural development

Export of agricultural and food products

2017, USD billion billion

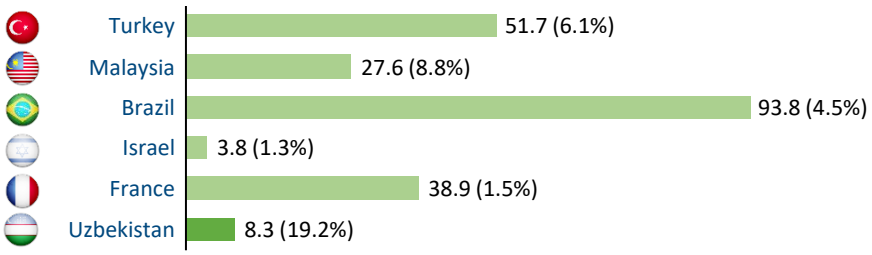


To conduct a comparative analysis of employment indicators, contribution to the economy and agricultural productivity, the leading countries in the production of agricultural products, export-oriented and possessing high-tech agriculture were selected

Uzbekistan exports fruits and vegetables, eggs, and lamb and goat meat. There is huge potential for agricultural crops, legumes, and seed crops (flax, sunflower, cotton)[1]

Contribution of the agriculture sector to the economy

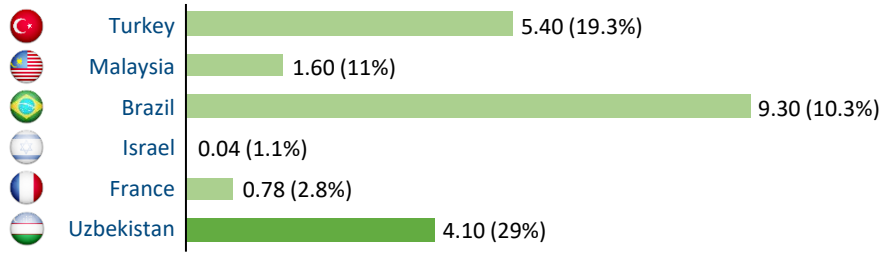
2017, USD billion (share of GDP, %)



- The share of agriculture in the Republic of Uzbekistan is currently higher than in other countries, which characterizes Uzbekistan's economy as emerging (1.3–1.5%)

Employment in agriculture

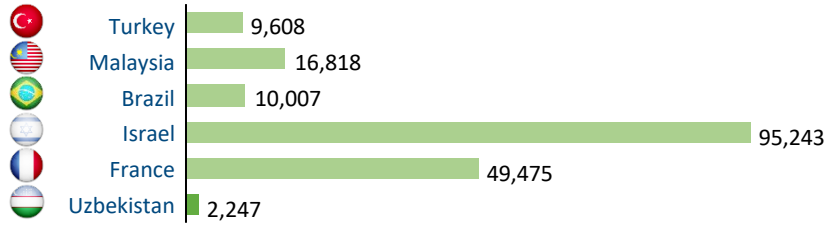
2017, million people (share of employed persons, %)



- The high level of employment in agriculture indicates a low level of integration of technological solutions in the agricultural sector

Agricultural productivity

2017, USD/employed person



- Uzbekistan lags behind developed countries severalfold by the productivity of its agricultural industry

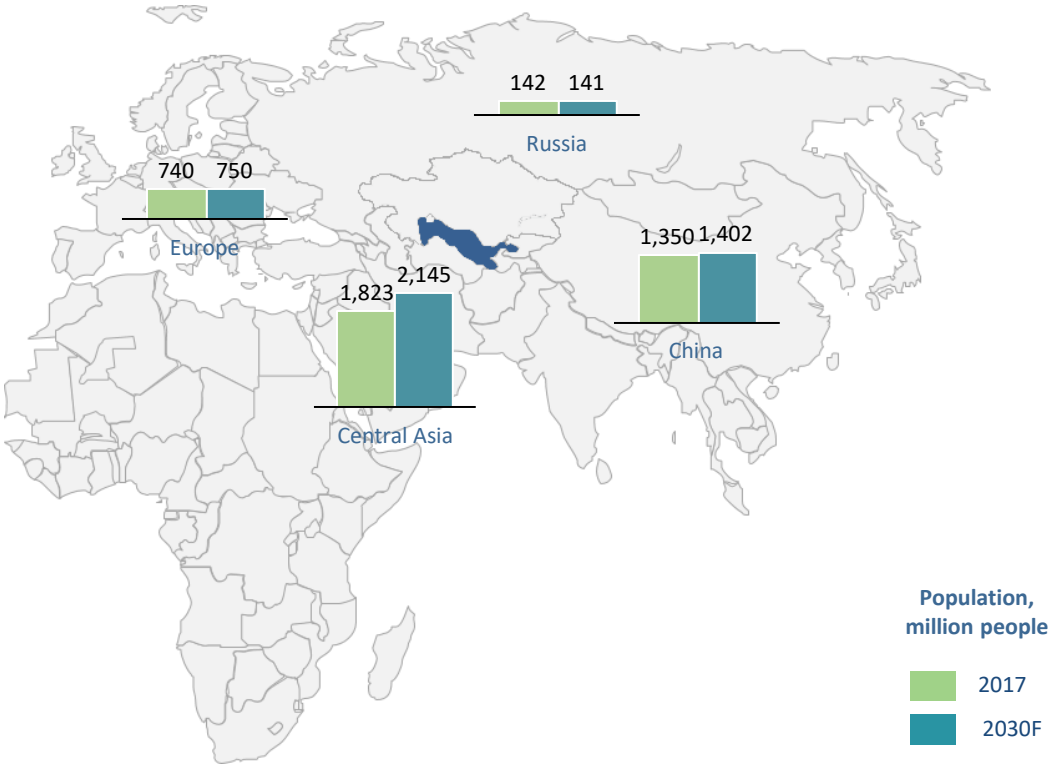
Sources: 1 - Information provided by BYUYK KELAJAK, World Atlas, Export.gov, World Bank, State Statistics Committee of the Republic of Uzbekistan, analysis of the working group

Agriculture

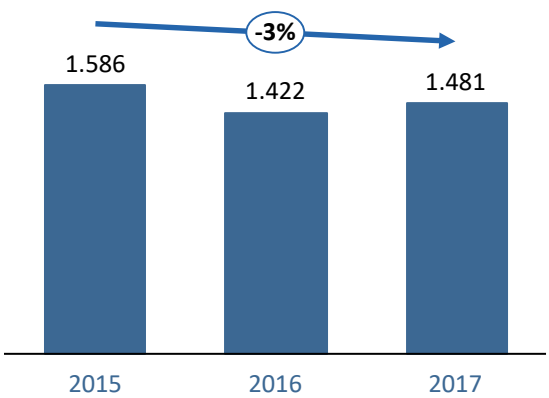
Current level of agricultural product export

If the current model of land and water resource management is maintained, food shortages will increase, land quality will deteriorate, and water reserves will decrease

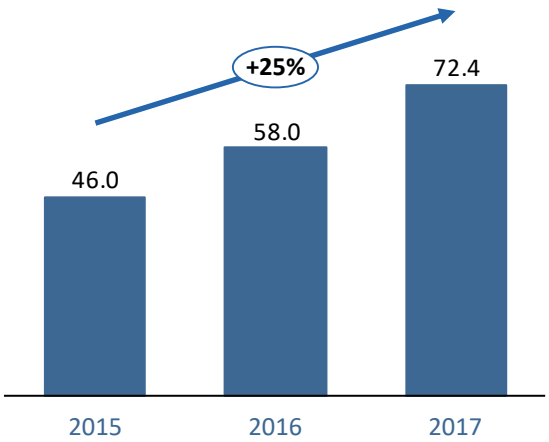
Uzbekistan borders strategically attractive markets for trade in agricultural products



Export volume of raw agricultural products,
billion dollars billion



Export volume of finished products from the food industry,
billion dollars billion



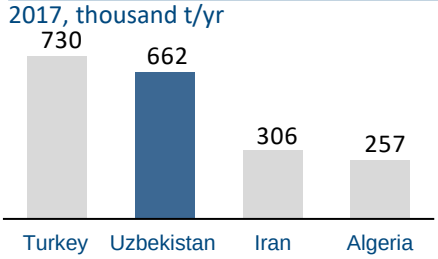
Source: Trade Map, 2017, analysis of the working group

Agriculture

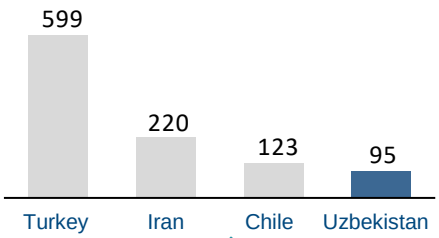
Current level of Uzbekistan's export potential

Agricultural crop growing volumes[1]

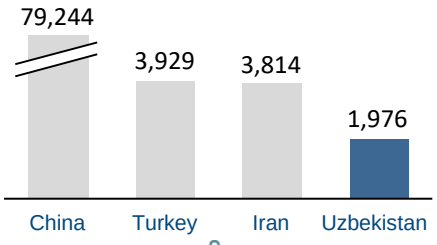
2017, thousand t/yr



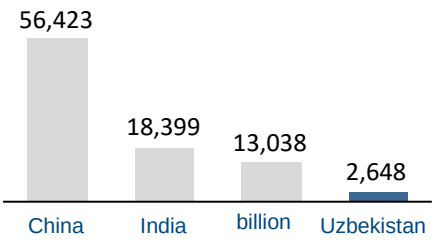
Apricots
(**2nd in the world**)



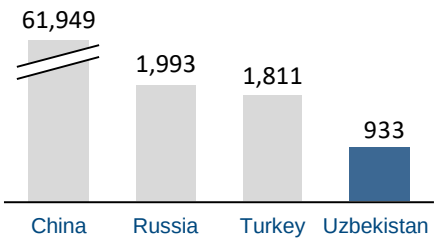
Cherry
(**4th in the world**)



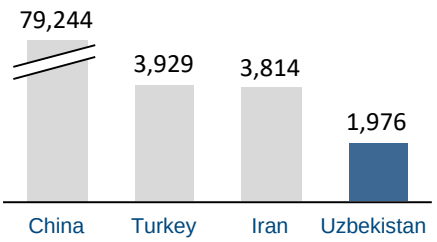
Watermelons
(**4th in the world**)



Tomatoes
(**12th in the world**)



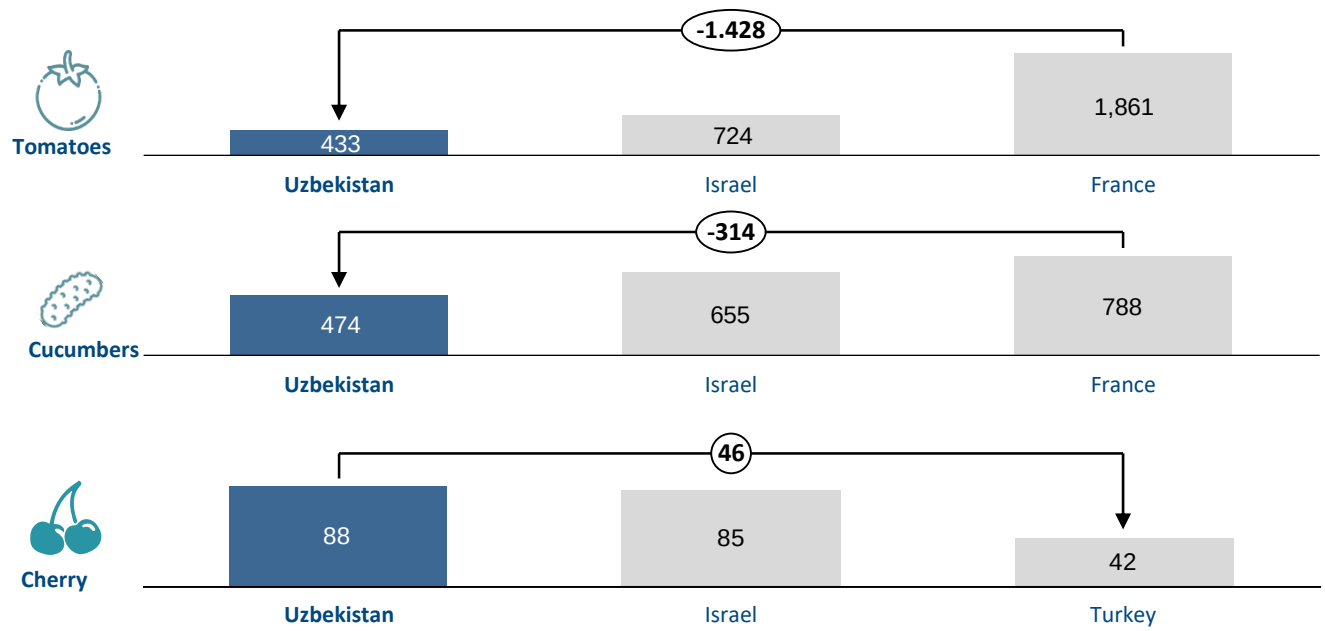
Cucumbers
(**6th in the world**)



Grapes
(**13th in the world**)

Crop yield (examples of agricultural crops)[1]

2017, hundred kilograms per hectare



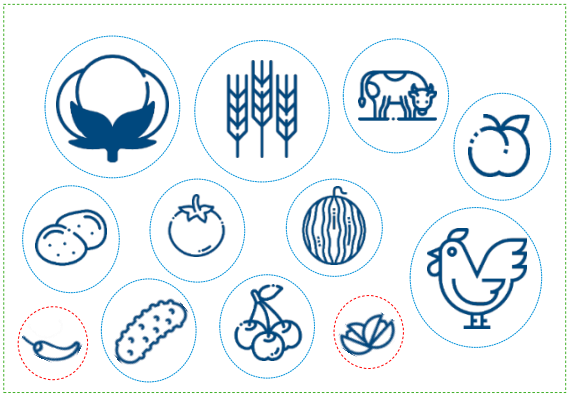
Sources: 1 - UN Food and Agriculture Organization (FAO); 2 - State Committee of the Republic of Uzbekistan for Land Resources, Geodesy, Cartography, and State Cadastre

Agriculture

Structural changes in the use of cultivated land

Structure of cultivated land use, 2018

Target structure of cultivated land use, 2035



Comments

- Elimination of cotton crops (60,000 ha) and grain crops (42,000 ha) on low-yield lands allows the average crop yield to increase considerably
- Increase in production of white meat will increase the profitability of the sector (production of 1 kg of white meat requires 5 times less feed)

Chili peppers

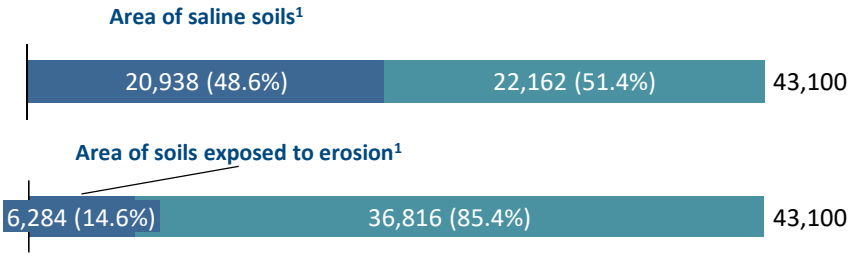
- **15 thousand ha** of production areas will be allocated in the Republic of Karakalpakstan (Uzbekistan) for **growing chili peppers.** This order was given by President of Uzbekistan Shavkat Mirziyoyev during a trip to the Republic of Karakalpakstan
- Chili peppers are planned to be grown from varieties of **Indonesian hot peppers**, which were recently studied during the Uzbek delegation's trip to Indonesia.
- **68.3 million tons of chili peppers** are produced worldwide today. The ripening period of chili peppers is **60–80 days**, and the yield of industrial cultivation is **40 t/ha**

Pistachios

- **Growing crops like pistachios** on piedmont drylands is **50 times** more profitable than wheat production on these lands; **grazing during the period is only 4.5% of the benefits** received from growing pistachios for the entire period

- Pistachios and chili peppers are not the only crops suitable to be grown in Uzbekistan, but are given only as examples. The research will allow determining the optimal approach to the crops being the most efficient in the conditions of the country
- It is also possible to extend production of traditional (local sorts of pomegranates, figs, apples, peaches, melons, pears, radishes, and others) and new crops, such as olives (olive plantations in Southern Europe are dying from a fungal infection that appeared due to the changing climate)

Area of irrigated lands exposed to salinization and erosion, km^2



- In Karakalpakstan, the soil salinization ratio is **90%**, in the Khorezm region, **65%**, in the Bukhara region, **75–80%**
- **Desertification and man-made pollution** pose a significant risk

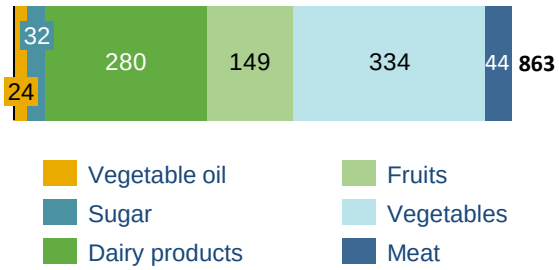
Sources: 1 - State Committee of the Republic of Uzbekistan for Land Resources, Geodesy, Cartography, and State Cadastre, State Statistics Committee of the Republic of Uzbekistan, Uzdaily.uz, analysis of the working group

Agriculture

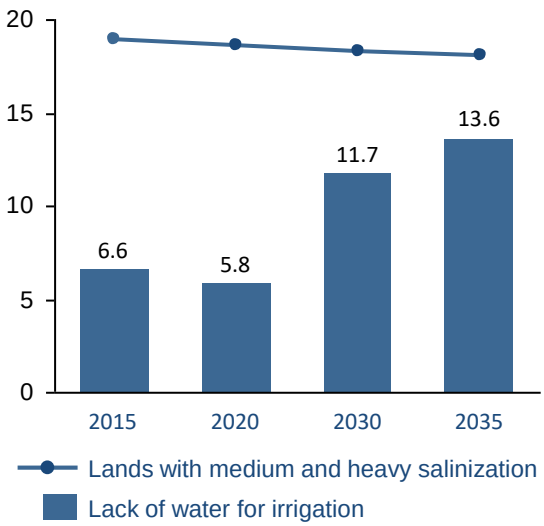
Current model of land and water resource management

If the current model of land and water resource management is maintained, food shortages will increase, land quality will deteriorate, and water reserves will decrease

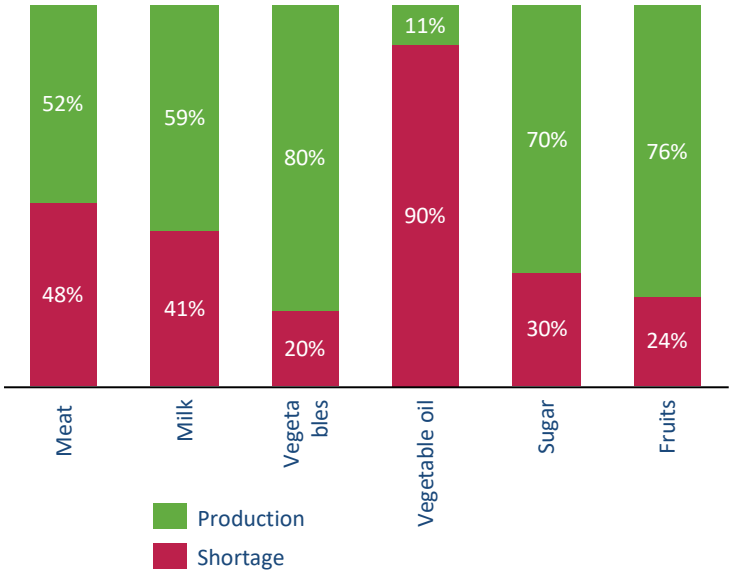
Food product consumption[1],
kg per capita per year, 2016



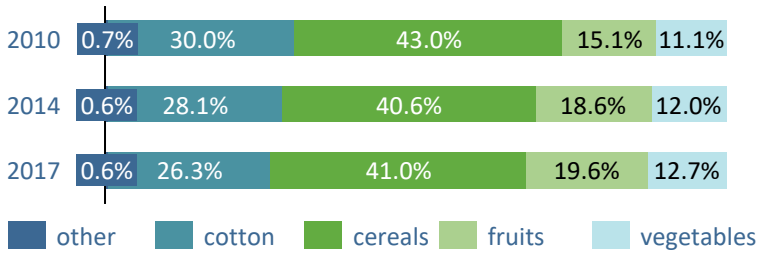
Soil salinization and water shortage, %



Consumption in 2035



Distribution of lands by product type, ha



Comments

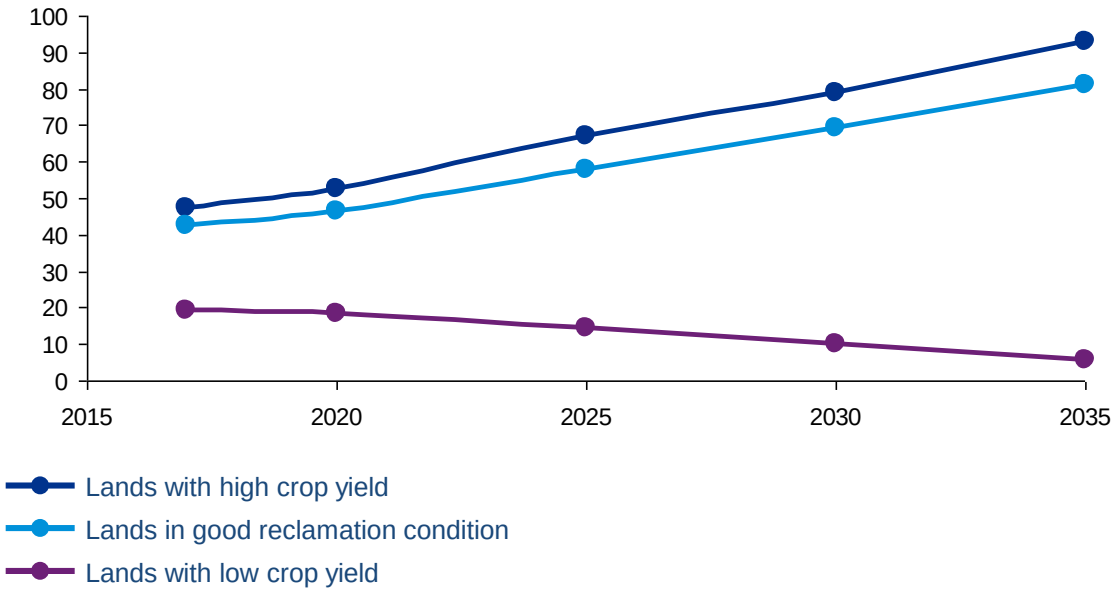
- Uzbekistan produces enough **fruits, vegetables, and meat** to satisfy the current domestic demand for these products
- However, **there is already a need** to import dairy products, sugar, and vegetable oil
- By 2035, a shortage is very likely to occur in **other types of food** products due to the following factors:
  - **Population** growth **and change in the age structure** in favor of an adult population
  - Increased income = **increased demand**
- An increased food shortage will be associated with:
  - **scarcity** of land and water resources
  - predicted climate change, as a result of which irrigation rates will increase by 5–10% by 2030

Source: 1 - State Statistics Committee of the Republic of Uzbekistan, Report under the UN Development Program Uzbekistan 2030, analysis of the working group

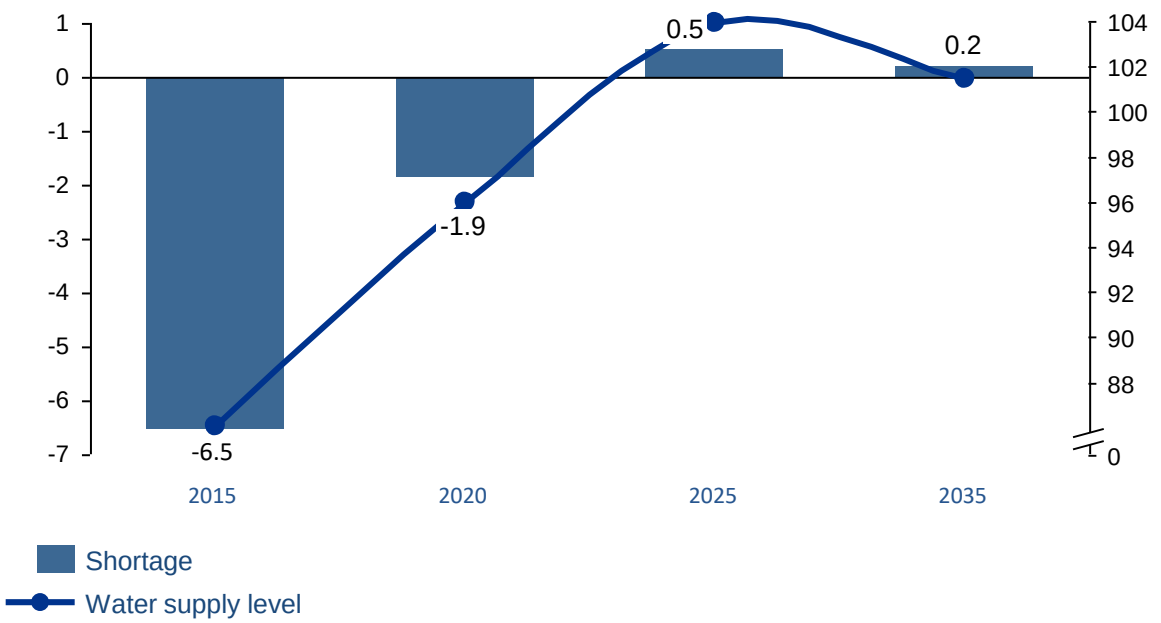
Support for the maintenance of irrigation and drainage infrastructure

Expansion of water-saving irrigation methods and support for maintenance of the irrigation and drainage infrastructure will increase the quality of lands and cover water shortages

Increase in the quality of land, %



Elimination of water resource shortages, %



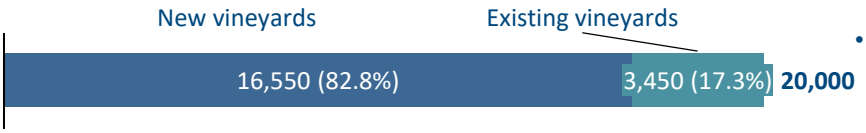
Source: State Statistics Committee of the Republic of Uzbekistan, Report under the UN Development Program Uzbekistan 2030, analysis of the working group

Agriculture

Vision of the development of winemaking and viticulture

- **On February 28, 2018, the Resolution of the President of the Republic of Uzbekistan Shavkat Mirziyoyev "On Measures to Fundamentally Improve the Wine Industry and the Sale of Alcoholic Beverages" was issued**
- One of the most important points was the point about the abolition of licensing winemaking activities: *"From January 1, 2019, licensing of activities for the production of natural grape wines developed from the raw materials of their own grape plantations, with the classification of such wines in the category of agricultural products, is canceled"*
- Another item of the resolution – introducing regulatory barriers to entry into the industry – will also be important to potential investors: *"From January 1, 2019, the activities for the production of natural wines, wine materials and brandy spirits, as well as the processing of grapes can be carried out by enterprises with plantations of at least 100 ha for the cultivation of fruit-bearing technical varieties (…)"*

New and existing vineyards ha



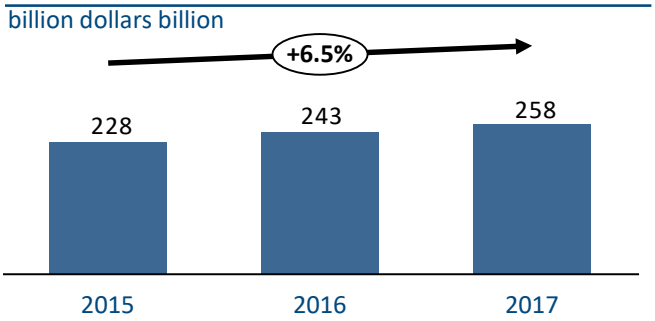
Comments

- By 2023, the vineyard area will increase more th**an five fold**

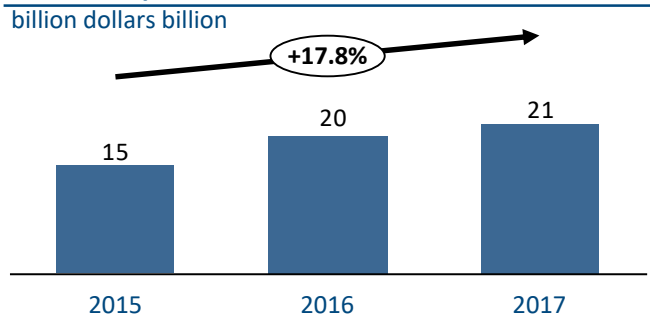
Use of production capacities of enterprises processing grapes

- At the present time, the available production capacities are not used in full, and production may potentially increase by more **than two fold**

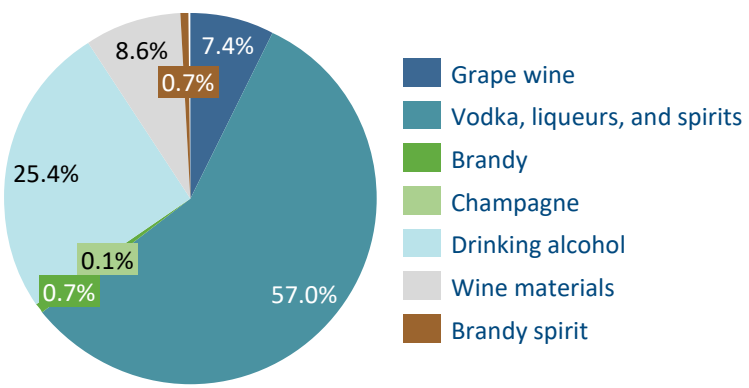
Production volume



Product export



Production of alcohol products by type



- **Over half of** all alcohol products produced in Uzbekistan are vodka, liqueurs, and spirits
- **Wine production** accounts for only 7.4% of the total production

Sources: Uzsharobsanoat JSC, analysis of the working group

Agriculture

Use of technology in agriculture

False flax (Camelina) is a traditional product of GAV

False flax is a dual-purpose product:

- For production of aviation biofuel and biodiesel
- For **feeding cattle**

Export potential:
USD 90 million+ per year

Cultivation costs:
30%+ of cotton

Lactoferrin is a source of simple income from any dairy production

Lactoferrin is a **protein found in blood plasma**. Lactoferrin is produced in the mammary glands of humans and other mammals[1]

Main market**: China, Japan, South Korea**

Export potential:
USD 200 million+ per year

Price for 1 kg:
USD 800 to USD 5,000 per kg

Market growth:
39% per year

Technology for membrane storage of products

Implementation of the **membrane method for storing** fresh plants in a modified gas medium will allow **for long-term** storage of vegetables and fruits

This technology is used in new types of containers inside which a **controlled gas medium** is created during sealing

Shelf life:


apples — up to 330 days


cherry — up to 25 days


plums — up to 50 days

Sources: 1 - National Library of Medicine (USA), analysis of the working group

Agriculture

Accelerated development of horticulture in the Republic of Uzbekistan through a cluster system

- **On March 29, 2018, the Decree of the President of the Republic of Uzbekistan Shavkat Mirziyoyev "On Additional Measures for the Accelerated Development of Horticulture in the Republic of Uzbekistan" was issued**
- One of the points of this decree concerns the creation of horticulture clusters: "*To ensure in 2018 the creation **in each region of 1–2 horticulture clusters** and involvement from 2019 in a cluster form of organizing agricultural production of all regions specialized in the cultivation of fruits and vegetables; **provide horticulture clusters with the right to independently decide on the placement of crops**, determine the volume of cultivation of products, their species, and varieties, application of agrotechnological methods taking into account soil and climatic conditions, focus on demand in the domestic and foreign markets, as well as conclusion of contracts with farmers and dehkan farms for the harvesting of their agricultural products*"
- According to the best international practices, the introduction of horticulture clusters will have a positive impact on the development of agriculture

The context and activity of the Cluster Association of the Midi-Pyrenees Region (France) illustrates the important role clusters play in stimulating innovations in the agroindustrial complex

Agrofood sector is the **foundation** of the economy in Aquitaine and the Midi-Pyrenees

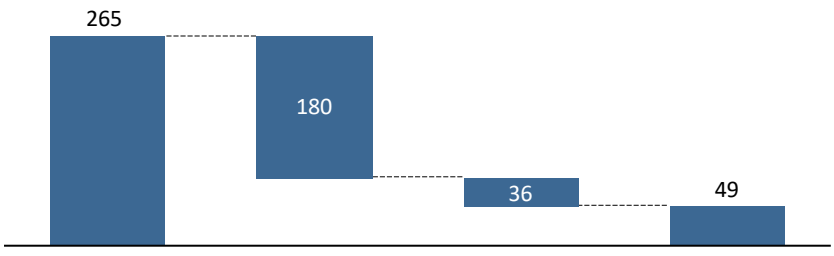
Employment in the cluster is over **210,000** people

Financial turnover in the cluster is over **EUR 12 billion**

Access to **20 million consumers** within a 300 km radius of Toulouse

France

Project participants in the cluster association



- **Mobilize** regional resources for investment in the cluster: attract financial and institutional support for the regional authority, optimize the use of financial instruments, and attract federal funding
- **Support innovation clubs** by individual areas:
  - Adaptation of crops to climate change
  - Development of agricultural machinery
  - Improvement in health safety and quality improvement
  - Innovative products
  - Improvement in production systems
  - Creation of new market proposals
  - Interaction with the environment
- **Form alliances** with cluster associations of other regions

- **Goals**
- Increase the added value of the cluster's products
- Gain leadership among the regions due to competitive AIC
- Increase the region's attractiveness
- Create new jobs

554.9
EUR million for implementation of 238 projects

595
engaged enterprises

23
projects within the framework of target programs

Sources: Official website of AGRIMIP, official website of the Agency for the Management of Cluster Associations, http://competitivite.gouv.fr, analysis of the working group

International experience

Introduction of geographic indicators in Australia and Argentina increased added value and exports of agricultural and food industry products

The "Made in Australia" mark indicates Australia as an exporter of agricultural products

Australia

Goal:

To create a positive image of Australia as an agricultural product exporter:

1. All of the most important product ingredients were produced in Australia
2. The process of finished product manufacture also took place in Australia

Indicators:

- Over **10,000 products** are labeled with the "Made in Australia" logo
- **98%** of consumers recognize this logo
- Over **1,800 companies** use the logo on their products

The "Brand of the Country" program played an important role in creating Argentina's positive image as an agricultural product exporter

Argentina

Implementation mechanisms:

- "Brand of the Country" program
- "Argentina Food Products" trademark
- "Wines of Argentina" brand promotion

Activities:

Creation of Argentina Top Wines, an organization uniting more than ten wine cellars focused on exporting wine

Current results:

At the present time, the Wines of Argentina brand is represented in 36 countries and more than 70 cities worldwide

Target by 2020:

- **USD 2 billion**, revenue from the sale of Argentine wines
- **10%**, global export of wines

Sources: official websites of Australian Made and Wines of Argentina, analysis of the working group

Agriculture

International experience

The production volume in India's agricultural sector increased by teaching farmers the best international practices

BASF training program contributed to the development of agriculture in India

India

Before 2005, the average yield of soybean fields in India amounted to 0.9 t/ha, which accounted for only **37.5% of the average global indicators** (the average global indicator was 2.37 t/ha). The causes of **low crop yield** in India were:

- Wrong choice of fertilizers
- Underuse of plant protection agents
- Overall lack of knowledge in farming

The **idea** is to unite the efforts of BASF agronomists and farmers to achieve higher figures of return on business:

- Over 2,000 group lessons and 950 onsite seminars. Each of 280 engaged agronomists trained 150 to 225 farmers
- Teaching farmers how to farm was expected to increase the demand for fertilizers, one of BASF's key products in 2011[2]. Distribution of fertilizers was provided via the existing system of suppliers that farmers were familiar with

Support and education of farmers allowed BASF to triple sales in India in 5 years

Indicators after introduction of the training program:

Soybean crop yield grew by **31%**

A call center was set up because of too high demand

Income grew by **24%**

3

Sales by the company that organized training tripled

- Intensification in agriculture creates a demand for mineral fertilizers
- Development of agriculture with the highest result requires informed decisions based on farming knowledge
- Teaching farmers the best practices in the agricultural industry amid poor agriculture intensity is beneficial both for the farmers and for large companies producing fertilizers or agricultural machinery

Sources: BASF reports, analysis of the working group

Agriculture

Strategic options

1

Government associations

80–100% of land is owned by the state. Land plots are leased on a competitive basis

State monopoly associations have great influence; there are quotas for growing agricultural crops and for water

Examples of countries:


Uzbekistan


Israel


China

+

- Solving the problem of food security at the government level
- High level of development of staff training centers

–

- Absence of market conditions reduces competition between farmers
- Enterprises subsidized by the state cannot be competitive in global markets

The state plays the key role in development of agriculture

2

Target development option

Medium-sized farms

40–60% of land is owned by the state. Land plots are leased on a competitive basis or are granted in ownership to farmers

Emphasis is placed on the development of medium farms through PPP, and regional agricultural clusters are created

Examples of countries:


France


Croatia


Austria

+

- Ability to increase product output due to the effect of scale
- Full-cycle production inside the clusters gives a synergistic effect

–

- Focus on increasing quantity, not on improving quality of products
- Lack of flexibility in the choice of products, focus on marginal products

Large and medium farms operating in the cluster system become the driver of agriculture development

3

Small households

90–100% of land is privately owned. Land plots are granted in ownership to farmers.

Emphasis is placed on development of small farms, and agriculture has the following structure: farmers – traders

– brokers

Examples of countries:


Germany


Ireland


The Netherlands

+

- Competition between small households stimulates development of the sector
- Possibility of reorienting production due to the lack of quotas

–

- Legal barriers need to be introduced to counter potential changes in the intended use of agricultural croplands by land owners

Small households produce natural agricultural products that will be then sold via a system of traders to the domestic market and for export

Sources: analysis of the working group

Agriculture

Target vision 2035

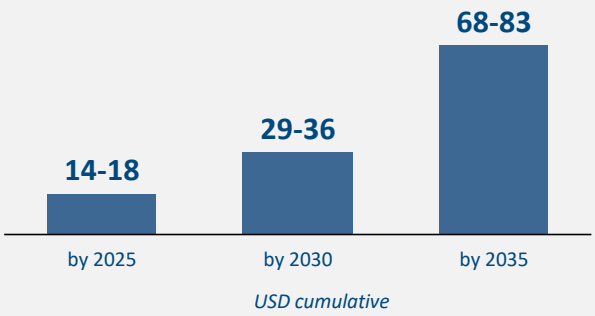
High-tech agriculture satisfying the growing demands of the population of Uzbekistan and focused on export products with a high level of processing and fresh fruits and vegetables

- 40–60% of land is owned by the state
- Focus on exporting finished products with high added value
- Emphasis on PPP in development of large-scale forms of farming in production and small-scale forms of farming in growing raw materials
- Creation of regional agricultural clusters
- Rational use of water resources for agricultural needs
- Creation of 15–20 centers for storing, sorting, and processing agricultural products
- Opening of new training centers in partnership with the leading US and European universities
- Automated management of agricultural complexes
- Construction of 2 factories for manufacturing agricultural machinery
- Adoption of international quality standards
- Promotion of healthy eating by the population by offering a wider choice of fruits and vegetables, and ensuring availability of various types of food for the population

Figures

	2017	2035	CAGR
Agricultural production, USD billion	8.3	35.7	8.4%
Employment in agriculture, %	29	12.2	
Agricultural productivity, USD thousand per employed person	2.2	15.6	10.6%
Decline in the share of salinized lands, %	48.6	15	
Decline in the share of irrigated lands exposed to erosion, %	14.6	5	
Export of alcohol products, USD billion	21	80	8.2%
Average crop yield of vineyards, t/ha	4	10	
Annual water intake for agricultural needs, % of total amount	90	70	
Prevalence of malnutrition, % of total population[1]	6.3	0	

Investment



Sources: 1 - Report of the Food and Agricultural Organization of the United Nations (FAO) – State of Food Security and Nutrition in Europe and Central Asia, analysis of the working group

Agriculture

Key strategic initiatives

- Adoption of international quality standards
- Implementation of the membrane method of plant product storage
- Upgrading existing and constructing new irrigation and drainage infrastructure
- Creating large agroclusters and chains selling natural products
- Perfection of the system of training and retraining of personnel for agricultural sectors
- Use of salinized irrigated lands to plant salt-tolerant plants: particularly salt-tolerant plants, such as beets (table beets, stock beets, and sugar beets), and medium-tolerant plants, such as tomatoes, cabbage, turnips, radishes, carrots, potatoes
- Subsidizing agricultural manufacturers
- Conducting a series of studies to identify the best, most effective crops in the country
- Implementation of successful experience of foreign countries in drip irrigation
- Implementation of HAT technology for collection and retention of information in the water economy

- Establishment of laboratories for control over quality and safety
- Construction of factories for manufacturing agricultural machinery
- Production of protein products made of insects to feed animals, poultry, and fish
- Creating programs to retrain agricultural workers
- Development of consumer cooperatives
- Subsidized loans for the development of private household plots and farms
- Development of biotechnologies, including genetic modification, molecular markers, molecular diagnostics, vaccines, cell cultures, microbiological solutions for the food industry
- Solving malnutrition and micronutrient deficiencies
- Use of false flax to restore the soil after cotton

- Improving the informational support system in the agricultural industrial complex
- Formation of conditions for innovative development of agriculture
- Widespread automation of management of agricultural complexes: implement IIOT technology, use drones
- Final formation of a clear structure in the agroindustry (small and medium forms of farming for growing raw materials and large-scale forms for product manufacture)
- Creating a unified public register of vineyards and database of lands fit for growing grapes
- Increasing the production volume of the wine sector

personnel · finance · technologies · legislation and state regulation · infrastructure

Sources: analysis of the working group

Agriculture

Key strategic initiatives

- Lease for technical outfitting: equipment and machinery for development of livestock breeding and crop growing
- Creation of a seed bank from local varieties of domesticated crops
- Leasing of breeding cattle with high productivity (including cows that produce milk with a higher content of lactoferrin, sheep and goats, horses, camels, ostriches, turkeys)
- Regulation of agricultural products through futures contracts and negotiated prices
- Employment of aeroponics and biological processing of agricultural waste in part of agricultural production

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.2

Industry

Economic development

2.2.1

Textile industry

Economic development. Industry

Textile industry

Current level of development

Key challenges

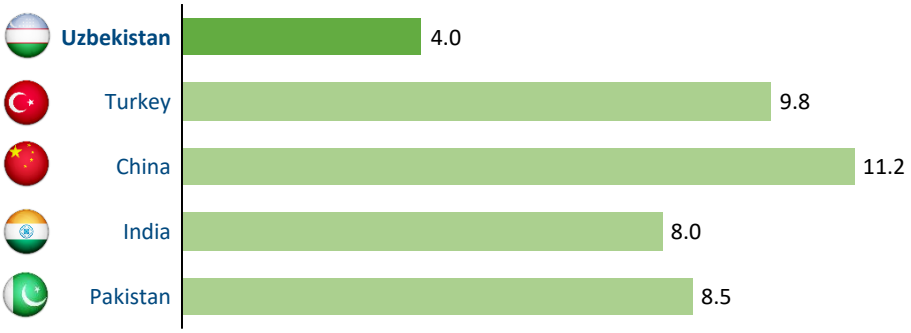
- Expanding production capacities for complete and deep processing of the entire volume of cotton fiber produced
- Solving the problem of slave labor in picking raw cotton
- The textile sector performs a social function that, amongst other things, comprises provision of women with jobs
- Ensuring the output of products competitive in foreign markets
- Improving the qualified staff training system for the industry

Key findings

- At present, in Uzbekistan, the system of textile clusters has not been developed to the proper extent, although a plan for establishment of new textile and cotton clusters has already been approved
- A system of geographic indicators like in leading countries manufacturing textile products has not been introduced either
- Lack of modern weaving and dyeing-finishing capacities due to rather low profitability of weaving factories and long-term turnover of funds (more than 4 months)[1]
- A crisis of confidence toward cotton products from Uzbekistan from the global community occurred after several international organizations disclosed their reports on use of forced labor (including child labor) in picking cotton; it slowed the pace of development of the textile industry and attraction of foreign investors
- Lack of qualified management staff, low level of qualifications of managers and personnel, absence of labor motivation of employees, decline in prestige of blue-collar and technical jobs

Share of textile industry in GDP[1]

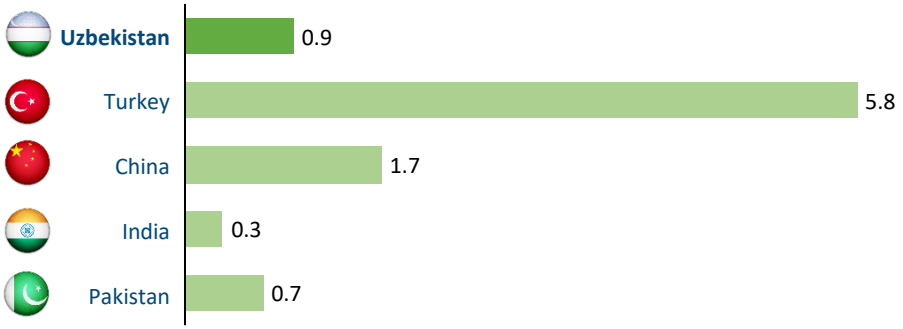
2017, %



- Having a big resource base, the Republic of Uzbekistan manufactures an insufficient volume of finished textile products, which explains its lag behind the leading countries in textile production by 2–2.5 times by contribution to GDP

Labor cost[1], 2017

USD per hour



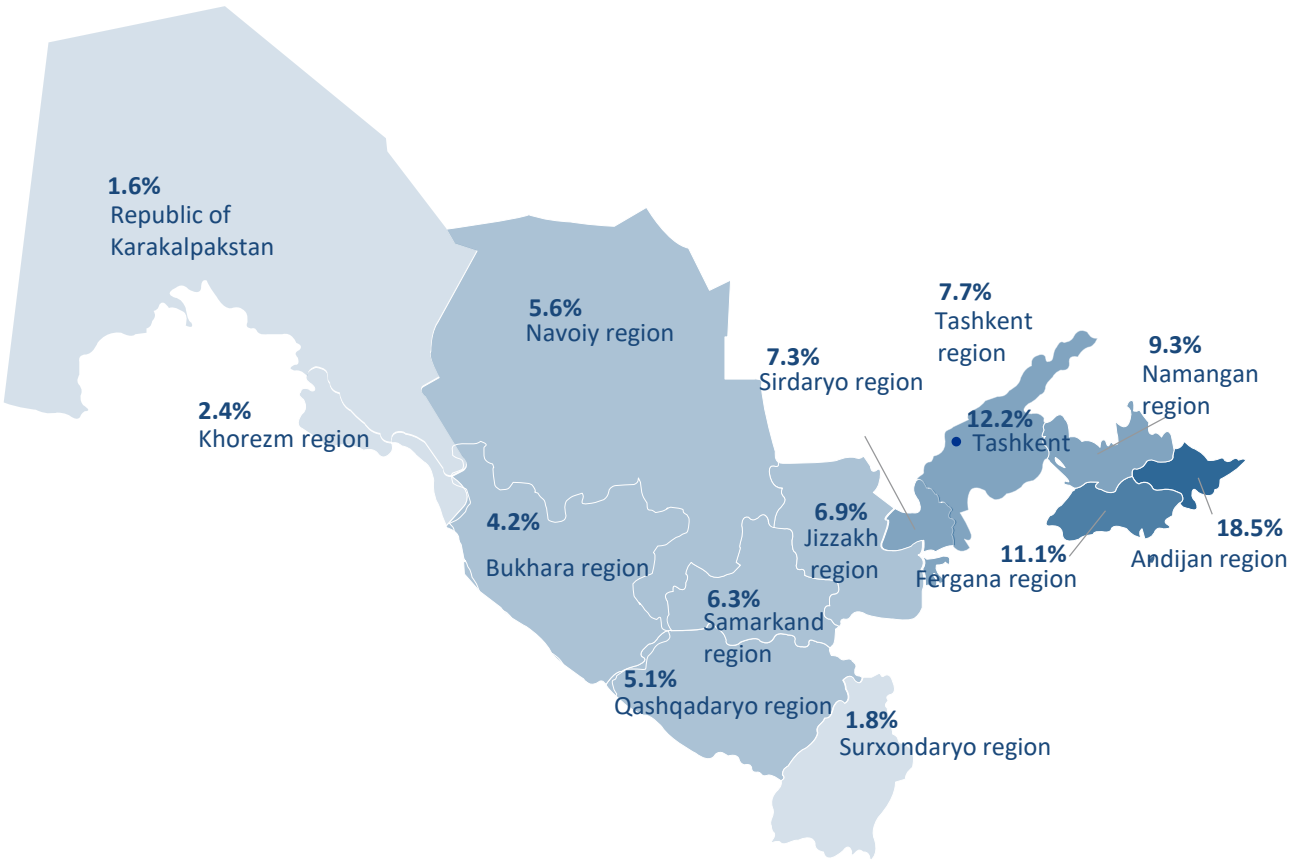
- The Republic of Uzbekistan has a competitive advantage over China and Turkey thanks to a relatively cheap minimum cost of labor

Note. 1 - based on data provided by Uztekstilprom JSC
Sources: analysis of the working group

Textile industry

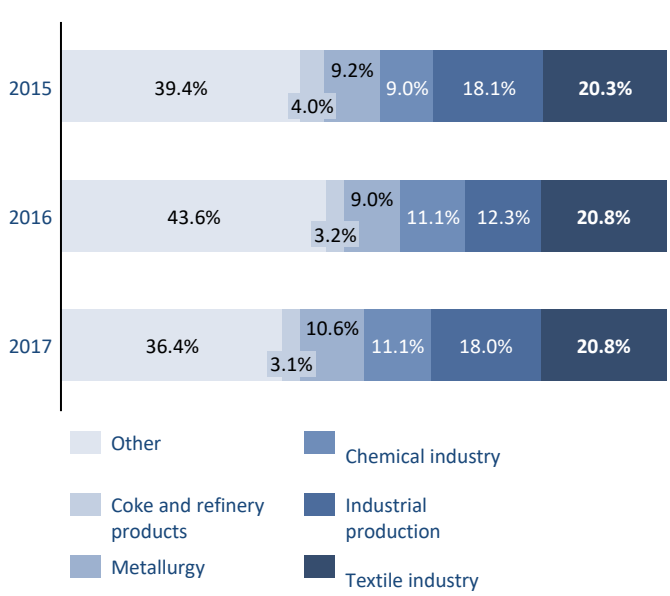
Current level of development

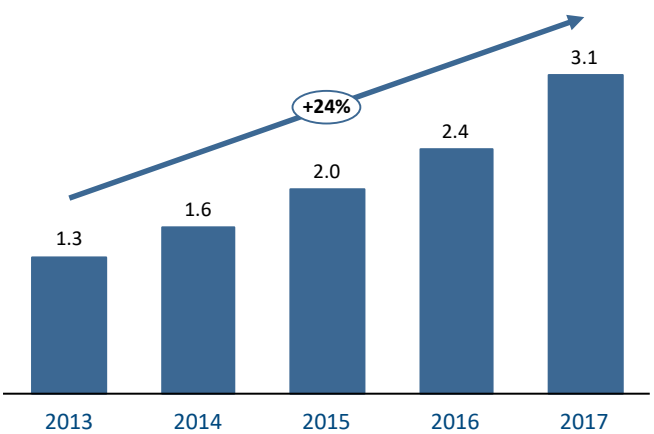
Breakdown of textile product volume by region[1]



Textile industry production volume[1]

USD billion





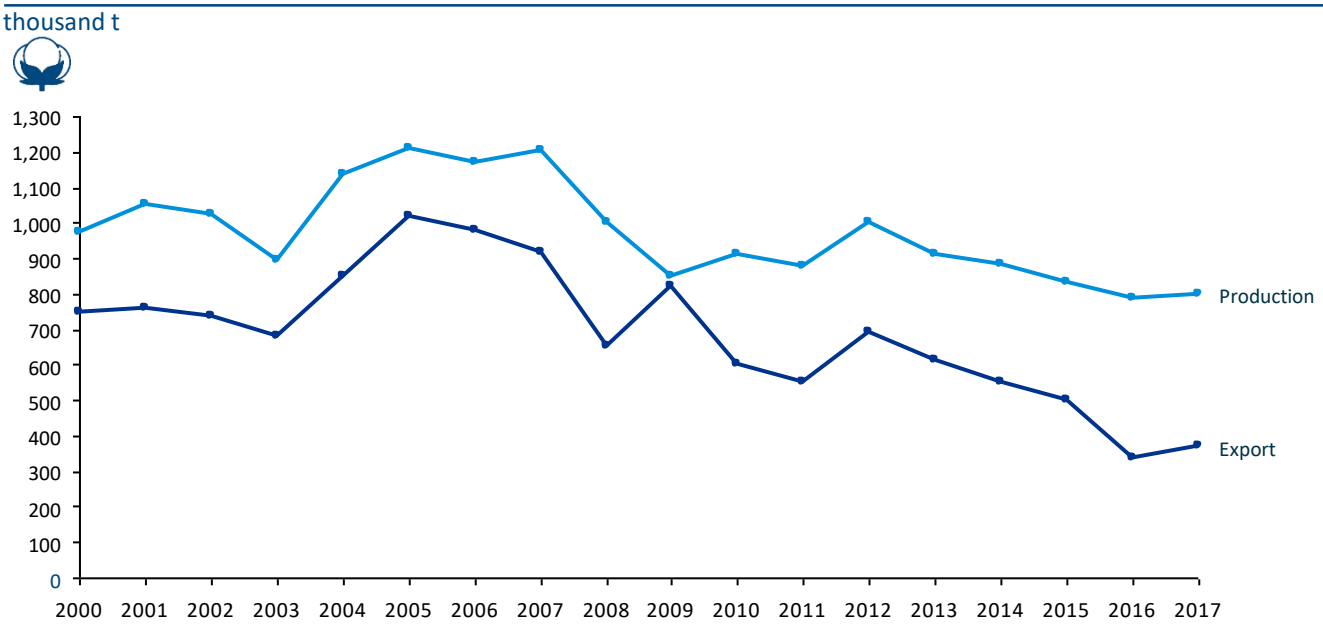
- The textile industry grew consistently in 2013–2017
- In 2013–2017, the textile industry grew by 24% annually on average

Sources: 1 - State Statistics Committee of the Republic of Uzbekistan, analysis of the working group

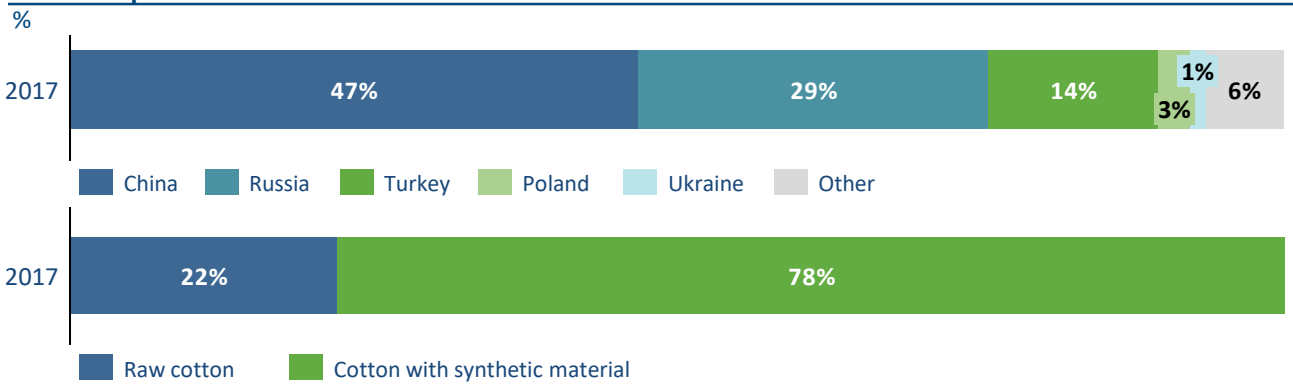
Textile industry

Current level of development

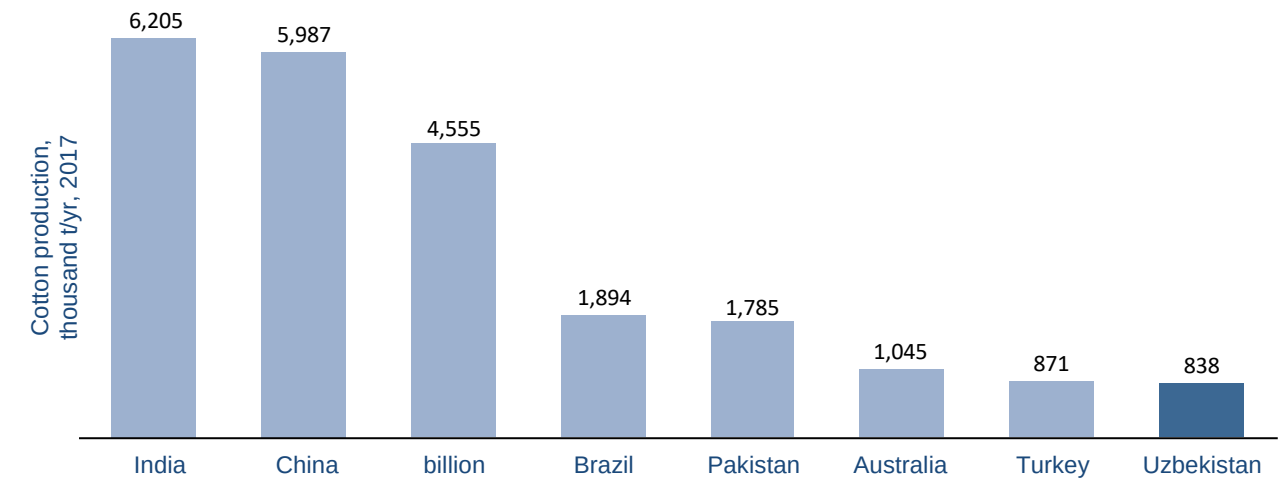
Cotton production and export trend[1]



Cotton export structure[1]



Cotton fiber manufacturers[2]



Sources: 1 - European Commission Report 2017 on Uzbekistan, 2 - analytical portal Statista.com, analysis of the working group

Textile industry

Strategic options

1

Cheap products (current situation)

Raw products and export are subsidized, preferential short-term loans for working capital are provided, and a duty-free scheme for the import of all auxiliary materials is established to attract western investors. Creation of large textile companies united in holdings (clusters) that provide for a closed production cycle – from fiber processing to manufacture of finished wearing apparel – allows prices to be maintained at a competitive level

Examples of countries:


India


Pakistan


China

- The textile industry starts developing quickly
- The country receives large amounts of foreign investment
- Finished products will be able to satisfy internal demands and will be exported in large volumes

- International investors who invest funds in production will focus on the cheap labor force. Therefore, the living conditions of people will not improve
- Cheap products are often manufactured using dangerous chemicals in order to reduce costs

High competition with countries manufacturing cheap textile products

2

Target development option

Branded products

The sector is also developing with the help of clusters, but the chain of creating finished product value also includes expenses on partner programs with international design firms, on expansion of the assortment of clothes by creating exclusive models, and on ensuring production of leisure clothes made from natural fabrics. The garment industry also focuses on the tastes and demands of specific segments of the population, age of consumers, climatic conditions, etc.

Examples of countries:


Turkey


Yu. Korea


Indonesia

- To obtain foreign investments in the long run, gaining a reputation as a manufacturer and exporter of high-quality textiles is important
- Enhancement of technological equipment
- Organization of production to create related parts: zippers, buttons, etc., which leads to the creation of new jobs

- In the short-term, a sector regulated by the state must migrate to the market condition, invest in R&D, purchase new equipment, and ensure the creation of training centers for retraining employees

Big investments in production, technology, human capital, and image are required

Sources: analysis of the working group

Textile industry

Target vision 2035

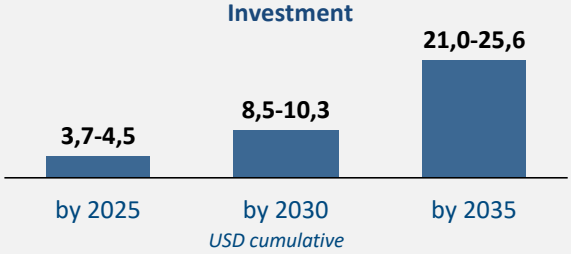
High-tech textile industry with **extensive processing of raw material** that satisfies **the internal needs of the population** based on the **natural competitive advantages of the** country and that is integrated with the global **system of labor division**

- Recognition by the global community of a resolution to the problem of forced labor in cotton picking
- Expansion of production capacities for processing cotton fiber (over 90 ginning plants)
- Launch of partner programs with TOP 10 international design firms to create branded products, in particular, the conclusion of long-term contracts for textile products manufacture

Figures

	2017	2035	CAGR
Production of textile industry, USD billion[1]	3.56	20.7	10.91%
Export of textile industry, USD billion[1]	1.62	8.2	10.03%
Production of chemical fibers and threads, thousand t	104	664	11.52%

Investment



Sources: 1 - Uztekstilprom JSC, 2 - Uzpakhtasanoat JSC, analysis of the working group

Textile industry

Key strategic initiatives

- Partner agreements with international fashion and design agencies
- Conclusion of long-term contracts for the textile products manufacture with the major manufacturers of branded products
- Updating of production technologies in the textile industry
- Adopt international quality standards, eliminate the slave labor problem
- Transition to a system of environmentally safe production of clothes
- Increase the production of fabrics with special kinds of finishing – crease-resistant and shrink-resistant – with increased shape stability and lower material consumption
- Create a modern educational and research textile technopark based on the Tashkent Institute of Textile and Light Industry. Develop pilot projects for localization of chemical fiber production facilities
- Build a technological chain of synthetic materials (from production of polyester, viscose, and polyamide fibers up to production of technical textile and other synthetic fabrics). Develop pilot projects for localization of chemical fiber production facilities
- Preserve and develop the existing associated segments of the industry, including building a technological chain of leather materials production (from raw hides to finished leather for clothing, footwear, furniture, and automotive industries)
- Train skilled technical staff for the textile industry

- Use next-generation sewing machines to automate the technological part of the production process
- Implement "smart clothes" production technologies that will have anytime internet access, measure parameters of the state of health, etc.
- Produce new materials made of nontraditional raw materials and secondary resources
- Increase the performance of filtered non-woven materials to solve environmental problems of large industrial enterprises
- Create conditions for partial localization of production of clothing and footwear products and support the development of domestic brands
- Minimize illegal production and circulation of textile industry goods in the consumer market
- Segment promising new commodity markets, expand and diversify product sales markets (Asian, African, American countries). Develop product marketing and advertising, image advertisement, and PR activities

- Export high-quality products with a single label, "Uztextile"
- Introduce nanotechnology in the textile industry
- Optimize staff size, their professional and expertise-based structure
- Solve the problem of employment of textile industry workers who were made redundant during automation and robotization (75% of workers are women)

personnel · finance · technologies · legislation and state regulation · infrastructure

Sources: analysis of the working group

2.2.2

Fuel and energy industry

Economic development. Industry

Fuel and energy industry

Current level of energy industry development

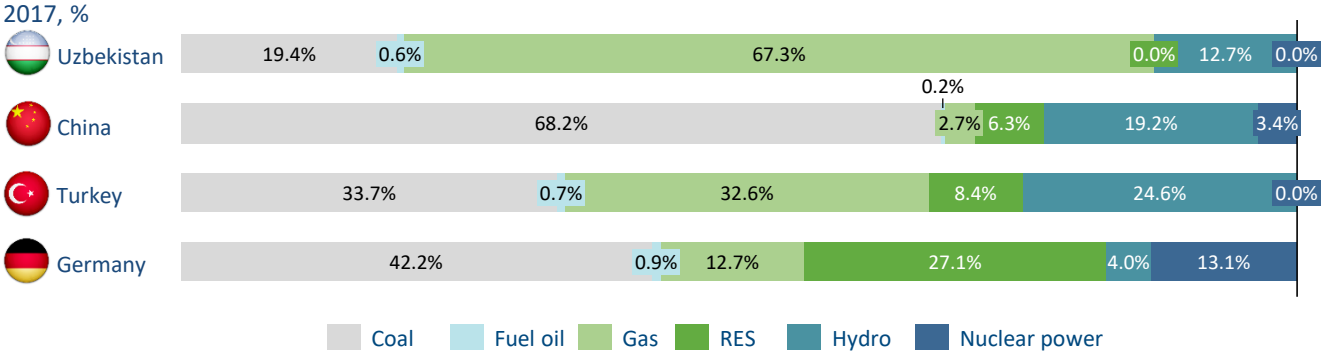
Key challenges

- At the present time, the model for using available energy resources is cost-intensive. If it does not change, the shortage of energy resources will grow to 65% by 2035
- Updating the existing obsolete energy industry infrastructure
- The need for major repairs of all main units at many existing power plants
- The development of the Republic of Uzbekistan's FEC innovative potential will help to considerably strengthen the water-energy balance of Central Asian countries
- Energy loss during distribution
- Absence of facilities satisfying the typical loads (HHP, PSPP, CHP, CCGT)
- Lack of qualified personnel

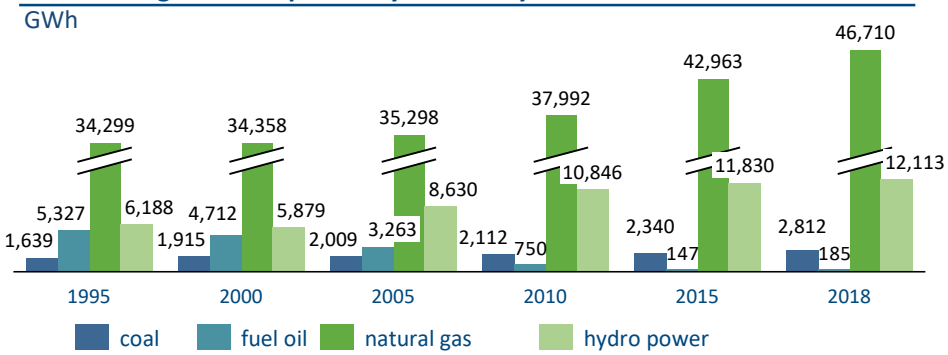
Key findings

- The main source of electricity and thermal energy in the Republic of Uzbekistan is thermal power plants (TPP) running on natural gas
- Restoration of the Republic of Uzbekistan's independent position in the water-energy balance of Central Asian countries requires power plant output to be increased through renovation and conversion of existing and installation of new units, including renewable energy units (biomass, etc.)
- To increase the level of expertise in the field of energy, it is necessary to open new and expand existing training centers, as well as develop programs to re-train employees, including to expand the training programs for the experts specializing in the RES technologies
- Due to the increased importance of renewable energy sources, the coal industry will shrink. Therefore, it is necessary to provide jobs to people engaged in coal production
- Despite a low electricity price (2.8 cents per 1 kW), the cost of connecting to the power supply system is 9 times higher than the average income per capita, and the time to connect is 6.5 times longer than in developed countries. A reduction in the cost and time for connection will elevate the country in the Doing Business Rating[1]
- According to data provided by the Ministry of Economy for 2015, the energy content of the GDP of Uzbekistan has declined since 2000 from 0.98 tons of oil equivalent (t.o.e.) to 0.48 t.o.e. per USD 1,000 Vs. the average global level of 0.2 t.o.e., and it has a certain potential for further decline[2]

Shares of electricity sources by type[3]



Volume of generated power by electricity source[3]



Comments

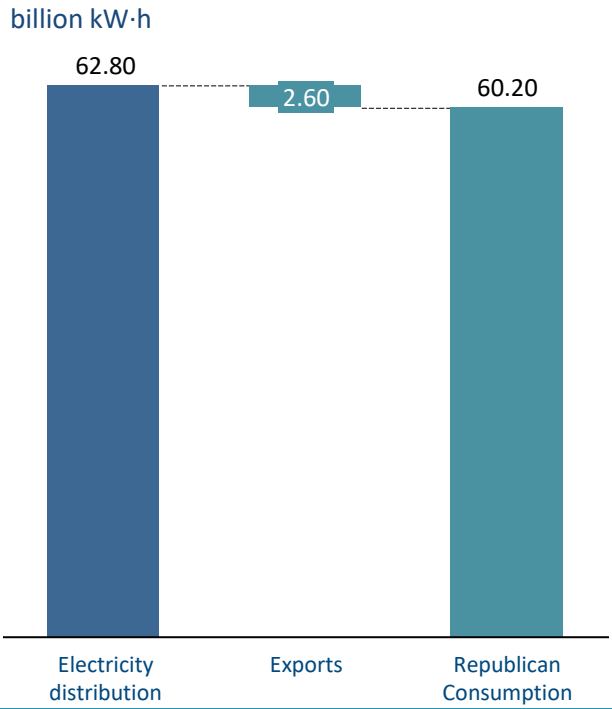
- At the present time, the Republic of Uzbekistan is exhibiting a trend of **abandoning the use** of **fuel oil** due to its poor efficiency in generating electricity

Sources: 1 - Doing Business Index 2018, World Bank, the data of JSC Uzbekenergo; 2 - UzDaily; 3 - the data of JSC Uzbekenergo, International Energy Agency, State Statistics Committee of the Republic of Uzbekistan, Fitch Solutions, analysis of the working group

Fuel and energy industry

Analysis of energy supply and demand

Balance of energy supply and demand, 2018

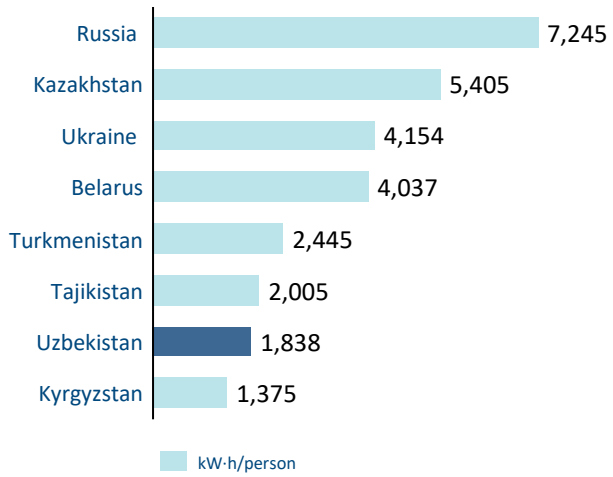


Key findings

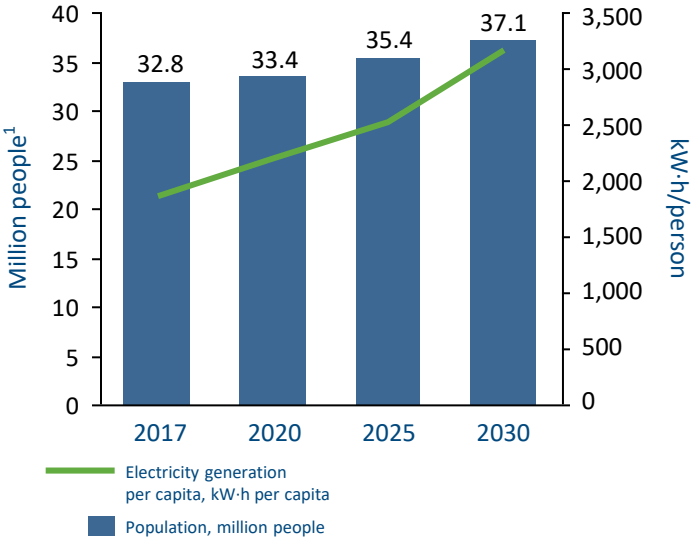
- According to the data of Uzbekenergo JSC, the amount of electricity generated by Uzbekenergo JSC, Uzbekgidroenergo JSC, and the isolated generating plants AMMC and UKGC is enough to cover the republic's demand, but there are rotating blackouts in winter
- Since 2002, Uzbekistan has been supplying electricity to Afghanistan under annual direct contracts with due regard for demand from Afghanistan. Every year the supply volume has increased. In 2018, a contract for supply of about 1.85 billion kW·h of electricity was signed
- To cover the demand for electricity in the Fergana valley, Uzbekistan imports 1.2 billion kW·h from Kyrgyzstan (2017)
- Today, four Central Asian republics—Uzbekistan, Tajikistan, Kazakhstan, and Kyrgyzstan—have resumed operation of the uniform energy ring of Central Asia.
- This project will also include establishment of the legal framework for implementation of the scheme of the water and energy balance in the Central Asian region

Forecast of electricity production per capita

Electricity per capita



Electricity per capita



Key findings

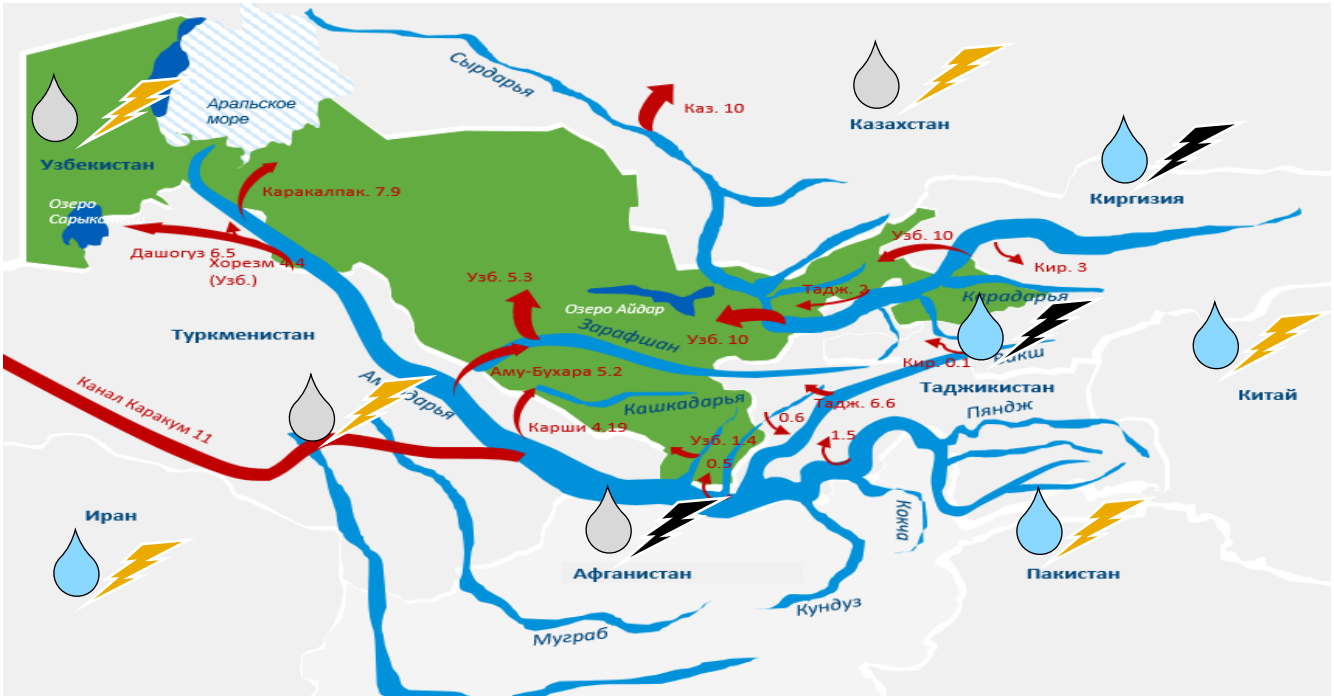
- Today, Uzbekistan generates less than 2,000 kW·h per capita, which is the second lowest in Central Asia
- Uzbekenergo JSC plans to increase electricity generation to 3,156 kW·h per capital taking into account the growing population
- This figure may be reached due to increased production of renewable energy sources in the structure of generating capacities from the current 12.7% to 19.7% by 20252, upgrade of the existing plants, construction of new CCGTs, and subsequent construction of NPPs

Sources: Uzbekenergo JSC, EurAsia Daily, analysis of the working group
1 – Institute of Forecasting and Macroeconomic Studies under the Cabinet of Ministers of the Republic of Uzbekistan, Uzbekenergo JSC; 2 – Sputnik Uzbekistan, analysis of the working group

Fuel and energy industry

Current level of energy industry development

Water-energy balance chart of the Central Asian region



Sufficient/insufficient electricity at a competitive price

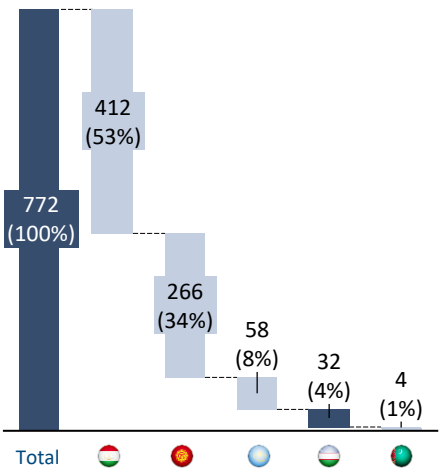
Sufficient/insufficient water resources

Diversion channels

River waters

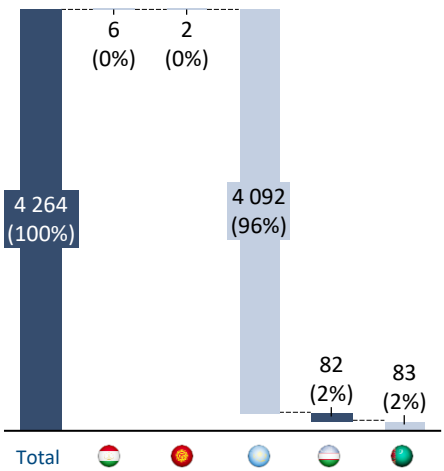
Water reserves[1]

million t.o.e.



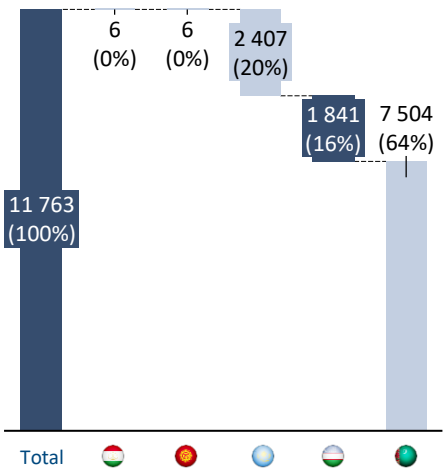
Oil reserves[2]

million t



Natural gas reserves[2]

billion m^3



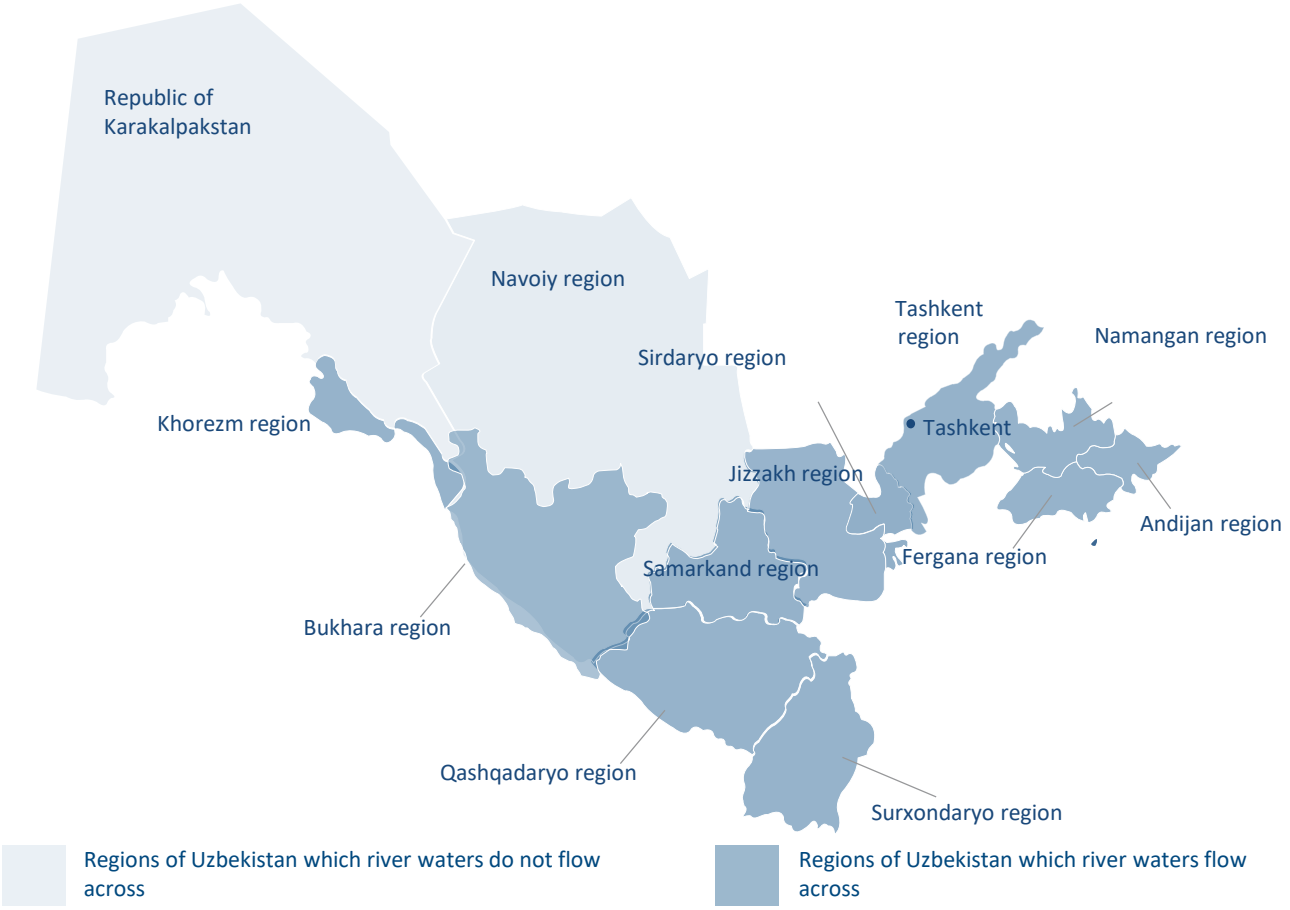
Tajikistan | Kyrgyzstan | Kazakhstan | Uzbekistan | Turkmenistan

Sources: 1 – World bank, 2 – CIA World Factbook, International Energy Agency, Report under the UN Development Program Uzbekistan 2030, analysis of the working group

Fuel and energy industry

Current level of energy industry development

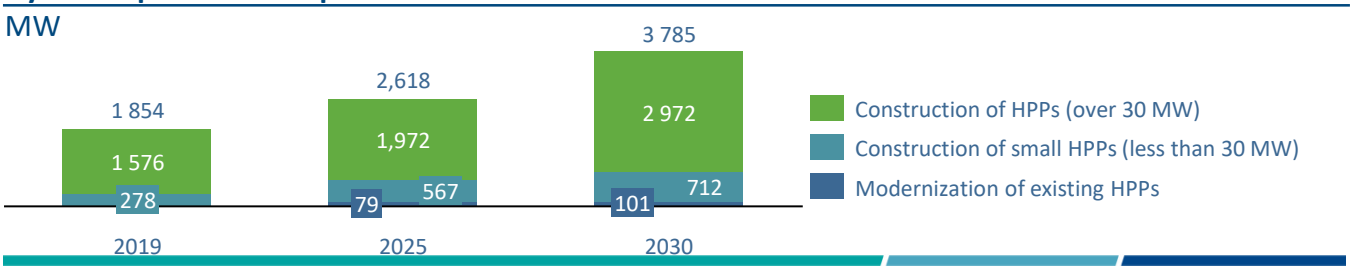
Distribution of water resources in the Republic of Uzbekistan



Experience using small hydroelectric power plants (HPP)

- One of the most effective measures to increase energy efficiency will be standard construction of **small diversion power plants** at shallow channels (7–8 m deep) similar to the experience of Russia, Ukraine, Kyrgyzstan, and Kazakhstan
- Small HPPs **do not have a negative impact on the environment**, unlike large dam and run-of-river HPPs
- **Shavkat Mirziyoyev**, President of Uzbekistan, approved the Hydropower Development Program for 2017–2021. In particular, the program outlined 42 projects for the construction of new and the upgrading of 32 existing hydropower plants in the system of the Ministry of Agriculture and Water Facilities of the Republic of Uzbekistan, Uzbekhydroenergo JSC, at natural water flows and water utilization facilities in the country1
- There are 1,350 small HPPs in Sweden that generate 10% of the country's electricity demand. There are about **83,000 small HPPs** operating in China.

Hydraulic power development for 2020–2030 [2]

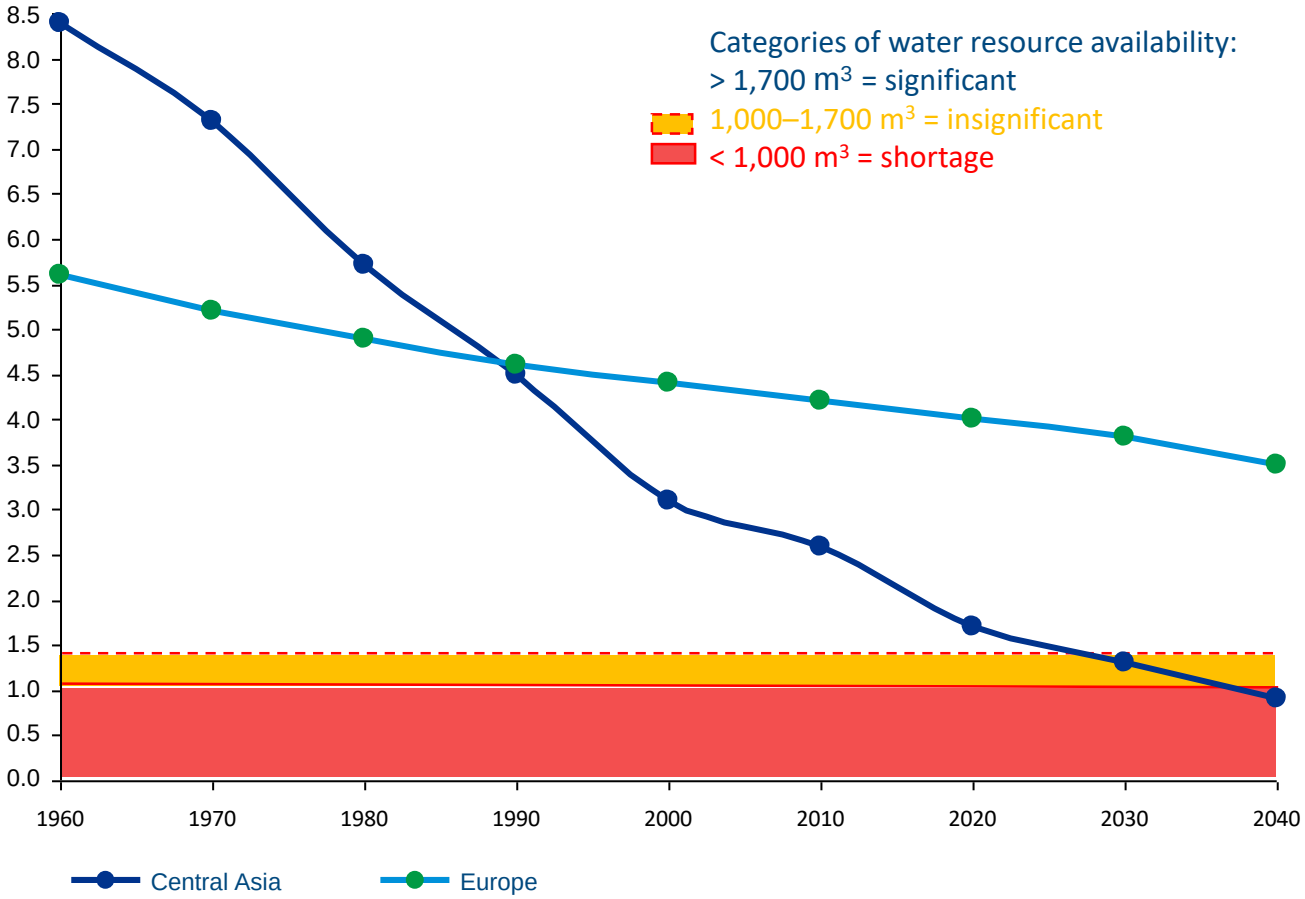


Sources: 1 – Regnum, 2 – Uzbekhydroenergo JSC, State Statistics Committee of the Republic of Uzbekistan, Report under the UN Development Program Uzbekistan 2030, analysis of the working group

Current level of energy industry development

Trend in the availability of water resources in Central Asia and Europe

thousand m^3 per capita annually



Comments

- Over the last 40 years, water supply volumes in Central Asia declined from 8,400 m3 to 2,500 m3 per capita annually
- By 2030, subject to the current population growth indicators in Central Asia, water supply volumes will reach the critical level of less than 1,700 m3 annually
- However, another 500–700 million m3 of water is required annually to support the minimum consumption level in Central Asia

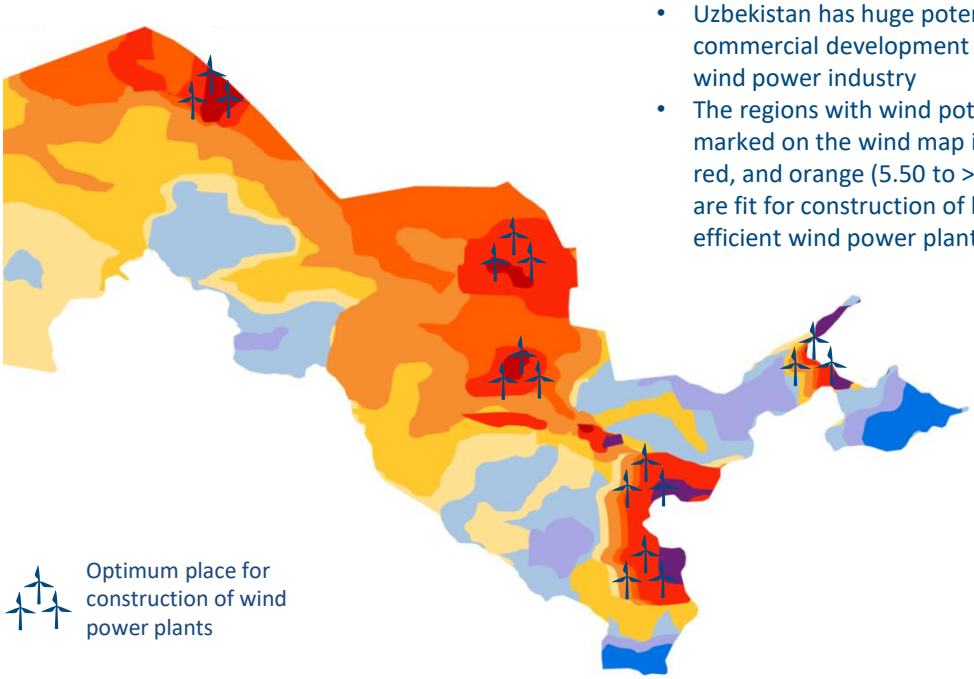
Sources: Regnum, State Statistics Committee of the Republic of Uzbekistan, Report under the UN Development Program Uzbekistan 2030, analysis of the working group

Fuel and energy industry

Current level of energy industry development

Qualitative distribution of wind speed (average wind speed) at 80 m above the ground

- Uzbekistan has huge potential for commercial development of the wind power industry
- The regions with wind potential marked on the wind map in purple, red, and orange (5.50 to > 6.25 m/s) are fit for construction of highly efficient wind power plants



Optimum place for construction of wind power plants

> 6.5 *m/s*
6.0–6.5 *m/s*
5.75–6.0 *m/s*
5.5–5.75 *m/s*
5.25–5.5 *m/s*
5.0–5.25 *m/s*
4.75–5.0 *m/s*
4.5–4.75 *m/s*
4.0–4.5 *m/s*
3.5–4.0 *m/s*
3.0–3.5 *m/s*
2.5–3.0 *m/s*
< 2.5 *m/s*

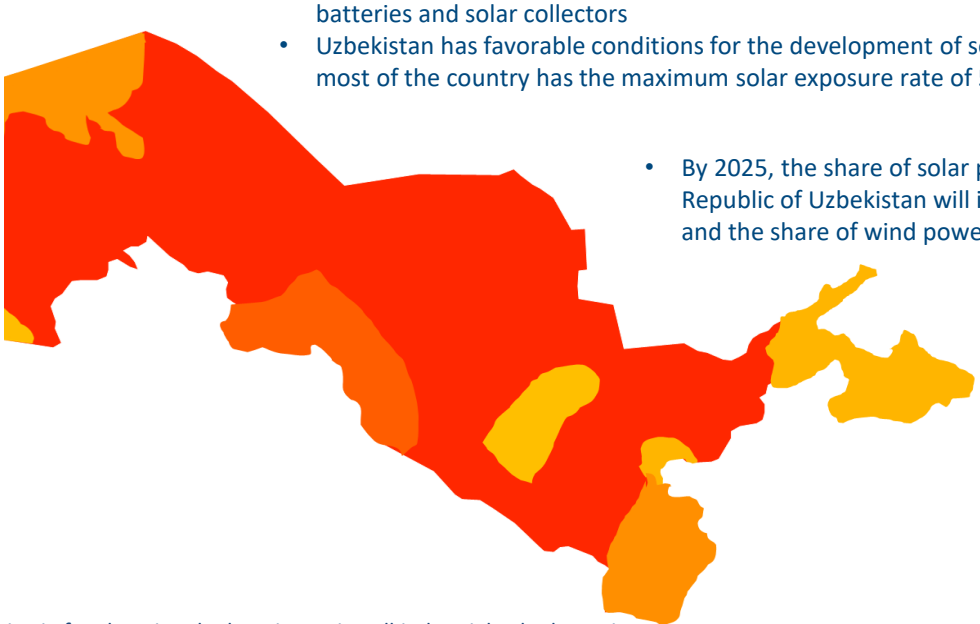
Daily amount of cumulative solar radiation

kWh/m

6
5.5
5
4.5
4
3.5

- The daily amount of cumulative solar radiation allows one to determine the level of solar exposure, which is one of the main criteria for installation of solar batteries and solar collectors
- Uzbekistan has favorable conditions for the development of solar power, since most of the country has the maximum solar exposure rate of 5.5 to 6 kWh/m

- By 2025, the share of solar power in the Republic of Uzbekistan will increase to 2.3%, and the share of wind power to 1.6%[1]



Criteria for choosing the location to install industrial solar batteries:
1) Highest concentration of solar radiation (> 6 kWh/m)
2) Settlements are located far from other power plants generating energy, so lack of power is observed

Sources: 1 - Sputnik Uzbekistan, Report under the UN Development Program Uzbekistan 2030, analysis of the working group

Fuel and energy industry

Strategic options for the energy industry's level of regulation

1

Focus on traditional energy sources

Electricity will continue to be generated at the existing TPPs and CHPPs. Also, new electricity generation technologies will be implemented based on mobile gas turbine plants.

+
- Plants and infrastructure already exist; they only require renovation
- There are huge natural gas reserves that will satisfy domestic demand

–
- Today, the global trend to abandon fossil fuel use is becoming popular
- Decreasing the gas export potential

Examples of countries:


China


Turkey


Uzbekistan

Uzbekistan will continue to use traditional energy sources, and investments will be used to upgrade the infrastructure and equipment

2

Target development option

Focus on renewable energy sources

Over 30% of all energy of the country is generated with renewable energy sources (RES); large investments are being made in construction of industrial solar batteries, wind farms, small HPPs, and related infrastructure as well as energy storage systems

+
- Geographic position and weather conditions
- Relatively inexpensive installation of power generation plants
- Reduction in prices for RES equipment
- Concurrent development of industrial areas in the case of large-scale implementation of RES

–
- Lack of qualified personnel
- At the moment, there are no operational and effective energy storage solutions
- Inadaptability of modern electrical network to connect with RES
- High cost of transportation of the equipment for RES
- Lack of the institutional environment and efficient mechanisms for support of RES

Examples of countries:


Switzerland


Germany


Norway

Green energy will be the main energy in Uzbekistan's energy portfolio

3

Focus on the nuclear power industry

Over 30% of all electricity is generated at nuclear power plants, large direct foreign investments are attracted, and foreign specialists are brought in for their construction and subsequent maintenance

+
- Direct investments
- Creation of new jobs for highly qualified specialists
- Potentially uninterrupted supply of electricity over a longer period of time as compared to other sources
- Possibility to use energy carriers to receive products with gross added value (GAV)

–
- Electricity from RES is cheaper
- Man-made risks
- High demand for water
- Very high cost of investment
- Geopolitical risks

Examples of countries:


France


South Korea


Czech Republic

Major capital investments in the nuclear power industry will have a long payback period, but power supply will be relatively uninterrupted

Sources: analysis of the working group

Fuel and energy industry

Target vision 2035

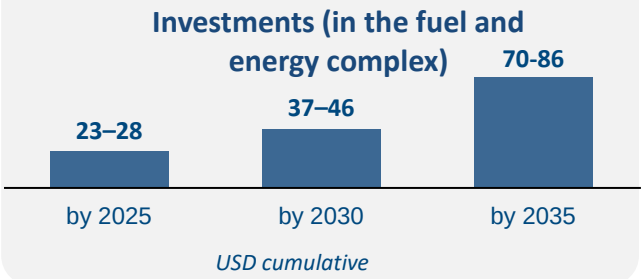
Establish Uzbekistan's position **in the energy balance of Central Asia,** adopt **a resource-efficient model for water consumption**, and increase **the economy's energy efficiency** overall

- Construction of small diversion HPPs and related infrastructure
- Construction of plants generating thermal or electrical power from renewable energy sources, such as the sun, wind, or biowaste
- Work on creation of a water-power consortium in Central Asia (which will satisfy 100% of the domestic demand for the electricity)
- Development of projects in the nuclear power industry (together with Russia, France, and China)
- Developing an industrial energy storage system
- Implementation of a decentralized electricity generation system (Smart Grid)
- Arrangement of an efficient and stable energy system with a high added value
- Preparation of highly qualified personnel in the area of RES and nuclear energetics
- Significant extent of localization of equipment manufacture and technological development of RES
- In the energy industry of Uzbekistan, international companies will appear

Figures

	2017	2035	CAGR
Electricity generation, billion kW·h[1]	61.9	117.1	3.6%
Electricity export, billion kW·h[1]	1.85	12.1	11%
Electricity loss during transfer and distribution, %	15	6,5[2]	

Investment



Sources: 1 – Uzbekenergo JSC, 2 – Index Mundi (electricity loss indicator in the EU), analysis of the working group

Fuel and energy industry

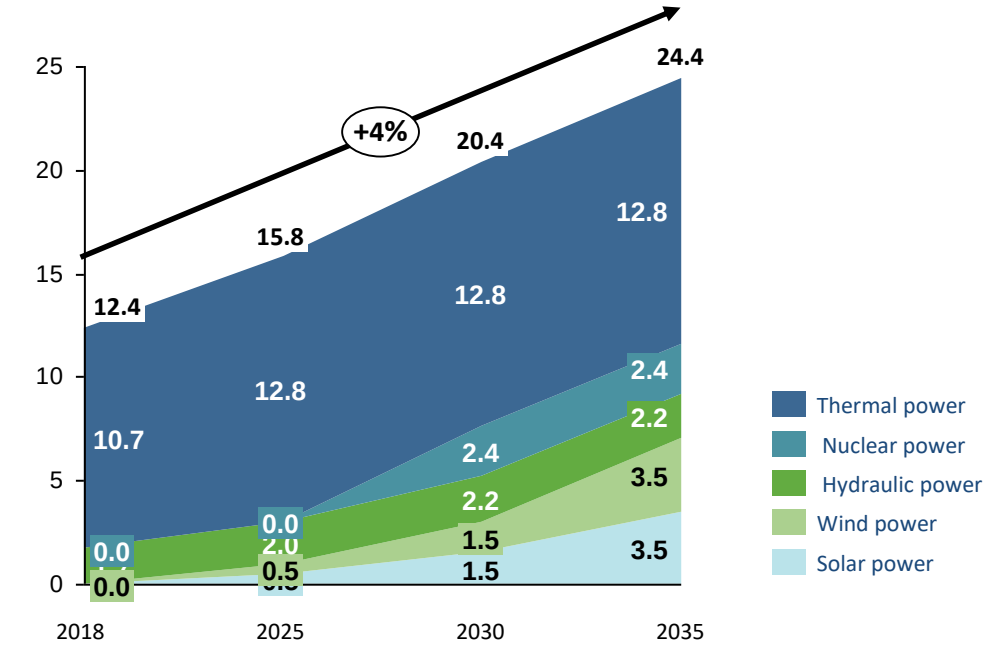
Target vision 2035

Increase in the **generation** of all used sources of energy

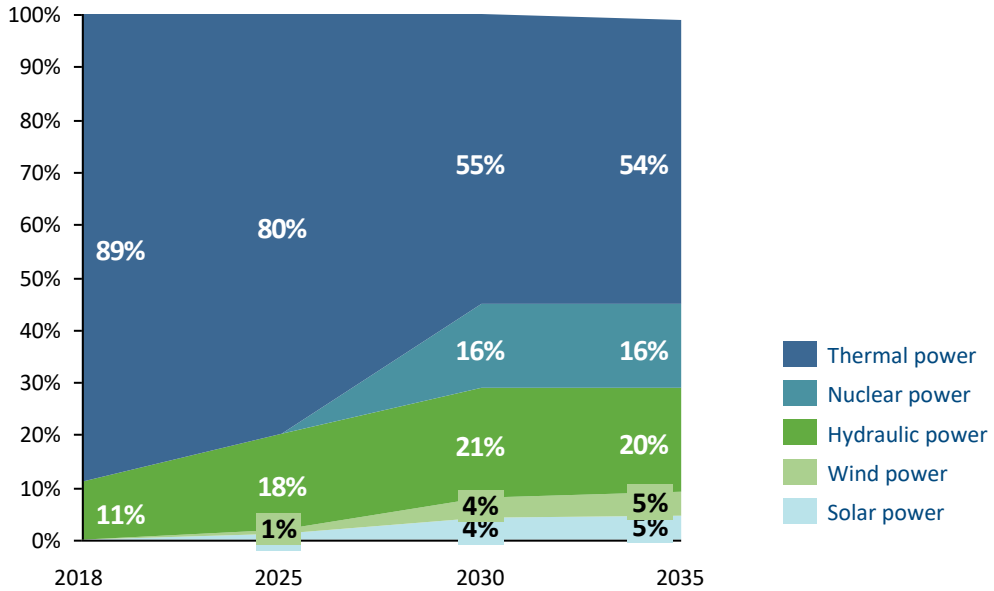
- Upgrade and construction of additional TPP and CCGT facilities with simultaneous gradual reorientation toward investments in "green" energy
- Transition toward the use of more efficient and environmentally friendly sources of energy; growth of the share of alternative energy

Increase in energy source efficiency, forecast for 2018–2035,

GW



Dynamics of shares of electricity, 2018–2035



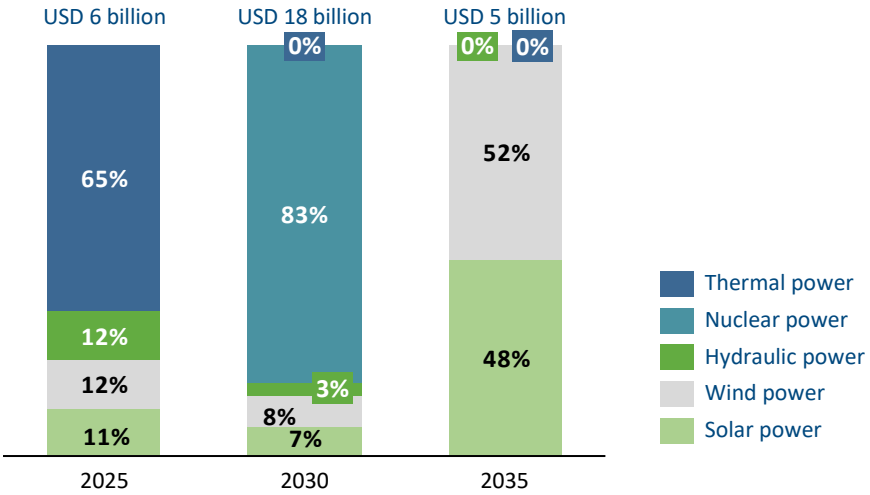
Sources: 1 – Uzbekenergo JSC, 2 – Index Mundi (electricity loss indicator in the EU), analysis of the working group

Target vision 2035

Increase in the share of renewable energy sources in the general structure

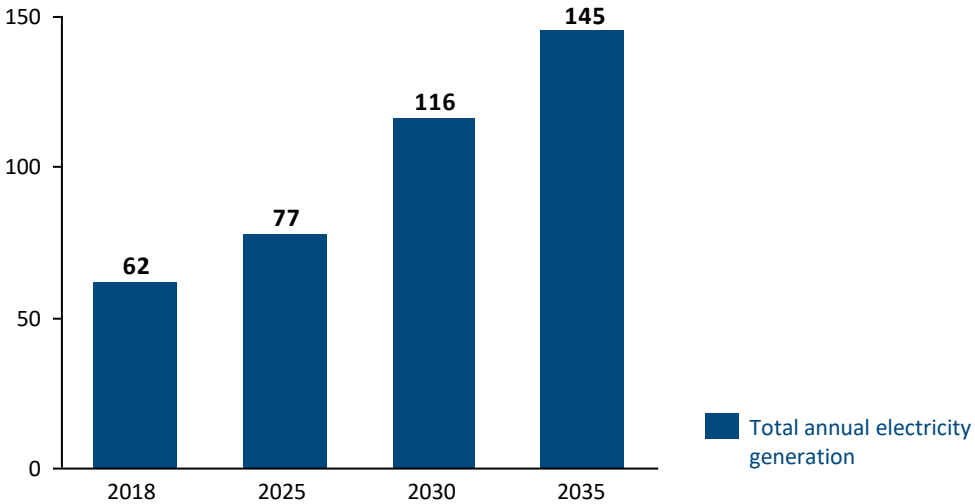
- Investments in wind and solar power for the creation of facilities able to supplement the existing traditional sources
- Decrease in the share of use of fossil fuel in favor of renewable sources
- Growth of investments in thermal power for the further development of the existing facilities by 2025
- Construction of solar, wind, and hydropower plants of 1 GW, 1 GW and 2 GW, respectively
- Growth of renewal sources of energy up to 30% by 2025

USD 29 billion of investments in the energy industry is required until 2035.



Electricity generation,

billion kW·h



Sources: Analysis of the working group

Fuel and energy industry

Main strategic initiatives in the energy industry

2025

- Operation and upgrade of combined-cycle power units during the implementation of economic measures, including introduction of a fee for excess emissions of carbon dioxide and direct ban on obsolete technologies that do not meet modern technological and environmental standards
- Finalizing the upgrade of existing power plants, mainly those with coal as the specified fuel. Upgrade and commissioning of gas turbine and upgraded combined-cycle CHPPs of various capacity, including modular stations running mostly on gas and partially on coal (where coal is the specified fuel)
- Development of nuclear and renewable energy (in particular, solar and wind energy) aimed at diversifying the national fuel and energy balance
- Water-energy consortium as part of restoration of the unified energy system of Central Asia. Providing electricity to neighbors at a competitive price and receiving water resources in exchange for that

2030

- Implementation of a distributed electricity generation system
- Developing an industrial energy storage system
- Balanced development of networks depending on the specific utilization conditions of transformers and lines based on elaboration and implementation of the Networks Development Plan
- Energy industry based on renewable energy sources will develop, including in the form of small diversion HPPs, solar power plants, geothermal power plants and heat supply units, bioenergy and wind plants, waste burning and waste processing energy facilities in large cities. The share of RES in the energy balance will reach 25%–30%
- Start retraining coal industry workers
- Development of production of equipment for power generation from RES and development of regional hubs for industrial storage of electric energy
- Introducing the system of compulsory quotas for employment of local personnel for foreign contractors
- Introducing a compulsory procedure to form a liquidation fund for coal mining enterprises

2035

- Integration of industrial use of digital technologies and the internet
- Further work on strengthening interstate power transmission lines for a material increase in the share of Uzbekistan's electricity in the energy balance of neighboring countries in Central Asia
- Participation in the construction of infrastructure under the CASA-1000 program and thus increasing the export potential of the Republic of Uzbekistan toward Afghanistan and Pakistan, taking into account the deficit in the energy system in these countries
- Reducing the share of gas consumption in electricity generation due to support of the gas processing industry, receiving the product with a higher added value
- Deep localization of the cycle of RES equipment & technologies production
- Reducing the role of coal in the energy generation structure and finish work on closing unprofitable and unpromising coal enterprises
- Development of projects in the nuclear power industry and inclusion of NPP facilities in the total electricity balance of the country

perso nnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Fuel and energy industry

Main strategic initiatives in the energy industry

- Upgrade of 62 main substations of 220–500 kV, replacing the main power equipment with energy-efficient equipment with increased power (power and metering transformer units)
- Development of financial mechanisms and other initiatives to stimulate the demand for green electric power—assistance in the development of industry, large infrastructure projects, and export of electricity
- Implementation of measures of state support for installation of solar panels on the roofs of houses in the private sector, for the construction of windmills for SMEs and farms
- Upgrade of distribution networks and power lines
- Focus on energy efficiency of buildings and urban infrastructure
- Opening new and extension of existing training centers and development of programs for personnel retraining, including extension of training programs for preparation of specialists in RES technology
- Implement an automatic control and information collection system (based on the example of SCADA)
- Studying the experience of post–Soviet countries, such as Georgia, where it was possible to partially solve the problems with the lack of electricity, in particular, through attracting foreign investment in the construction of HPPs and modernization of existing HPPs in the country. Study the experience of implementing programs in the conditions of transparent and clear rules for investors to enter the energy sector and the state-guaranteed energy purchase prices.

perso nnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Fuel and energy industry

Current level of fuel industry development

Key challenges

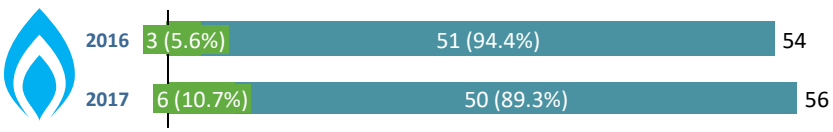
- Implementation of systematic measures to train qualified staff in the industry and integration of the educational process with practice, science, and production
- Increase the raw material processing depth to obtain goods with a high added value based on comprehensive assessment of economic efficiency.
- Optimization of the efficiency of drilling process management
- Organization of local centers for repairs and maintenance of high-tech equipment
- Renewal of obsolete gas transportation equipment and upgrade of the existing refineries

Key findings

- The lack of qualified staff, low level of qualifications of managers and personnel, absence of labor motivation of employees, decline in prestige of blue-collar and technical jobs, use of old work methods[1]
- Uzbekistan's oil and gas industry is a regulated market, and migration to a developed oil and gas market will require structural adjustment of the value creation chain as well as changes to the legislation and increase in the number of international players
- There is a tendency to reduce formation pressure on oil and gas fields due to the generation intensity, requiring additional investments not only in development but also in maintenance of the industry
- Uzbekistan does not use available and relatively inexpensive technologies of associated gas utilization (ranks 31st for the quantity of flare gas) and exhaust heat utilization (ORC technology) to the full extent
- Feasibility study of projects pursuant to the obsolete methodology

Ratio of export and domestic consumption of gas[2]

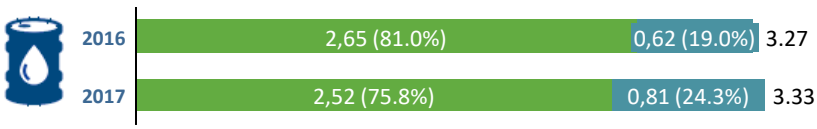
billion m³



At present, the share of natural gas exports increased (**twofold** as compared to 2016)

Oil consumption[2]

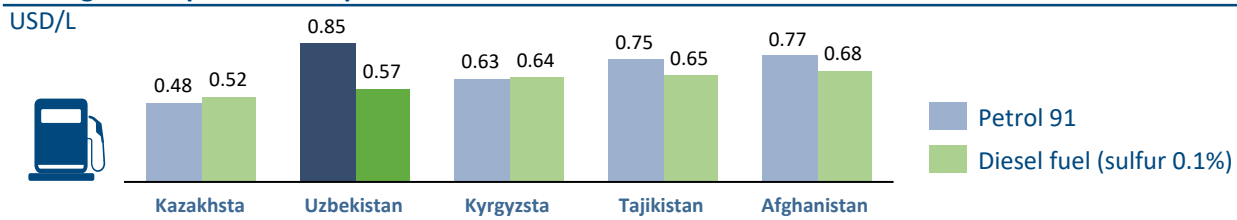
million t



Since 2016, oil consumption has grown **by 60,000 t**, while domestic consumption has declined **by 130,000 t**; oil import has grown **by 190,000 t**

Average retail prices for oil products[3]

USD/L

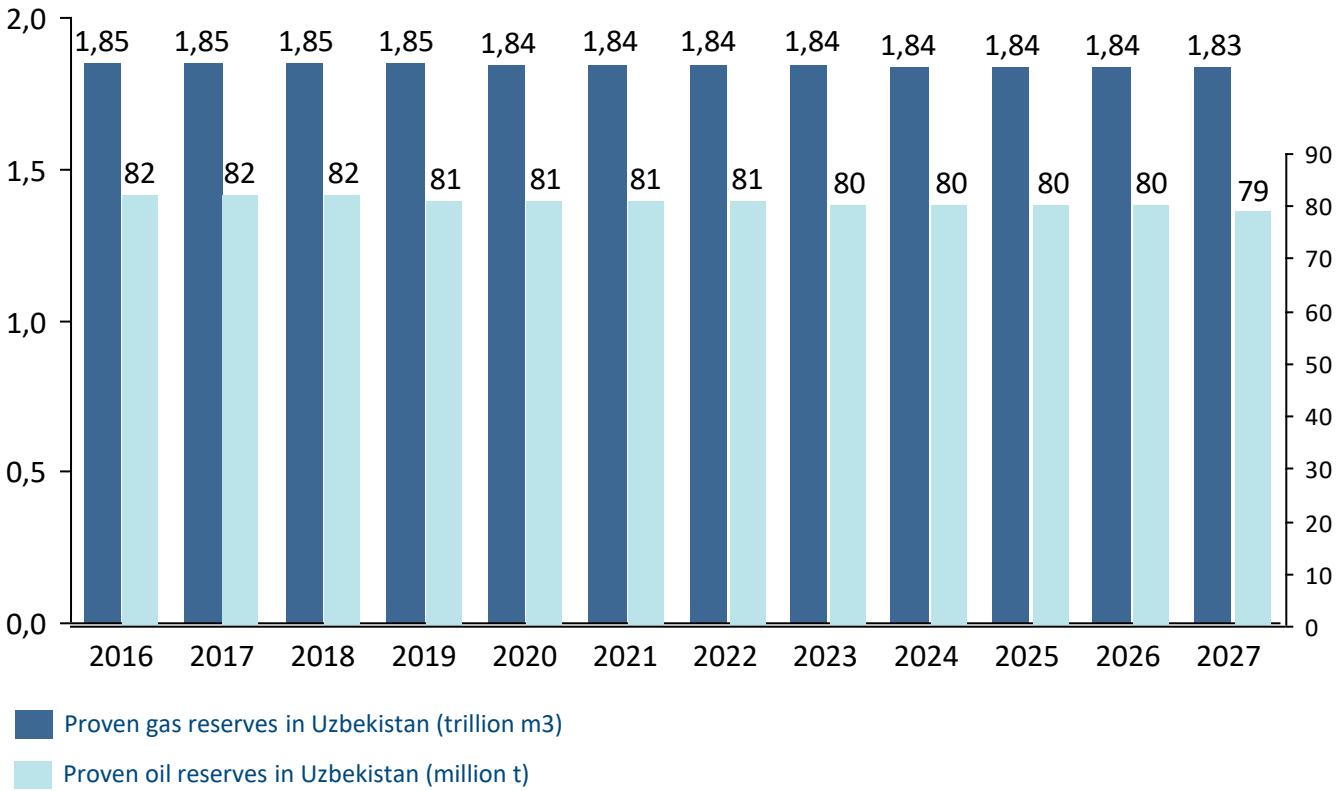


- The average retail price for **petrol 91** in the Republic of Uzbekistan is **higher** than in other Central Asian countries due to a shortage of motor fuel
- The price for **diesel fuel** (sulfur 0.1%) is **at the level of other countries** in the region, but its availability to the consumer is significantly limited.

Sources: 1 – Neftegaz.ru analytical agency, 2 – BP Statistical Review of World Energy 2017, 3 – Argus Media independent international price reporting agency, analysis of the working group

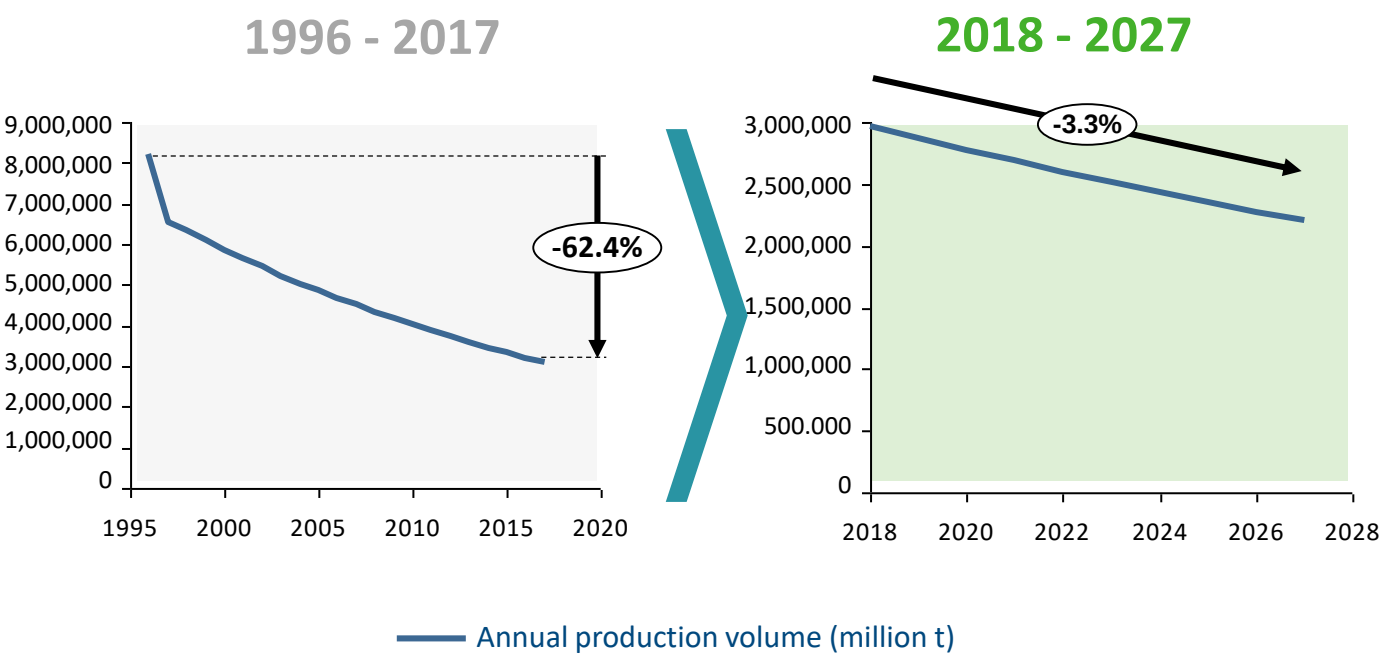
Fuel and energy industry

Proven oil and gas reserves in Uzbekistan



Oil production (past and future)

The actual tendency of oil production is decreasing



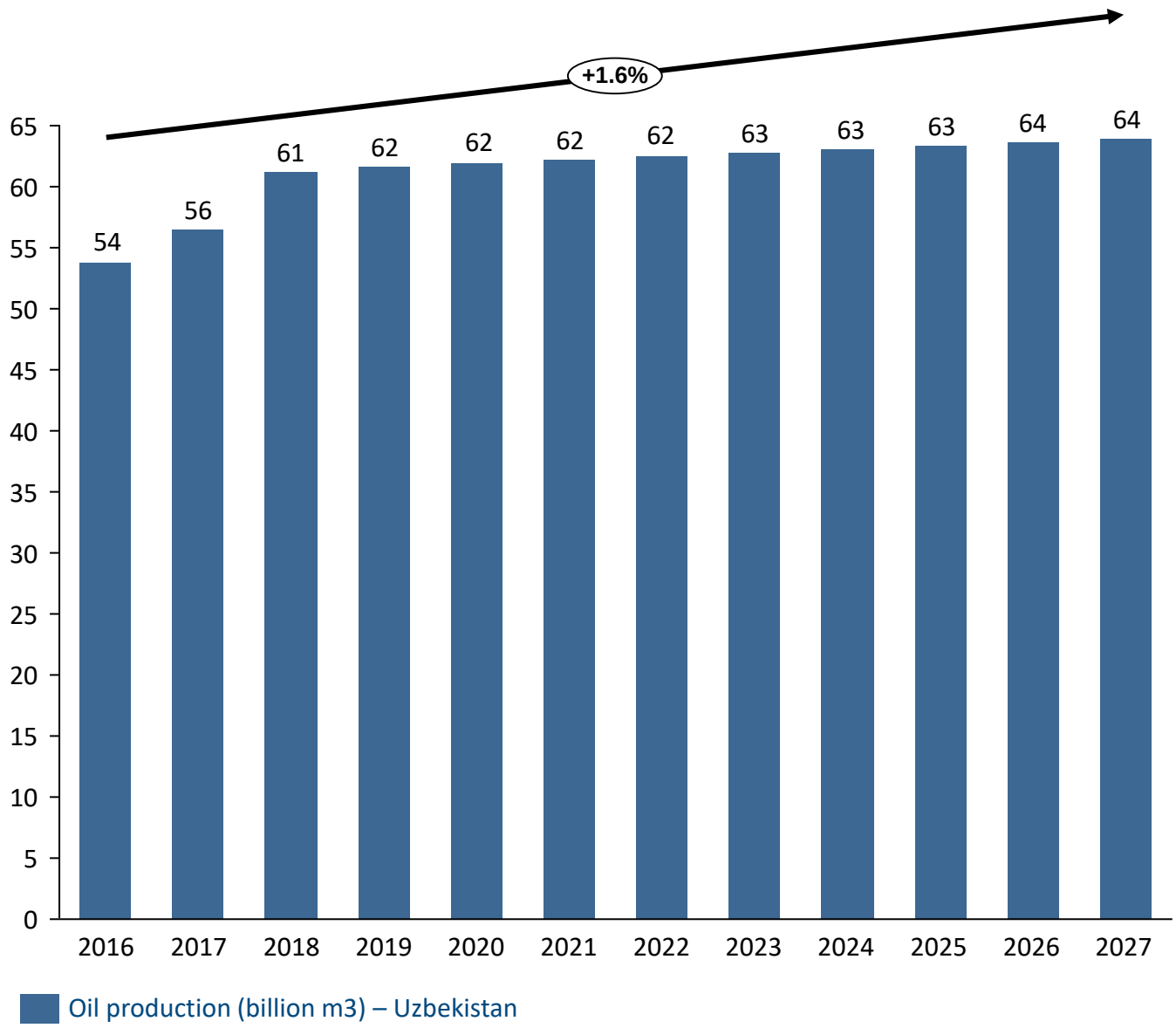
Sources: Fitch Solutions Uzbekistan Oil & Gas Report 2019

Gas production forecast through 2027 looks stable

Gas production

Gas production in Uzbekistan significantly increased in 2018 after the launch of new production facilities. It is expected that gas production in the country will continue growing through 2027, but with more modest rates.

- The increase is caused by a range of investment projects that are being implemented by domestic and international oil and gas companies, such as Lukoil
- Production got a boost from the launch of new capacities on the Kandymskoye and Gissarskoye fields and Ustyurt

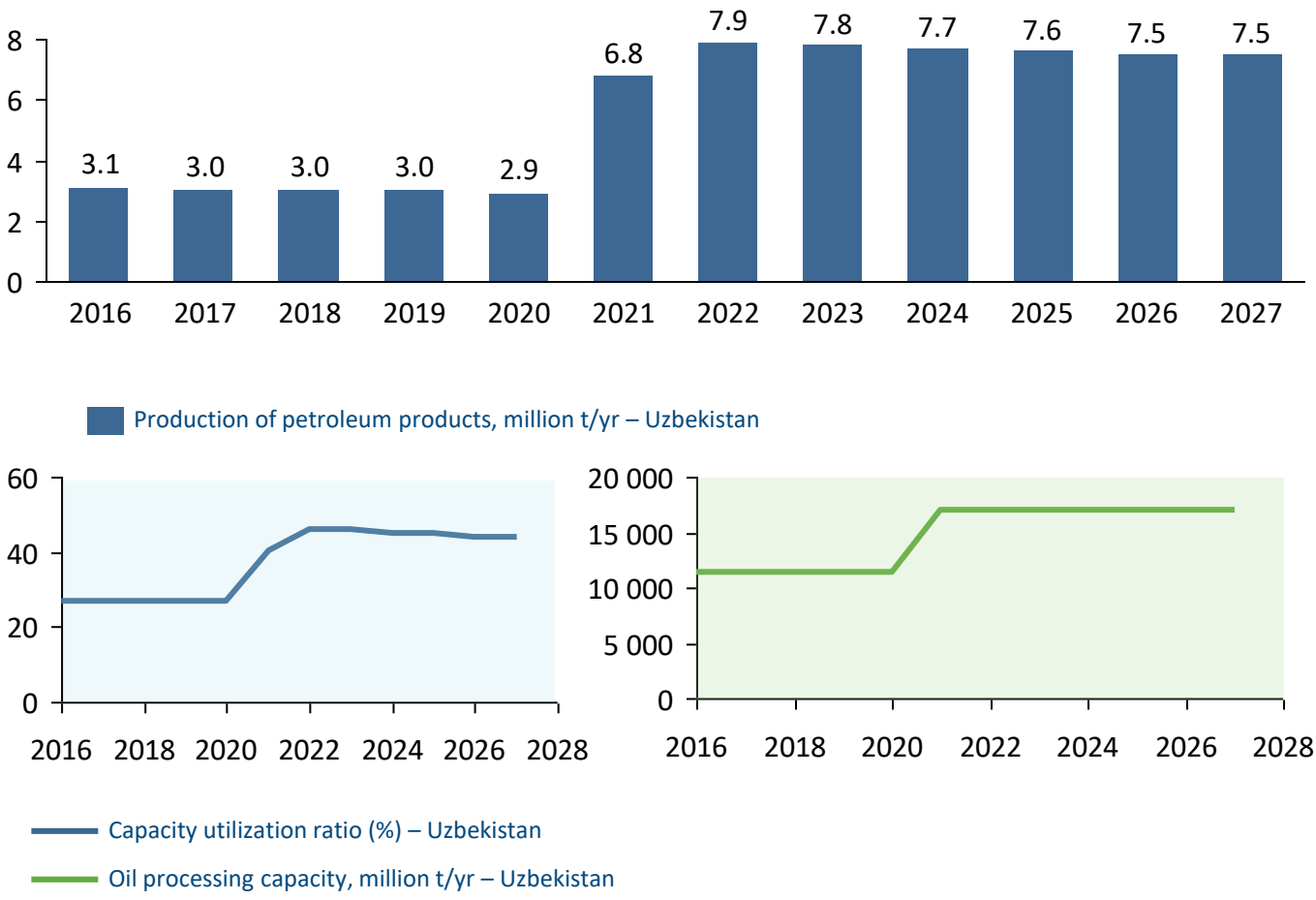


Sources: Fitch Solutions Uzbekistan Oil & Gas Report 2019

Oil refining

Oil refining

The processing industry in Uzbekistan has a small share, and the total capacity load ratio is less than 30%
At present, in the Jizzakh region, a refinery is under construction that is expected to increase the existing processing facilities of the country by almost 48% and will more than double production of petroleum products in Uzbekistan by 2021



It is expected that the capacity load ratio in the oil processing sector will continue to decrease slowly, as the margin of oil processing is insignificant

Nevertheless, it is expected that production volumes will increase after the launch of the new Jizzakh refinery by USD 2.2 billion In 2021 and potential new GTL refineries

Sources: Fitch Solutions Uzbekistan Oil & Gas Report 2019

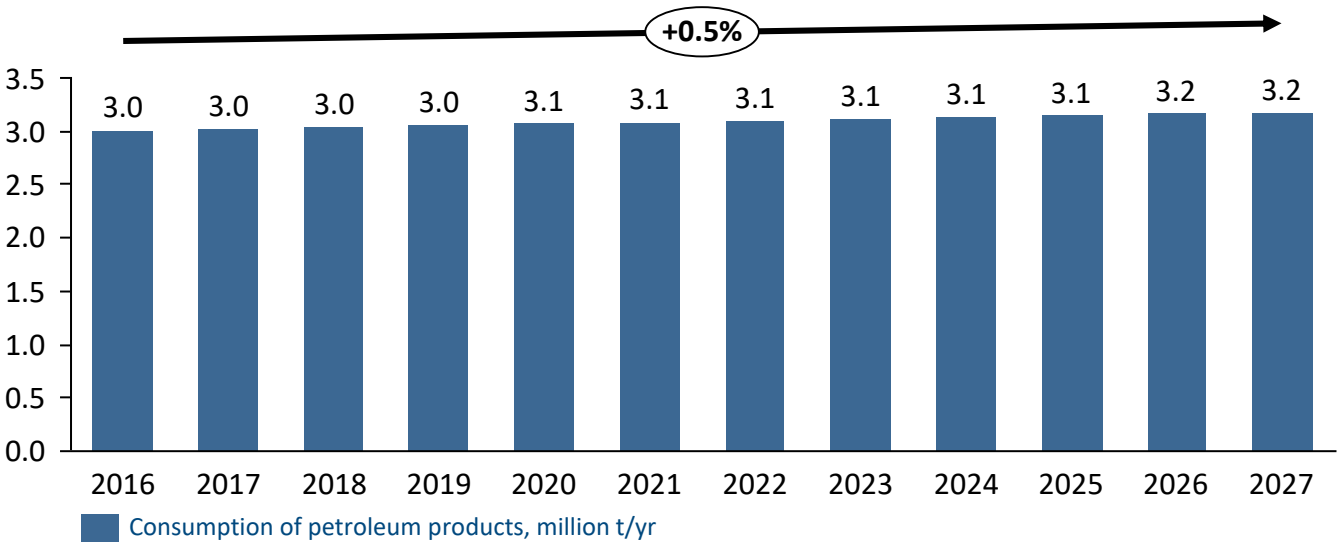
Domestic consumption of petroleum products and gas

Domestic consumption of petroleum products

In the nearest several years, oil consumption growth is expected against the background of reduction of internal production of fuels due to low utilization indicators at obsolete Uzbek refineries.

The domestic demand for oil ranged from 6 million to 7 million per annum in 1996–2007 but decreased in subsequent years and reached only 3 million per annum in 2018.

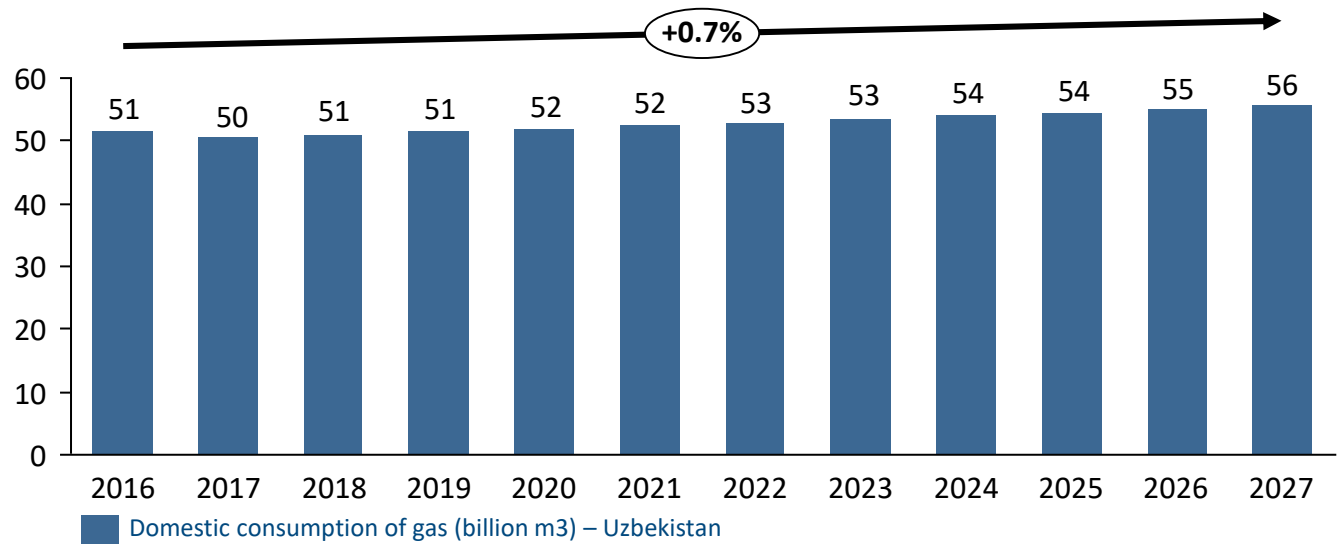
The growth of petroleum product consumption by 0.5% per annum is expected by 2027.



Domestic consumption of gas

It is expected that domestic consumption of gas in Uzbekistan, in which the energy sector dominates, will increase gradually during our forecast period through 2027.

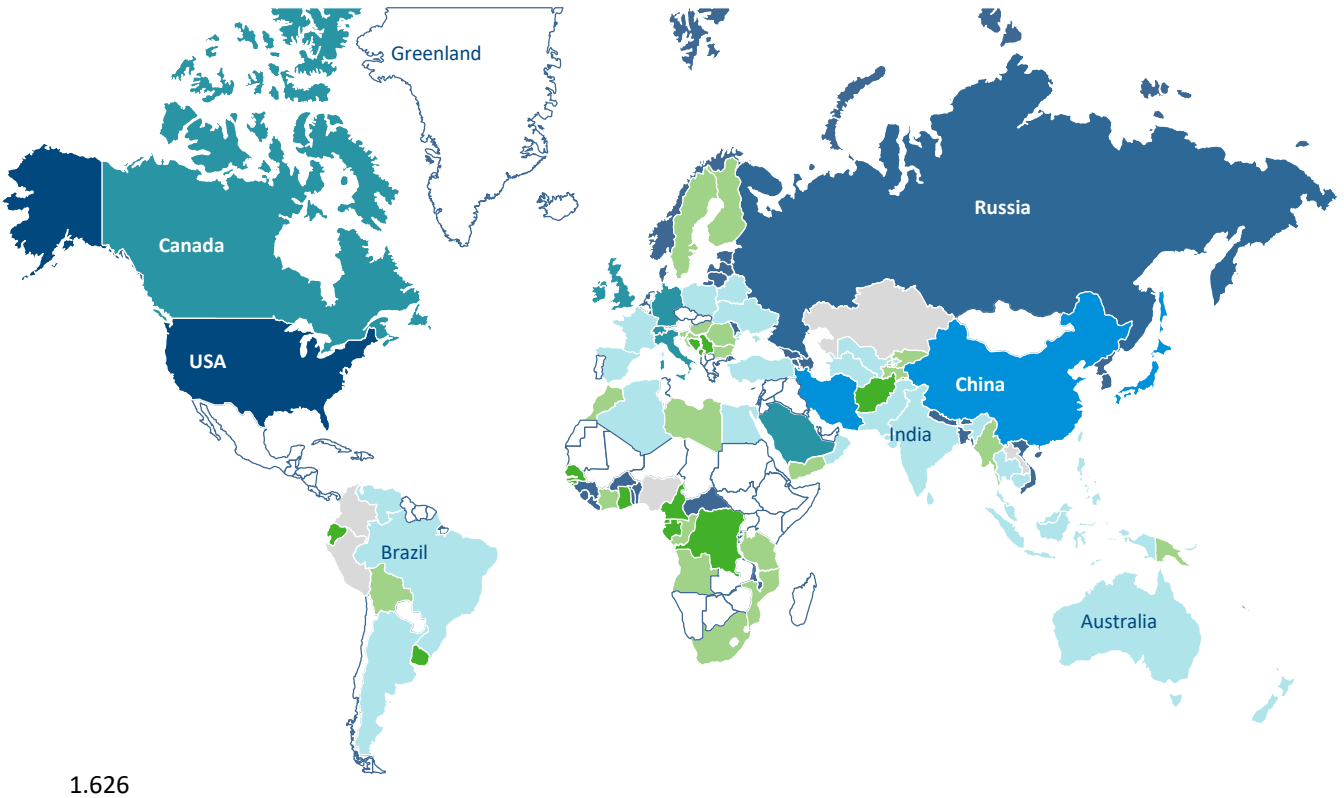
Consumption growth will be ahead of production expansion, which will affect export capabilities. However, prioritizing gas exports over domestic needs may result in a decrease in consumption forecasts.

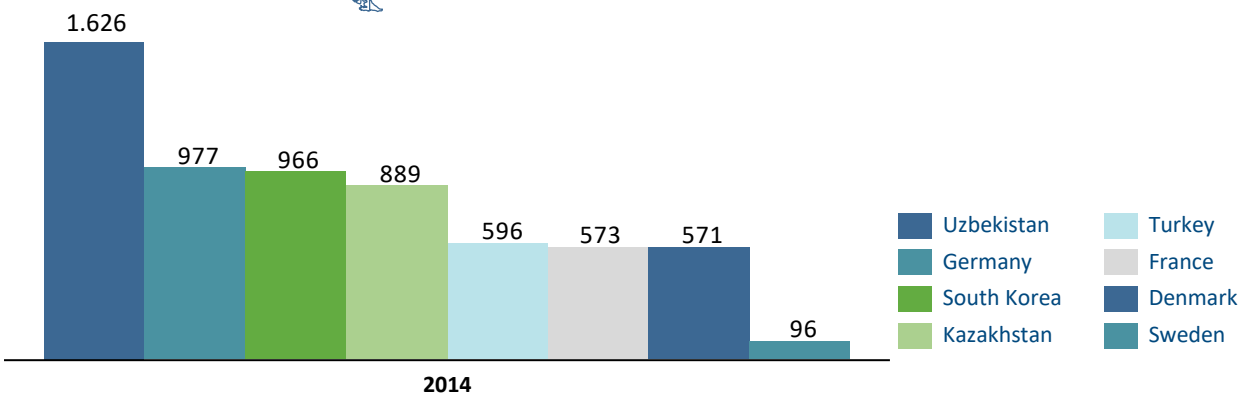


Sources: Fitch Solutions Uzbekistan Oil & Gas Report 2019

Comparative analysis of countries by internal consumption of gas in 2014

In Uzbekistan, 86% of extracted gas is consumed for internal consumption; Uzbekistan is a country with a high consumption level per capita[1]





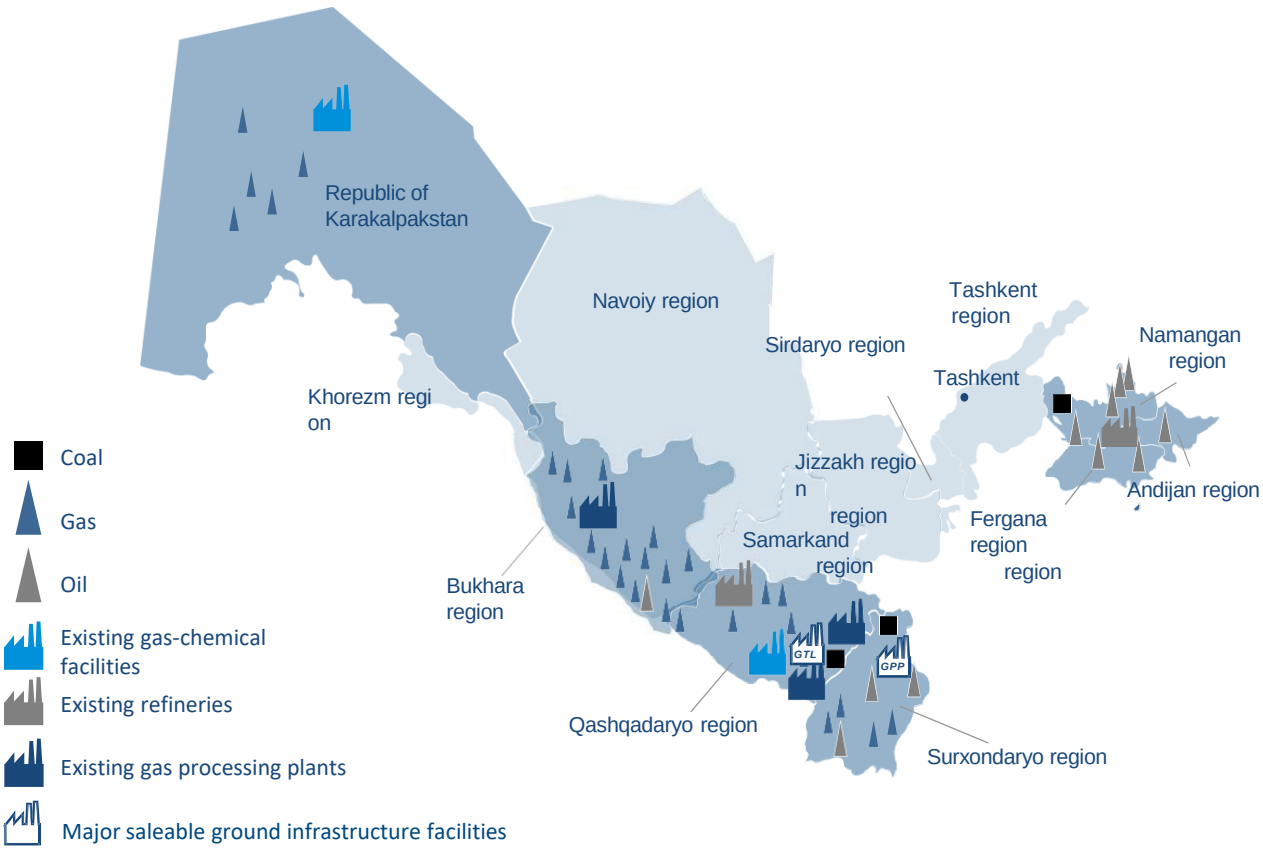
Place	Country	Per capita M^3
1	Uzbekistan	1,626.0
2	Germany	977.9
3	South Korea	966.6
4	Kazakhstan	889.8
5	Turkey	596.9
6	France	573.2
7	Denmark	571.4
8	Sweden	96.0

Source 1 – http://world.bymap.org/NaturalGasConsumption.html

Fuel and energy industry

Current level of fuel industry development

Oil and gas production and processing by region



Comments

- Proven reserves of fuel and energy resources in Uzbekistan: oil, about **82 million t**, natural gas, **1.85 trillion m³,** coal, **1.9 billion t**, including: lignite, **1.853 billion t**; black coal, **47 million t**
- Uzbekistan is ranked:
  - — **44th in the world** by oil reserves
  - — **21st in the world** in terms of natural gas reserves
- **125,000 people** are employed in the oil and gas production sector
- **210 fields with free gas deposits**
- **125 oil fields**
- The gas industry is concentrated around **Gazli and Qarshi.** The main natural gas reserves are found at **Shurtan, Zevardy, Kokdumalak, Alan, and Adamtash** fields
- Oil is mostly produced in the **Fergana valley and the Bukhara region**
- Oil fields have been discovered in **Karakalpakstan** and in 6 regions: **Qashqadaryo, Bukhara, Surxondaryo, Namangan, Andijan, and Fergana**. About **75% of oil reserves** are concentrated in the **Qashqadaryo region, including 70% at the Kokdumalak field**
- At the present time, coal is mined at three fields: **Angren lignite field, Shargun and Baisun black coal fields**

Sources: Uzbekneftegaz, WorldBank, analysis of the working group

Fuel and energy industry

Current level of fuel industry development

Natural gas | Oil

Geological exploration	Production and/or processing	Transportation	Distribution

Local and foreign companies

Geological exploration	Production and/or processing	Transportation	Distribution
Uzbekneftegaz	Uzbekneftegaz	Uzbekneftegaz	Uzbekneftegaz
Lukoil	Lukoil	Asia Trans Gas	Lukoil
Gazprom	Gazprom		JIZZAKH PETROLEUM
CNPC	CNPC		
KNOC	NaturalGas-Stream		
	PETROMARUZ		
	Uz-Kor Gas Chemical		

Comments natural gas

- The state company Uzbekneftegaz JSC is responsible for all extraction and distribution processes through its subsidiaries, while Uztransgaz JSC is responsible for gas transportation
- Large foreign companies from Russia, South Korea, and China are involved in natural gas extraction, and Lukoil is the main foreign company investing in the country There are no Western companies in the market.

Comments Oil

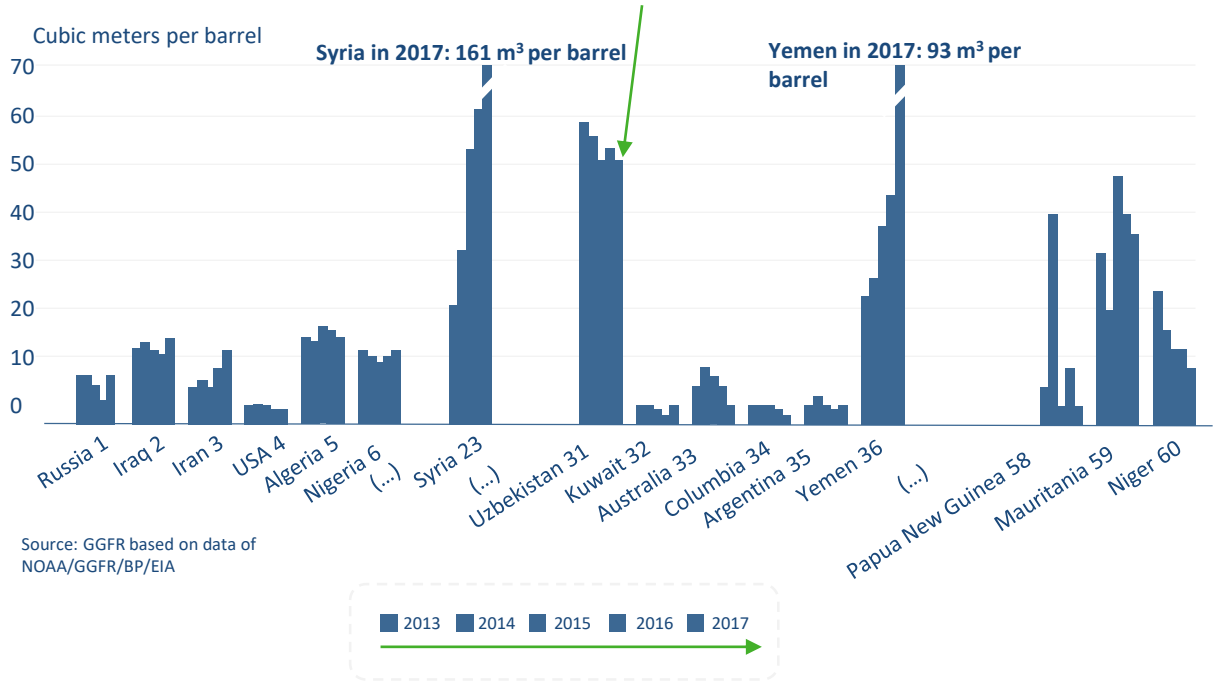
- The state company Uzbekneftegaz JSC is responsible for the upstream sector and for marketing and sales via its subsidiaries. Uznefteprodukt JSC is also involved in marketing and sales
- In the production and processing sector, Russian, Chinese, and Korean companies also operate.

Sources: Neftegaz.ru analytical agency, analysis of the working group

Unused potential for utilization of gas and exhaust heat

Flaring volume – TOP 60 countries rating, 2013–2017

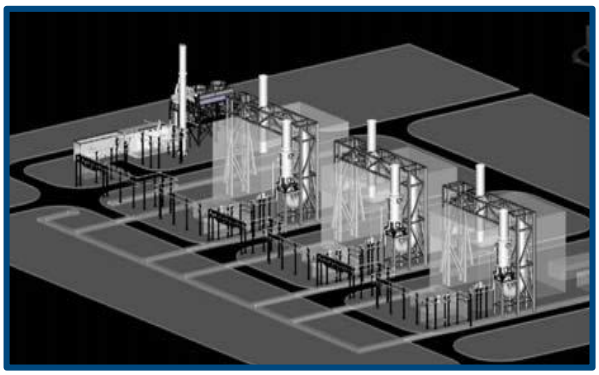
The countries are graded by the aggregate volume of flared gas in 2017
Cubic meters of natural gas flared at production of 1 oil barrel



Source: GGFR based on data of NOAA/GGFR/BP/EIA

- In 2017, Uzbekistan ranked 31st worldwide as per the volume of associated flared gas and 3rd as per the quantity of associated flared gas per barrel of oil produced and in 2013–2016 was the worst worldwide for that indicator.
- In April of 2015, Uzbekistan assumed the obligation to cease associated gas flaring by 2030 within the global partnership program of cessation of associated gas flaring (initiated by the UN and the World Bank)
- At the present, there is still no clear state program / plan or regulatory policy for the reduction of flare gas emissions.

Use of ORS technology at the Khodzhiabad booster compressor



GGFR's "Manhattan Skyline"

Global average intensity (2017): 4.8 m/bbi

According to data of Uzbekneftegaz holding company, annually about one billion cubic meters of gas is flared (according to other data, up to 1.8 billion cubic meters), and the total gas production amounts to about 53 billion cubic meters.

- Despite the fact that recently the gas flaring volume decreased by 3.5 billion cubic meters due to construction of booster compressors and associated oil gas collection systems, the potential of those projects remains undiscovered to a significant extent.
- Associated gas utilization projects have a high added value but depend on the energy transmission infrastructure.
- The potential of ORS technology use has not been discovered, even subject to financing.

Sources: WorldBank, Financial Times, analysis of the working group

Fuel and energy industry

Strategic options for regulating the sector

1

Regulated market

There is a need to improve the efficiency and payback of state assets and import technologies of foreign companies. IPO of state assets and accession to the WTO and regional integrations (similar to EU). Price deregulation due to unstable development of the industry

- The price of electricity supply is regulated by the state and, therefore, remains low
- The state provides jobs to workers by subsidizing the industry

- There is no competitive environment
- There are regulatory barriers to entering the market

Examples of countries:


China


Uzbekistan

The state will continue to play a major role in oil and gas sector development

2

Target development option

Developed market with state control

Start of privatization of state assets to increase foreign investors' interest (political reasons). Price deregulation in some areas of the sector. Gradual introduction of an antitrust law and law on countering unlawful price fixing

- Improved business climate due to reduced state participation
- Possibility of initial attraction of private investment

- This type of market is a transition market between the regulated and emerging markets, which is why it is still exposed to the impact of uncertainty

Examples of countries:


Norway

The state continues to control the market, but private players start to appear

3

Developed market with private monopolies

Completion of the privatization of public assets, involvement of large international players in the upstream sector, and in the processing and transportation sector. Disaggregation of assets in the oil and gas industry and the energy industry

- Full deregulation, except natural monopolies, which leads to the formation of a competitive environment
- Reduced barriers for entering the energy sector due to a focus on increased market efficiency

- It is likely that transitioning to a market system will reduce the number of jobs in order to increase operational efficiency

Examples of countries:


USA

Fully market-based sector, private players are the driving force of industry development

Sources: analysis of the working group

Fuel and energy industry

Target vision 2035

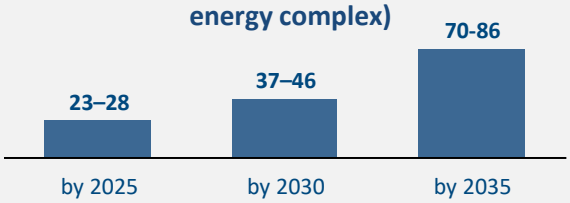
High efficiency of management of all types of energy carriers, including in terms of **cost cutting and improving labor efficiency, increasing the processing depth,** improvement of the general **energy efficiency of the economy** of the Republic of Uzbekistan, active implementation of new technologies from design to utilization of associated gas at existing entities

- Reorganizing the existing business units of Uzbekneftegaz, including through invitation of foreign managers
- Fundamental perfection of business processes in the industry (feasibility study calculation methodology, procurements, etc.)
- Privatization of unprofitable and inefficient state organizations in the industry
- Diversification of the geography of international partners of the state in the oil and gas industry
- Perfection of the methodology of theoretical and practical training of personnel and creation of incentives for popularization of the engineering profession
- Upgrade of infrastructure and increase in the raw material processing depth at refineries
- Increase in the number of fueling stations and related infrastructure
- Significant decrease in the volume of associated flared gas through the implementation of utilization technologies and the respective legislative restrictions to promote the process
- Upgrade of the power transportation infrastructure to allow entities to generate electricity not only for their own needs
- Maintenance of the industry development sequence and abandonment of economically unfeasible projects

Figures

	2017	2035
World position with regard to the volume of flared gas	31	60
Natural gas production, billion m^3/year	56	80
Gas condensate production, million t/yr	2.06	3.5

Investments (in the fuel and energy complex)

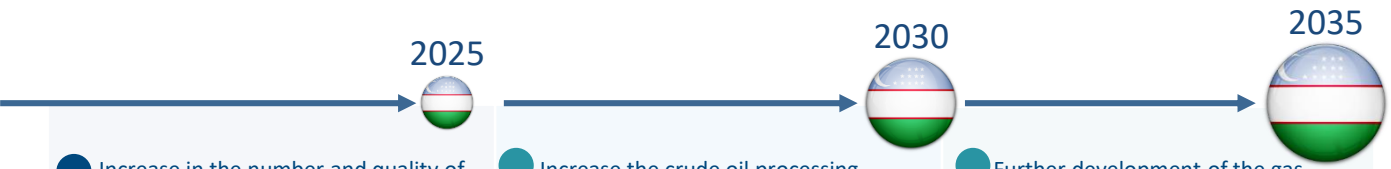


USD cumulative

Sources: 1 – State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Fuel and energy industry

Main strategic initiatives of fuel industry



- Increase in the number and quality of staff training centers for oil and gas and geological sectors and staff training in foreign countries, training of top and middle managers of the company
- Development and approval of a territorial plan for the construction and placement of filling stations
- Reorganizing the operations of Uzbekneftegaz JSC through invitation of external managers, including to provide consultations to the administrative staff
- Processing associated oil gas
- Retrofit and upgrade of refinery plants to develop technological facilities for deeper oil refining, decrease in specific oil consumption per unit of target products, and implementation of modern technologies
- Retrofit gas transport facilities, provide systematic organization of the operation process modes of the main gas pipelines, and reduce gas loss
- Bring the system of technical and environmental standards for petrochemical products in line with European Union standardization systems
- Provide for structural division and market liberalization of production and retail sale of gas, fuel and lubricants, and electricity
- Increase the overall energy efficiency of the economy, including by involving external consultants to analyze the priority areas for optimization and improvement in the oil and gas industry
- Use of power stations on low-boiling heat carriers (LBHC) using the Organic Rankine Cycle (ORS modules)

- Increase the crude oil processing depth at refineries and improve the Nelson complexity index
- Use new technologies for analysis of the state of equipment and predictive repair and for monitoring the condition of employees and use digital twins (virtual modeling of assets)
- Implementation of automated control systems and telemechanics
- Implementation of technologies for enhanced efficiency of hydrocarbon production at existing fields
- Introducing the system of compulsory quotas for employment of local personnel for foreign contractors

- Further development of the gas processing and gas-chemical industry for efficient use of valuable fractions of crude hydrocarbons and associated petroleum gas
- Automation of processes in the oil and gas industry, implementation of robotization
- Create favorable conditions for development of an ecosystem of suppliers based on SME to provide engineering and other service functions to enterprises of the industry

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.3.3

Mining and metallurgical industry

Economic development. Industry

BUYUK KELAJAK

Mining and metallurgical industry

Current level of development

Key challenges

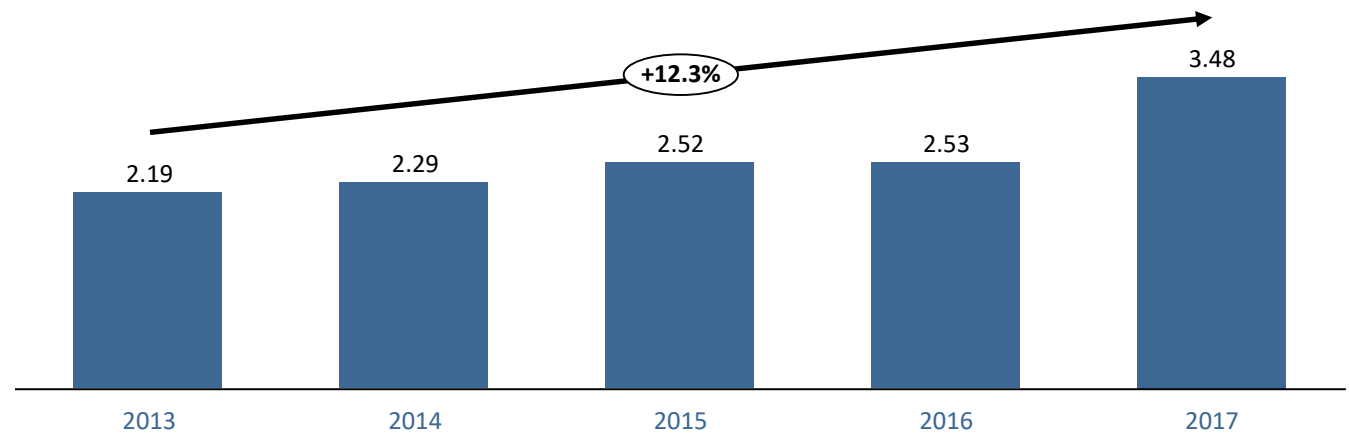
- Creation of world champions on the basis of existing entities
- Taking entities to IPO
- Reformation of the taxation system pursuant to the best world practices
- To modernize and upgrade the fleet of core process equipment in the geological industry
- Increase in the refining depth to get products with high added value
- Drilling capacity increase
- To organize the Drilling Machinery and Equipment Maintenance and Repair Center
- Implementation of systematic measures to train qualified staff in close integration of the educational process with science and production

Key findings

- The mining industry is one of the main sources of proceeds for the budget of the Republic of Uzbekistan
- Uzbekistan is amongst the top 10 world leaders in terms of reserves of gold and copper and volumes of gold and uranium production
- 2028 fields are recorded in the state balance of mineral resources of the Republic of Uzbekistan (2018): precious metals, 97 (gold, silver); nonferrous and rare metals, 12; radioactive metals, 38; ferrous metals, 5; construction materials, 867; ground water, 649; hydrocarbons, 244 (oil, gas, condensate); mining materials, 37; mining and chemical materials, 32; ornamental stone materials, 30; coal and slate coal, 7; etc., 1
- Proven gold reserves at the existing production pace will last for over 50 years; uranium, for over 20 years; copper, for over 100 years1
- About 45% of total appropriations for geological exploration work is allocated for search, assessment, and exploration of gold; about 17%, for uranium; 10%, for other metallic minerals; 4%, for ground water; 3%, for nonmetallic minerals; 7%, for regional surveys; 5%, for R&D, etc.
- On July 23, 2018, President of Uzbekistan Shavkat Mirzieev signed a Resolution to increase taxes on subsoil use in production of nonferrous and precious metals (fivefold on average). The respective changes were introduced in Annex No. 14 of Presidential Resolution No. PP–3454 dated December 29, 2017

Dynamics of subsoil tax revenue[1]

UZS trillion

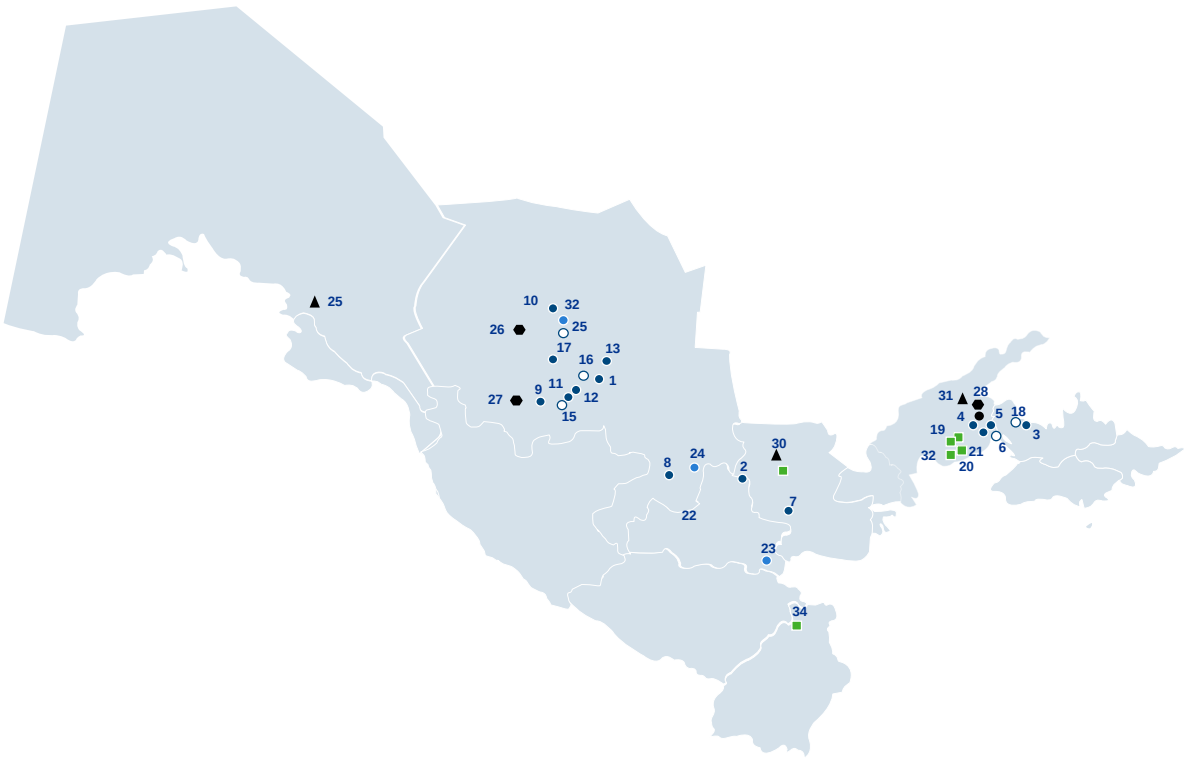


Sources: 1 – State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Mining and metallurgical industry

Current level of development

Metallogenic zoning map of Uzbekistan[1]



Gold: 1 – Muruntau and Myutenbay, 2 – Charmitan, 3 – Chadak, 4 – Kyzylalmasay, 5 – Kochbulak, 6 – Kauldy, 7 – Mardzhanbulak, 8 – Sarmich, 9 – Adzhubugut, 10 – Kokpatas, 11 – Daugyz, 12 – Amantaytau, 13 – Balpantau

Silver: 14 – Lashkerek, 15 – Vysokovoltnoye, 16 – Kosmanachi, 17 – Okzhetpes, 18 – Aktepe

Nonferrous metals (copper, lead, zinc): 19 = Kalmakyr + Dalneye, 20 = Sarycheku, 21 = Kyzata, 32 = Kurgashinkan, 33 = Uch-Kulak, 34 = Khandiza

Nonferrous metals (copper, lead, zinc): 19 = Kalmakyr + Dalneye, 20 = Sarycheku, 21 = Kyzata, 32 = Kurgashinkan, 33 = Uch-Kulak, 34 = Khandiza

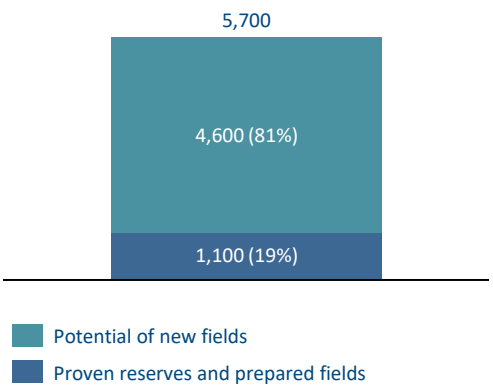
Radioactive metals (uranium): 26 = Uchquduqtau, 27 = Dzhantuar, 28 = Alatanga

Ferrous metals (iron): 29 = Tebinbulak, 30 = Temirkan, 31 = Syurenata

Ratio of the value of proven and predicted fields[1]

USD billion

- As estimated by the State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, **the value of crude mineral potential is USD 5.7 trillion**

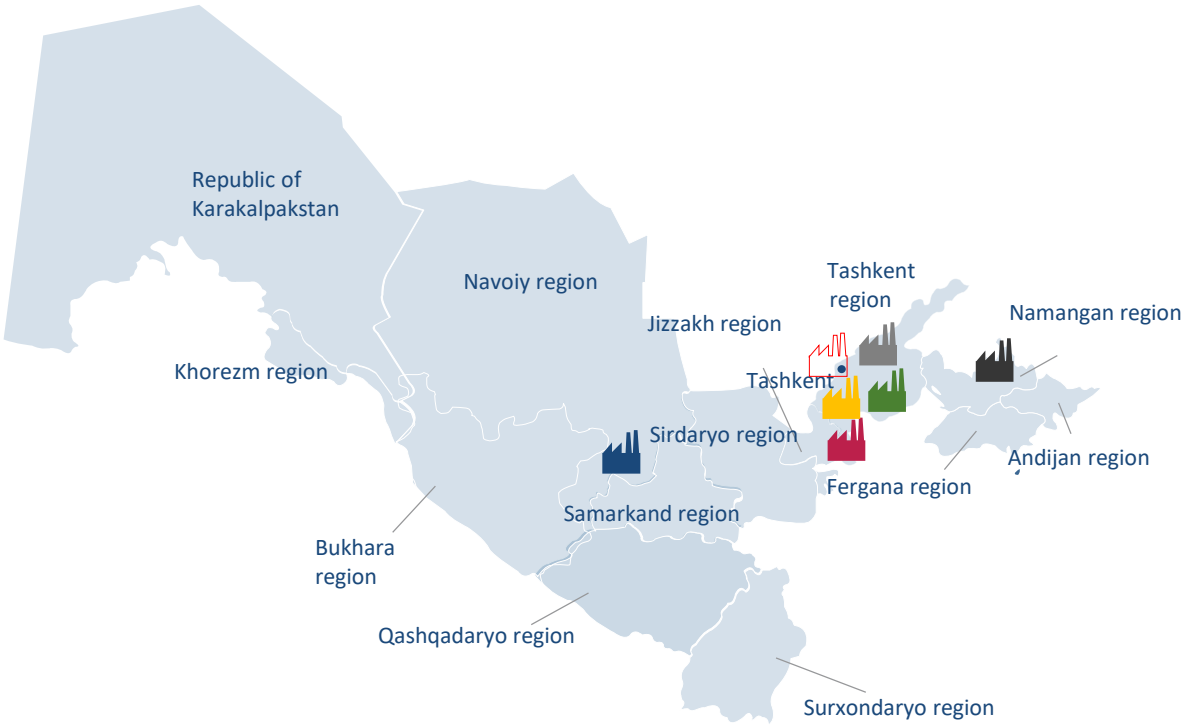


Sources: 1 – State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Mining and metallurgical industry

Current level of development

Largest metallurgical enterprises



- Almalyk MMC JSC
- Navoiy MMC JSC
- Uzbek Combine of High-Melting and Heat-Resistant Metals JSC
- UMC JSC
- Namanganmash JSC
- Tashkent Metallurgical Plant (from 2020)
- Uzvtortsvetmet JSC

Current legislation governing the mining and metallurgical industry[1]

- Activities of mining and metallurgical companies in the Republic of Kazakhstan are governed by the following legislative acts:
  - Key law: Law of the Republic of Uzbekistan "On Subsoil" adopted in 2002
- In recent years, a number of regulatory acts were adopted in Uzbekistan to expand investment cooperation in the mining and geological sector[1]:
  - Resolution of the Cabinet of Ministers No. 328 that approved the lists of prospective areas of strategically important solid minerals
  - Resolution of the President No. PP-3479 "On Measures for Stable Supply of In-Demand Types of Products and Raw Materials to Sectors of the National Economy"
  - Resolution of the President No. PP-3578 "On Measures to Improve the Activities of the State Committee of the Republic of Uzbekistan for Geology and Mineral Resources"
  - Resolution of the Cabinet Council of the Republic of Uzbekistan No. 849 dated October 18, 2017, "On Measures to Improve the System of Collection, Delivery, and Processing of Junk and Waste Nonferrous Metals"
  - Resolution of the Cabinet Council of the Republic of Uzbekistan "On Measures to Improve the Procedure for Handling Scrap and Waste Nonferrous and Ferrous Metals"

Sources: 1 – State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Mining and metallurgical industry

Current level of development

Production of all metals is currently concentrated in four major state entities

Nonferrous metallurgy

Navoiy MMC SC[1]

- Navoiy MMC is one of the largest **gold producers** in Central Asia
- The combine is **fully** owned by the state
- The main gold mining base of the enterprise is the **Muruntau field** (Central Kyzylkum), which has been mined since 1967
- Gold production at NMMC has been about **80 t in recent years compared to 100 t of the country's total production of this metal**
- The NMMC production complex currently unites four metallurgical plants in: **Navoi (MMC-1), Zarafshan (MMC-2), Uchquduq (MMC-3), and Zarmitan (MMC-4)**

Almalyk MMC JSC[2]

- Almalyk MMC is the **only copper producer** in Uzbekistan
- The state's share in the combine is **97.53%,** which is controlled by SFI Management Group
- The enterprise produces **refined copper, zinc metal, lead and molybdenum concentrates,** and other products
- AMMC accounts for about **90% of silver production and 20% of gold** production in the country
- Since 2015, assets of Uzbek Combine of High-Melting and Heat-Resistant Metals JSC (**UzCHHM, Chirchiq, Tashkent region**) have been fully transferred to AMMC. Therefore, this enterprise has also become a monopolist in the production of **tungsten**

Uzvtortsvetmet JSC[3]

- Uzvtortsvetmet JSC is the sole entity on the territory of the Republic of Uzbekistan **that handles scrap and waste ferrous metals**
- The state's share in the entity is **50.5%,** which is controlled by SFI Management Group
- The entity produces secondary aluminum, copper-based nonferrous alloys, lead alloys, scrap and waste nonferrous metals, and other products

Ferrous metallurgy

Uzmetcombine JSC[4]

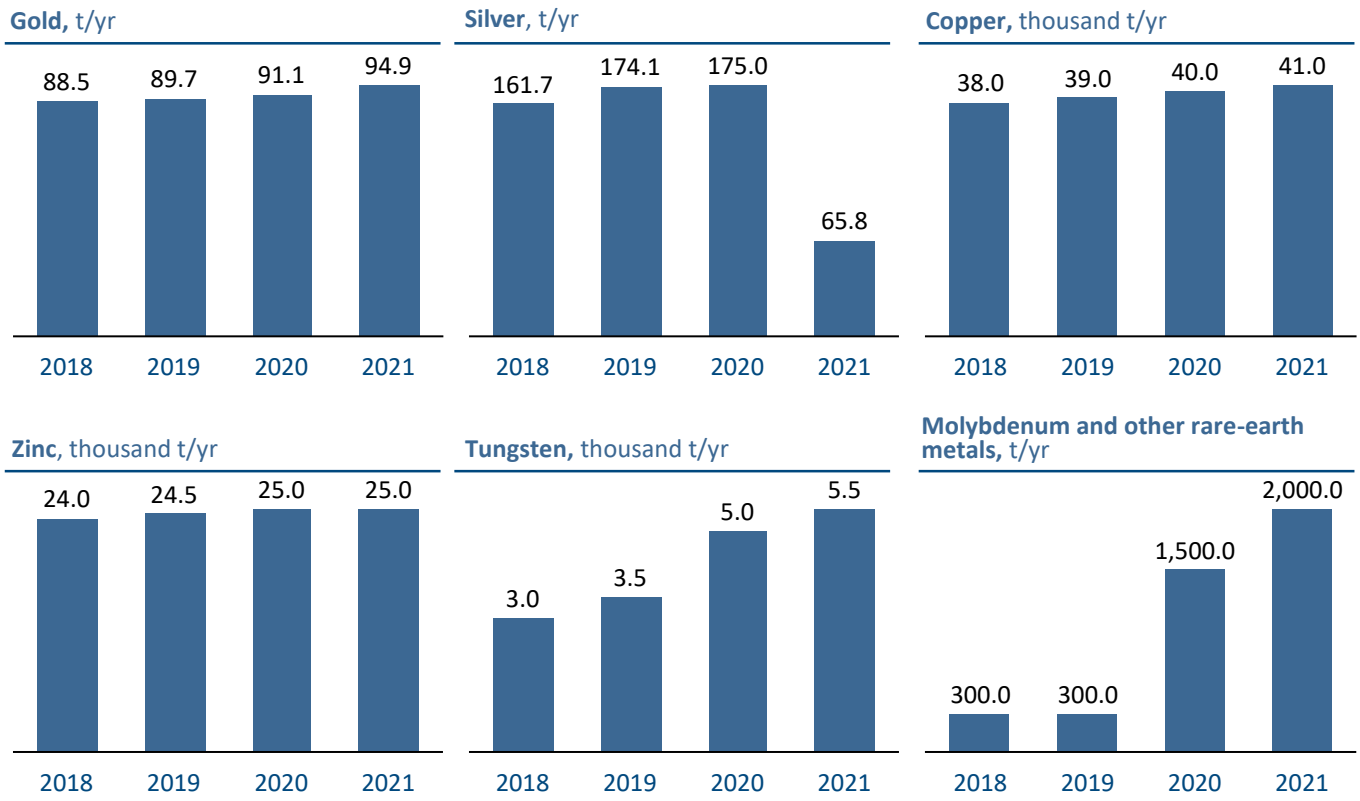
- Uzmetcombine is **the leading ferrous metallurgical enterprise** in Uzbekistan
- The state's share in the combine is **74.1%,** which is controlled by SFI Management Group
- As estimated by experts, only 36.1% of Uzbekistan's current total demand for rolled ferrous metals is satisfied by processing scrap and waste ferrous metals at JSC Uzmetcombine in Bekabad. The remaining portion (63.9%) is imported from CIS countries, mostly from Russia, Kazakhstan, and Ukraine[5]

Sources: 1 – ngmk.uz, 2 – agmk.uz, 3 – http://uzvtorcvetmet.uz/ru/, 4 – uzbeksteel.com; 5 – S. N. Khamishova. The Development of Ferrous Metallurgy of Uzbekistan Amid Modernization of the National Economy. Young Scientist, State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Mining and metallurgical industry

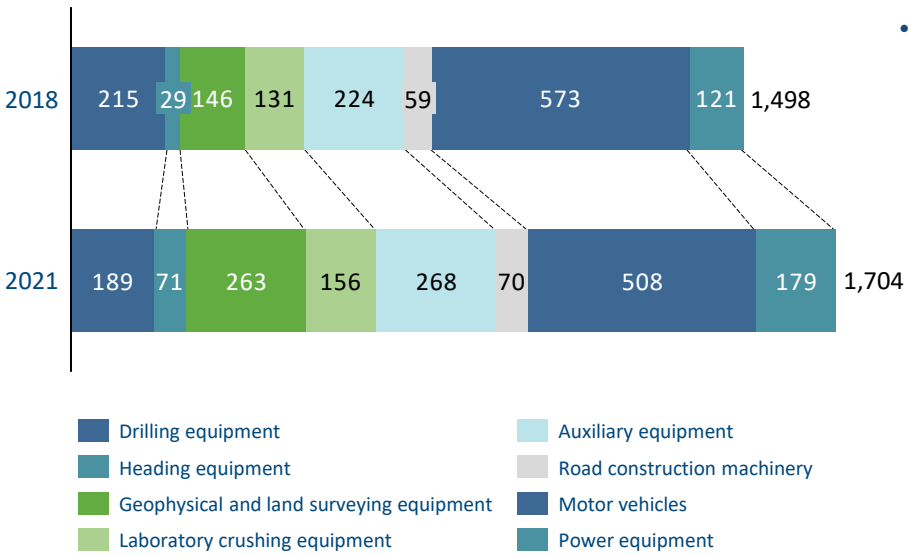
Current level of development

Predicted growth in reserves of the main types of mineral resources until 2021[1]



Plan for upgrade and technical renovation of the main process equipment fleet in the geological industry[1],

units



- The plan for the upgrade and technical renovation of the process equipment fleet includes reducing the number of fully obsolete equipment (**from 49% to 13%**) and increasing the overall amount of equipment in use

Sources: 1 – State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Mining and metallurgical industry

Further development of mining and metallurgical enterprises

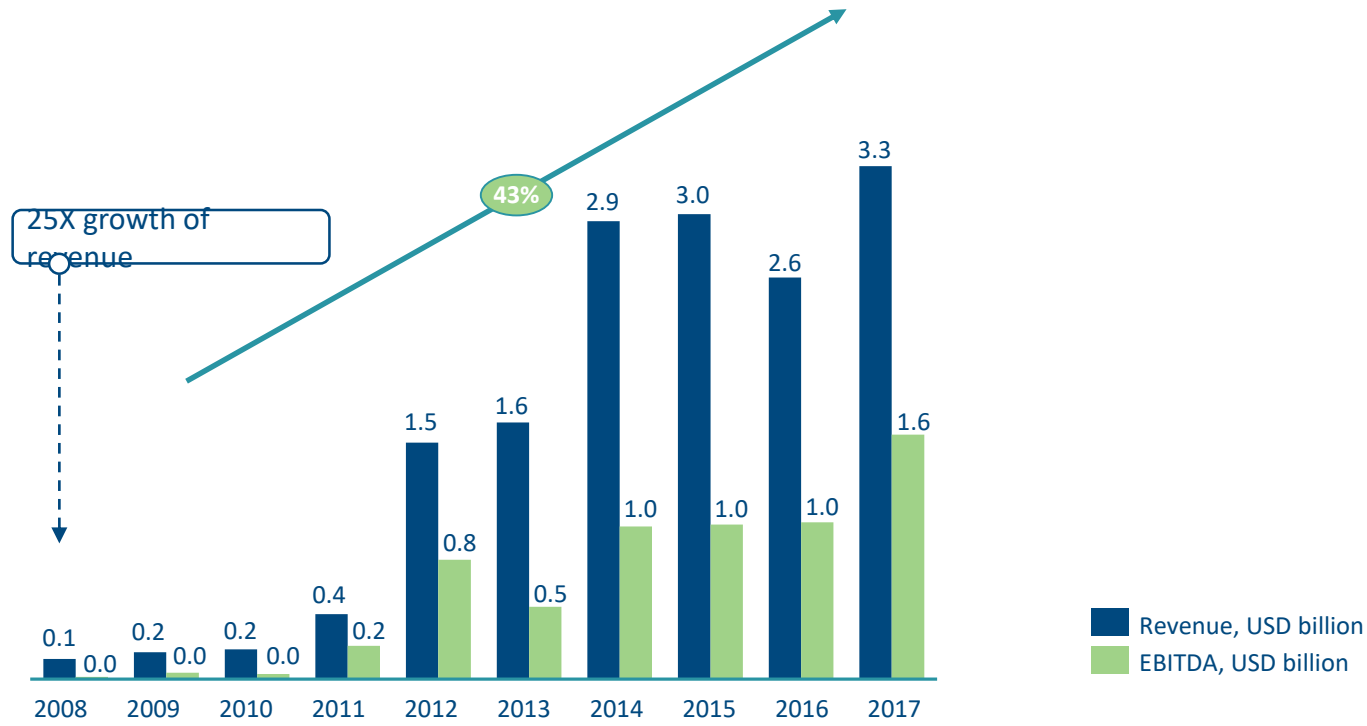
Taking mining and metallurgical enterprises to IPO

- To allow the mining and metallurgical complex to contribute to further active growth of the economy of Uzbekistan, it is necessary to perform financial rehabilitation of the largest mining and metallurgical enterprises and to make them reach IPO after prior transfer to private management
- This method has been used in several countries:
  - For example, Saudi Arabia transferred its main mining company Maaden to private management and thus increased its value and the volume of transfers to the budget of Saudi Arabia several-fold.
  - Botswana and Chile implemented similar strategies with their main mining companies

Engaging international experts allowed Maaden to increase the cost of the company and the volume of revenues to the budget of Saudi Arabia several-fold

- ✓ Implementation of up-to-date methods of corporate governance
- ✓ Engagement of international experts
- ✓ Implementation of operating measures to improve production
- ✓ Attracting international debt financing
- ✓ IPO at international stock exchanges

Financial indicators (Maaden)

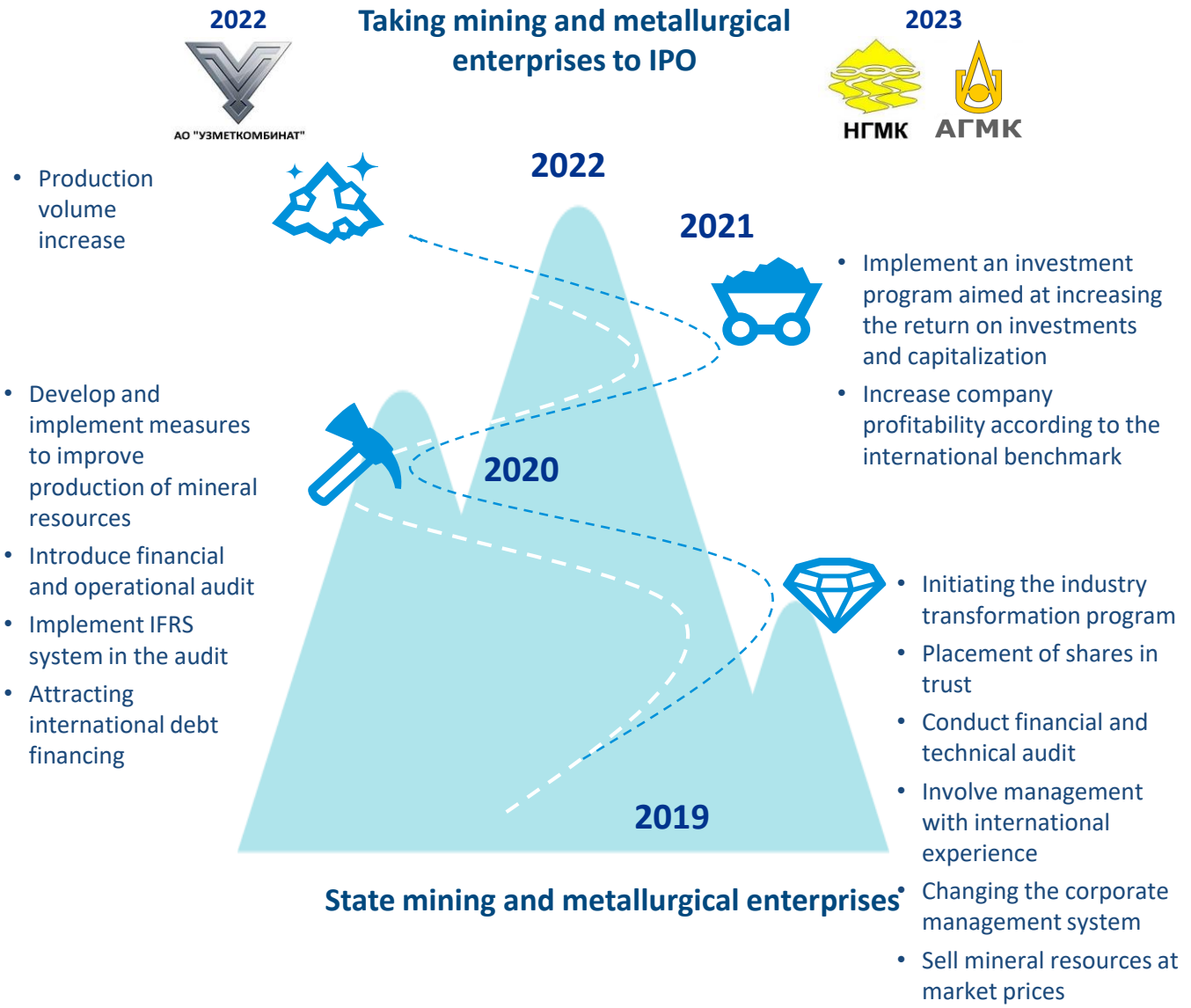


Sources: BUYUK KELAJAK expert data, analysis of the working group

Mining and metallurgical industry

Further development of mining and metallurgical enterprises

Taking mining and metallurgical enterprises to IPO



- Production volume increase

- Develop and implement measures to improve production of mineral resources
- Introduce financial and operational audit
- Implement IFRS system in the audit
- Attracting international debt financing

- Implement an investment program aimed at increasing the return on investments and capitalization
- Increase company profitability according to the international benchmark

- Initiating the industry transformation program
- Placement of shares in trust
- Conduct financial and technical audit
- Involve management with international experience
- Changing the corporate management system
- Sell mineral resources at market prices

Mining and metallurgical industry

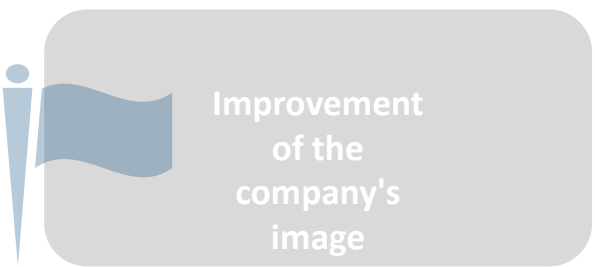
Further development of mining and metallurgical enterprises

IPO of state entities is the best strategy for development of the industry and image improvement for the state

IPOs offer **the fairest assessment of** the market value of assets. Companies entering the stock market shall comply with **high standards of** disclosure of financial and business information and create **investment attractiveness** for potential investors. According to Megginson (2000), in countries where privatization was performed through the transfer of assets to private investors, that process often was nontransparent and encumbered with insider transactions and corruption. Despite the benefit for investors, the state and taxpayers usually did not receive the profit due to underestimated prices of assets during the privatization.

Shareholders may receive benefit due to **the higher liquidity of** company shares and **an increase in their value**. In time, business owners can sell a portion of their portfolio of shares on the open market or use them as a pledge for loans

Granting rights to company shares may facilitate recruitment of key employees and preservation of their long-term **motivation**.



By placing company shares on a properly chosen exchange, a company may become **better known in the market**, ensure **brand awareness** and receive **recognition at the international level**, and in general enhance **the confidence** of stakeholders in the company.

Mining and metallurgical industry

Further development of mining and metallurgical enterprises

Prior to the IPO, a set of requirements for information disclosure must be met, and international standards must be implemented

GRI – requirements for information disclosure

GRI (Global Reporting Initiative) determines the structure of information to be disclosed within the framework of the sustainable development concept and preparation for IPO

That assessment expands the horizons of financial reporting and provides a broader view of long-term projects. Reporting helps understand the social and ecological contribution of an entity, the value of its products and services from the standpoint of sustainable development.

International Financial Reporting Standards

IFRS (International Financial Reporting Standards) is a set of documents (standards and interpretations) regulating the rules for preparation of financial reporting necessary for external users to make economic decisions with respect to an entity

Joint Ore Reserves Code

JORC is a key standard that is used worldwide and regulates preparation of reports on the results of prospecting surveys, mineral resources, and ore reserves.

Mining and metallurgical industry

Tax system of the mining and metallurgical industry of Uzbekistan

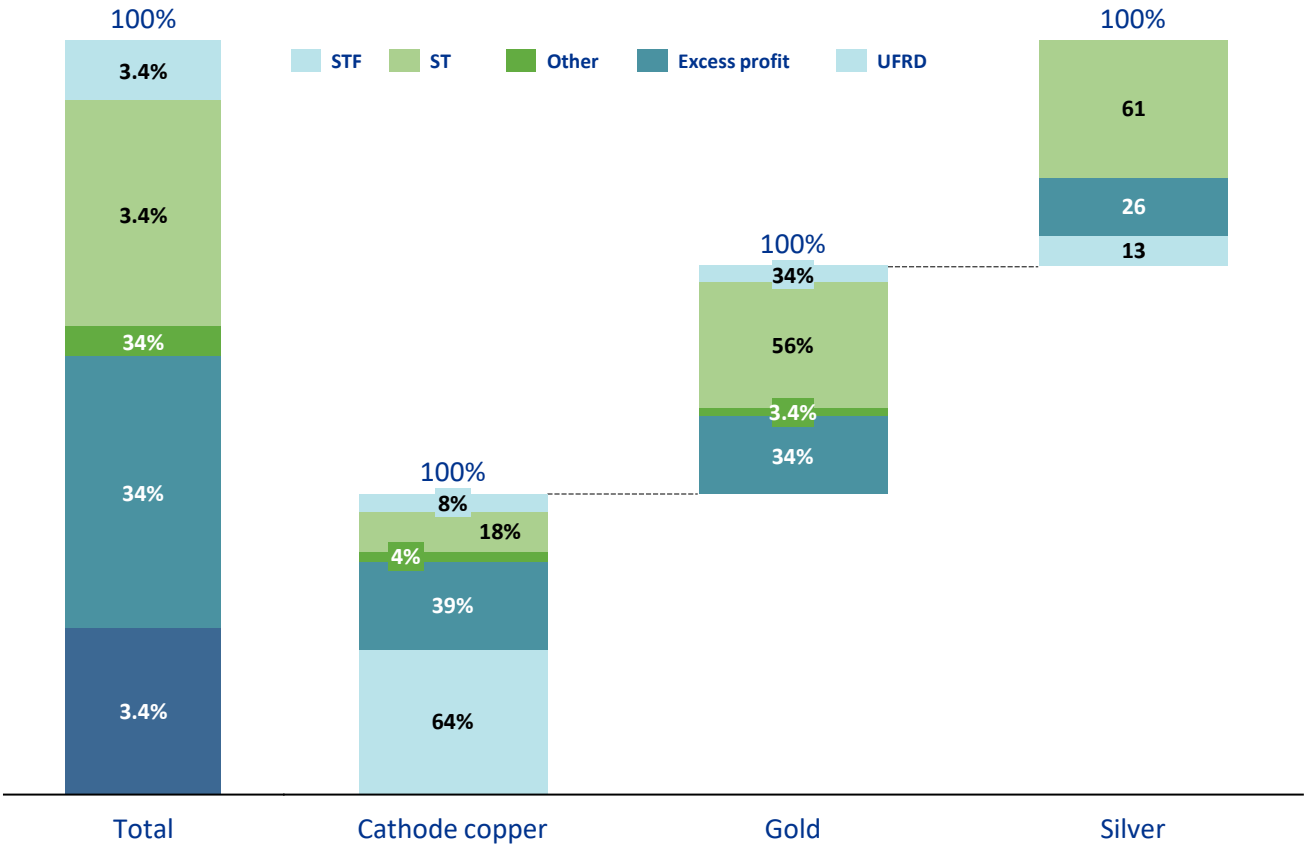
Under the current tax system for mining and metallurgical enterprises, the effective rate ranges from 113% to 416%

At the present time, mining and metallurgical companies are subject to following taxes and charges:

- State target fund 3.5%
- Extraction tax 4.0%–10.4% (royalty, for metals)
- Profit tax 14%
- Excess profit tax 50%
- Payments to UFRD (if copper price is > USD 5,600/t)
- Other taxes and charges

Tax liabilities of a large mining and metallurgical enterprise in 2017 by metals

%



Tax system of the mining and metallurgical industry of Uzbekistan

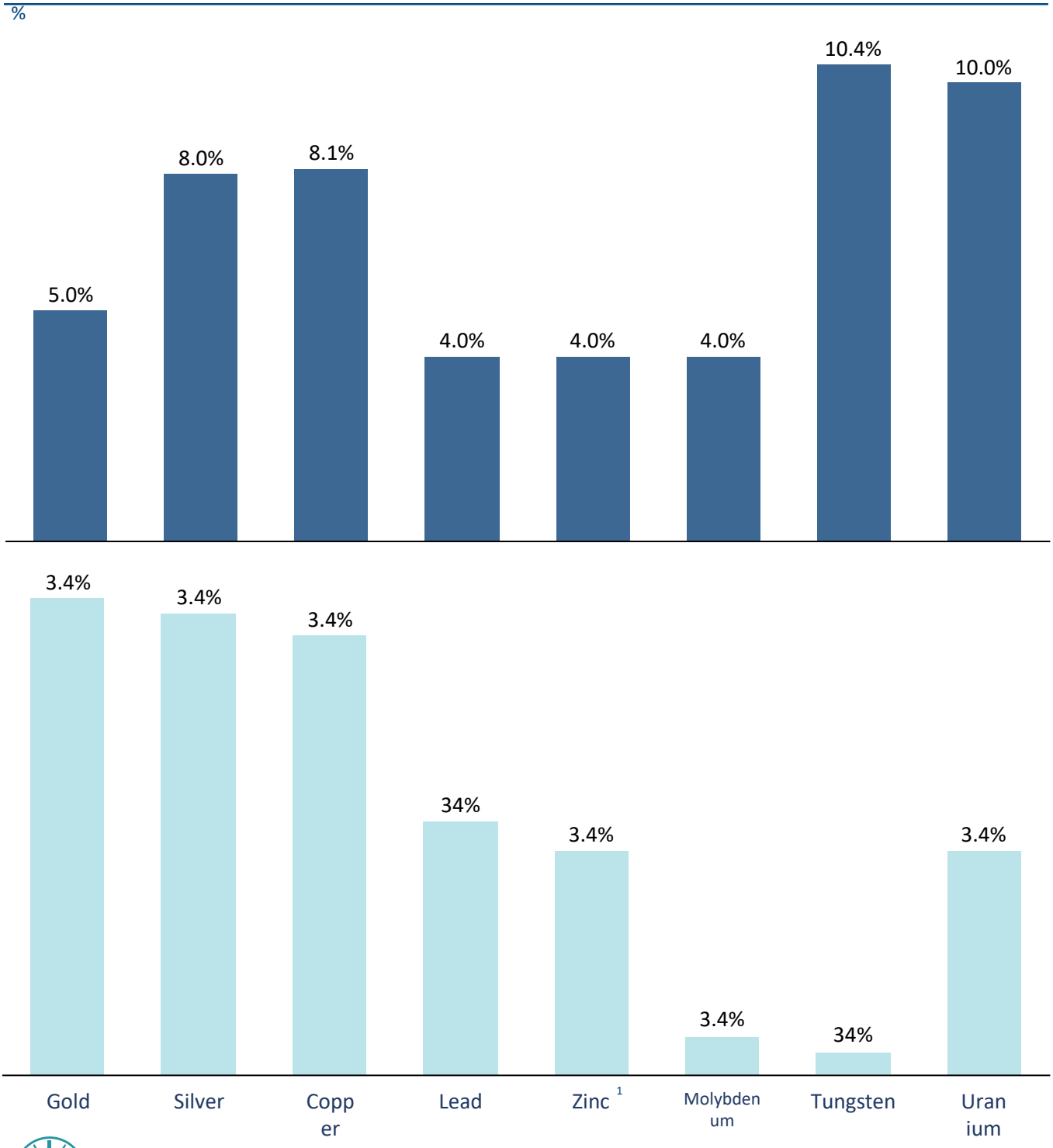
- State companies significantly understate their profits in reports for the purpose of payments to the UFRD and the excess profit tax
- In global practice, the owner state withdraws funds through dividends, which is not reflected in P&L, and thus allows the company to show profits and raise external debt financing

Sources: BUYUK KELAJAK expert data, analysis of the working group

Mining and metallurgical industry

Tax system of the mining and metallurgical industry of Uzbekistan

EBITDA margin for key metals and current extraction tax rates



24

Production of all metals is currently concentrated in state enterprises

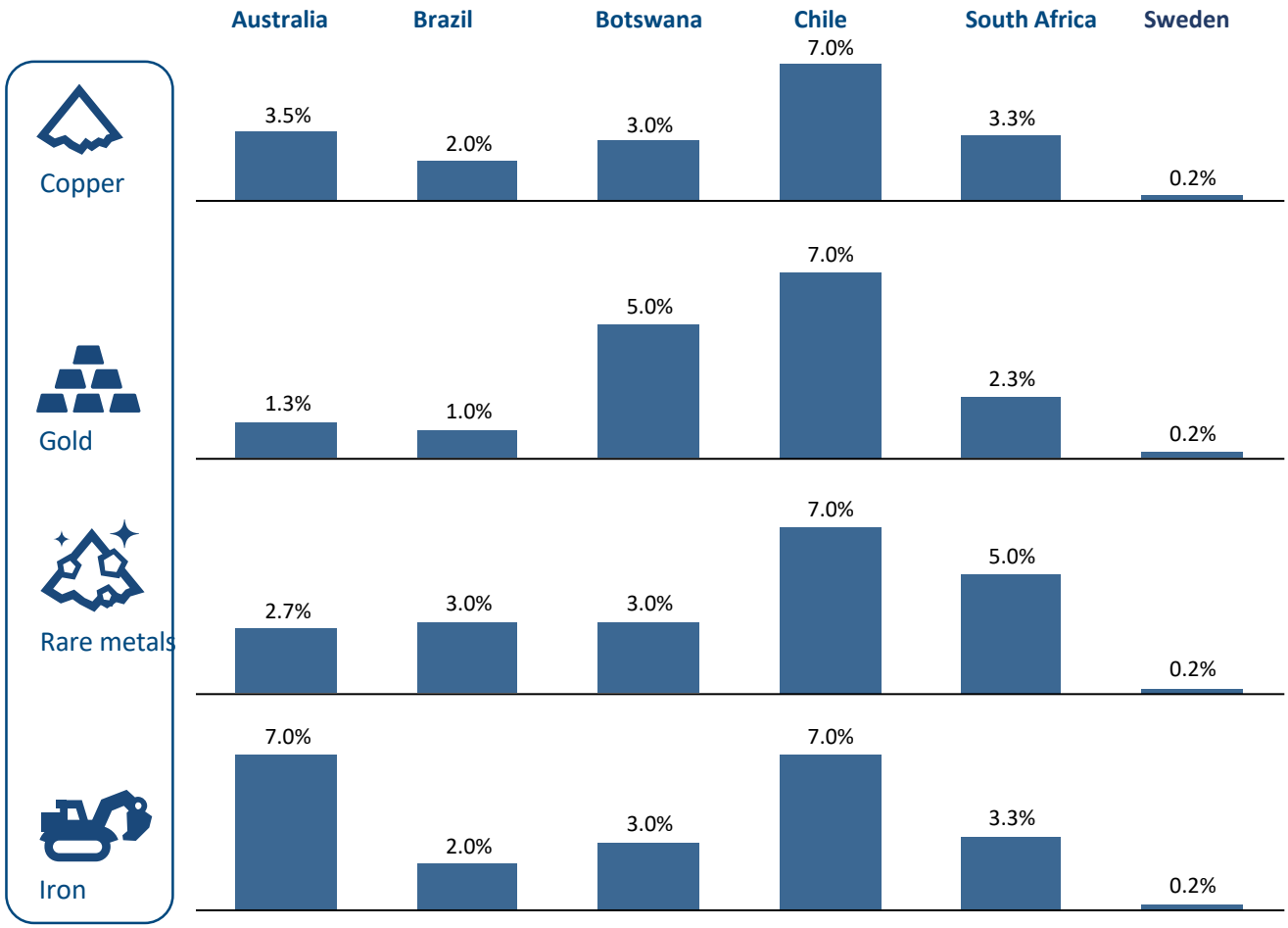
Sources: BUYUK KELAJAK expert data, analysis of the working group
Note: 1. Average margin in 2017 according to Glencore, Vedanta Resources, Teck Resources, KazMinerals

Mining and metallurgical industry

Practice of diversification of royalty rates within the metals category

Royalty rate on metals

% of net revenue



Comments

- In countries with a developed mining and metallurgical industry, the government sets different royalties for metal production
- Royalty rates usually depend on the margin of metals and on the desire of the country to stimulate investments in a certain industry
- The tax scheme in different countries also differs in additional benefits
- The main difference is a different set of benefits and mechanisms for stimulating investing activities:
  - Accelerated depreciation
  - Writing off capital expenditures in OPEX
  - No limitations on the carry-forward of loss, etc.

Note: 1. The average rate is specified, the range is established by law; 2.7%–3.5% 2. The average rate is specified, the range is established by law; 0.0%–2.5% 3. The average rate is specified, the range is established by law; 6.5%–7.5% 4. The average rate is specified, the range is established by law; 0.0%–14.0% 5. The average rate is specified, the range is established by law; 0.5%–7.0% 6. The average rate is specified, the range is established by law; 0.5%–5.0%

Sources: BUYUK KELAJAK expert data, analysis of the working group

Mining and metallurgical industry

Examples of the most successful tax schemes by metal

	Copper	Gold	Rare metals	Iron
Country	Chile	Australia	Australia	Brazil
Royalty rate	**0–14%**	**0–2.5%**	**2.7%**	**2.0%**
Specific terms for CODELCO	• 10% royalty on export revenue from the sale of copper • Designated use of funds received from royalty	• Accelerated depreciation • No restrictions on carrying forward losses	• Accelerated depreciation • No restrictions on carrying forward losses	• License fee • No tax on dividends

	Description
Chile	Copper is the key source of receipts to Chile's budget. Chile is also home to CODELCO, the world's largest producer of copper.
Australia	Australia ranks second in the world by gold production volume. Australia's gold mining industry is the key industry in the country due to its direct impact on the economy (exports: USD 15–20 billion per annum). Gold is produced at 75 open and underground mines. There are also about 20 mining enterprises where gold is recovered as an associated product.
Australia	Rare metals hold a special niche in the economy of any country. As distinct from gold or other metals, junior miners deal with the development of rare metals. One of the key examples in the area of taxation is Australia, where one-third of worldwide production of rare metals is concentrated. Usually, junior miners deal with the production/development of rare metals.
Brazil	Brazil ranks third in the world for iron ore production. About 90% of commercial iron ore in Brazil is produced by Vale, the largest mining company. The company ranks first in the world by volume of iron ore reserves and second by production volumes.

Sources: BUYUK KELAJAK expert data, analysis of the working group

Mining and metallurgical industry

Summary of suggested changes to the tax system for mining and metallurgical companies

There are currently no private mining companies in the Republic of Uzbekistan, except for isolated companies engaged in waste processing. Because of this, the state loses significant potential tax proceeds from private individuals. In addition, it limits the opportunity to create new jobs in the private sector.

1. Changes in the current tax and royalty system:

- Obtainments of money through dividends for the state-owned companies
- Abolishment of the PSA (Production Share Agreement) system for mining companies
- Reforming the taxation system (in particular, subsoil use tax) pursuant to the best world practices

2. Creation of a system of benefits for new enterprises/projects in the industry:

- Accelerated depreciation. For example, investments in infrastructure, transportation, and construction of facilities and equipment for mining activities (including gas pipelines, power lines, roads) are subject to accelerated depreciation, 33% annually
- Carry-forward of tax losses. Taxpayers of mining operations have the right to carry forward their tax loss with no restriction on time
- Write off of capital expenditures. Mining companies are entitled to deduct up to 100% of their capital expenditures associated with project exploration and development, including expenses on obtaining a license for field exploration and development, etc., from their taxable income.
- 30 years of tax stability
- Exemption from import duties on capital investments
- Early VAT refund

Sources: BUYUK KELAJAK expert data, analysis of the working group

Mining and metallurgical industry

Strategic options

1

State assets

There is a need to improve the efficiency and payback of state assets and import technologies of foreign companies. IPO of state assets and accession to the WTO and regional integrations (similar to EU). Price deregulation due to unstable development of the industry.

+

- The state provides jobs to workers by subsidizing the industry

–

- There is no competitive environment
- There are regulatory barriers to entering the market
- Unsustainable infrastructure assets require investments of private capital

The state will continue to play a major role in mining and metallurgical industry development

2

Asset privatization

Privatization of state assets is fully complete, attraction of large international players in the sector of production, processing, and enrichment of crude minerals

+

- Full deregulation leading to the formation of a competitive environment
- Reduced barriers for entering the mining sector due to a focus on increased market efficiency

–

- Unstable effective demand of associated sectors of the national economy

Complete privatization has been carried out, and private players are the driving force of industry development

3

Target development option

IPO

Creation of world champions on the basis of existing mining companies, with subsequent IPOs

+

- Liquidity enhancement
- Incentives for key specialists
- Improvement of the company's image

–

- Openness of information about operations of companies often entails a situation when executives start working on accomplishing short-term targets rather than achieving objectives that promote long-term growth

The first initial public offering by a mining and metallurgical enterprise was conducted

Sources: analysis of the working group

Mining and metallurgical industry

Target vision 2035

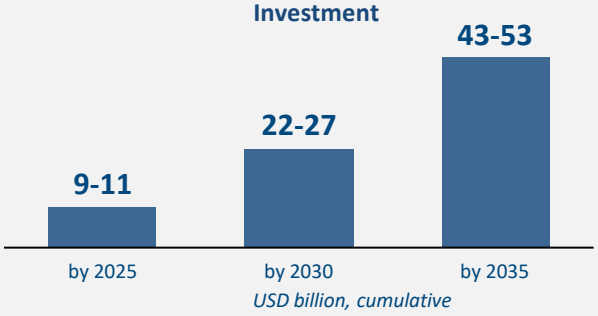
High efficiency of MMC management, including in terms of cost reduction and improvement in labor efficiency, and increase in crude materials refining depth

- Creation of world champions on the basis of existing mining companies
- Taking entities to IPO
- Reforming the taxation system (in particular, subsoil use tax) pursuant to the best world practices
- Increase in the number of staff training centers for the geological sector and train personnel in foreign countries
- Increase rock recoverability
- Reorganizing the operation of existing mining and metallurgical enterprises by inviting contracted managers
- Reduce the occupational injury and mortality rate
- Create a tungsten industry cluster in the Republic of Uzbekistan
- Use design and information support technology for mining operations (mathematical simulation of subsoil, calculations of the optimal forms of open pits, and the schedule of mining operations development, ore separation)
- Stop the program of state subsidies for state enterprises

Figures

	2017	2035
Number of open fields[1]	1931	2124
Gold production, t/yr[1]	100	150

Investment



Sources: 1 – State Committee of the Republic of Uzbekistan for Geology and Mineral Resources, analysis of the working group

Mining and metallurgical industry

Key strategic initiatives

- Increase in the number of staff training centers for the geological sector and train personnel in foreign countries
- Build the infrastructure for transportation of raw materials
- Ensure the investment attractiveness of projects on manufacturing highly processed metallurgical products, special steels, and alloys by eliminating regulatory and infrastructure restrictions
- Create industrial clusters uniting manufacturers of primary metals and products of subsequent process stages
- Implement the "use it or lose it" principle in subsoil use that would allow cancellation of licenses under which no production is performed
- Implement procedures to facilitate awarding of geological exploration contracts
- Upgrade the system of evaluation and accounting of ore reserves with a more precise assessment of recoverability
- Create the regulatory framework for selling emission quotas under the Kyoto Protocol in case of increased eco-friendliness of the production process
- Implement professional operating standards aimed at reducing the accident rate, increasing safety, and improving labor conditions at the enterprises of the industry
- Develop a leasing system for production equipment, including mining and smelting equipment

- Use design and information support technology for mining operations (mathematical simulation of subsoil, calculations of the optimal forms of open pits, and the schedule of mining operations development, ore separation)
- Use IIOT (Industrial Internet of Things) technology for analysis of the state of equipment and predictive repair
- Develop and implement measures aimed at increasing provision of junk to the enterprises, including by intensifying imports
- Implement technology aimed at processing solid man-made waste of the industry, including for repeated recovery of ore material
- Reduce the occupational injury and mortality rate
- Organize compulsory long-term production practice for students of higher and vocational educational institutions based on the example of France and Germany
- Subsidize advanced training programs for staff, including with a focus on safety aspects
- Activities to motivate SME within the framework of developing an ecosystem of suppliers
- Implementation of the ore mining reserves assessment and account in accordance with the international standards JORC and Uzbekistan's joining the Combined Reserves International Reporting Standards Committee

- Apply remote control of machines
- Total robotization of the technological equipment in production, processing, and enrichment sectors
- Encourage development of new materials to mitigate the risks of sales reduction as a result of replacement of metallurgical products with substitute goods in the long-term
- Increase ferrous metallurgical products produced by expanding domestic demand from the construction industry, which will be provided due to the following factors: replacement of obsolete housing stock; increase in the residential area indicator per capita; replacement of housing and utility infrastructure; encouragement of the use of metal in construction
- Government support of projects to reduce excess facilities, shut down ineffective production facilities, or change their profile in single-industry towns
- Increase in the output of existing MMPs involving cut-off grade ores and mineralized bulk in processing

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Mining and metallurgical industry

Key strategic initiatives

- Create a tungsten industry cluster in the Republic of Uzbekistan
- Reform the Tax Code for mining companies according to international standards
- Permitted accounting of capital expenditures related to exploration and processing in full in the company's financial statements for the year in which such expenses were incurred
- Permitted accelerated depreciation (up to 33% annually) for investments in infrastructure, transport, and equipment for mineral production

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.2.4

Automotive industry

Economic development. Industry

Automotive industry

Current level of development

Key challenges

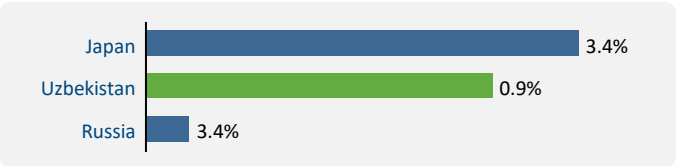
- High customs duties (about 30%)* and excise taxes on imported vehicles
- Low availability of cars: 76 cars per 1,000 people[1]
- High product cost and low labor efficiency
- Low level of localization and dependence on import deliveries
- Untimely update and obsolete product range
- Lack of own engineering base and low scientific and technological potential
- Insufficient effectiveness of HR policy

Key findings

- Significant share of the automotive industry in GDP: about 8%
- Forecasted increase in the number of jobs in the industry from 37,000 in 2018 to 50,000 in 2035 [2] due to localization of the production of international companies
- Uzbekistan's automotive market in 2018 shows a positive trend: the market capacity was 203,000 cars in 2018 and grew by 72% against the previous year
- Existing production facilities of the automotive industry are potentially enough to manufacture 400,000 cars annually, but they are utilized at half of their full capacity[2]
- A closed market and lack of competition lead to the overvaluation of vehicles in the domestic market compared to the export market for the purposes of currency earnings
- High import duties and poor solvency of the population limit the market's development

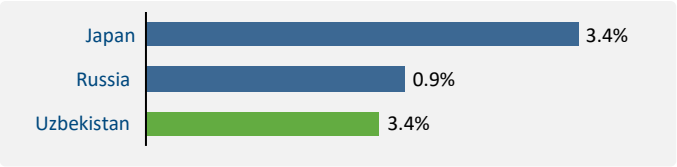
Share of the automotive industry in GDP, 2018[2]

USD billion



- The automotive industry's share in GDP varies from 1% in Russia to 10% in Japan

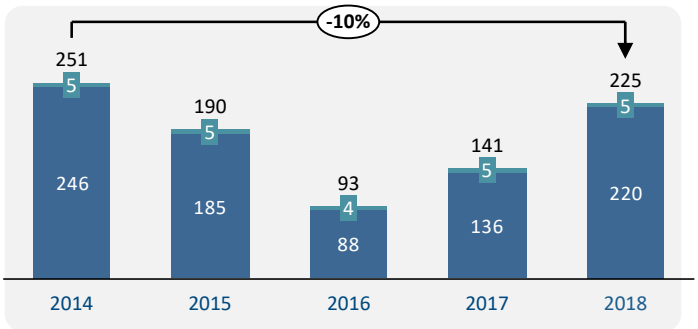
Share of the automotive industry in the total volume of industry, 2018[2]



- Uzavtosanoat JSC is the Uzbek holding company controlling vehicle production plants. At the present time, it is the only automotive industry enterprise in Uzbekistan

Production volume of the main types of products[2]

thousand units



- The decline in vehicle manufacturing in Uzbekistan in 2015–2016 was caused by the crisis in the Russian automotive market, which is the leading export market for Uzbek automobile manufacturers with over 50% share[3]

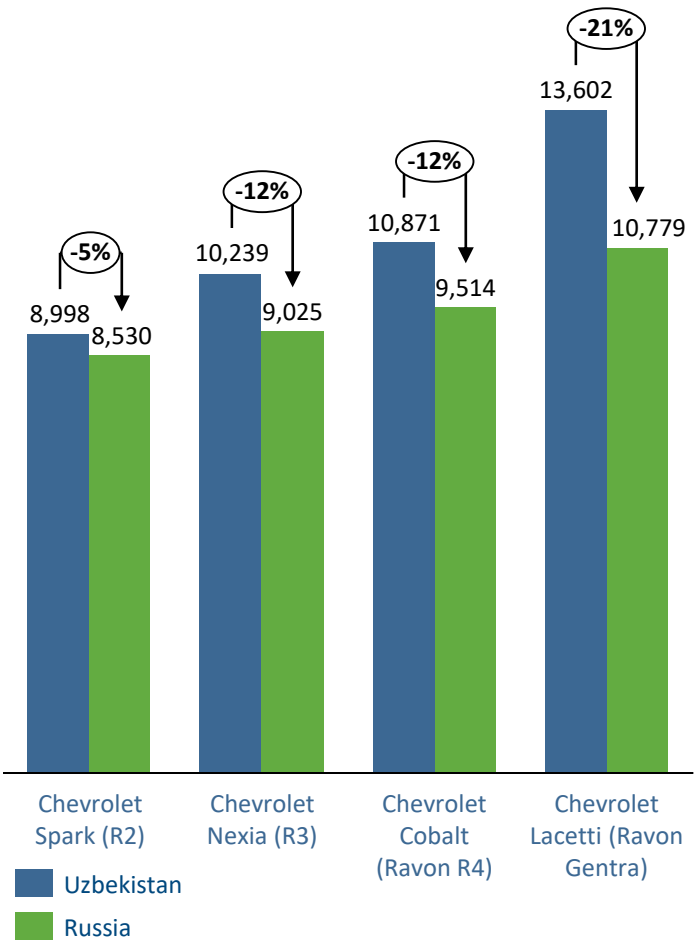
Sources: 1 – United Nations Economic Commission for Europe, 2 – Uzavtosanoat JSC, AUTOSTAT analytic agency, BMI, 3 – ITC Trade Map, analysis of the working group
Notes: * Customs duty + USD 1.8–3/cc (depending on engine capacity); excise duty: USD 2.4–3.1/cc (depending on engine capacity)

Automotive industry

Current level of development

Comparison of the cost of vehicles in Uzbekistan and Russia

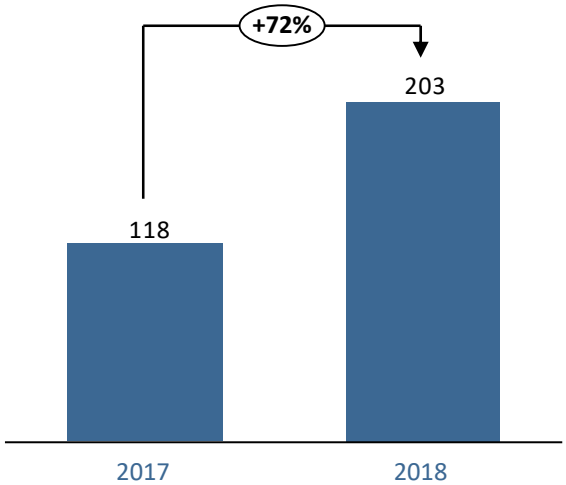
USD



- Russia is Uzbekistan's main commercial partner and the main importer of cars manufactured in Uzbekistan
- Vehicles sold on the domestic market are more expensive than export analogs
- In 2018, the export price policy of GM Uzbekistan JSC was revised, and the present export prices are based on new selling prices. GM Uzbekistan JSC is continuing to work on decreasing the cost and forming competitive export prices.

Sales of cars and light commercial vehicles in Uzbekistan[1]

thousand units



- In 2018, Uzbekistan's automotive market also shows positive trends
- The market capacity was 203,000 cars in 2018 and grew by 72% against the previous year
- Considering the existing production capacities, Uzbekistan has the potential to manufacture and sell up to 400,000 vehicles annually by 2026–2027

Sources: 1 – JSC Uzavtosanoat, AUTOSTAT analytical agency, BMI, analysis of the working group

Automotive industry

Strategic options

1

Leadership in costs

Follow the current development model of the automotive industry of Uzbekistan: manufacture budget cars with increased quality and reliability. In the future, exports will be focused on the growing consumption markets

Examples of countries:


China


India


Pakistan

⊕
- There are ready production capacities designed to double the current manufacturing level
- Today, there is demand for cheap cars in countries with growing populations

⊖
- Need to update existing capacities due to a high level of obsolescence
- Lack of qualified personnel
- The demand for low-end vehicles will decrease due to the growth of personal income and refocusing on a higher class of vehicles

Orientation on the manufacture of budget vehicles with improvement in their quality

2

Target development option

Innovations in production

Opening of new innovative vehicle production facilities using high-tech materials. It is necessary to improve the investment climate, create special economic areas, and open staff training centers. In the future, exports will be focused on developed markets

Examples of countries:


Germany


Spain


billion

⊕
- Impetus for automotive industry development, including localization of the manufacture of parts and components
- Increase in jobs
- Potential to occupy its share in the high-tech vehicle market
- Growing demand for electric vehicles

⊖
- Lack of qualified personnel
- It is necessary to significantly upgrade production capacities and infrastructure
- The investment climate must be improved
- Lack of modern enterprises making tools

Focus on innovations

Sources: analysis of the working group

Automotive industry

Target vision 2035

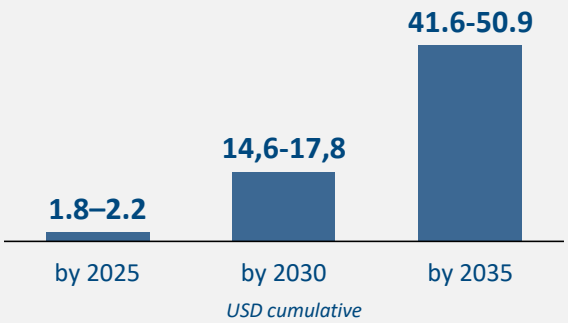
An automotive industry focused on export using new technology and attracting international auto groups with subsequent localization of production

- Localize production of international companies
- Improvement in the customs and tariff regulation system and optimization of customs payments in foreign trade activity as a step towards accession to the WTO
- Expansion of the export geography of automobile products
- Implementation of full-cycle manufacture of electric vehicles

Figures

	2016/17/18	2035
Creation of jobs, thousand employees	37	50
Share of electric vehicles, %	0	30
Car manufacturing volume, thousand units	225	400

Investment



Sources: analysis of the working group

Automotive industry

Key strategic initiatives

- Localize production of international companies
- Introduction of mobile solution technology in luxury-class vehicles
- Update the model line, launch innovative product manufacturers into the market by creating favorable conditions for manufacturers
- Provide priority access to government support programs depending on current technological operations (e.g., supporting gas-powered car manufacturing)
- Integrate the Uzbek component sector into the supply chains of global automotive manufacturers and component suppliers
- Implement component export development programs in countries with a rapidly growing economy
- Reduce the net cost by increasing efficiency, optimizing procurement activity, developing suppliers, etc.; implement comprehensive net cost reduction programs (including design-to-cost and lean production)
- Prepare the legislative framework for the manufacture and implementation of electric vehicles and for construction of the necessary infrastructure
- Form a compulsory technical regulation that would set out specifications and standards for cyber security to be observed in software and hardware used in intelligent transport systems and vehicles

- Manufacture cars using future technology: air-free tires, polymeric carbon fiber and resin, etc.
- Export cars to promising markets: India, China, Pakistan
- Manufacture electric vehicles
- Develop engineering staff and competencies on the basis of 1–2 modern local platforms (models)
- Support and specialization of "niche" R&D
- Form an Uzbek base of automotive components, which is the necessary for further development of local manufacture of motors, gear boxes, axes, and chassis
- Prepare the legislative framework for the manufacture and implementation of electric vehicles and for construction of the necessary infrastructure

- Further development of vehicle manufacturing technologies, including launch of self-driving vehicle manufacturing
- Expand the export geography: Uzbekistan is one of the main automobile exporters to Middle Asia
- Shut down production of old local models gradually and replace them with deeply localized global platforms

personnel finance technologies legislation and state regulation infrastructure

Sources: analysis of the working group

2.2.5

Chemical industry

Development of AIC, industry, fuel and energy, and infrastructure

Chemical industry

Current level of development

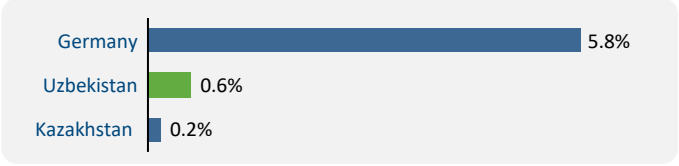
Key challenges

- Scantiness of financial resources
- Lack of the fundamental research base and modern design engineering developments in the chemical industry
- Lack of qualified personnel
- Focus on manufacture of low-margin products
- Limited use of chemical products in industrial sectors

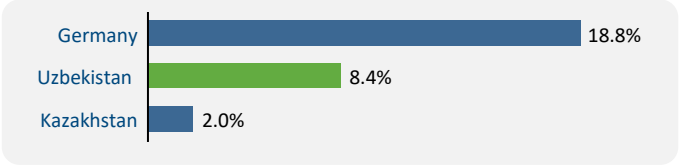
Key findings

- Uzkimyosanoat JSC is the Uzbek holding company uniting chemical enterprises of the Republic of Uzbekistan
- Small share of the chemical industry in GDP (0.6%) with a focus on production of nitrogen, phosphate, and potash fertilizers
- Apart from chemical fertilizers, Uzbekistan's chemical industry is represented by the segments of chemical products for mining and metallurgical facilities, the oil and gas industry, and inorganic, organic, and household chemical products
- Chemical industry enterprises are present in almost every region of the country: Navoiy, Tashkent, Samarkand, Qashqadaryo, Fergana, Jizzakh regions and the Republic of Karakalpakstan
- To overcome the main barriers of industry development, it is necessary to develop internal demand, primarily from the agroindustrial complex

Chemical industry share in GDP, 2017



Chemical industry share in the total industry volume, 2017

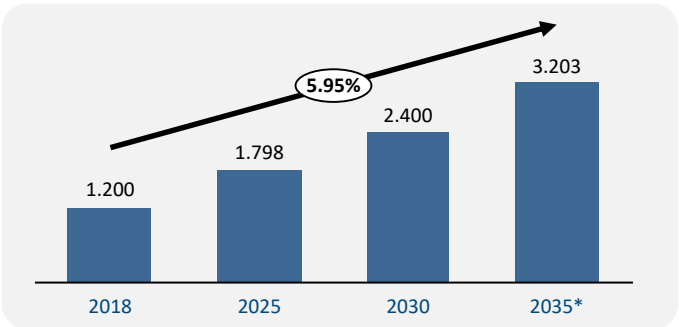


Comments

- Chemical industry comprises 0.6% of GDP in the Republic of Uzbekistan
- Germany's example shows the existing potential for increasing the chemical industry's role along with overall increased growth of industry

Forecast for the chemical fertilizers production dynamics

Thousand t



- According to forecasts contained in the Chemical Industry Development Program for 2018–2030 elaborated by Uzkimyosanoat JSC, by 2030, production of mineral fertilizers will double due to expansion of domestic demand with the increased productivity of the agricultural sector and export
- This growth will be possible thanks to the creation of new and upgrading of existing production facilities

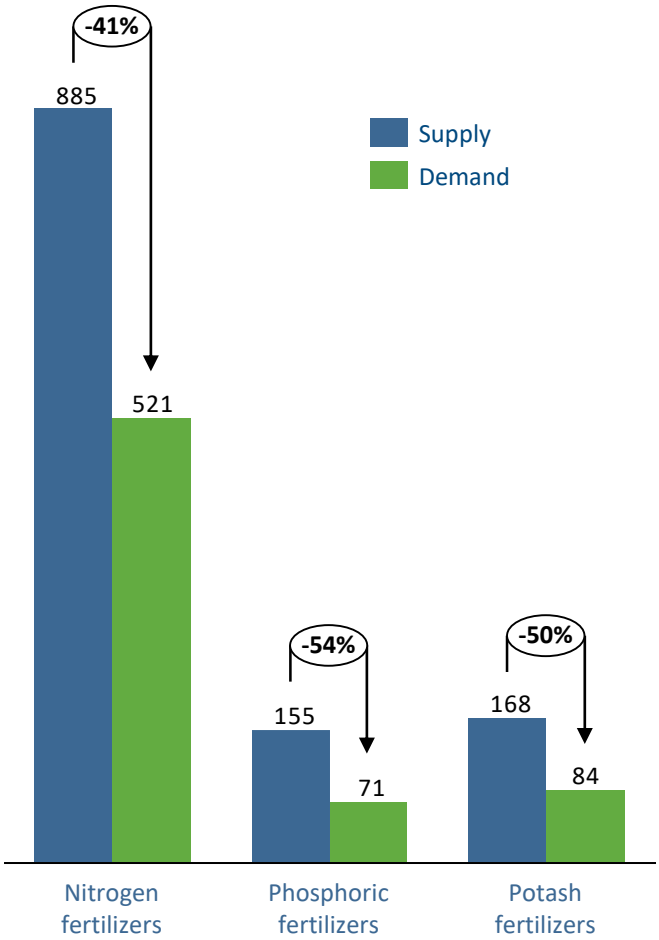
Note: * Calculation by the working group

Sources: World Bank, Uzkimyosanoat JSC, analysis of the working group

Chemical industry

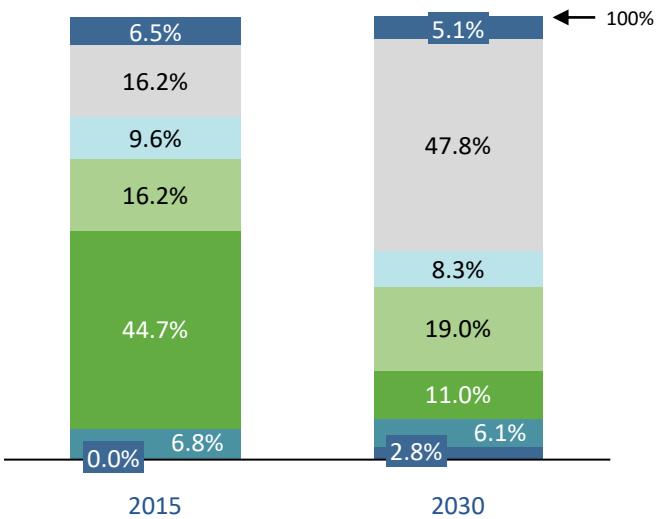
Current level of development

Comparison of internal demand and supply of mineral fertilizers, 2017, thousand t



- Production of mineral fertilizers greatly exceeds actual internal demand for them, by 40%–50% on average
- The current excess of supply over demand for mineral fertilizers is caused by export of those products
- The Chemical Industry Development Program for 2018–2030 prepared by Uzkimyosanoat JSC predicts growth of exports from USD 185.4 million in 2018 to USD 769.0 million in 2030
- The main importers of Uzbekistan's chemical products are China, Russia, Kazakhstan, and Turkey[1]

Chemical industry production by product type, USD million



- Based on UN Development Program data, by 2030, 70% of chemical production should be accounted for by high-tech polymer products (polyethylene, polypropylene, polystyrene, etc.), cosmetics, and medicines

Sources: 1 – Trade Map, UN Development Program, Uzkimyosanoat JSC, Ministry of Agriculture, analysis of the working group

Chemical industry

Current level of development

The chemical industry is represented by the mineral and household chemical segments

A simplified chain of creating the chemical industry production volume amid fully integrated enterprises in the consumer sectors

	Exploration	Production	Concentration, getting pre-concentrate	Production of primary products	Production of secondary products	Consumer sectors
Mineral chemicals	Hydrocarbon fields	Natural gas	Pure hydrogen	Carbamide	Ammonium nitrate, calcium-ammonium-nitrate, carbamide-ammonia mix	Nitrogen-phosphorus fertilizers (N-P) Nitrogen-phosphorus-potash fertilizers (N-P-K) Monoammonium phosphate (MAP) Diammonium phosphate (DAP)	• Agro-industrial complex • Medicine • Metallurgy
			Pure nitrogen	Nitric acid			
		Oil	Sulfur, sulfur oxide	Sulfuric acid			
	Phosphate rock deposits	Phosphate rock	Pre-concentrate	Ground phosphate rock	Common phosphate fertilizers, double (triple) superphosphate, feed phosphates		
				Extraction phosphoric acid			
	Potash salt deposits	Sylvinite, carnallite	Potash salt	Potassium chloride			
				Potassium sulfate		Potassium nitrate	
	Table salt deposits	Halite, rock salt, salt lakes, sea salt	Table salt	Chlorine		Pesticides	
Household chemicals	Natural gas and oil fields	Oil, natural gas	Higher fatty alcohols	Surface active agents		Bleaches, laundry powders, water chlorination agents, soap, detergents	• Agro-industrial complex • Retail trade • Food industry • Light industry • Mining and metallurgical industry
	Table salt deposits	Halite, rock salt, salt lakes	Table salt	Caustic soda			
				Sodium hypochlorite			
				Sodium sulfate, sodium silicate			

Sources: Uzkimyosanoat JSC, analysis of the working group

Chemical industry

Strategic options

1

Leadership in costs

Follow the current development model of the chemical industry of Uzbekistan: production of mineral fertilizers with a focus on meeting domestic demand and export of fertilizers to the growing consumption markets

Examples of countries:


China


India


Belarus

+

- There are ready production capacities designed to double the current manufacturing level
- Today, there is demand for mineral fertilizers in countries with growing populations

–

- Lack of qualified personnel
- Lack of incentives for chemical industry development
- By 2035, demand will shift from low-technology chemicals (fertilizers) to high-technology products (polymeric products, cosmetics, and medicines)

Focus on smooth production of mineral fertilizers

2

Target development option

Innovations in production

Opening of new innovative productions of polymeric products, cosmetics, and medicines. It is necessary to improve the investment climate, create special economic areas, and open staff training centers. In the future, exports will be focused on the developed markets (Arabian Peninsula countries, Turkey)

Examples of countries:


Germany


Japan


South Korea

+

- Impetus for developing the chemical industry as an export-oriented sector
- Increase in jobs
- Potential for occupying its share in the global market of high-tech products

–

- Lack of qualified personnel
- It is necessary to upgrade production capacities and infrastructure
- It is necessary to improve the investment climate for localization of production facilities of international companies

Focus on innovations

Sources: analysis of the working group

Chemical industry

Target vision 2035

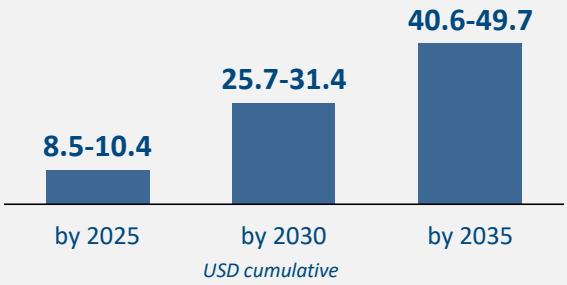
Chemical industry focused on production and export of high-tech polymer products using new technologies and attracting international companies

- Localize production of international companies
- Active stimulation of industrial cooperation requires a focus on high-technology "outrunning" chemical productions: polymer series, synthetic rubbers, medicines[1]
- Separate production of chemical products: creation of separate companies for production of mineral fertilizers and high-tech chemical products
- Establishment of effective industrial cooperation between the chemical industry and other industry sectors
- Active development of science and industry-specific research
- Integration into the production process of advanced research developments aimed at deep processing of crude hydrocarbons and mineral resources
- Improvement of the quality of design engineering works and diagnostic studies
- Organization of an effective system of staff training and advanced training in all areas of chemistry and chemical technology

Figures

	2017	2035	CAGR
Chemical products export volume, billion billion	176.2	1.323	12.2%
Polymeric product share in chemical industry, %	16.2%	50%	

Investment



Sources: 1 = UN Development Program report "Uzbek chemical industry on its way to 2030," analysis of the working group

Chemical industry

Key strategic initiatives

2025

- Localize production of international companies
- Build new chemical industry production facilities
- Upgrade the existing production facilities through technical retrofitting by purchasing process lines to expand the assortment and range of manufactured products
- Organize production of complex fertilizers containing nitrogen, phosphorus, and potassium (NPK fertilizers)
- Provide priority access to government support programs depending on the current technological operations
- Develop staff potential starting from school
- Conduct market studies to identify and expand the sales market for chemical products
- Activate work on sharing experiences in the field of process management and implementation of modern methods of corporate governance, organization of technical and technological retrofitting of enterprises

2030

- Expand production of industrial rubber goods (conveyor belts, car tires, etc.)
- Increase production of polymeric products, cosmetics, and medicines
- Draw up a binding technical regulation that would set out the specifications and standards for safe use of chemical products
- Develop staff training centers to supply enterprises of the industry and the central office of Uzkimyosanoat JSC with highly qualified specialists
- Establish close cooperation with the institutes, scientists, and announce grants for financing labor-saving ideas and inventions and projects for creating new chemical product types
- Organize a diagnostic center for inspection of process equipment
- Create a research and development and design institute together with international partners

2035

- Expand the export geography: Uzbekistan is one of the main manufacturers of chemical products in Middle Asia

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.2.6

Transport

Development of AIC, industry, fuel and energy, and infrastructure

Transport

Current development level of the transport and logistics industry

Key challenges

- Obsolescence of infrastructure
- Lack of available air service for the population
- Poor efficiency of railway transportation
- Lack of public transportation
- Increase in railway electrification
- Growth of competition from alternative routes, enhanced intermodality
- Poor quality of transport and logistics services
- Problems with the customs clearance of cargo

Key findings

- The transport infrastructure covers Uzbekistan's main regions and cities, and expansion and upgrading of facilities are being performed. The amount of attracted investments in 2017 was USD 651 billion
- In 2013–2017, passenger flow stagnation was observed in all types of transport (railway, air, motor)
- Over the last 5 years, cargo transport by air and road slightly increased (+5%)
- Uzbekistan is behind developed countries in terms of logistics efficiency and ranks 99th in the Logistics Performance Index (LPI)

Functions and role of the transport and logistics system

Transport connection of the country

- Transport accessibility and connection of the key economic centers of the country
- Transport connection of work places and places of residence of the population
- Transport connection of places of goods production and consumption (including B2B "raw materials – goods production")
- Transportation is possible from any point to any other point

Transportation efficiency

- High speed of transportation
- Predictability of and compliance with transportation deadlines
- Possibility of just-in-time delivery

Integration in the global community

- Transport accessibility of the global markets for national manufacturers (sale of products)
- Transport accessibility of global sourcing for national companies (purchase of resources)
- Accessibility of the country's transport and logistics system for foreign users (transit)

Coverage and service quality

- Providing transportation of any type of cargo and any category of passengers
- Offering a whole range of transport and logistic services in a user-friendly format
- Ensuring transportation safety

Sources: Uzbekiston Temir Yullari JSC, Uzbekiston Havo Yullari JSC, analysis of the working group

Transport

Contribution of an efficient transport and logistics system to the country's development

Stimulation of economic growth

- Development of the basic economic sectors and growth in international trade due to more efficient transport links and cheaper transportation
- Attraction of new companies to the country (transport quality is the 3rd most important factor for companies when choosing the place for localization)
- Creation of new jobs through improved mobility of the population

Increase in labor output and competitiveness

- Reduction in production costs (a more efficient transport system reduces transport costs)
- Enhanced performance efficiency (just-in-time delivery and offering comprehensive logistic services allows consignors to cut their production costs and free resources by eliminating maintenance of their own transport divisions, etc.)

Supporting structural changes in the economy

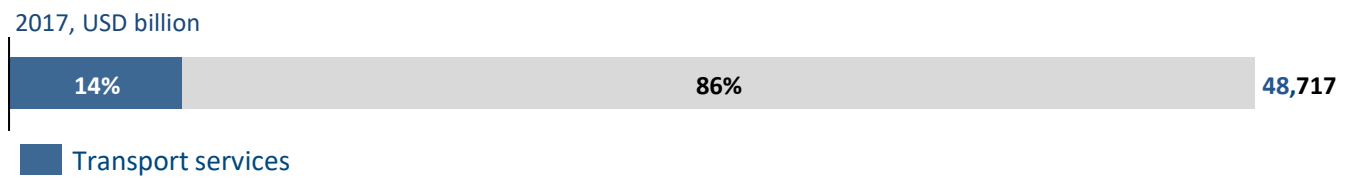
- Population's ability to change places of work in case of changes in the economic structure (a developed transport system facilitates movement of the workforce)

Improvement in the quality of life

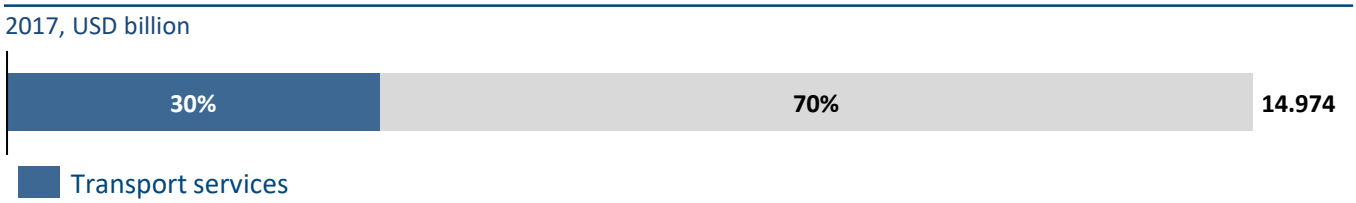
- Reduced travel time frees up the social time of the population
- A developed transport system expands the list of available goods and services
- Develops domestic tourism and strengthens ties between regions

Contribution of the transport and logistics system to the economy of Uzbekistan

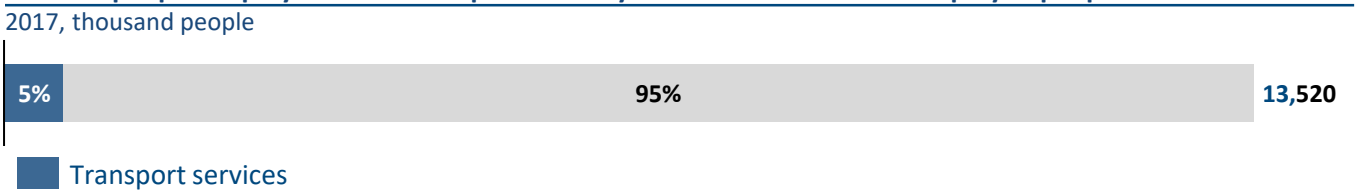
Transport service share in GDP



Transport service share in total services



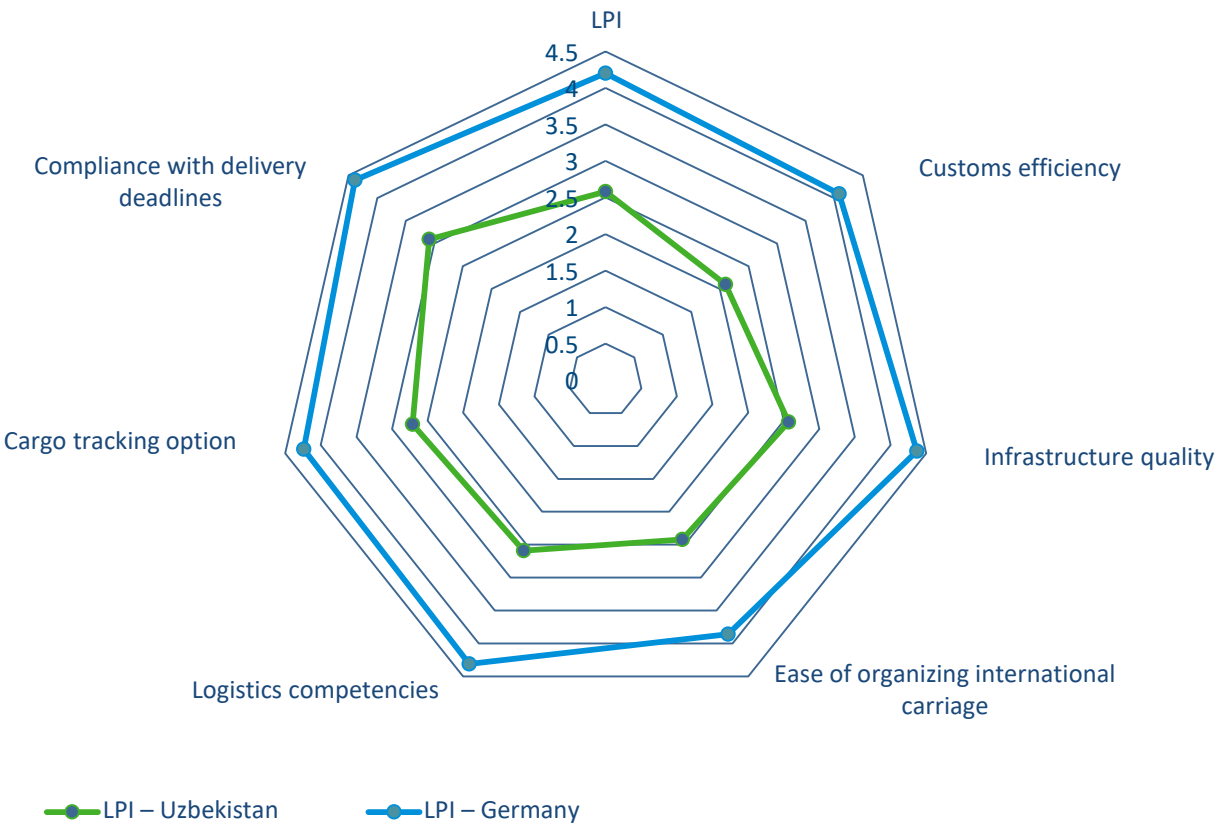
Share of people employed in the transport industry in the total number of employed people



Sources: Uzbekiston Temir Yullari JSC, Uzbekiston Havo Yullari JSC, analysis of the working group

Position of the Republic of Uzbekistan in the Logistics Performance Index

Uzbekistan is ranked 99th in the international Logistics Performance Index (LPI)[1]



Country	No. in the rating	LPI score
Germany	1	4.20
The Netherlands	2	4.07
Sweden	3	4.07
Singapore	4	4.05
Uzbekistan	99	2.58

- The indicator demonstrates the relative efficiency of logistics among countries and regions
- In 2018, Germany became the leader in the LPI rating
- Uzbekistan is ranked 99th out of 160 countries
- Uzbekistan has rather low figures for all 6 criteria, which is indicative of **poor development of the transport and logistics complex** that requires **comprehensive improvements**

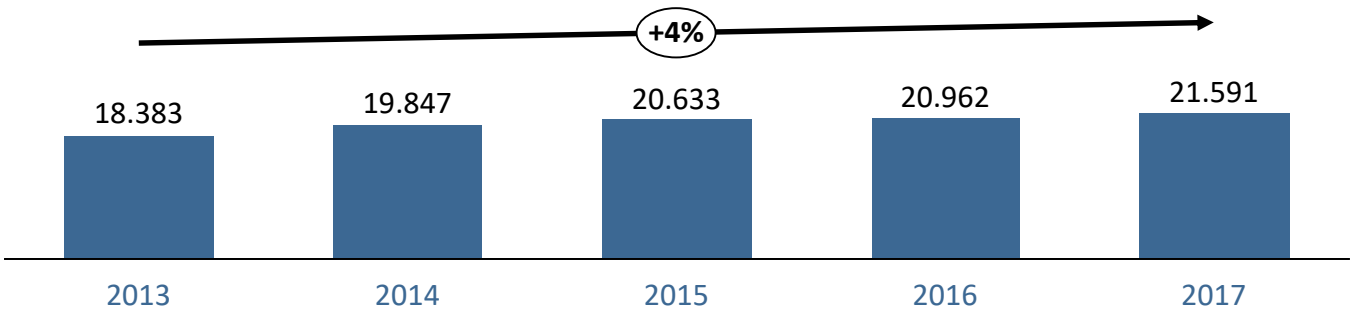
Sources: https://lpi.worldbank.org/, analysis of the working group

Passenger traffic volume

Over the last 5 years, stagnation of passenger traffic was observed in some types of transport

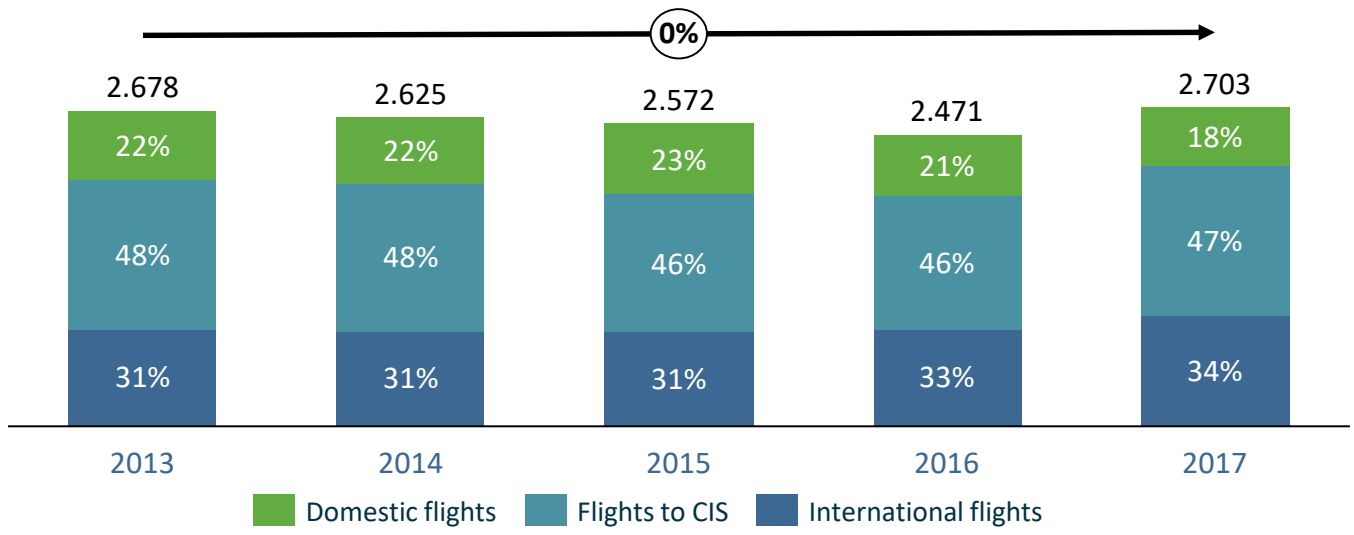
Passengers carried by railway transport

thousand passengers



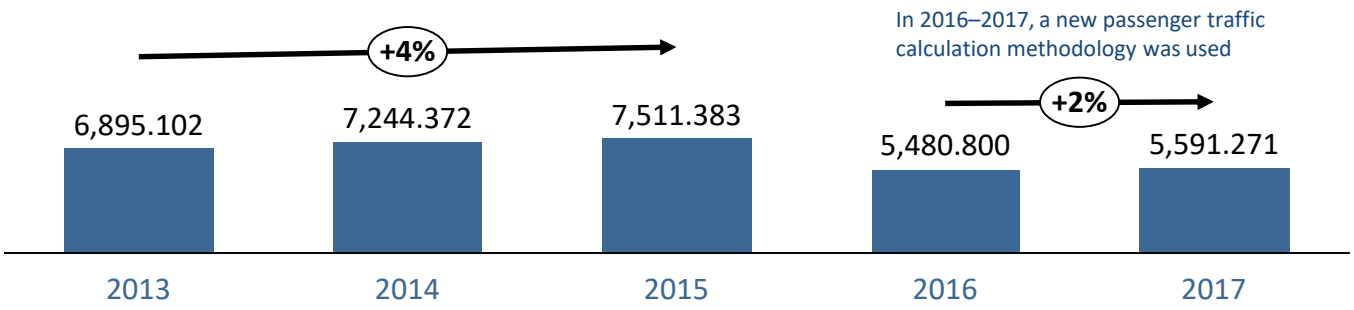
Passengers carried by air transport

thousand passengers



Passengers carried by motor transport

thousand passengers



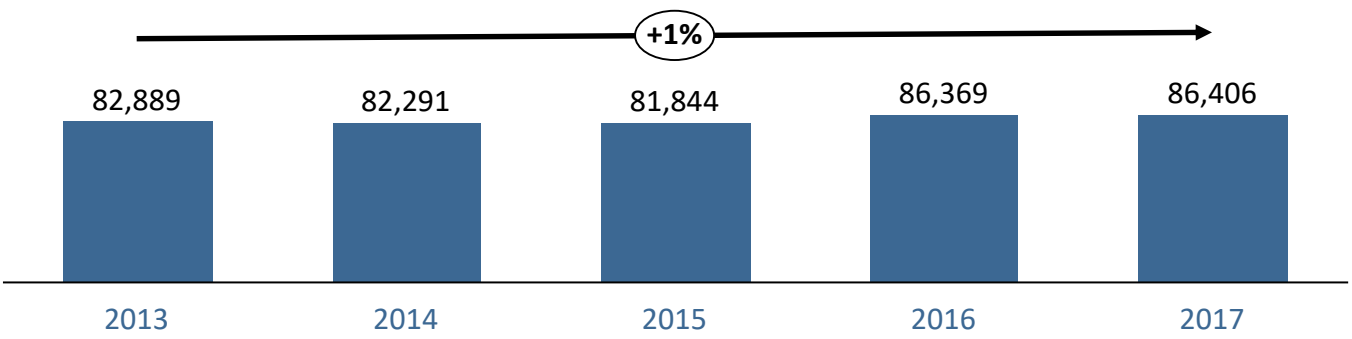
Sources: Uzbekiston Temir Yullari JSC, Uzbekiston Havo Yullari JSC, Uzbek Agency of Automobile Transport, analysis of the working group

Passenger traffic volume

Over the last 5 years, cargo carriage by air and motor transport slightly increased

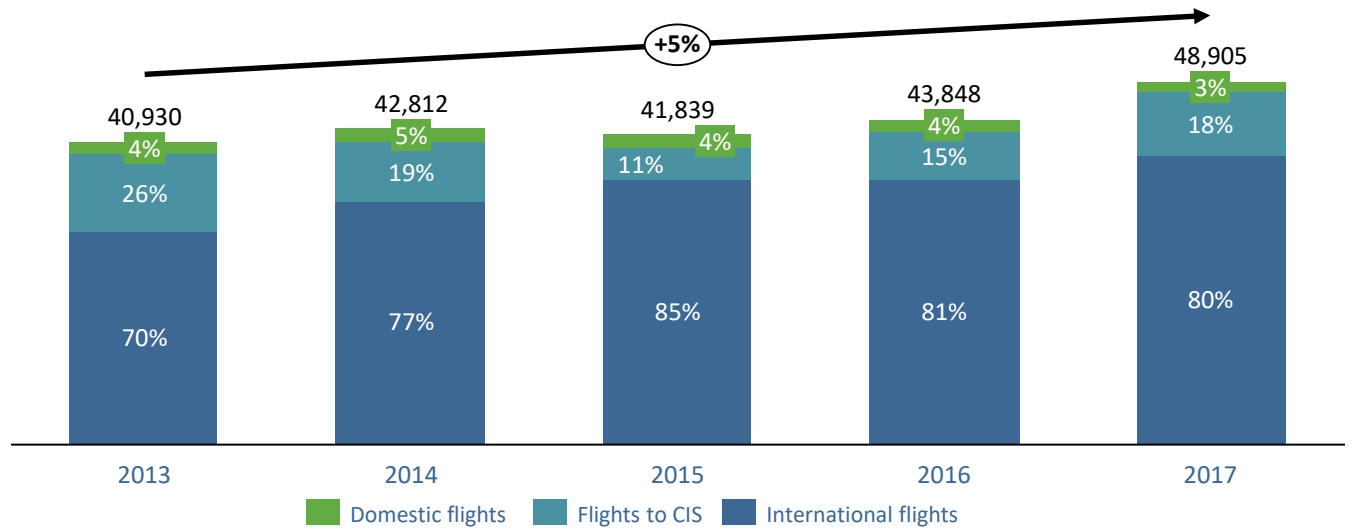
Cargo carried by railway transport

thousand t



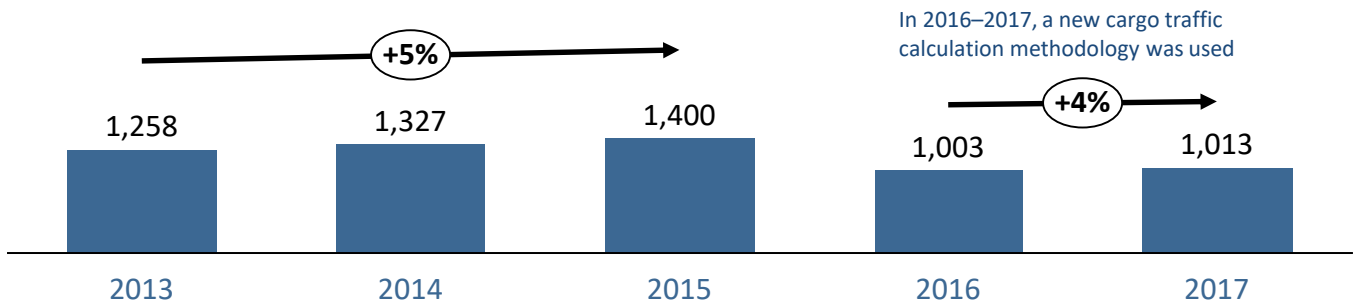
Cargo carried by air transport

tons



Cargo carried by motor transport

million t



Sources: Uzbekiston Temir Yullari JSC, Uzbekiston Havo Yullari JSC, Uzbek Agency of Automobile Transport, analysis of the working group

Transport

Current development level of transport corridors and airports

Main transport corridors and airports in the Republic of Uzbekistan

Comments

International motor and railway transport corridors

- CAREC Corridor 2a
- CAREC Corridor 3a

Cities

- Population > 2 million people
- Population > 500 thousand people
- Population < 500 thousand people

Airports

- Islam Karimov Tashkent International Airport
- Samarkand International Airport
- Bukhara International Airport
- Urgench International Airport
- Navoiy International Airport
- Namangan International Airport
- Andijan International Airport
- Termez International Airport
- Fergana International Airport
- Qarshi International Airport
- Nukus International Airport

Sources: Uzbekiston Havo Yullari JSC, analysis of the working group

Current development level of logistics centers

Today, the number of logistics centers in the country is increasing. However, the transport industry should accept the challenges of a growing economy and continue to expand its storage and logistics capacities

Logistics center name	Location
Sergeli-AgroFresh	Tashkent
Modus Best LLC	Kungrad (Republic of Karakalpakstan)
United Cargo Center	Tashkent
JIZZAXULGURJISAVDO LLC	Jizzakh
Forward Trans Terminals LLC	Tashkent
TUCella	Tashkent
UNIVERSAL LOGISTICS SERVICES LLC JV	Tashkent
Bayer Group LLC	Tashkent
REELLOG TASHKENT LLC	Tashkent
Transatlantic	Tashkent
NOVASPIN LTD	Tashkent
Fargonaulgurzhisavdo LLC	Fergana
Agricultural Logistics Enterprise LLC	Fergana
Pakhtakor-tola bazasi, Subsidiary Enterprise	Jizzakh
Wholesale regional depot "Surxondaryo ozik-ovkat mollari"	Termez
Andijon moilash materiallari LLC	Andijan
ZVSB LLC	Samarkand
BEK Broker LLC	Kungrad (Republic of Karakalpakstan)
Xo'jalik va qurilish mollari	Tashkent
TSB, Subsidiary Company	Keles (Tashkent region)
TLC Andijan	Andijan

Today, Sergeli-Agrofresh is the largest logistics center in the country

- The refrigeration and warehousing logistic complex Sergeli-Agrofresh, just like most logistics centers in the country, is located in Tashkent
- The area of the center's production premises is 14,000 m^2 and can hold from 10,000 to 16,000 tons of cargo
- The complex is furnished with modern, high-quality, imported refrigeration equipment. Maintenance of the temperature and humidity inside the premises is fully automated
- This center provides all cargo handling services, from ordinary unloading to sorting, marking, and labeling

Sources: Logistika.uz, analysis of the working group

Transport

Main transit corridors

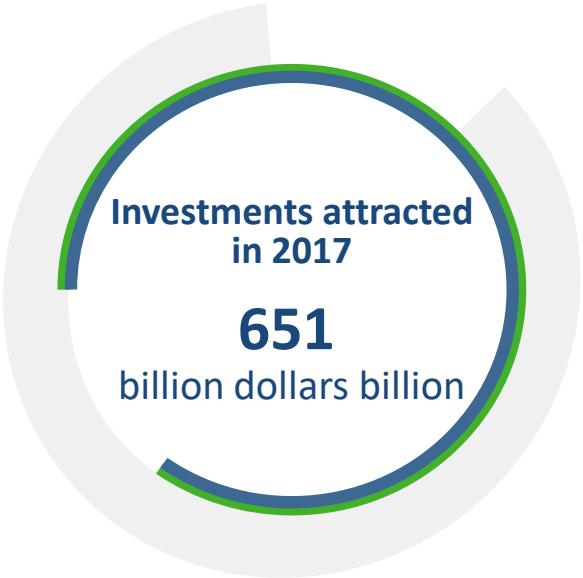
- **Trans-Afghan international transport corridor. Termez (Uzbekistan) – Mazari-i-Sharif – Herat (Afghanistan) – Bandar Abbas (port) and Chabahar (port) (Iran)**
- **Transport corridor Andijan – Osh – Sary Tash – Irkeshtam – Kashgar (Uzbekistan – Kyrgyzstan – Uzbekistan)**
- **International transport corridor Uzbekistan – Turkmenistan – Iran – Oman – Qatar.**
- **Existing transport corridors (motor transportation) to sea ports**
  - 1.1. Tashkent – Kizil-Orda – Aralsk – Aktyubinsk – Baltic ports (actively used by companies from Kazakhstan for entering European markets)
  - 1.2. Tashkent – Shymkent – Balkhash – Astana – Petukhovo – Chelyabinsk – Moscow
  - 1.3. Tashkent – Chardzhou – Nukus – Guryev – Astrakhan – Black Sea ports
  - 1.4. Tashkent – Shymkent – Almaty – Semipalatinsk – Far Eastern ports
- **Developing transport corridors (motor transportation)**
  - 2.1. Tashkent – Almaty – Druzhba – Urumqi – Lyaongan port (China) – Busan port (South Korea)
  - 2.2. Tashkent – Bukhara – Chardzhou – Bandar Abbas (Iran)
  - 2.3. Tashkent – Turkmenbashi port – Baku – Port of Poti (Georgia)
  - 2.4. Tashkent – Chardzhou – Tehran – Port of Mersin (Turkey)
  - 2.5. Tashkent – Kungrad – Beyneu- Astrakhan – Russia (Ukraine) – Europe
- **Future transport corridors (motor transportation)**
  - 3.1. Tashkent – Port of Aktau – Baku – Port of Poti (Georgia)
  - 3.2. Tashkent – Port of Aktau – Volga – Volga-Don Channel – Black Sea
  - 3.3. Tashkent – Port of Turkmenbashi – Astrakhan – Russia – Europe
  - 3.4. Tashkent – Kungrad – Astrakhan – Port of Novorossiysk
  - 3.5. Tashkent – Andijan – Osh – Sary-Tash – Irkeshtam – Kashgar (China)
  - 3.6. Tashkent – Termez – Mazari-i-Sharif – Sheberghan – Herat – Dogarun – Port of Bandar Abbas (or Tehran – Ankara)
  - 3.7. Tashkent – Termez – Mazari-i-Sharif – Shebergan – Herat – Dilorom – Milak – Port of Chabahar
- **CAREC corridors (Central Asian Regional Economic Cooperation) going across Uzbekistan:**
  1. CAREC corridor – 2a. Direction: Astrakhan – Beyneu - Bukhara – Tashkent – Andijan – Osh – Irkeshtam
  2. CAREC corridor – 2b. Direction: Baku – Turkmenbashi – Bukhara – Tashkent – Andijan – Osh – Irkeshtam
  3. CAREC corridor – 3a. Direction: Rubtsovsk – Almaty – Shymkent – Tashkent – Bukhara – Serakhs – Bandar Abbas
  4. CAREC corridor – 3b. Direction: Rubtsovsk – Almaty – Bishkek – Osh – Karamyk – Dzhirgatal – Darband – Dushanbe – Saryasiya – Termez
  5. CAREC corridor – 6a. Direction: Astrakhan (Russia) – Beyneu (Uzbekistan) – Bukhara – Guzar – Hairatan customs border post (Termez, Uzbekistan) – Mazar-i-Sharif (Afghanistan)
  6. CAREC corridor – 6b. Direction: Orenburg (Russia) – Kyzylorda – Shymkent (Kazakhstan) – Tashkent – Samarkand – Termez (Uzbekistan)
  7. CAREC corridor – 6c. Direction: Orenburg (Russia) – Kyzylorda – Shymkent (Kazakhstan) – Tashkent – Khavast (Uzbekistan) – Ura-Tube – Aini – Dushanbe – Kurgan-Tube – Nizhny Pyandzh (Tajikistan) – Shirhan Bandar – Kunduz – Kabul (Afghanistan)
- **The transport corridor Europe – Caucasus – Asia (TRASECA) comprises the network of ground and sea routes from Europe across the Black Sea, Caucasus and Caspian Sea to the Central Asian republics**

- One of the possible areas of transit development is the China – EU corridor, the estimated trade volume of which will be about USD 800 billion by 2020
- Active work is underway to extend transport connection with Iran, Afghanistan, Turkey, and other countries
- India jointly with Iran is constructing a port and logistics center in Chakhbakhor Port in Iran to simplify access to Central Asian markets and Russia

Sources: CEED Bulgaria, analysis of the working group

Transport

Investment projects in the transport and logistics infrastructure



- 13 investment projects for the development and electrification of railroads are being implemented in Uzbekistan.
  - New electrified double-track section "Jizzakh-Yangiyer," rehabilitation of railways, renovation of passenger and freight cars, renovation and upgrading of trains
  - Modernization of Chukursay station that will be turned into a powerful logistics station

- In 2016, the national airline Uzbekistan Airways began implementing the investment project "Construction of a new international passenger terminal in Tashkent Airport (Tashkent-4)"
  - Tashkent-4 will be about 87,000 m2 in area, and its throughput capacity will be 1,500 passengers per hour, or 5.7 million passengers annually

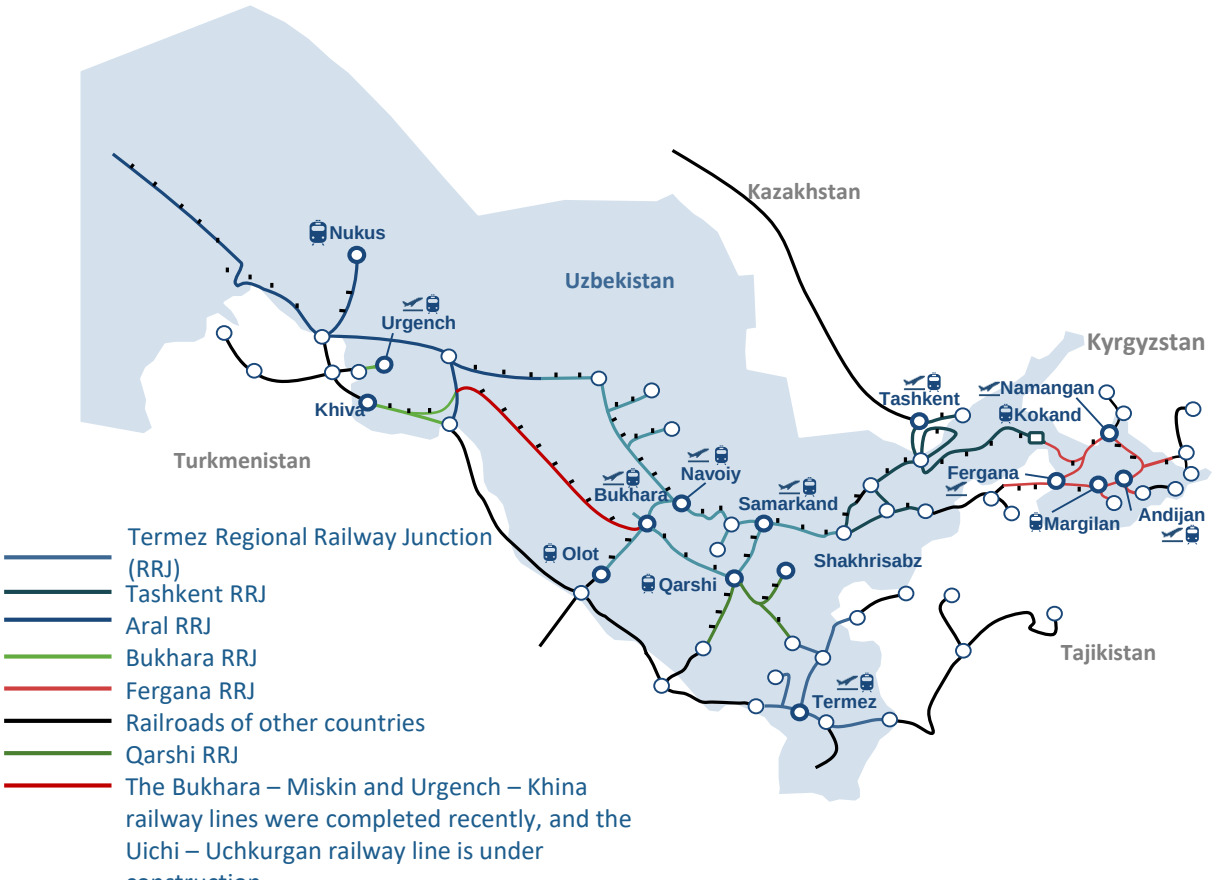
- In 2017, 11 investment projects were scheduled for implementation
- The World Bank supports a project on development of local roads in Uzbekistan
- The total cost of phase 1 of the project amounts to USD 200 million, and it is implemented by the World Bank in collaboration with the Republican Road Fund

Sources: Uzbekiston Temir Yullari JSC, Uzbekiston Havo Yullari JSC, analysis of the working group

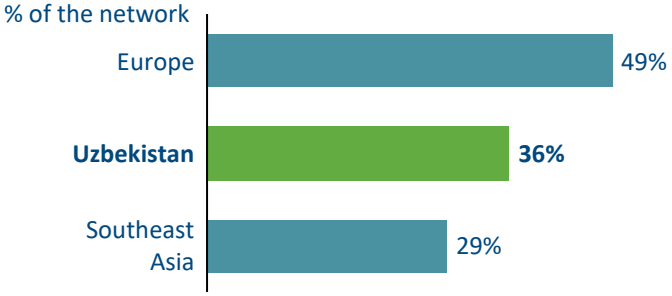
Transport

Current development level of railway transportation

Railroad coverage in the Republic of Uzbekistan



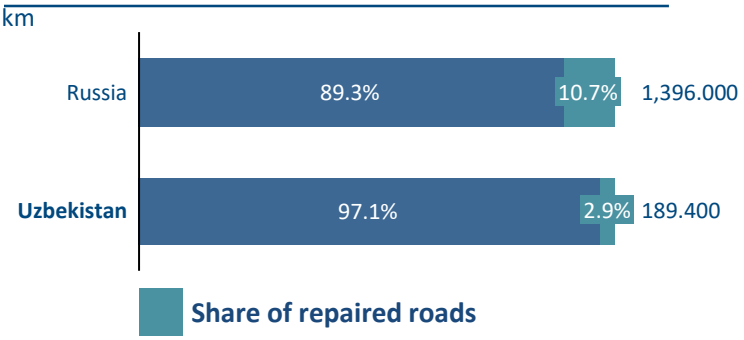
Share of electrified tracks



Comments

- Compared to diesel traction, **the cost of** freight **carriage by electrified** tracks **is 25–30% lower**
- Rail transportation using electrical haulage is one of the **most efficient and ecologically clean** means of transportation

Share of repaired motor roads for the year



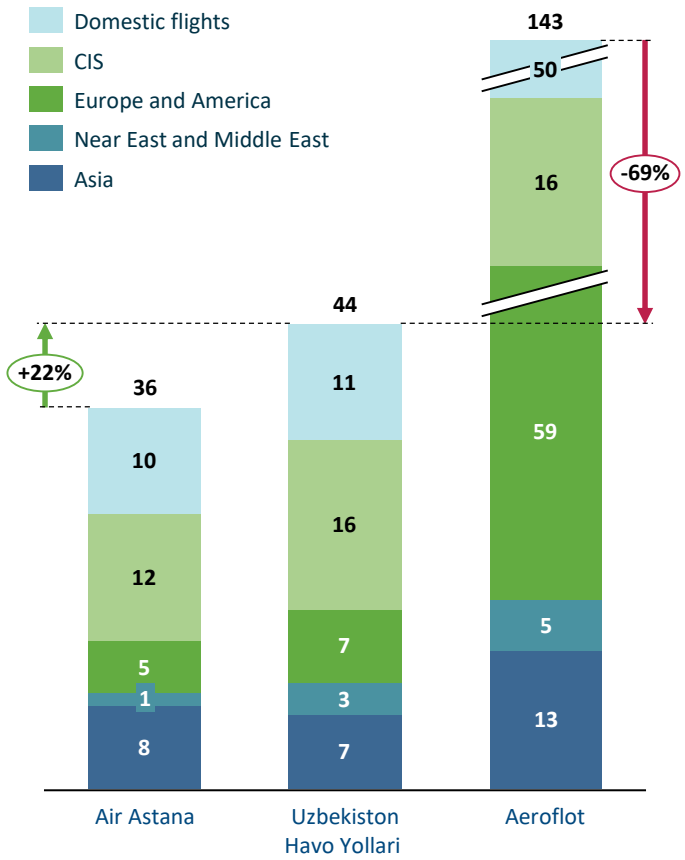
Comments

- In 2017, **3% of motor roads** were repaired in the Republic of Uzbekistan
- To improve the quality of roads, it is necessary to attract investments in R&D and use the existing developments of developed countries (PlasticRoad in the Netherlands)

Sources: 1 - World Bank, Regnum Information Agency, analysis of the working group

Current development level of air transportation

Number of destinations by region



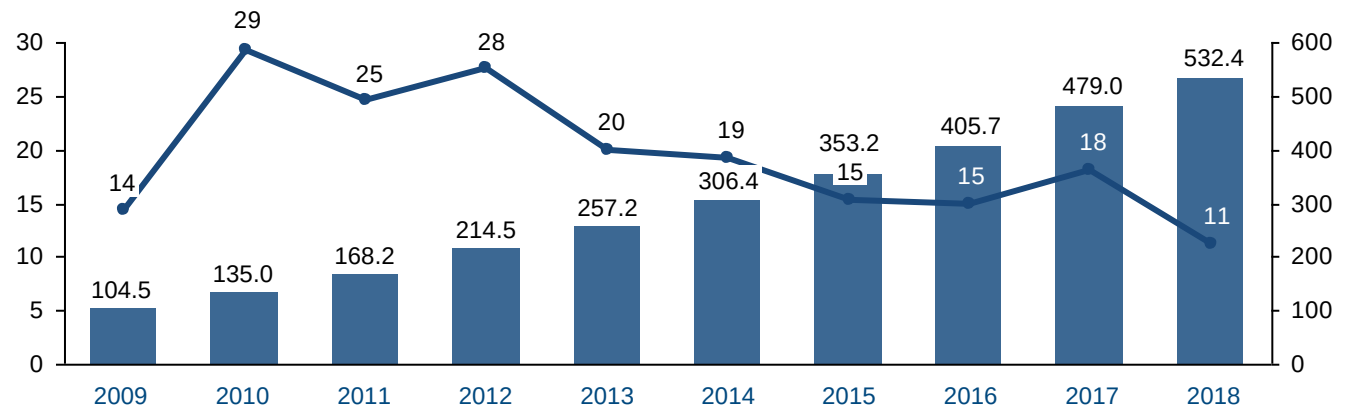
Companies offering flights to the Republic of Uzbekistan

Airline	Country
Air Astana	Kazakhstan
Air Kyrgyzstan	Kyrgyzstan
Asiana Airlines	South Korea
Korean Air	South Korea
China Southern Airlines	China
S7 Airlines	Russia
Aeroflot	Russia
Utair	Russia
Ural Airlines	Russia
Yakutia Airlines	Russia
Turkish Airlines	Turkey
Azerbaijan Airlines	Azerbaijan

- Uzbekistan Airways has poor geographic coverage of flights: the company offers carriage to only 7 cities in European and American countries
- The population is forced to construct their travel route with transfers
- The air carrier market is also rather small: 12 carriers from 7 countries
- Plans are to open 2 new destinations and increase the frequency of some currently operating airlines

Low cost airline market capacity in Asia

number of passenger seats, million people, annual market growth, %



- The share of low cost airlines in Uzbekistan is 0.1%
- During 2008–2018, Asia managed to outpace Europe according to penetration of low cost airlines – the average growth rate is 19% in Asia vs. 9.4% in Europe
- During this period, the share of low cost airlines in the market grew from 10 to 28%
- If this growth pace is maintained, low cost airlines are predicted to occupy 50% of the entire Asian air market by 2030

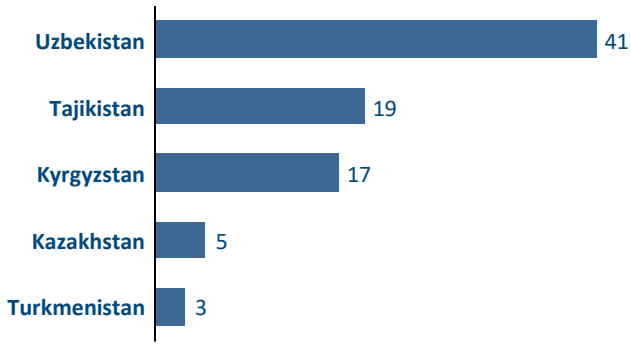
Sources: Uzbekiston Havo Yullari JSC, analysis of the working group

Transport

Current development level of motor transportation

Density of motor road networks

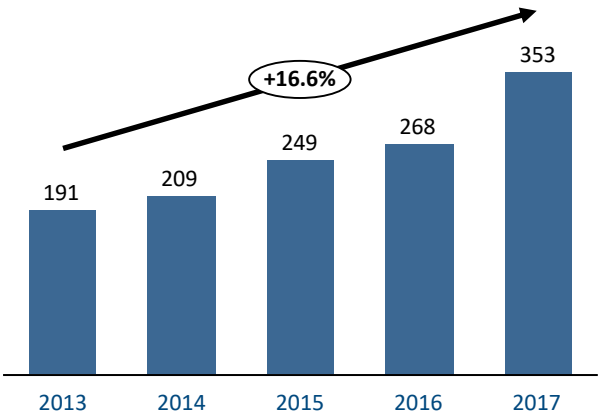
km per 100 km^2



Comments

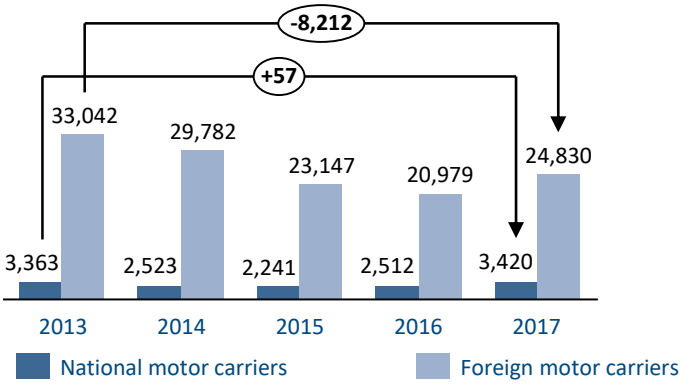
- The Republic of Uzbekistan has the highest density of motor road networks in the Central Asian region

Number of permits issued for carriage of oversized and heavy freight along motor roads



- Over 5 years, the number of permits issued to carry oversized freight **nearly doubled**

Number of permits issued for carriage of oversized and heavy freight along motor roads



- Over 5 years, the volume of freight carried by **national motor carriers** across the Republic of Uzbekistan **grew**, and the **share of foreign motor carriers declined,** though it still comprises a major part of the market

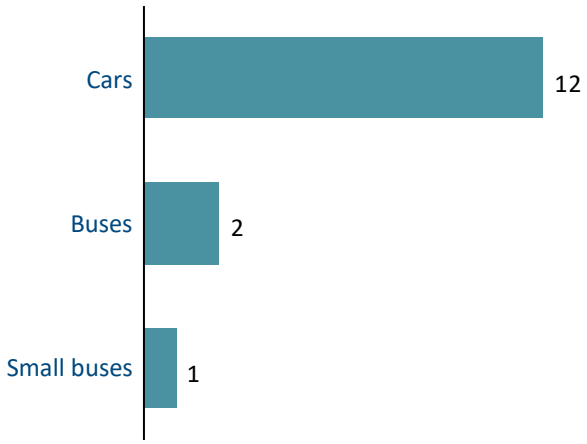
Sources: Uzbek Agency of Automobile Transport, State Committee of the Republic of Uzbekistan for Roads, analysis of the working group

Transport

Current development level of motor transportation

Availability of passenger motor transport to the population

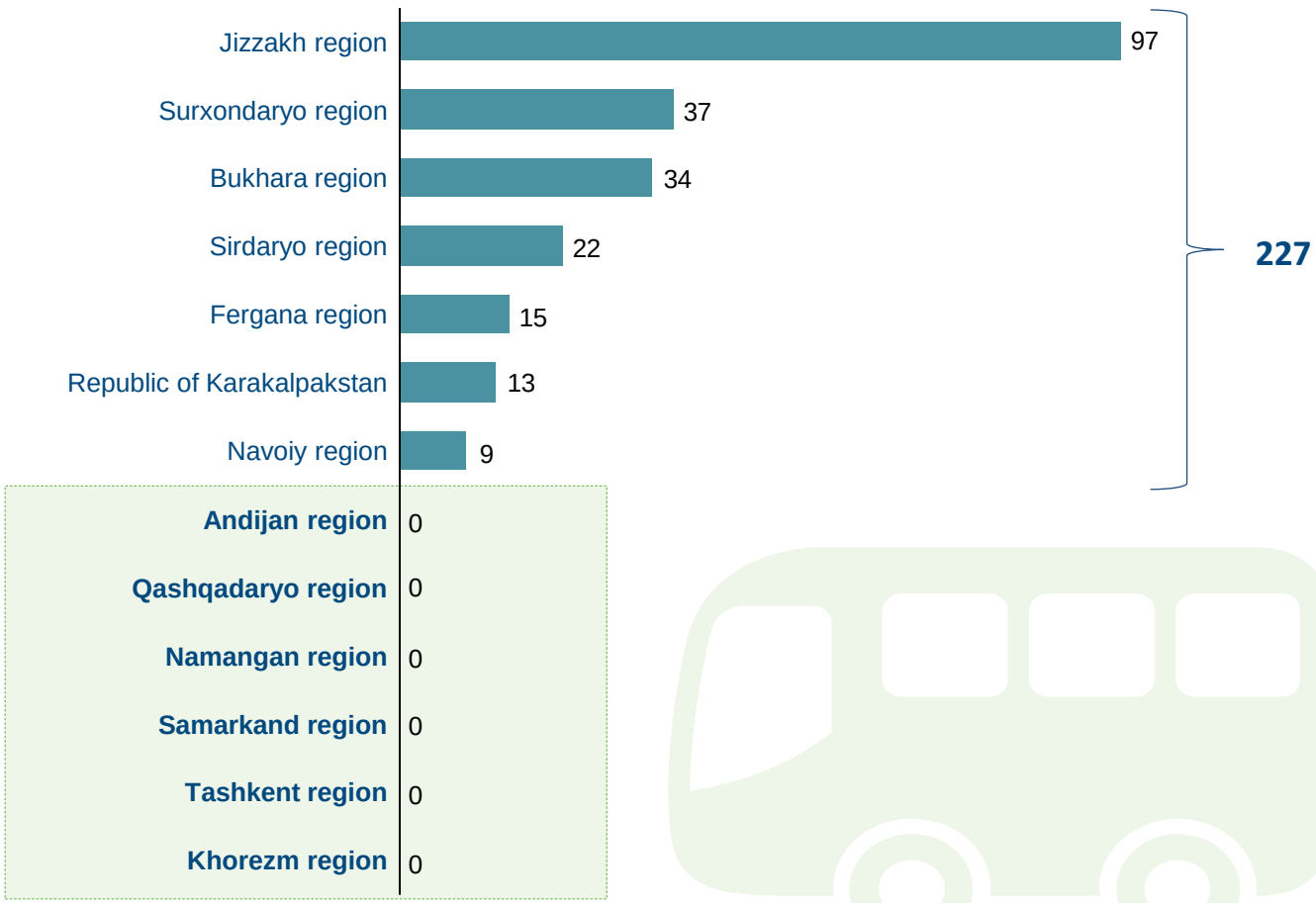
units per 10 thousand people



Comments

- **About 2% of settlements in** Uzbekistan **have no regular motor transport connection** (227 **out of** 12,366)
- At the present time**, some motor transport routes have been closed due to the lack of buses**
- There are only **15 means of public transport** per **10,000 people of the population**

Settlements without regular motor transport connection



Regions in Uzbekistan where all settlements have regular motor transport connection

Sources: Uzbek Agency of Automobile Transport, State Statistics Committee, analysis of the working group

Transport

Strategic options

1

Investment mechanisms at the government level

- At the government level, investment mechanisms determine the general policy for different government institutions seeking funding

+

- The government receives recommendations from the consultative body with respect to project priority

−

- The government makes general decisions, for example, determining the scope of funding for the whole transport industry

Examples of countries:


Australia


Japan

The model outlines the common policy for all government administration bodies

2

Target development option

Investment mechanisms at the ministry level

- The projects to be funded are determined at the ministry level, proceeding from the overall government priorities for investment activity

+

- Focus on various criteria, such as government policy, performance indicators, and needs of different groups of people

−

- It is difficult to make a quantitative estimation of the advantages and benefits attained

Examples of countries:


billion


UK

The model establishes the priority of financing projects according to a number of criteria

3

Investment mechanisms at the project level

- Individual projects compete for funding for transport development based on specific needs, such as the need to solve the problem of the road transport network capacity

+

- Reduction in road occupancy
- Increase in traffic safety
- Reduction in carbon dioxide emissions
- Increase in mobility

−

- Lost time during maintenance
- Capital investments
- Load on other services

Examples of countries:


Canada


Sweden

The model provides for analysis of individual demands through an assessment

Sources: World Economic Forum, Global Competitiveness Report, analysis of the working group

Transport

Target vision 2035

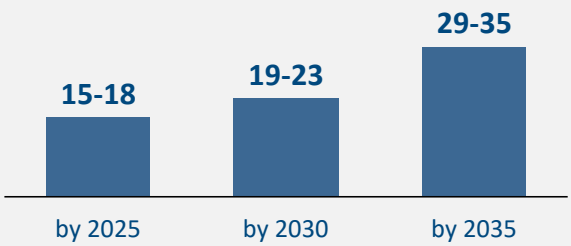
Transport industry focused on the arrival of private players, privatization of noncore assets, and reduction in the cost of logistics

- Creation of 2 dry ports, development of a multimodal carriage segment, reduction in customs regulations
- Construction and electrification of new motor and rail roads and upgrading of stations and airports
- Increase in the number of low cost airlines, introduction of the open skies scheme
- Implementation of mobile solution technology in urban transportation
- Use of passenger unmanned drones
- Transfer of ticket sales functions to IT companies through implementation of IIOC, IIOT, and IIOM
- Provision of the opportunity to test the new types of transport in the territory of Uzbekistan (for example: Shinkansen, Hyperloop)

Figures

	2017	2035
Logistics Performance Index (ranking)	99	Top 30
Electrification of railroads, %	36.3	> 90
Provision with public transport (bus per 10 thousand people)	2.3	12

Investment



USD cumulative

Strategic development goals of the transport and logistics system

- Realization of transit potential
- Realization of export potential
- Satisfaction of internal demands of the national economy
- Increase in mobility of the population
- Realization of the tourism potential of the country

Sources: analysis of the working group

Key strategic initiatives for motor and railway transport

- Implement measures to develop fair competition in the freight carriage market (motor, rail, air transport) and related services
- Denationalize the motor road and railroad construction industry
- Establish international bus connection with the Russia, Kyrgyzstan, Kazakhstan, and Tajikistan
- Construct, reconstruct, and repair stopping points on public passenger routes (using PPP mechanisms)
- Create and implement automated systems and software in the road transport management system
- Open new passenger bus routes, mostly in rural areas
- Develop the interdepartmental development strategy of the transport and logistics system until 2035, including the forecast model of cargo and passenger carriage
- Revising price regulation in the transport area with the subsequent gradual decrease in the share of state regulation
- Implement mobile solution technology in urban transportation
- Repair existing airports, railway stations, bus stations, and small bus stations and construct new ones. Improvement of their logistics with the due account for passenger convenience

- Construct new automobile roads and railways (electrification) and update existing ones, in particular, in the regions
- Reduce the negative impact of the motor transport sector on the environment and improve the environment
- Implementation of a project to create dry ports and develop a multimodal carriage segment, creation of an integrated transport system
- Integration into the world transport environment by realizing the transit potential of the republic, creating conditions for the competitiveness of domestic carriers on the international motor transportation market
- State support for the creation of smart transport systems to improve the quality of motor transportation using the advanced information and telecommunication technologies
- Update and replenishment of the fleet of passenger and cargo vehicles

- Create a backbone network of public roads that would connect all administrative centers with a network of paved roads
- Phased transition to electric buses and electric vehicles in the passenger transport system and complete withdrawal of motor vehicles running on gasoline and diesel as well as to light-fast trains as in Malaysia and Singapore
- Solve the problem of traffic jams and environmental degradation in large cities by setting a fee for entering the downtown area in personal vehicles, developing bicycle and motor transport, and prohibiting the entrance of trucks into downtown areas of cities
- Technical development of mobile apps for easier use of municipal transport (similar to Yandex.Transport, Yandex.Maps, etc.)
- Develop a plan of phased accession to international alliances under certain programs, for example, integration of bonus programs, cooperation in carriage of pass-through luggage in foreign airports, in case of through transit by two or more carriers

perso nnel · finance · technologies · legislation and state regulation · infrastructure

Sources: analysis of the working group

Key strategic initiatives for motor and railway transport

- Form and improve the regulatory framework and harmonize it with the requirements of international laws and standards
- Update of the methodology of insurance of passengers and cargoes during transportation and increasing the liability of carriers

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Key strategic initiatives for air transport

2025

- Prepare intergovernmental agreements on air traffic, restrictions on the number of carriers, established routes, frequency, and fares
- Implement a program to increase the number of low cost airlines and introduce the open skies program
- Amend the legislation to enable attraction of foreign citizens as aviation staff
- Divide the country into the main aviation regions: Western, with the main airport in Urgench; Eastern, in Namangan/Fergana; Southern, in Termez; Navoiy will continue its further development as a cargo port of the country
- The following transformations in the aviation industry:
  - Transform the State Aviation Supervisory Agency into the aviation administration body of the country (state independent agency) in charge of implementing the aviation policy and state supervision
  - Separate Uzairnavigation from NAC and make it a state enterprise with private shareholding, which would provide services to all air space users at uniform tariffs
  - Privatize NAC airports
  - Establish the Uzbek Aviation Academy
  - Create fuel farms for the stable delivery of aviation fuel to air enterprises (local and foreign) at market price and based on PPP

2030

- Develop a mechanism to predict the demand for air transport along routes that are subject to state support measures, including analysis of price characteristics, elasticity of demand, and other market parameters
- Develop the main airports of aviation regions (Urgench, Namangan/Fergana and Termez) as hub airports
- Construction of a hub airport connecting Europe and Asia (like those in Seoul or Singapore)

2035

- Strengthening the role of IT companies in the sale of air tickets (Google, Amazon) by implementing IIOC, IIOT, and IIOM
- Tashkent Airport as the main hub airport for Uzbekiston Havo Yollari (Uzbekistan Airways)

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.3

Construction industry, utility and communications infrastructure

Development of AIC, industry, fuel and energy, and infrastructure

Construction industry

Current development level of construction industry

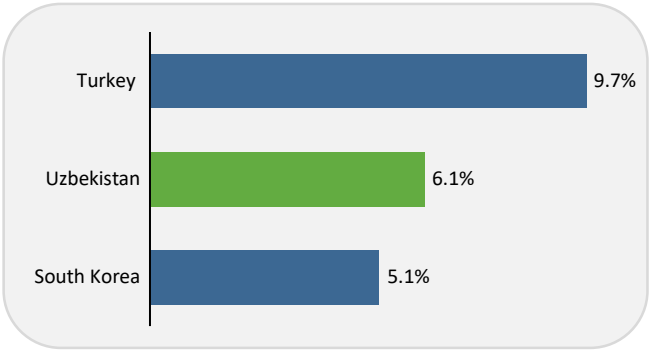
Key challenges

- Lack of construction projects involving foreign capital
- Growing population
- Growing business demands, which must be satisfied with industrial and civil buildings
- Poor technological and innovation potential
- Lack of qualified personnel
- High level of regulatory barriers
- Implementation of modern international construction standards

Key findings

- The stock of raw materials in the Republic of Uzbekistan is enough for the production of construction materials to satisfy domestic demand
- Production volumes of construction materials (cement) are growing despite the significant growth in prices of natural gas and electricity in 2018 for manufacturers of individual sectors
- There is a large share of workers engaged in construction (1.2 million employed people), but there is a lack of qualified staff in the industry (only 10 higher educational institutions teach specialists for the construction industry)
- There are regulatory barriers that negatively affect the construction industry's development: complicated access to cartographic and geodetic materials

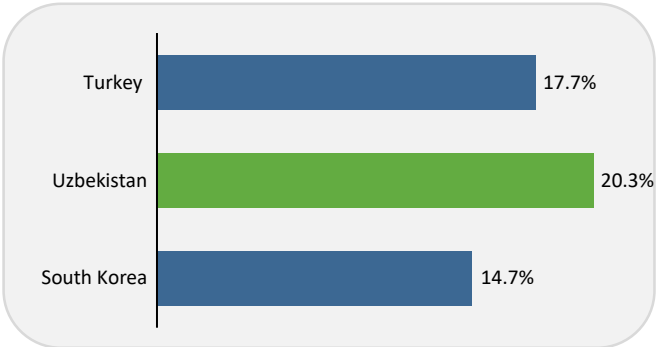
Construction share in GDP, 2017, USD billion



Comments

- Construction industry is 6.1% of GDP in the Republic of Uzbekistan
- By this indicator, Uzbekistan holds an intermediate position between Turkey and South Korea

Construction industry share in the total volume of industry, 2017



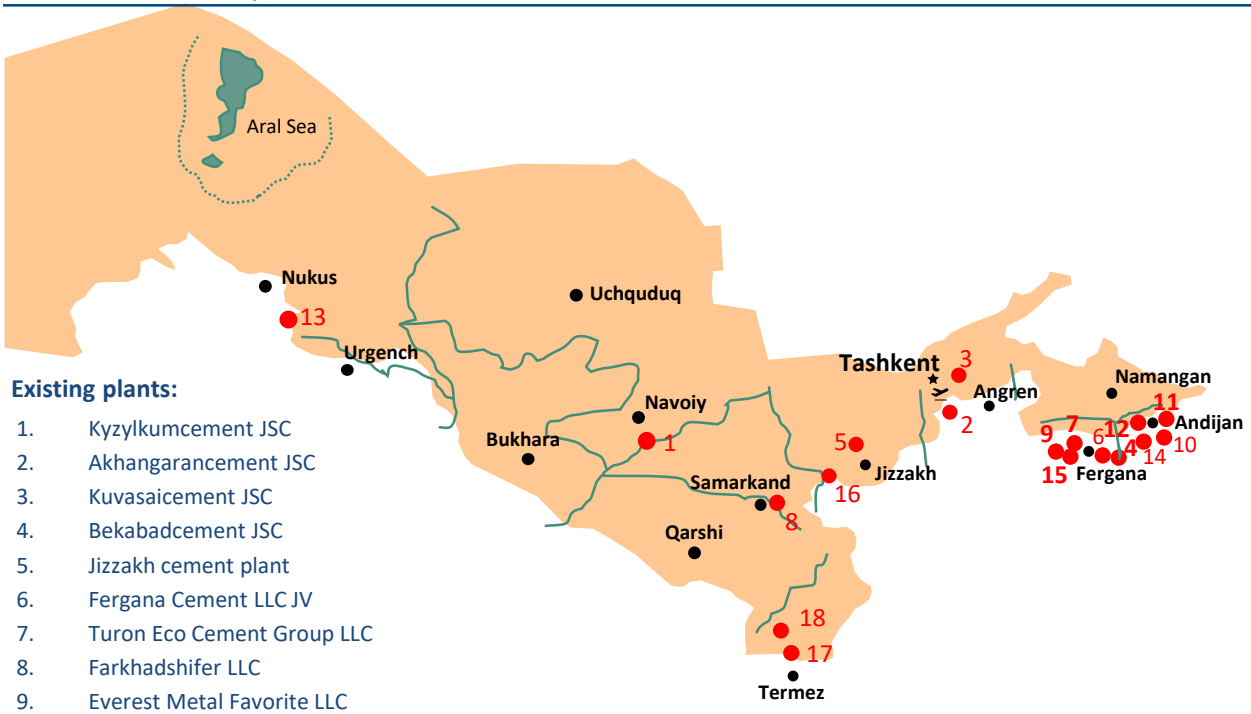
- The construction sector occupies a rather large share in the total industry volume – 20.3% in Uzbekistan vs. 17.7% in Turkey and 14.7% in South Korea

Sources: 1 - Ministry of Construction of the Republic of Uzbekistan, analysis of the working group

Construction industry

Current development level of the resource base

Location of cement plants



Existing plants:

1. Kyzylkumcement JSC
2. Akhangarancement JSC
3. Kuvasaicement JSC
4. Bekabadcement JSC
5. Jizzakh cement plant
6. Fergana Cement LLC JV
7. Turon Eco Cement Group LLC
8. Farkhadshifer LLC
9. Everest Metal Favorite LLC
10. Kezar LLC
11. Sing Lida LLC JV
12. Buyuk Private Enterprise
13. TITAN CEMENT INDIVIDUAL ENTERPRISE LLC

Designed cement output of the enterprises, thousand t

Existing plants:		Designed plants and plants under construction:	
Enterprise*	**Output**	**Entity**	**Output**
Kyzylkumcement JSC	3571	Namangan Cement LLC 1st phase	250
Akhangarancement JSC	1624	Zhakhon Service LLC	200
Kuvasaicement JSC	946	Pop Cement JV LLC	500
Bekabadcement JSC	1116	Perpetual Motion LLC	100
Jizzakh cement plant	946	Yaipan Invest Union LLC	120
Other entities (small entities)	1001	Great Silk Road servis LLC	200
Total:	**9204**	Turon Eco Cement LLC	600
		Fargona Yasin Kurilish Mollari LLC	800
		Kurilish Ashyo Sifat LLC	160
		Surkhoncementinvest IP	360
		Samarkand Afrosiyob Cement LLC	560
		Marakand Cable Invest LLC	300
		Zhomboi Yashil Chiroklari LLC	150
		Bukhoro Euro Cement LLC	750
		Establishment of a new cement plant of Akhangarancement JSC	2400
		Update and retrofit of the 2nd clinker burning line of Kyzylkumcement JSC	400
		Total:	**7450**
Total		16654	

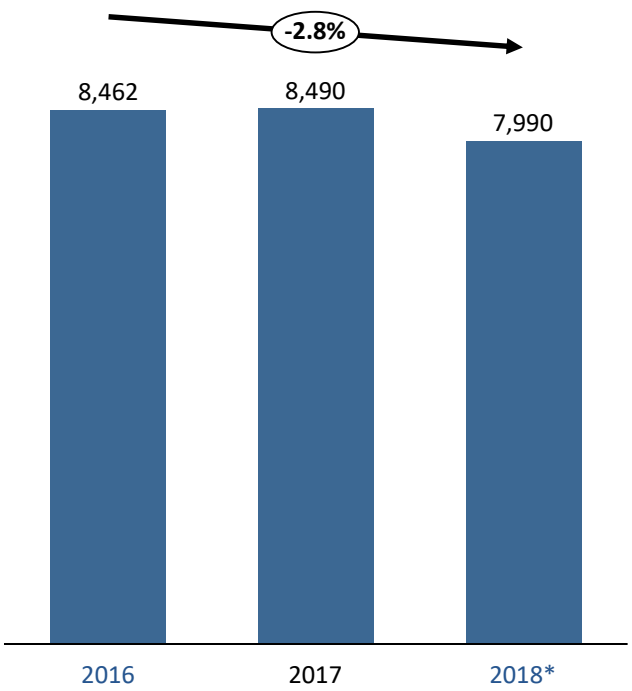
Sources: Uzstroymaterialy JSC, Ministry of Construction of the Republic of Uzbekistan, analysis of the working group

Construction industry

Current development level of the resource base

Cement production,

thousand t/yr



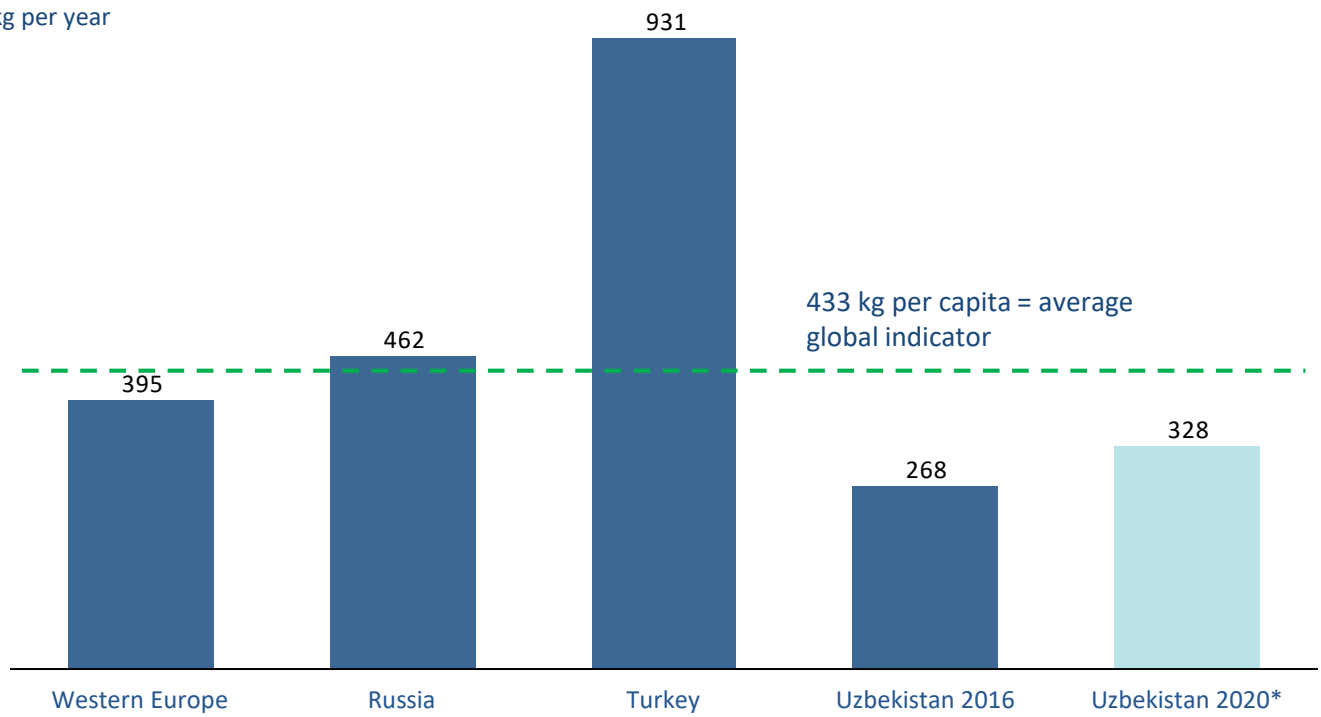
* Note: predicted cement production volume in 2018

Comments

- One of the main reasons for cement production's decline in 2018 was a significant price increase for natural gas and electricity for manufacturers of certain industries
- Gas and electricity tariffs for construction enterprises, including cement producers, rose by 60% in 2018
- Domestic **consumption** volume of cement is **8.79 million tons per year** and will continue to grow, since its annual consumption per capita is nearly half the average level around the world
- Therefore, Uzbekistan increased the cement import volume
- According to the State Statistics Committee, Uzbekistan imported cement for USD 79.8 million in the first half of 2018, which exceeds the figures of 2017 six-fold[1]

Cement consumption per capita,

kg per year



Sources: 1 - State Statistics Committee of the Republic of Uzbekistan, Uzstroymaterialy JSC, analysis of the working group

Construction industry

Current development level of the staff training system for the construction industry

Creation of a new department

- **In May 2017, President of Uzbekistan Shavkat Mirziyoyev issued the decree "On the measures for radical improvement of activity of the State Committee for Architecture and Construction of the Republic of Uzbekistan"**
- The updated State Committee for Architecture and Construction will unite the committee for architecture and construction, the inspectorate for quality supervision in design engineering and urban development, and some industry-related educational institutions will be transferred to the State Committee
- Also, the State Committee for Architecture and Construction will be responsible for compliance with the technical standards in design engineering and for the implementation of innovative project solutions, technology, and construction materials.

Staffing

10 core higher educational institutions*

> 1.2 million employed people

> 24 thousand enterprises

* Education in Construction and Architecture is provided in the following higher educational institutions: Islam Karimov Tashkent State Technical University; Tashkent Institute for Design Engineering, Construction and Operation of Motor Roads; Tashkent Institute of Architecture and Construction; Tashkent Institute of Railway Transport Engineers; Turin Polytechnic University; Jizzakh Polytechnic University; Karshi Engineering and Economic Institute; Namangan Engineering and Construction Institute; Samarkand State Institute of Architecture and Construction; Fergana Polytechnic Institute

Regulatory barriers

Creation of a new department

The following regulatory barriers exist:

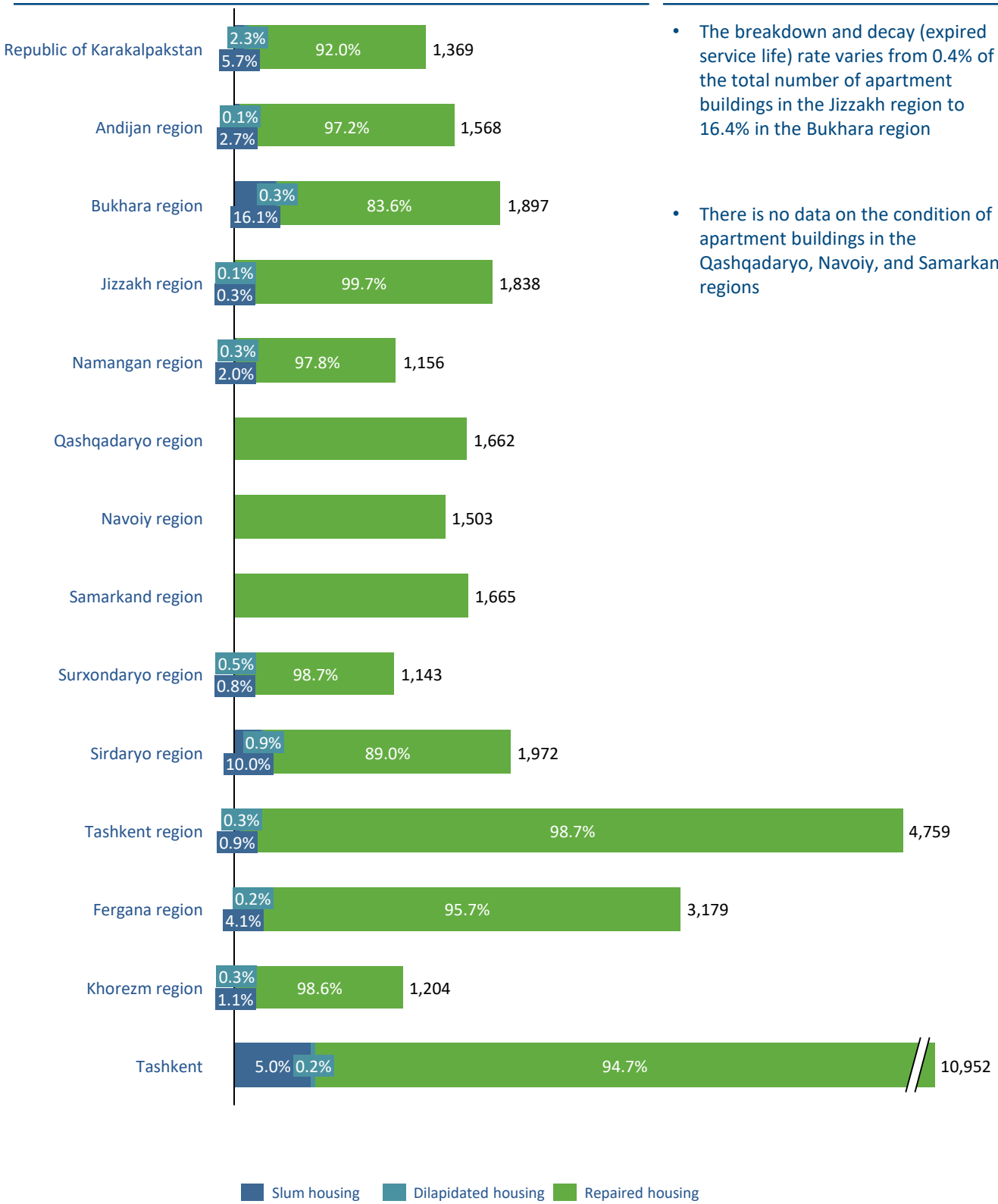
- The complexity and expensiveness of current access to the materials of the republican cartographic and geodetic fund and data from hydrometeorological observations for the purpose of engineering surveys
- In May 2018, by decree the President established a price limit for cement for a number of contracting organizations. Cement enterprises were allowed to sell 2 million tons of cement to contracting organizations engaged in the construction of affordable housing for people in need of improved housing conditions, social facilities, transport infrastructure, and water facilities through centralized sources at a price of 367,000 sum per ton (including VAT) subject to a 100% down payment

Sources: 1 - State Statistics Committee of the Republic of Uzbekistan, Ministry of Construction of the Republic of Uzbekistan, analysis of the working group

Construction industry

Current level of housing development

Condition of apartment buildings by region



Comments

- The breakdown and decay (expired service life) rate varies from 0.4% of the total number of apartment buildings in the Jizzakh region to 16.4% in the Bukhara region
- There is no data on the condition of apartment buildings in the Qashqadaryo, Navoiy, and Samarkand regions

Sources: Ministry of Housing and Communal Services, analysis of the working group

Utility and communications infrastructure

Current level of development

Key challenges

- Low share of the population connected to the main water supply line
- Complicated procedure for connecting to the power supply system and supplying electricity to the population
- Low telephone network capacity
- Low level of railroad and motor road electrification
- Slow and unreliable internet

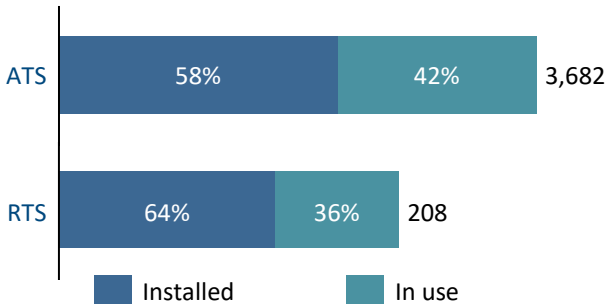
Key findings

- The share of expenditures on supporting information and communications technology in the Republic of Uzbekistan is quite small
- Only 64% of the population of Uzbekistan have access to the central water supply
- 35% of the population of Uzbekistan with access to the central water supply have not connected their homes to the water supply system and instead use outdoor standpipes to collect water
- Uzbekistan has a rather low price for electricity (USD 0.068 for 1 kW). However, the process of connecting to the power supply system is very expensive and takes a long time
- Railroads in the Republic of Uzbekistan are a link for eastern and western countries and organize the train traffic of six regional railway junctions (RRJ)
- The railway network density in the Republic of Uzbekistan is 14.5 km per 1,000 km2 of land

Current level of telecommunications network development

Telephone network capacity of Uzbekistan[1]

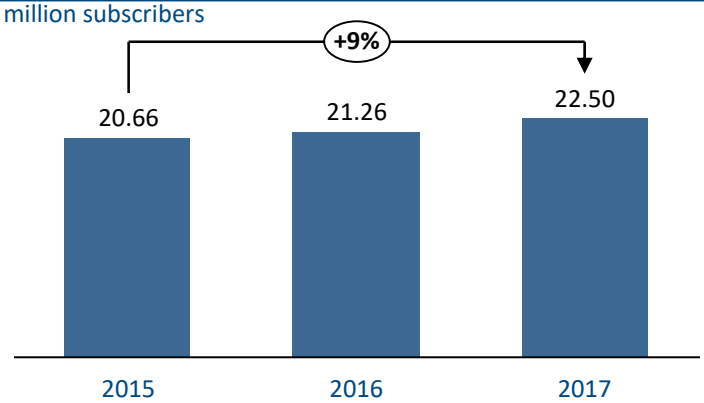
thousand numbers



- In **developed countries, the telephone network capacity decreases every year** due to **migration to virtual automatic telephone stations (ATS)**
- **Ordinary ATS** already fail to satisfy business demands: they **are limited in functionality** and **throughout capacity**, and it **is quite** expensive to maintain **them**

Number of mobile communications subscribers[1]

million subscribers



- Since 2015, the number of mobile communications subscribers has increased by almost **2 million people**

Sources: 1 - Ministry for Development of ICT and Communications of the Republic of Uzbekistan, analysis of the working group

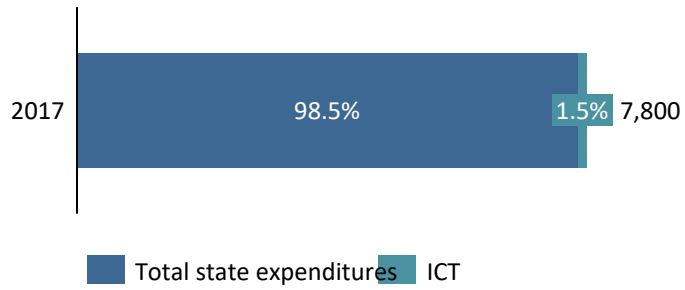
Utility and communications infrastructure

Current level of telecommunications network development

Internet

Share of ICT expenses in the structure of public expenditures

billion dollars billion

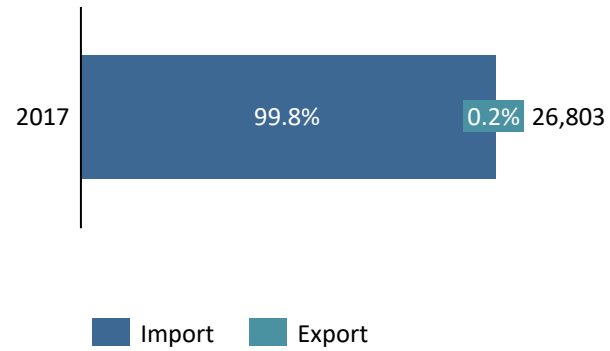


Comments

- **The Republic of Uzbekistan is** characterized **by an extremely low share of expenditures** on supporting **information and communications technology**. The same indicator in India accounts for over **19%** of all public spending

Export and import of ICT services

thousand billion

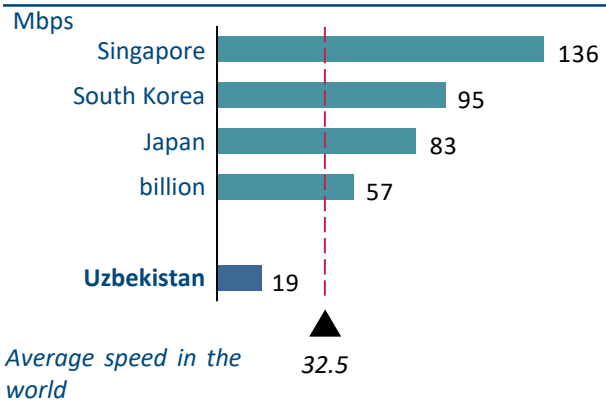


Comments

- Due to poor development of information and telecommunications technology in the Republic of Uzbekistan, **almost the entire market of ICT services is imported**. For comparison, imports in the **ICT services market in the USA** are about **40%**

Average maximum data transfer rate of the Internet

Mbps



Comments

- The **maximum** data transfer **speed** of the internet in the Republic of Uzbekistan is **1.7 times slower** than **the average** speed **worldwide**, which also demonstrates poor development of information and communications technology in the country

Sources: World Bank, Ministry for Development of ICT and Communications, analysis of the working group

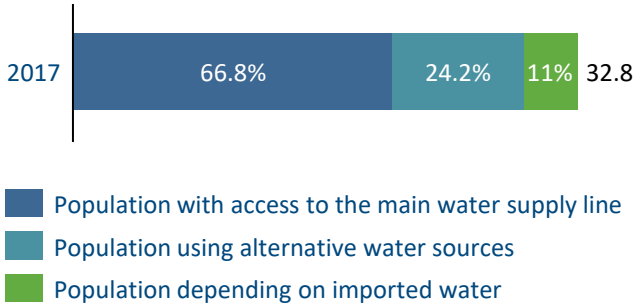
Utility and communications infrastructure

Current level of water supply development

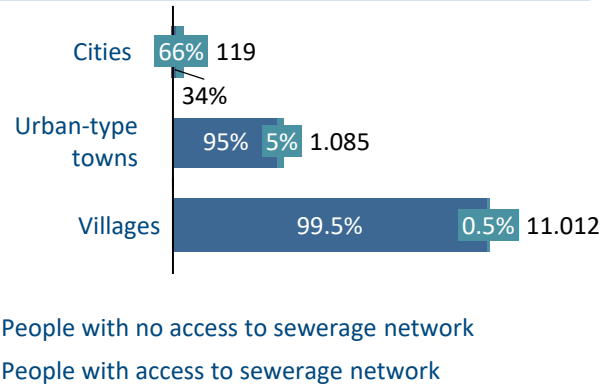
Water supply

Water supply to the population of Uzbekistan

million people

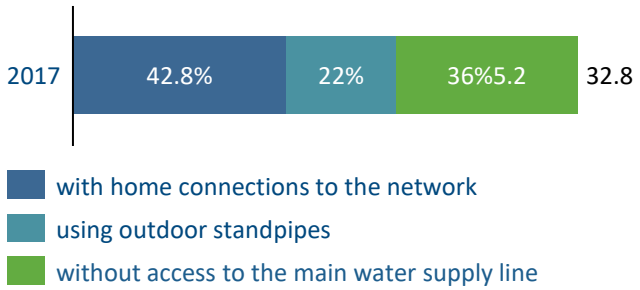


Coverage of settlements in Uzbekistan with centralized sewerage systems



Population with access to the main water supply line

million people

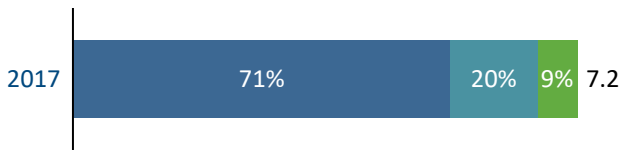


Comments

- Overall **coverage of** centralized **sewerage systems** in Uzbekistan is only **14,2%,** which is **extremely low compared to developed countries**

Population using alternative water sources

million people



Of these, population receiving water from:

- Wells, pumps
- Rivers, streams, channels, ponds
- Springs

Share of obsolete water supply networks

thousand km

Sources: Ministry of Housing and Communal Services, analysis of the working group

Utility and communications infrastructure

Current level of power supply development

Place in the "Getting Electricity" rating

World Bank

Doing Business 2017 "Getting Electricity" indicator

27

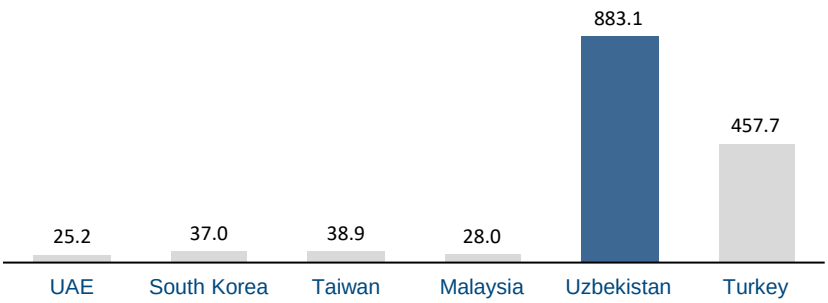
out of 190 countries

Comments

- In one year, Uzbekistan rose from 112th to 27th place according to the "Getting Electricity" indicator, overtaking such countries as Turkey, Kazakhstan, and Georgia

Cost of connection to electricity supply system,

% of income per capita

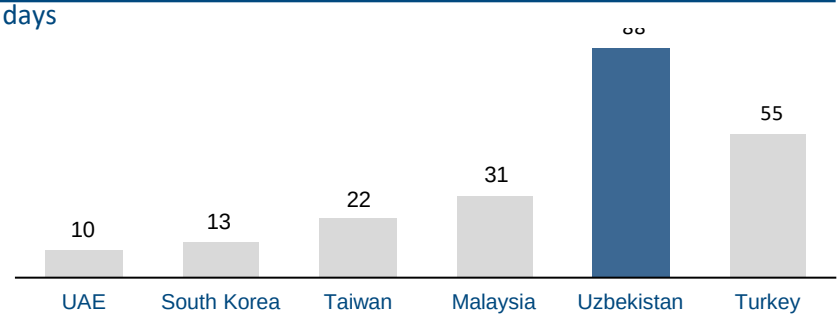


Comments

- The cost of connecting the electricity supply system decreased from 1393.1% (1) of per capita income to 883.1% (**37%** decrease), which simplified the ability to connect to the electricity supply system

Time for connection to electricity supply system,

days

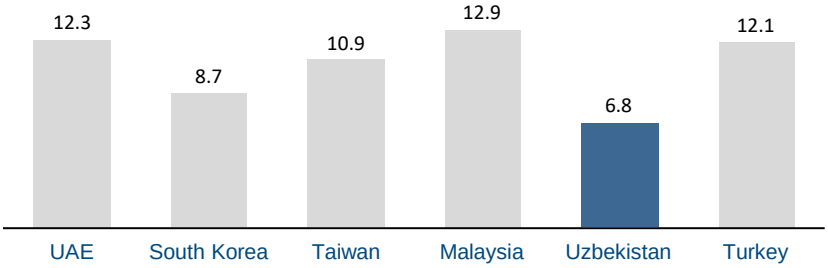


Comments

- In 2016, it took 89 days to connect to Uzbekistan's electricity supply system. Within a year, this process became 1 day quicker, but still takes a long time compared to other countries

Price for electricity,

US cents per 1 kW



Comments

- The price for electricity rose by 0.8 US cents during the year but still remains low compared to other countries

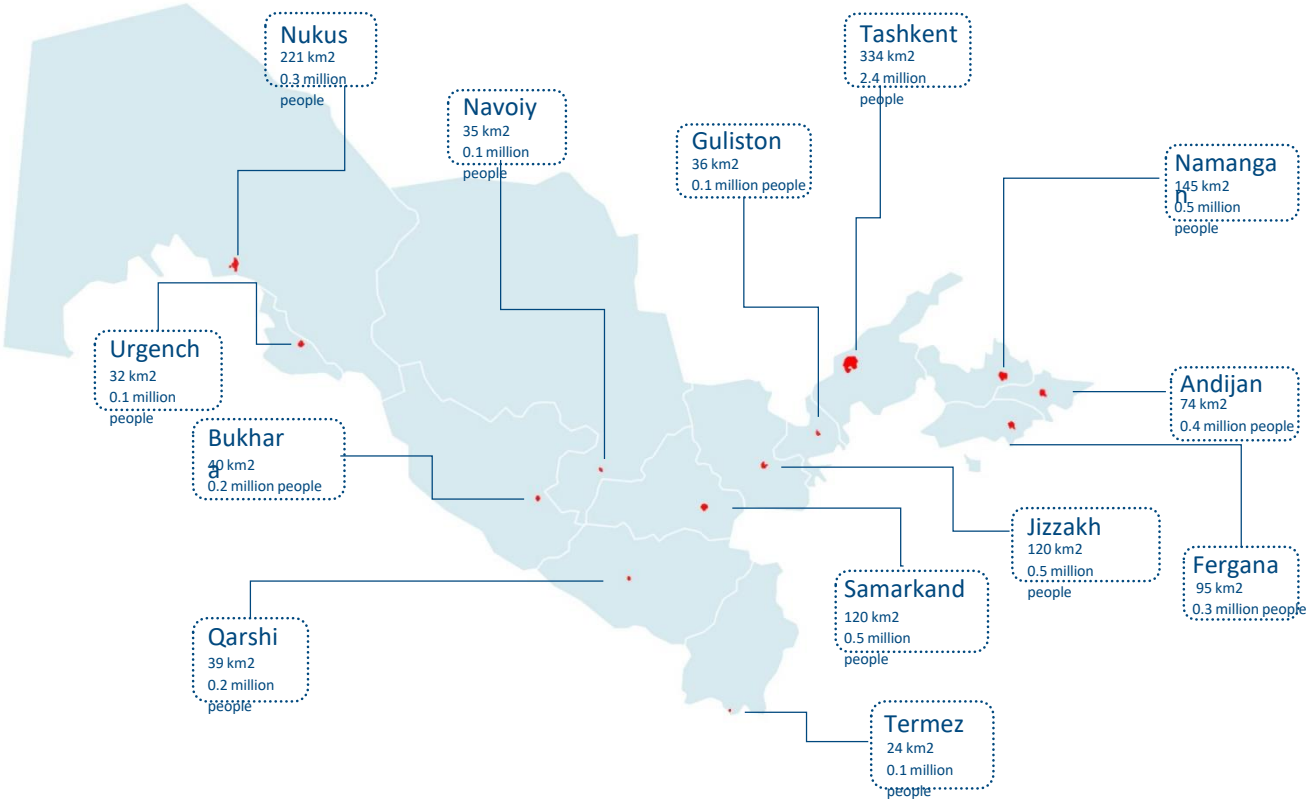
★ Place in the Doing Business 2017 rating for "Getting Electricity"

Sources: World Bank, analysis of the working group
Note. (1) Data for 2016

Urbanization

Current development level of the cities of Uzbekistan

Development level of administrative centers of Uzbekistan



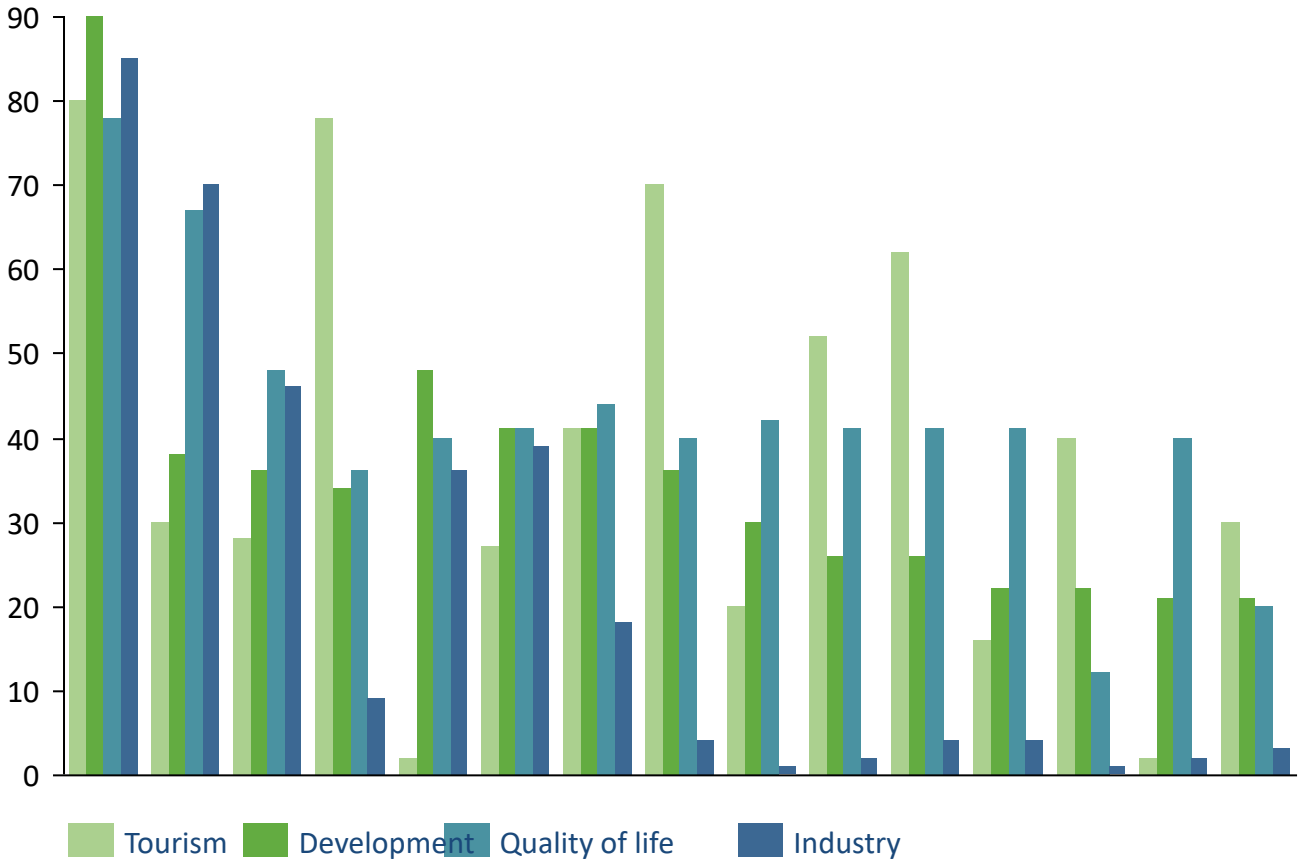
Comments

- In 2013, according to the official statistics, there were **119** cities in the Republic of Uzbekistan.
- Uzbekistan is distinguished by capital dominance, with a large population gap compared to other cities.

Source: analysis of the working group

Rating of regions of Uzbekistan

Development level of regions of Uzbekistan



Comments

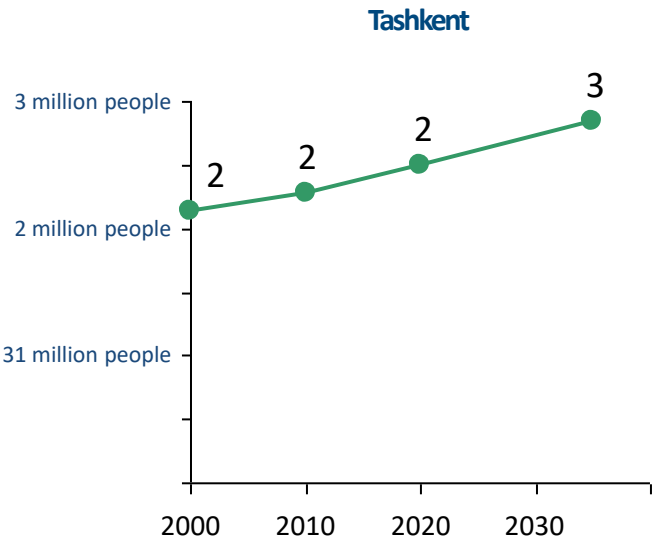
- The rating of regions was calculated for four categories: tourism, development potential, quality of life (by personal income), and industry.
- According to these figures, the leading cities are Tashkent, Navoi, Andizhan, and Samarkand, which may be deemed to be the central cities of Uzbekistan (2035).

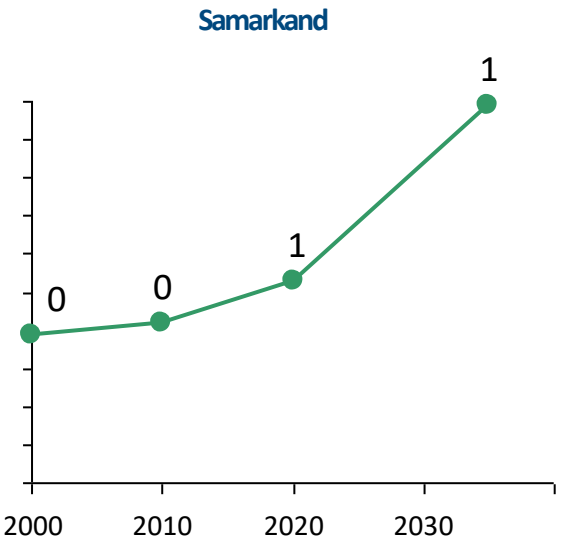
Source: Center for Economic Research, analysis of the working group

Urbanization

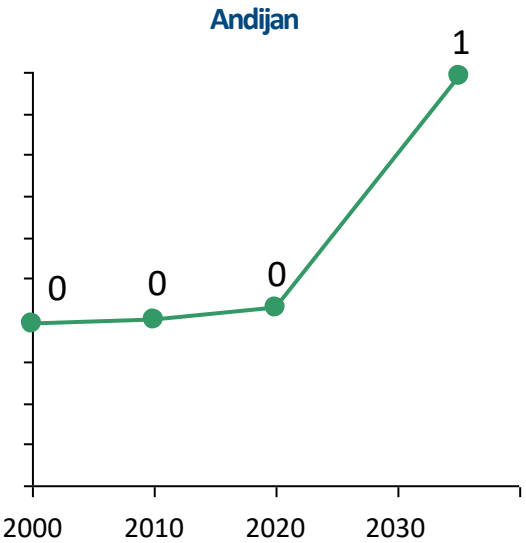
Forecast of population growth in the cities of Uzbekistan

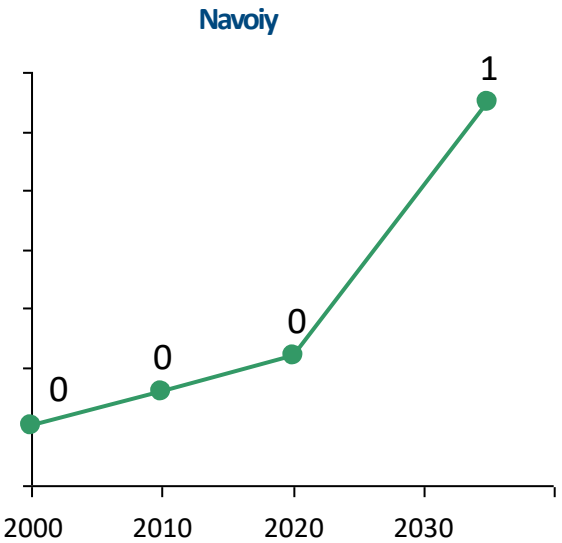
According to UN analysts (2009), by 2025, the population of Uzbekistan will reach 33,355,000 people.
The current population (33 million, 2018) of Uzbekistan exceeds previous demographic forecasts, which defines high population growth and requires accelerated resolution of problems connected with urbanization of the population.





The population of Tashkent will grow at evolutionary rates and will increase by 14% by 2035.





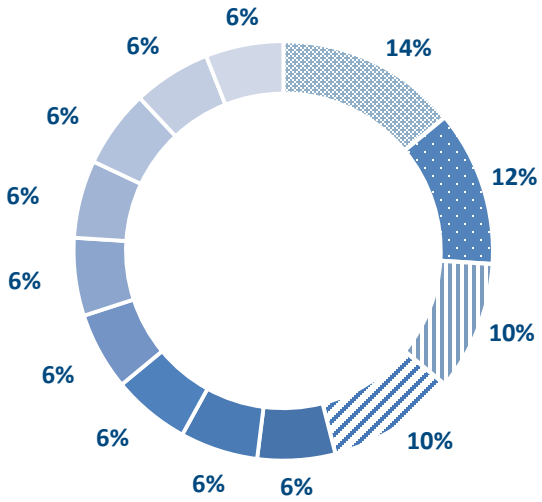
The populations of Samarkand, Navoi, and Andizhan will grow dynamically due to the inflow of population from neighboring regions.

Source: Center for Economic Research, analysis of the working group

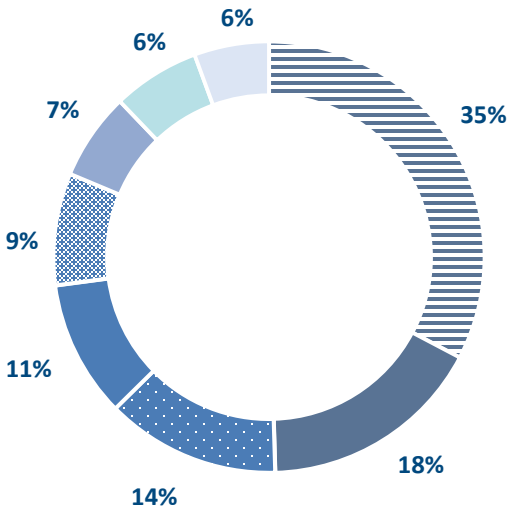
Urbanization

Current development level of the cities of Uzbekistan

Architectural construction in cities of Uzbekistan by 2035, %



- Tashkent
- Namangan
- Fergana
- Jizzakh
- Samarkand
- Guliston
- Qarshi
- Navoiy
- Bukhara
- Urgench
- Andijan
- Nukus
- Termez



- Housing construction
- Administrative and office buildings
- Educational institutions
- Medical institutions
- Shopping and recreation centers (malls) + hotels
- Sport and fitness complexes
- Cultural centers
- Recreation parks

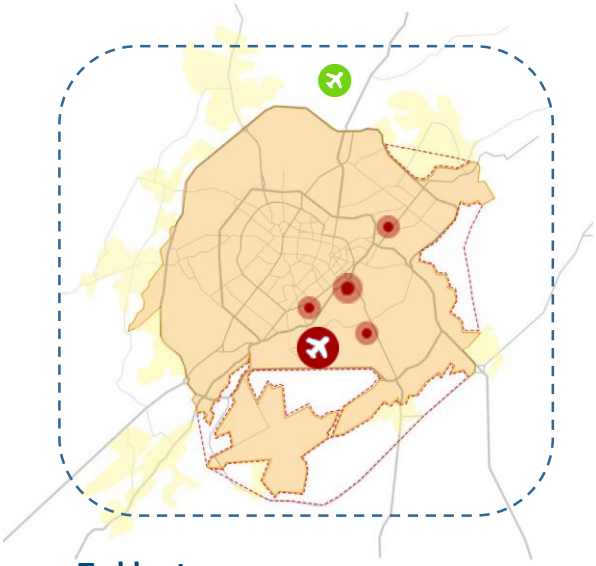
Comments

- Due to urbanization of the population, it is recommended to allocate the greater part of construction for apartment buildings. At present, the rural population size is 61%.
- There are insufficient shopping and recreation complexes in the cities of Uzbekistan.

Source: Center for Economic Research, analysis of the working group

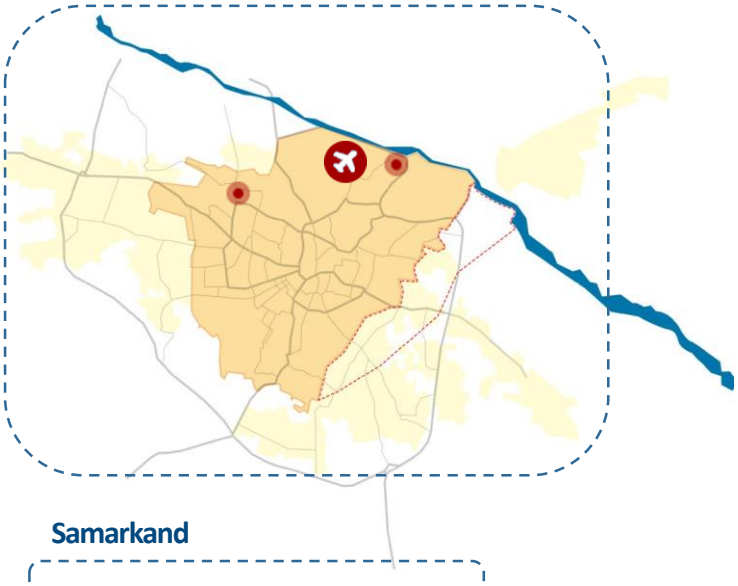
Urbanization

City territory development forecasts up to 2035



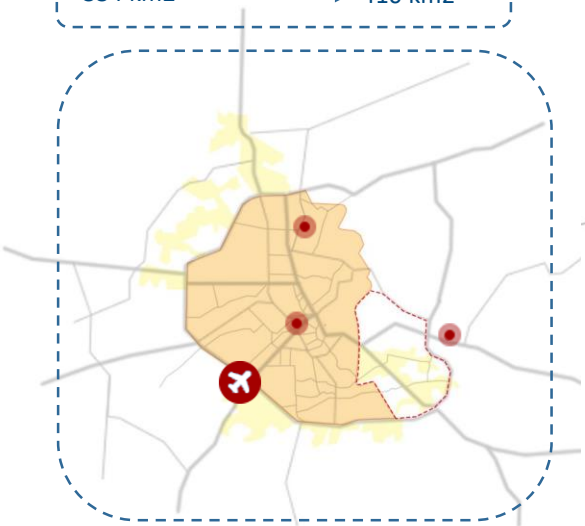
Tashkent

334 km2 → 410 km2



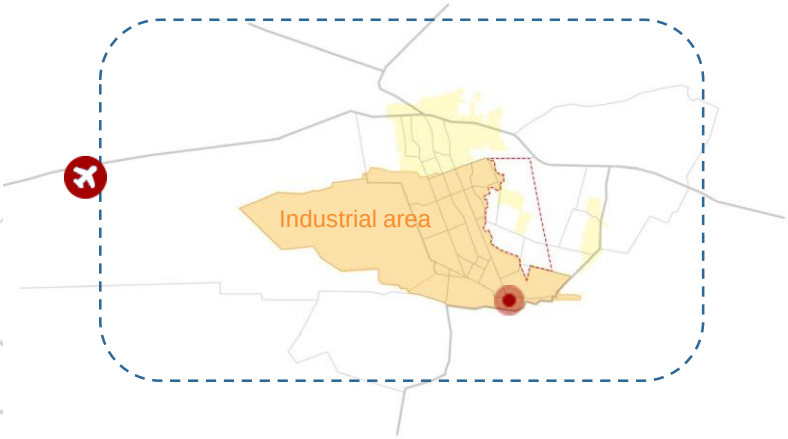
Samarkand

120 km2 → 150 km2



Andijan

74 km2 → 98 km2



Navoiy

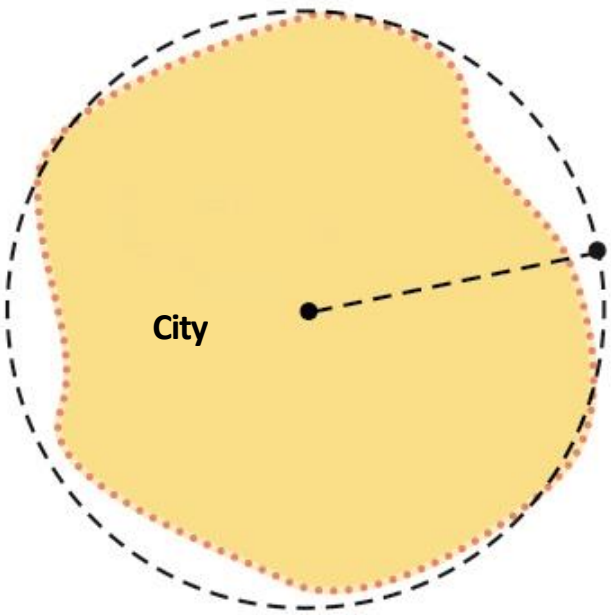
35 km2 → 50 km2

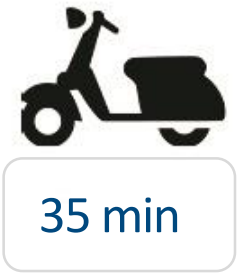
Comments

- When forming a city's territory, it is recommended to take natural and strategic factors into account, such as urban agglomerations, landscape areas, existing airports and railway stations.

Source: analysis of the working group

City development pursuant to the "Compact City" concept





Efficiency of use of a land plot due to increased construction density on reconstructed territories and a decreased share of low-density low-rise housing in the total area of new construction.

Efficiency of use of a land plot due to increased construction density on reconstructed territories and a decreased share of low-density low-rise housing in the total area of new construction.

Source: analysis of the working group

Urbanization

Expected consequences from the development of cities and eco-solutions

Sanitation

Allotment of an appropriate territory outside the city limits for garbage and construction of garbage recycling plants

Cycling infrastructure

Promoting cycling entails decreased air pollution in the city environment

Eco-preservation

Minimal intervention in the natural environment during construction of cities

Civil Services

Allotment of an appropriate territory outside developing cities for cemeteries

Comments

- Household waste is expected to grow 30% in developing cities
- At present, the cities of Uzbekistan do not have cycling infrastructure
- For the last 2 years, the cutting of over 20,000 trees was registered in the Republic
- Replenishment of cemeteries by 25% is expected by 2035

Source: analysis of the working group

Construction industry, utility and communications infrastructure

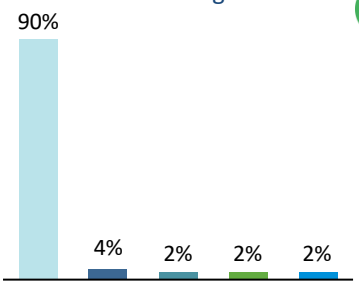
Strategic options

1

Government commercial enterprises
Budgetary appropriations
Full private financing
PPP
International financial organizations

Chinese model

Sources of financing



- More effective management of project development thanks to the managerial staff with sufficient competence in financial and technical issues
- Fund raising through the issuance of infrastructure bonds

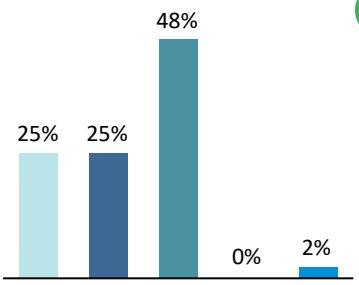
- Enterprises that are monopolists in their infrastructure sector have no incentive to operate more efficiently
- Potential difficulties with fund raising may transfer the debt burden onto the state since it owns such enterprises in full or in part

Almost 100% of infrastructure projects are funded by the state

2

Australian model

Sources of financing



- May be in the form of debt or shared participation, which attracts investors
- High level of transparency and simplicity of nongovernmental control
- Cheap borrowed funds for the state

- Limited financing due to the government's fiscal plans
- Political pressure due to which the best projects may not be chosen

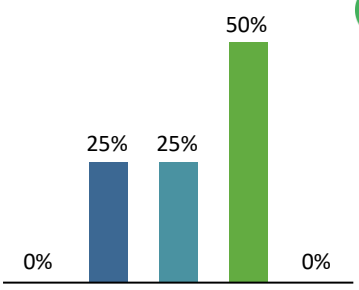
Private investments comprise about half of the portfolio

3

Target development option

British model

Sources of financing



- Possibility for the state to implement important projects even in light of fiscal restrictions
- High level of transparency and simplicity of nongovernmental control

- The need to have an established environment for PPP operation (legal, functional, technical)
- Long-term burden on the state budget due to payments on liabilities under PPP agreements

Over 75% of funding is provided by private investors, while the state plays a major role from the standpoint of planning and regulation

Sources: Reserve Bank of Australia, analysis of the working group

Construction industry, utility and communications infrastructure

Target vision 2035

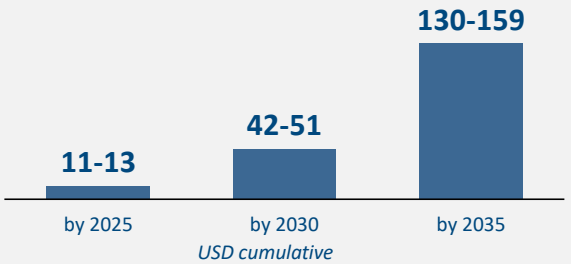
High-tech construction industry with advanced high-quality infrastructure that meets the requirements of business and the population

- Over 75% of funding is provided by private investors, while the state plays a major role from the standpoint of planning and regulation
- High level of transparency and simplicity of nongovernmental control over infrastructure financing
- The best international practices of automobile roads construction are used
- Construction of new and modernization of obsolete infrastructure: increase the share of people with access to the main sewerage (14.2%) and water supply (64.8%) networks to 90–100% as well as water, electricity, and gas supply
- Expansion of the broadband internet access and telephone communication network by increasing the number of cellular communications base stations from 20,000 to 40,000
- Implementation of 5G data transfer technology
- Implementation of public-private partnerships in infrastructure construction
- Use of Big Data for analysis of traffic and road conditions

Figures

	2017	2035
Place in the Doing Business 2017 rating for "Getting Electricity"	27	Top 10
Population with access to the main water supply line, %	64.8	100
Covered by centralized sewerage networks, %	14.2	42.5
Average maximum data transfer rate of the internet, Mbps	19	2048
Share of mobile communications subscribers in the total population, %	68%	> 90 %
Provision with housing, sq. m per 1 person (UN recommendations)	-	18

Investment



Sources: UN recommendations, analysis of the working group

Construction industry, utility and communications infrastructure

Key strategic initiatives

- Expansion of the internet and telephony coverage area, introduction of 5G mobile communication technologies
- Increase the average internet speed
- Creation of an apartment building management system that would encourage development of a market for operation and maintenance of apartment building stock
- Elaboration of the legislative and regulatory framework for energy conservation by developing standards that govern heat consumption by residential buildings and promoting adoption of measures for energy conservation and improvement of energy efficiency of buildings using Germany's experience
- Improvement of the educational process in industry-related educational institutions for the purpose of improving the process of training qualified staff in the field of architecture, design, and construction and the supply of personnel for the construction industry
- Expansion of access to the gas and electricity supply
- Creation of a think tank for infrastructural investments, with the possibility of performing econometric and qualitative assessment of the effect of infrastructural projects using state funds
- Implementation of the practice and system of cooperation between think tanks and production entities using international experience
- Business involvement in preparation of statutory documentation in the construction industry and creation of conditions for the work of private R&D and design institutes and entities

- Improved public-private partnership in housing and utility construction, creation of telecommunications networks
- Rehabilitation and improvement in energy efficiency of buildings (heat insulation of facades, attics, etc.)
- Improvement and updating of the legal framework for urban construction and urban development activity
- Development and implementation of state standards for engineering and technical work that are in line with advanced international standards, urban development standards and rules, and climatic conditions
- Implementation of effective mechanisms of infrastructure project financing for PPP and for private investors
- Implementation of energy efficient technology in the street lighting system and energy efficient lightbulbs in residential and public buildings
- Full renovation of central boiler units and construction of local boiler units to supply heat to apartment buildings, social infrastructure facilities, and business entities, and transition of the heat supply to a local system
- Implementation and functioning of a transparent tender system of architectural design of state construction facilities
- Implementation of smart thermostat systems

- Complete solution to the dilapidated and slum housing problem
- Implementation of vertical and horizontal technical quality control schemes at all stages of the production cycle of engineering and technical works to ensure high quality of construction
- Uninterrupted supply and complete coverage of the population of the Republic of Uzbekistan with energy and gas supply
- Reconstruction and upgrading of the heat supply system to achieve reductions in excessive loss by migrating to a closed heat supply system, automated control of the heat supply system, full-fledged accounting and monitoring of the customer database with the respective control and accounting of debts
- Full coverage of the population with high-quality drinking water
- Expansion of access to the centralized sewerage network for the country's urban population

perso nnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Construction industry, utility and communications infrastructure

Key strategic initiatives

- Elaboration of a development strategy and master plan of all cities of Uzbekistan by 2035 based on advanced technologies and development trends
- Implementation of an automated billing system for payment and accounting of housing and utility services

- Activation of the architectural and city planning association of Uzbekistan (Union of Architects), development of the website of the Union of Architects. Organizing exhibitions, master classes, forums, competitions, etc.
- Update and retrofitting of equipment that is used for growing and primary processing of cotton

perso nnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.4

Tourism

Economic development

Tourism

Current level of development

Key challenges

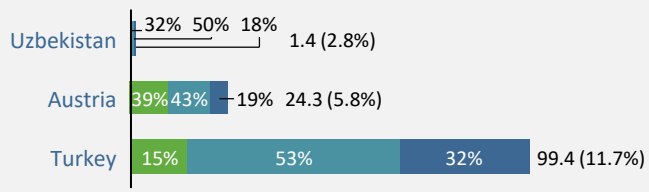
- Complicated visa policy and registration system
- Poor development of the tourism infrastructure in popular cultural centers, and its absence outside the main tourist places
- High prices for airfare, poor coverage of potential markets by Uzbek and international airlines
- Senior age of tourists (55+ years old) and near absence of young visitors
- Shortage of qualified staff in the tourism industry
- Poor development of the leisure and entertainment and service industries
- Lack of an aggressive PR strategy for Uzbekistan in the international market
- Insufficient number of foreign (international) tourist organizations
- Lack of a national tourism brand and tourism product
- The tourism industry is not attractive to foreign investors due to high barriers for entering the Uzbek market

Key findings

- Over 50% of all hotels in the country are concentrated in three main cultural centers: Tashkent, Bukhara, and Samarkand
- The majority of foreign visitors (52.1%) are people aged 31–55 years. The next major category (28.5%) is foreign citizens below 30 years of age—that is, young people. Tourists over 55 years of age make up 19.3% of the total number of visitors. 70% of tourists prefer museums, excursions accompanied by a guide, and shopping as entertainment
- The complicated process of obtaining a visa was one of the main stop factors for choosing Uzbekistan, although now Uzbekistan has drastically simplified the visa regime. Starting from 2019, a visa-free regime for another 45 countries was established (the total number of such countries is 64). The list of countries whose citizens can receive an electronic entrance visa was expanded. Registration procedures for foreign citizens have been simplified
- Limited choice of air travel routes and high cost of airfare greatly increase the cost of visiting Uzbekistan and, therefore, reduce the country's competitiveness in the international travel market

Contribution of tourism to the economy

USD billion



- **Tourism's contribution to** the **economy** of the Republic of Uzbekistan is **extremely low** and is less than 3%

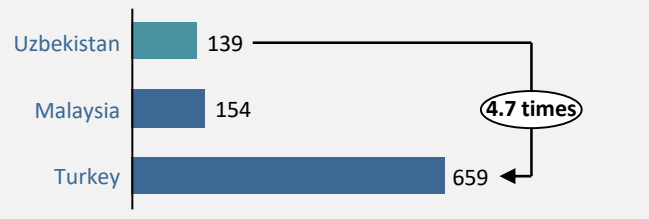
Stimulating contribution
Money spent by hotel employees on housing, health care, clothes, etc.

Indirect contribution
Capital investments in tourism, public spending on tourism, purchase of goods and services from suppliers

Direct contribution
Money spent by tourists on hotels, transport, meals, and other goods and services

Capital investments per 1 tourist

USD billion



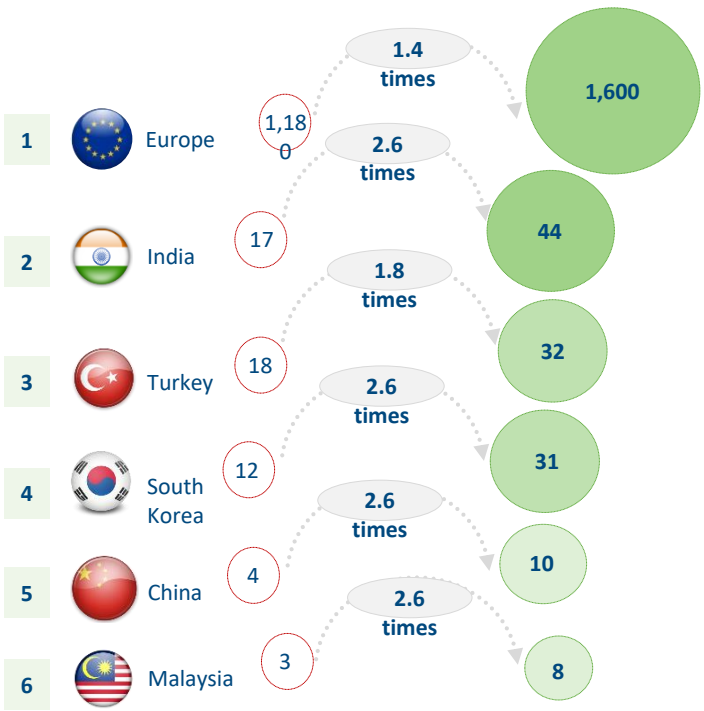
- **The amount of capital investments** spent on one foreign tourist in 2017 is **almost 5 times less** than the same indicator **in Turkey**
- **The** country has a **rich cultural heritage**, but to uncover its potential, Uzbekistan's **tourism industry needs significant investments**

Sources: World Travel and Tourism Council

Target level of development

Potential tourist flow from cities with direct flights to Tashkent

Annual tourist flow, thousand people



Selected countries with the potential for an annual increase in the tourist flow

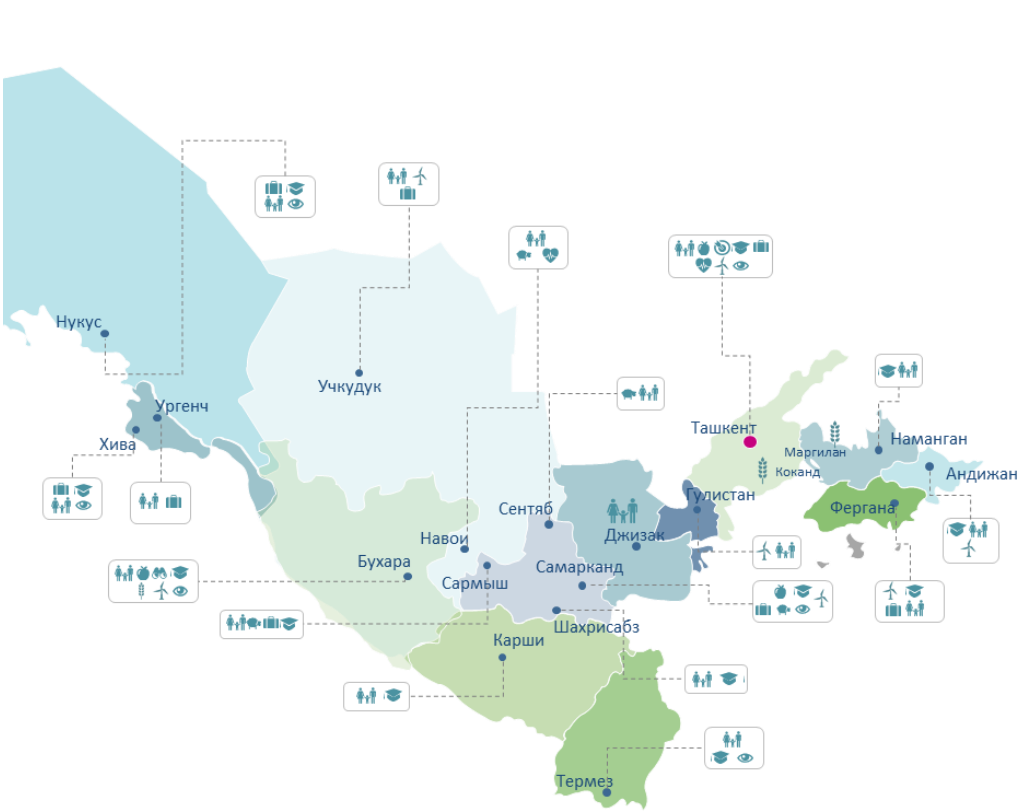
1	Cultural and educational, exotic, event, gastronomic, agricultural, recreational, ecological, and sports tourism
2	Religious, event, recreational, gastronomic, and agricultural tourism
3	Cultural and educational, religious, recreational, and event tourism
4	Cultural and educational, exotic, event, gastronomic, agricultural, recreational, sports, industrial, and ethnic tourism
5	Cultural and educational, exotic, event, gastronomic, agricultural, recreational, ecological, sports, industrial, and ethnic tourism
6	Cultural and educational, exotic, event, gastronomic, agricultural, and ethnic tourism

Sources: World Travel and Tourism Council report: Economic Impact 2018 Uzbekistan, State Statistics Committee of the Republic of Uzbekistan, Statista (the Statistics Portal)

Tourism

Target level of development

Tourism development potential in Uzbekistan



- Sports tourism
- Ecological tourism
- Exotic tourism
- Gastronomic tourism
- Event tourism
- Religious tourism
- Cultural and educational tourism
- Agricultural tourism
- Industrial tourism
- Recreational tourism
- Ethnic tourism

Cultural and educational tourism
Traveling to Uzbekistan's most ancient cities, such as Samarkand, Tashkent, Bukhara, Khiva, Fergana, with their medieval architecture, historical, architectural, and archaeological monuments will create unforgettable experiences

Exotic tourism
Travel to places away from civilization using nontraditional transportation (camels, etc.)

Religious tourism
Visit Uzbekistan's holy places, such as the original Koran of Osman the khalif from the 7th century, the mosque and tomb in the holy Bukhara, and a necropolis in Samarkand where the brother of the Prophet Muhammad was buried

Event tourism
Trip with visits to Uzbekistan's main events, such as the World Nomad Games, Silk and Spices International Festival, Sharq Taronalari International Music Festival, etc.

Gastronomic tourism
An excellent opportunity to enjoy the specialities of Uzbek cuisine and, most importantly, to try real Uzbek pilaf, which is included in the list of UNESCO World Heritage objects

Agricultural tourism
Unique trip that would allow guests to the country to visit families and live in the homes of various peoples of Uzbekistan, in towns and villages, and even in nomads' yurts in the desert

Recreational tourism
Ability to spend your vacation away from noisy cities: take a trip to the mountains and stay in health spas, visit salt therapy rooms, including special procedures

Ecological tourism
Traveling to an area where the sun shines almost year round, to the kingdom of dry hot summers, warm winters, soft honey falls, and bright blooming springs will impress any traveler

Sports tourism
Alpine skiing, water sports, horseback riding, or walking – all of these will help you stay fit and admire Uzbekistan's picturesque environment

Industrial tourism
Learning about the manufacturing processes of household appliances ("SamRosKholod") and foods and visiting a real factory would be interesting not only to students but to the employees of any industry

Ethnic tourism
Guests to Uzbekistan will meet an ancient, eastern ethnic group whose indigenous culture and national heritage go back centuries

Sources: State Statistics Committee of the Republic of Uzbekistan

Tourism

Strategic options

1

Tourism as a public policy

Presumes **the presence of a strong ministry** where **significant control over the tourism industry will be concentrated**

Government activity is aimed at:

- **Stimulation of tourism development**
- Ensuring the necessary level of **safety** for tourists
- **Simplifying** border and customs **formalities**
- **Creating** a **national network** for economic and social **studies** in the field of tourism
- **Creating conditions** for development of the tourism industry

Examples of countries:

(+)
- Existence of a branched structure (departments and divisions)
- The state as the main regulatory body

(-)
- Slow application of the latest technology
- Lack of qualified personnel

Strong Ministry of Tourism Development

2

Target development option

Tourism and related industries

Involve **establishing a joint ministry** that would handle, apart from tourism, other related areas (and would perform a coordination function for the government bodies on tourism-related issues)

Examples of countries:

Combination of tourism and other industries:

- **Material area** (industry, energy, engineering, trade, transport, communications)
- **Non-production area** (culture, sports, information, environmental protection, natural resources, and other)

(+)
- Tourism is a priority area of economic and cultural development
- Clear distribution of powers between the central and regional tourist administrations

(-)
- Poor development of the material and technical base in tourism
- Quality of service requires improvements

The Ministry of Tourism together with:

- **Production sector** (joint ministries of tourism and areas of the material sector)
- **Non-production sector** (joint ministries of tourism and areas of culture, environment, and other sectors)

Sources: analysis of the working group

Tourism

Target vision 2035

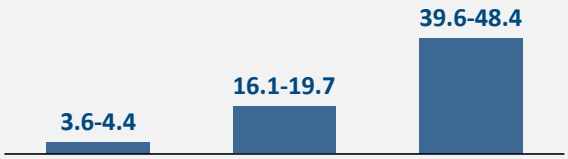
Realization of tourism potential of the Republic of Uzbekistan as one of the main tourist destinations in Central Asia

- Form target tourism segments
- Form a tourist product
- Ensure the safety of arriving tourists
- Launch a marketing campaign
- Simplify the visa policy for target groups of countries
- Develop modern hospitality infrastructure involving international networks
- Construction of new chain hotels (in particular, near the transport infrastructure facilities connecting cities) and general improvement of tourist infrastructure
- Create a competitive tourist product for target segments, including young people
- Develop mass tourism using the tourism potential of the Republic of Uzbekistan:
    - Cultural and educational tourism
    - Exotic tourism
    - Religious tourism
    - Event tourism
    - Gastronomic tourism
    - Agricultural tourism
    - Recreational tourism (in particular, medical and healthcare tourism)
    - Ecological tourism
    - Sports tourism (in particular, mountain skiing)
    - Industrial tourism
    - Ethnic tourism
    - Homestay
- Form and implement the scope of national and individual international quality standards in the service sphere, and consistent harmonization and bringing these standards in line with the international level
- Form of an information base for creating digital infrastructure of the transportation network
- Create national platforms for tourism industry digitalization
- Develop private business in the transport and tourism industries
- Attract foreign travel operators with experience in international tourism
- Develop home-based tourist accommodations in the residential sector, including through preferential tax benefits
- Development of domestic tourism, determining its target parameters
-

Figures

	2017	2035
Rank in the rating of countries by competitiveness of the tourism industry (out of 136 countries in 2017)	27	Top 50
Rank in the population hospitality rating (out of 153 countries)	96	Top 30
Rank in the tourism export rating of countries (out of 185 countries)	149	Top 80
Rank in the country rating by contribution of tourism to GDP (out of 185 countries)	117	Top 50
Rank in the country rating by level of investment in the tourism industry (out of 185 countries)	180	Top 50

Investments in the tourism industry (forecast)



USD cumulative

Sources: World Travel and Tourism Council, State Statistics Committee of the Republic of Uzbekistan, Travel & Tourism Competitiveness Report 2017, analysis of the working group

Tourism

Key strategic initiatives

2025

- Simplification of the visa scheme for target groups of countries
- Improvement in the regulatory framework for tourism activity, aimed at forming favorable conditions for the activities of business entities in the field of tourism
- Attraction of international networks to upgrade the hospitality infrastructure, creation of new hotel chains
- Improve the training system of highly qualified specialists for the tourism industry, retraining and advanced training of employees of tourism entities with particular focus on learning foreign languages (especially English)
- Launch of the programs for attracting and supporting private business in the transport and tourism sectors, which would provide, among other things, for preferential tax benefits
- Hosting of international cultural and sports competitions, festivals, and contests (e.g., motor rally)
- Increase in the number of direct air flights to international destinations, launch of low-cost airlines, building of railroads

2030

- Harmonization and bringing the scope of national quality standards in the service area in line with the requirements of international standards
- Implementation of a unified digital infrastructure of the national transport network
- Conducting of a promotional campaign for the tourist product
- Creation of the necessary infrastructure for disabled persons

2035

- Integration of international networks into the global tourism system
- Implementation of an electronic system of urban and intercity transport service
- Formation and promotion of the positive image of the country worldwide and creation of the "Uzbekistan" brand

personnel finance technologies legislation and state regulation infrastructure

Sources: analysis of the working group

2.5

Small business and private entrepreneurship

Economic development

BUYUK KELAJAK

Small business and private entrepreneurship

Current level of development

Key challenges

- SB&PE statistical accounting
- Low level of SB&PE penetration
- Stagnation of SB&PE development
- Low level of conversion from private entrepreneurs into small and medium companies
- High share of the shadow economy
- High cost of borrowed financing
- High debt burden and a complex tax system
- Underdeveloped simplified tax system
- Non-transparent and bureaucratized tender procedures
- Complicated access to land plots and real estate
- Trouble obtaining construction and architectural permits
- Tax regulation problems
- Problems of banking sector regulation
- Lack of attention from local authorities to entrepreneurs' problems
- Lack of collateral value of the clients – small and medium entities
- Export barriers
- Lack of a network of SB&PE support infrastructure, including a regional one
- Absence of a unified institute of SB&PE support
- Lack of well-built internal processes (including those related to reporting)
- High inflation

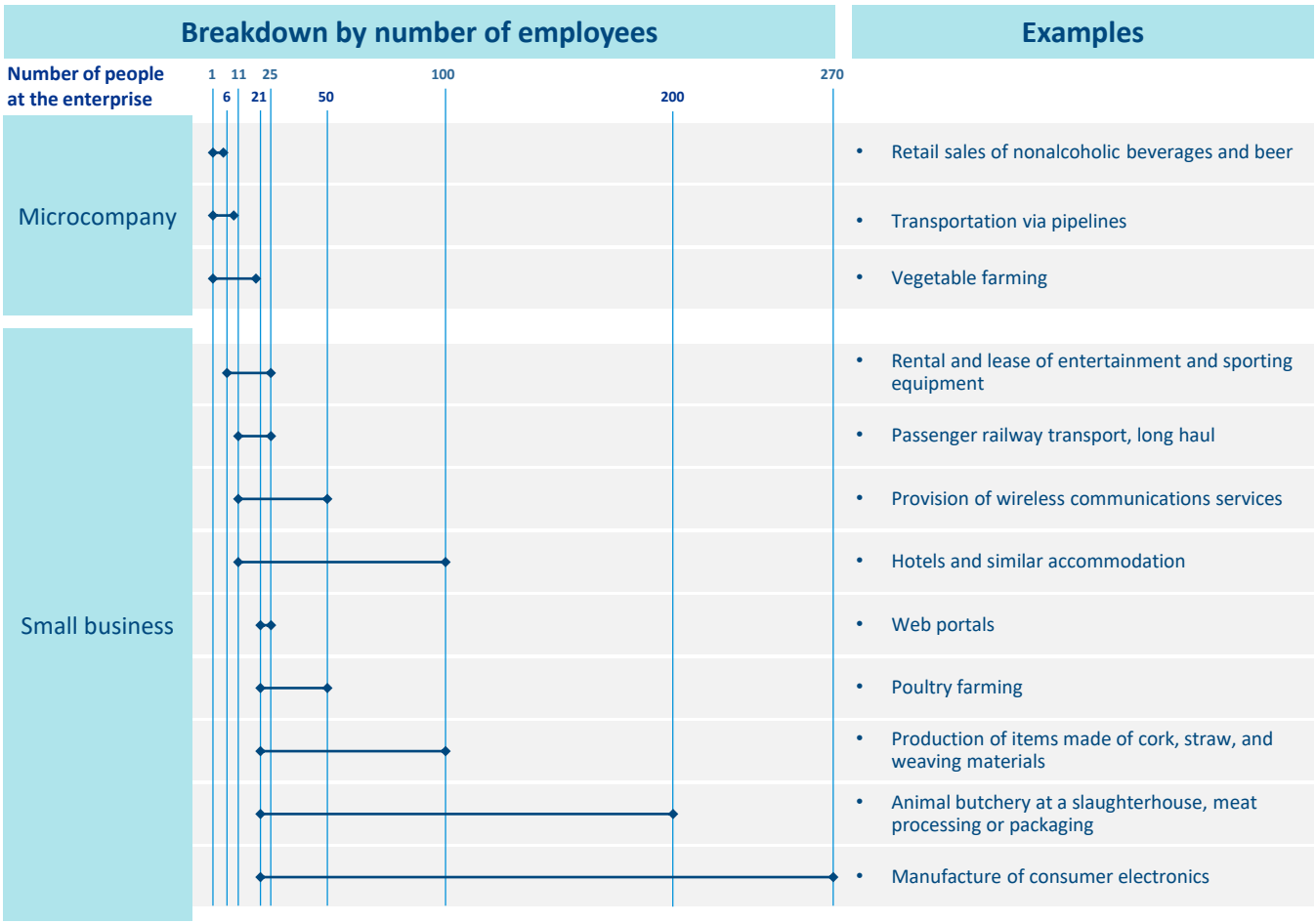
Key findings

- Criteria for the assignment to SME in Uzbekistan do not correspond to international practices, medium business is not singled out
- There are problems with statistical accounting of SB&PE, accurate data on the number of private enterprises are not available
- Uzbekistan lags behind developing countries by the number of SME and behind developed countries by the level of added value per one SME
- A new system of online registration has simplified and reduced time and labor on the registration of enterprises
- There are no tax incentives for SB&PE, except for the possibility to apply a simplified tax system, which needs improvement
- A low level of conversion from private entrepreneurs into small and medium companies is observed in Uzbekistan
- A high share of the shadow economy is observed: While the share of the shadow economy is estimated to be 50%, GDP loss is up to USD 16–17 billion
- In the business environment, the key problems are high cost of borrowed funds, high taxes, and non-transparent and bureaucratized tender procedures
- The main infrastructure problems include access to land and real estate, and obtaining construction and architectural permits
- From a regulatory point of view, entrepreneurs negatively comment on the problems of tax regulation and banking sector regulation, as well as the lack of attention by local authorities to existing problems
- Among the key barriers to attracting foreign investments are the staffing issue, lack of information for investors, and lack of interest from local authorities
- Lending to SB&PE grew by 23%, however, the lack of collateral value of SMEs is a problem
- Uzbekistan is characterized by a high level of self-employment (27%), which is typical for an undeveloped SME sector
- SB&PE financing with 18% share of SME in the credit portfolio is insufficient
- State regulation of export procedures and customs barriers greatly complicate export development by SB&PE
- There is no unified consolidating body in charge of development of the SB&PE support strategy and subsequent monitoring of its implementation

Sources: State Statistics Committee of the Republic of Uzbekistan, World Bank, data from statistical agencies of the corresponding countries, OECD, World Bank, open sources, analysis of the project team

Small business and private entrepreneurship

Definition of small business and private entrepreneurship in the Republic of Uzbekistan



- The SME sector in the Republic of Uzbekistan is defined **as "Small business and private entrepreneurship"** (SB&PE)
- Small business entities are **individual entrepreneurs, microcompanies, and small enterprises**
- This classification is regulated by Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 275 from August 24, 2016 and **includes only the criterion "Staff size"**
- The number of employees **varies depending on the industry**
- **There is no "medium-sized business" segment**

The criteria for defining small business and private entrepreneurship do not entirely match international practice:

Comparison with international practice	Int'l	
1. "Number of employees" criterion	UK, Russia	✓
2. "Revenue" or "Assets" criterion	Canada, Japan	✗
3. Industry differences	China, billion	✓

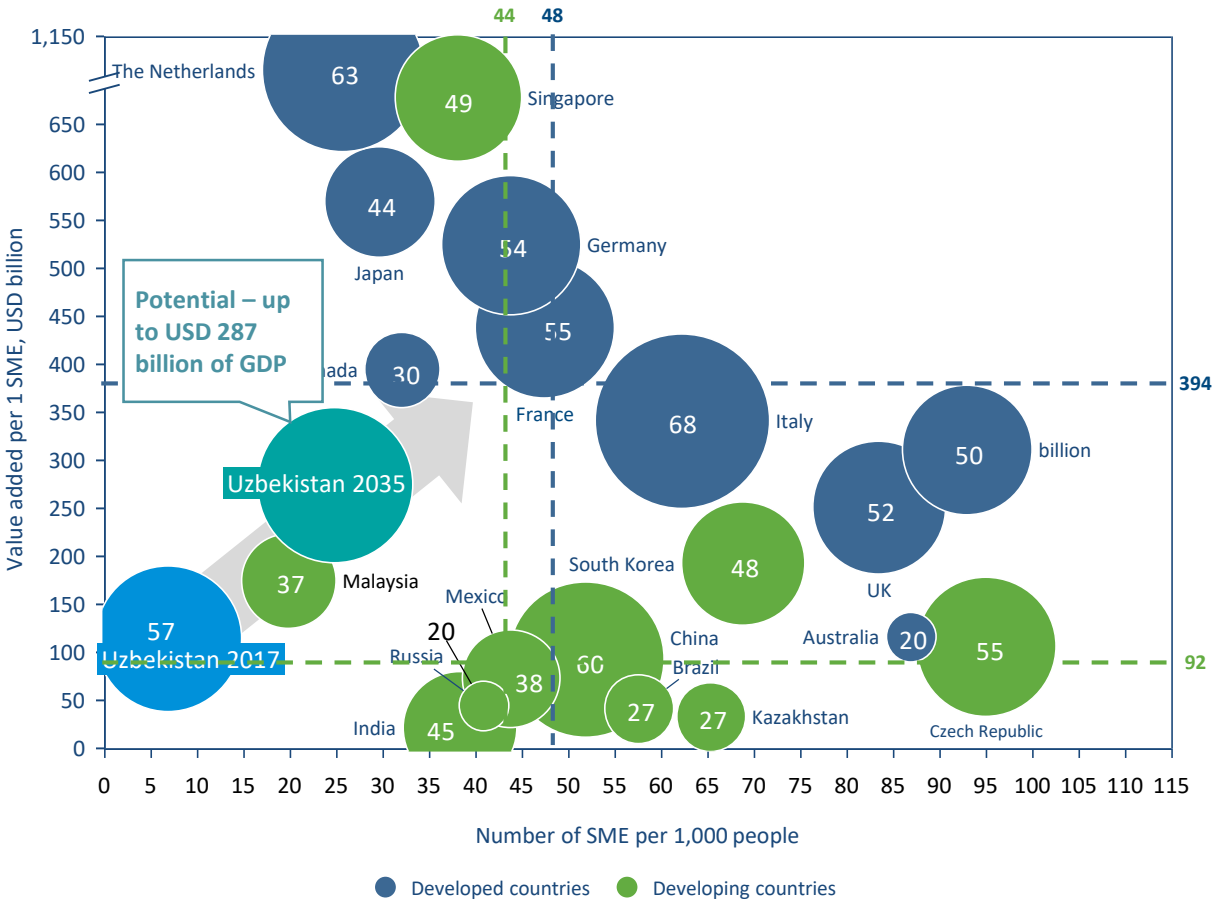
- Preservation of the industry-specific differences is necessary subject to certain tax (e.g., stimulation of individual industries) or statistical (e.g., comparison of labor productivity) tasks set by the state

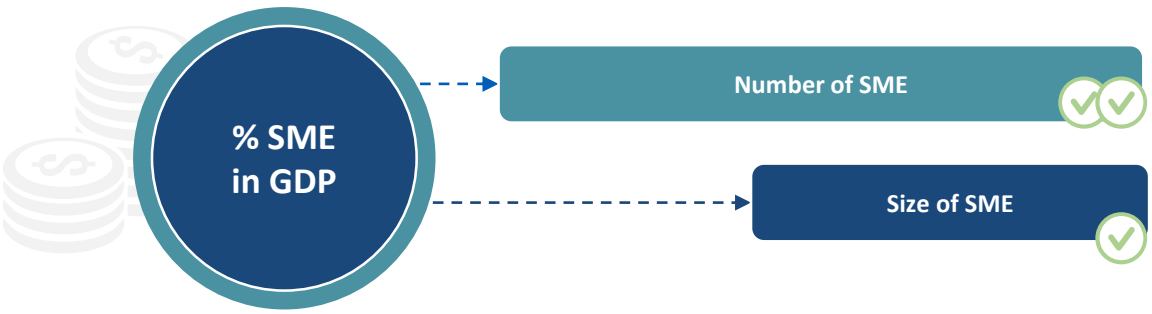
Source: Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 275 dated August 24, 2016, SBA, Academic Journal of Business, Administration, Law and Social Sciences, analysis of the working group

Small business and private entrepreneurship

SME development level in developed and developing countries, 2016

Uzbekistan lags behind developing countries by the number of SME and behind developed countries by the level of added value per one SME





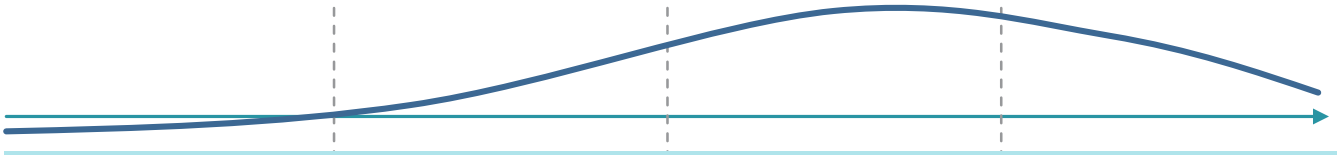
- With 7.1 SMEs per 1,000 people, Uzbekistan lags behind developing countries with a median of 44 SMEs (difference of 37 SMEs per 1,000 people at the average delta of 17 SMEs in developing countries)
- Furthermore, the added value of SMEs in Uzbekistan is comparable to similar countries: USD 113 (median value of billion
- The added value of SMEs in Uzbekistan is less than half than in emerging countries (USD 113,000 vs. USD billion)

Sources: data from statistical agencies of the corresponding countries, OECD, World Bank, open sources, analysis of the project team

Small business and private entrepreneurship

Small business and private entrepreneurship problems depending on their life cycle stage

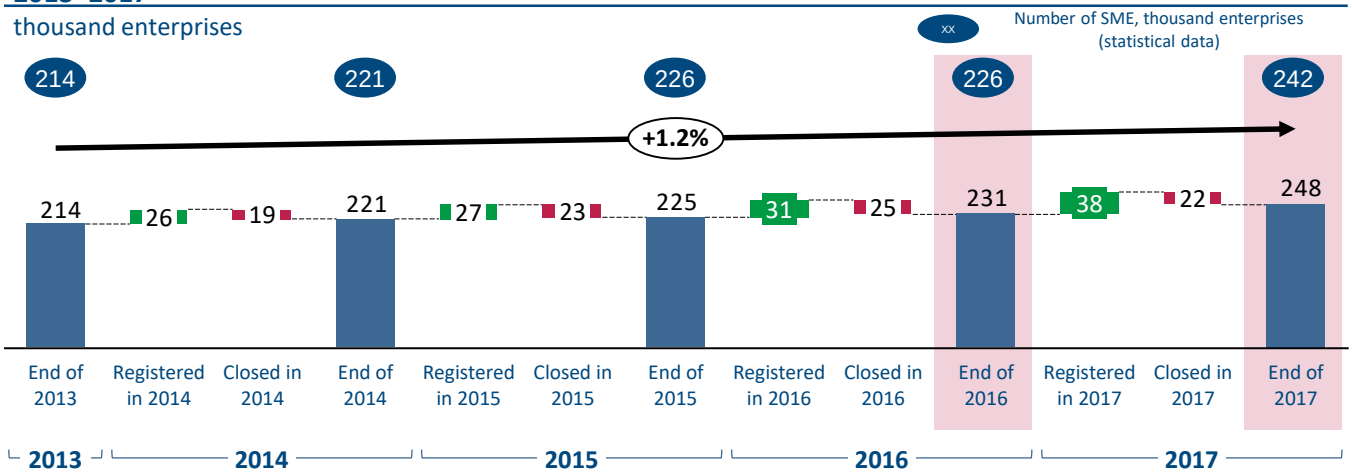
SME life cycle



Influence factors (international experience)

Concept	Registration/opening	Growth/development/export	Leave a business / closure
• Level of entrepreneurial activity of the population • Inclination of the population to establish businesses (fear of failure, motivation, opportunities, and skills) • Conditions for doing business	• Ease of registering a business • Development level of unofficial economy • Tax incentives for self-employment • Availability of capital and knowledge for starting a business • Protection of entrepreneur's rights • Financial system maturity and access to capital (ease of obtaining a loan)	• Ability to manufacture goods with high added value • Access to customers • Financial system maturity and access to capital (ease of obtaining a loan) • Access and simplicity of organizing export supplies	• Access to customers • Business management issues • Government regulation • Access to resources (financing and infrastructure)
Affects the number of SME	Affects the number of SME	Affects the size of SME	Affects the number of SME

Dynamics of the number of SB&PE (calculation based on statistics), 2013–2017



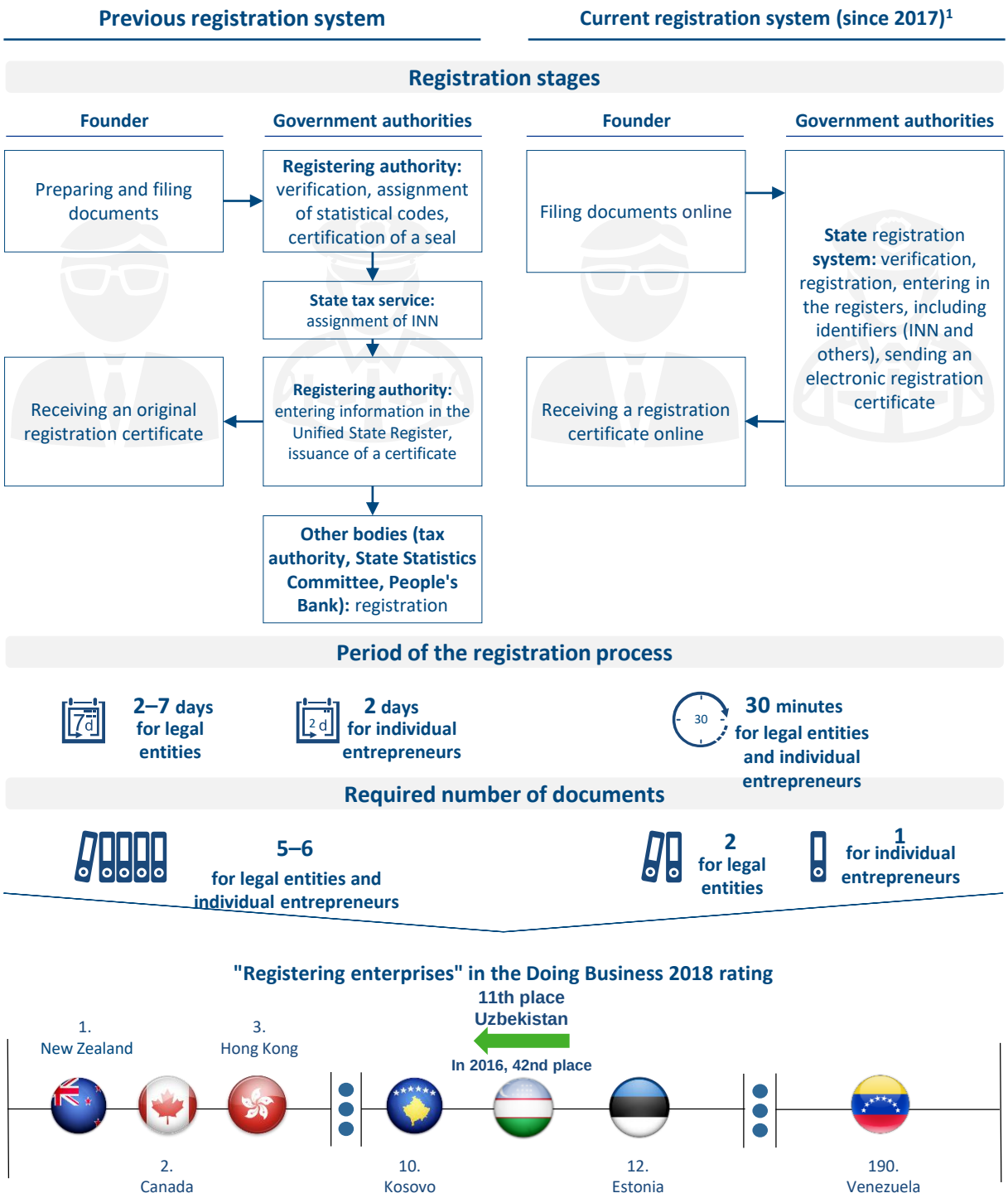
- Statistical data differs from the data calculated on the basis of the same statistical data, which proves problems with accounting and statistics
- Insignificant growth of registered SMEs is observed, in particular, due to the outrunning growth of registrations compared with the number of SMEs being closed

Sources: State Statistics Committee of the Republic of Uzbekistan, analysis of the working group

Small business and private entrepreneurship

Changes in the SME registration system

- **Growth in the number of registrations is observed, including due to a considerable simplification of the registration process, which takes 30 minutes online**
- **A new registration system conforms to the latest international practices, which allowed Uzbekistan to rise to 11th place in the "Registering enterprises" section of the Doing Business rating**

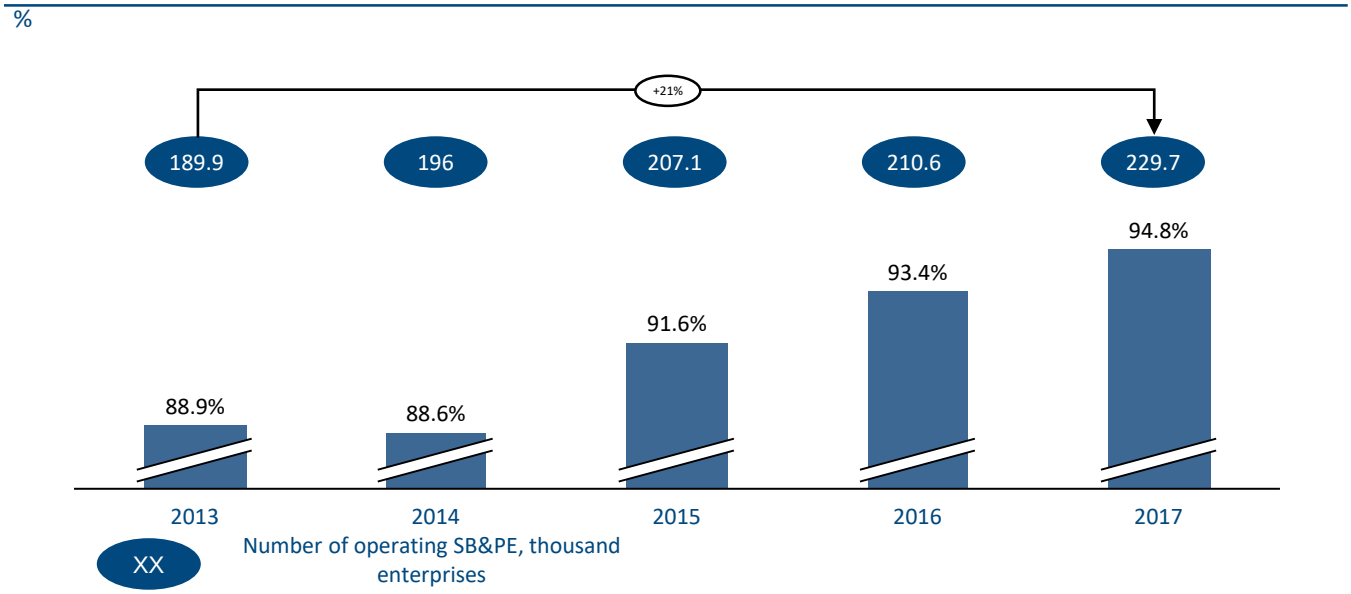


Note: 1 – According to Decree of the Cabinet of Ministers No. 66 dated February 9, 2017 "On Measures to Implement the Resolution of the President of the Republic of Uzbekistan No. PP-2646 dated October 28, 2016 "On Improvement of the System of State Registration and Entry in the Registers of Business Entities"

Source: Decree of the Cabinet of Ministers No. 66 dated February 9, 2017, Doing Business, analysis of the project team

Small business and private entrepreneurship

Share of operating SB&PE in the total number of registered SB&PE



- **Growth in the number and share of current SMEs** in the total number of registered enterprises is observed
- The **share** of operating SB&PE was **95%** in 2017, the **number** of operating SB&PE grew **by 21%** to 230,000 enterprises (**leading growth** compared to the number of registered enterprises, which increased by 16% over the same period)
- Growth in operating companies is due to the closure of idle companies and to business "coming out of the shadows" (companies starting to register some of their activities)
- However, there are **no tax incentives** for SMEs, except for the ability to apply a simplified tax system
- The general tax system is complicated, which leads to the high cost for administration of tax accounts
- The simplified tax system **requires improvement**, since entrepreneurs are only able to pay tax on revenue
- Possible improvement: introduction of **income tax payment**, which is relevant **for newly opened enterprises** with a low profit level

Share of microenterprises in the SME structure, 2017

- The share of microenterprises in the SME structure of Uzbekistan **corresponds to international practice**
- Every country has its own principles for dividing companies into micro, small, and medium ones
- For analysis purposes, we used the national criteria for grouping the companies

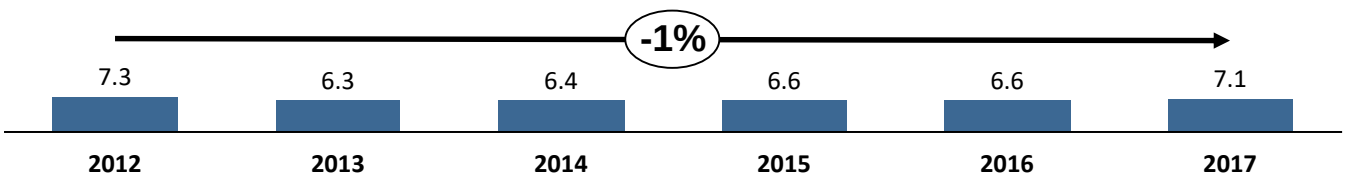
Note: 1 = EU data for 2016
Source: State Statistics Committee of the Republic of Uzbekistan, analysis of the working group

Small business and private entrepreneurship

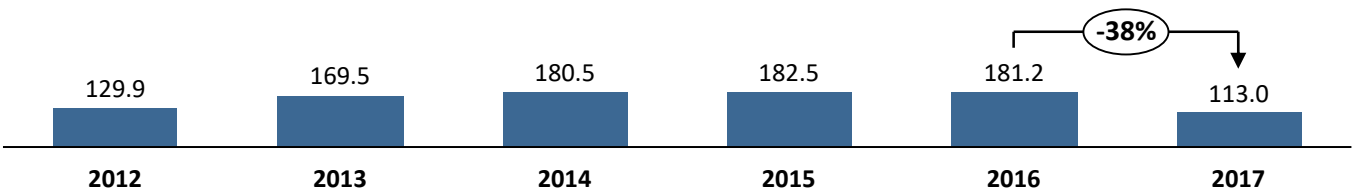
Small business and private entrepreneurship development level in Uzbekistan, 2012–2017

SME development stagnates both in terms of quantity and the size of one SME

Number of SME per 1000 people



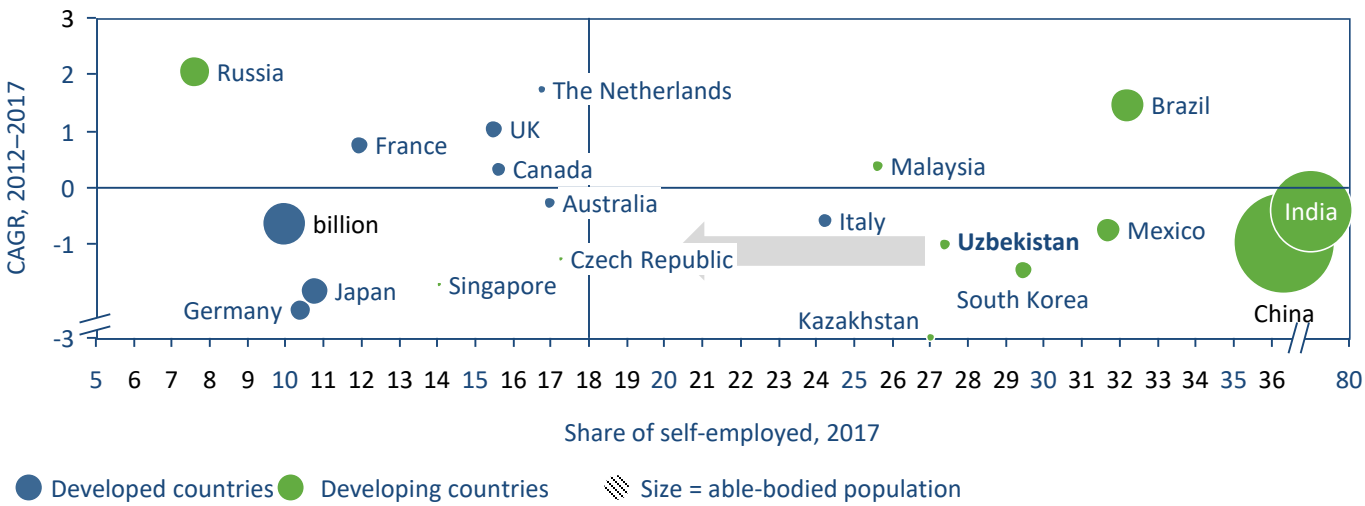
Value added per 1 SB&PE, thousand billion



- The number of SB&PE per 1,000 people **varied within 6.3–7.3 enterprises**; since 2013, the number of enterprises grew slightly, but compared to 2012 the **current number of SB&PE has not recovered**
- **Taking into account the shadow economy,** the number of SMEs **may be higher**
- The number of SMEs grew throughout 2012–2016, but in 2017 it **fell by 38%**, partially due to weakening of the national currency

Self-employment level and trend in developed and developing countries, 2016

- **Uzbekistan is characterized by a high level of self-employment (27%), which is typical for emerging countries**
- **When the SME level is developed, the self-employment rate decreases by 15% on average**
- **With further development of SMEs in Uzbekistan, the self-employment rate may drop to approximately 20%**



- In general, a **high level of self-employment is** typical for **developing countries**
- Over the last five years, the self-employment level in Uzbekistan **decreased** by 1% annually on average
- The current level of self-employment **is 27%**

Source: State Statistics Committee of the Republic of Uzbekistan, World Bank, analysis of the project team; World Bank, analysis of the project team

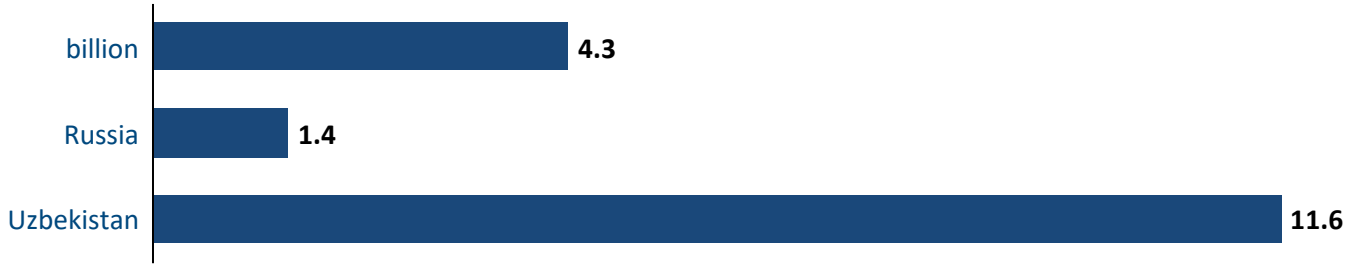
Small business and private entrepreneurship

Estimated number of private entrepreneurs (million people)

There is a lack of accurate data on the number of private entrepreneurs in the Republic of Uzbekistan

Number of private entrepreneurs per 1 SME

A low level of conversion from private entrepreneurs into small and medium companies is observed in Uzbekistan



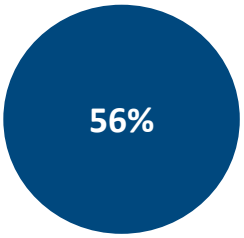
- In most countries, the number of private entrepreneurs exceeds the number of SMEs
- There are about 11.6 private entrepreneurs per 1 registered company in Uzbekistan (with an estimated number of 2.8 million private entrepreneurs)
- In the US, there are 4.3 entrepreneurs per 1 company, and in Russia, 1.4 entrepreneurs

Assessment of the share of the gray economy

- **A high share of the shadow economy is observed**
- **While the share of the shadow economy is estimated to be 50%, GDP loss is up to USD 16–17 billion**

Experts at the Uzbekistan 2035 Forum

Interview details



Source: State Statistics Committee of the Republic of Uzbekistan, analysis of the project team; Data of relevant ratings, analysis of the project team; International Labor Organization, data from open sources, Uzbekistan 2035 Forum

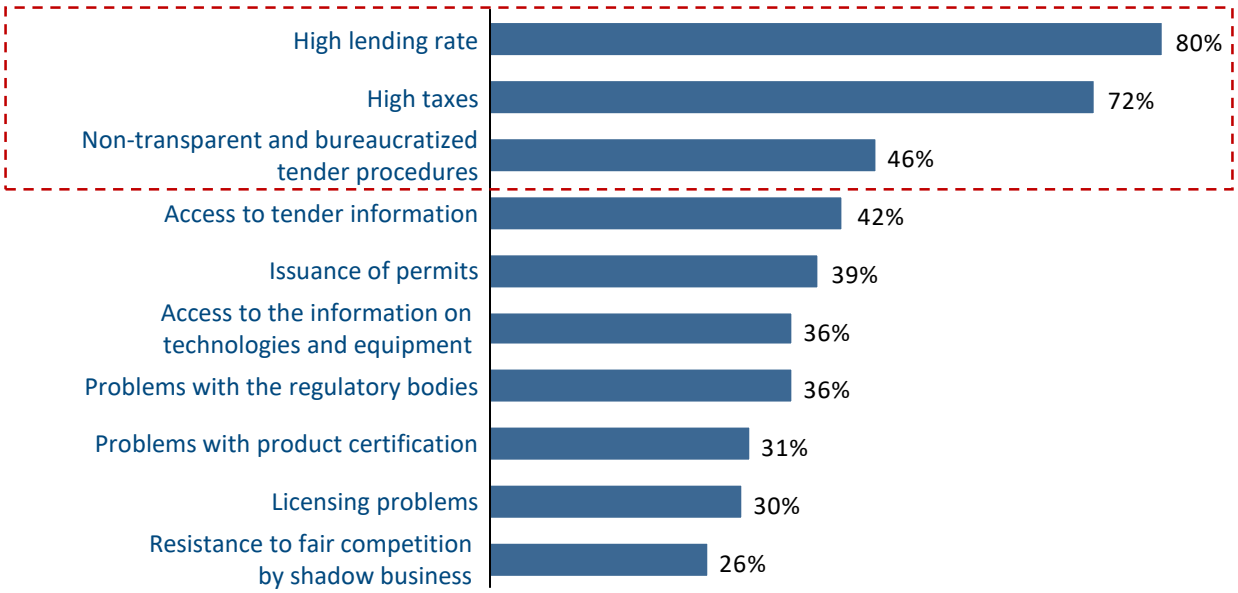
Factors negatively affecting the development of entrepreneurship

The interviewed entrepreneurs identified a number of factors that negatively affect the development of entrepreneurship:

- In the business environment, the key problems are high cost of borrowed funds, high taxes, and non-transparent and bureaucratized tender procedures
- The key infrastructure problems include access to land and real estate, and obtaining construction and architectural permits

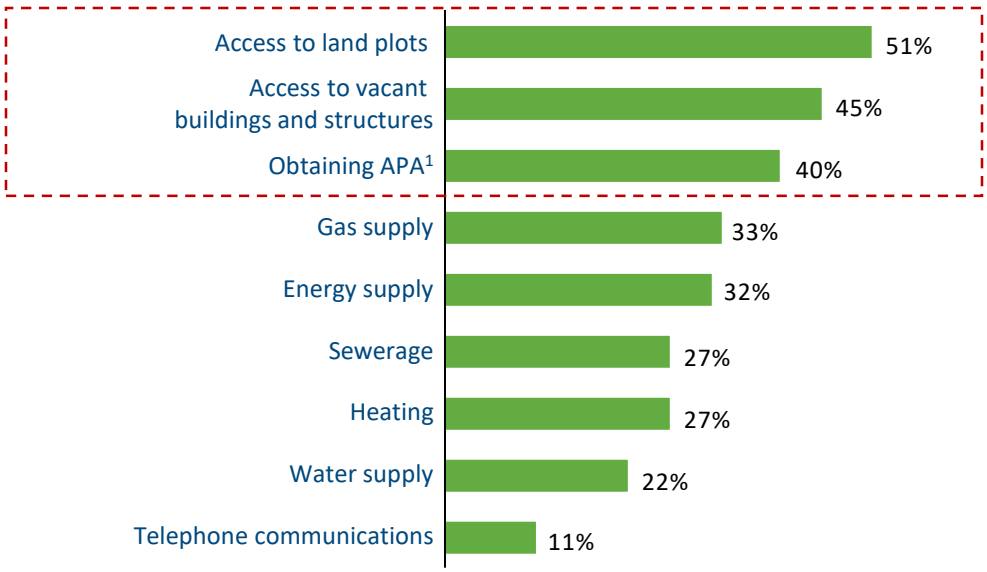
Key problems of the business environment

% of the total number of interviewed



Key infrastructure problems

% of the total number of interviewed



Source: CCI, UN DP, Oliy Majlis (interview of over 600 entrepreneurs, 2018), analysis of the project team
Notes: 1 = architectural planning assignment

Small business and private entrepreneurship

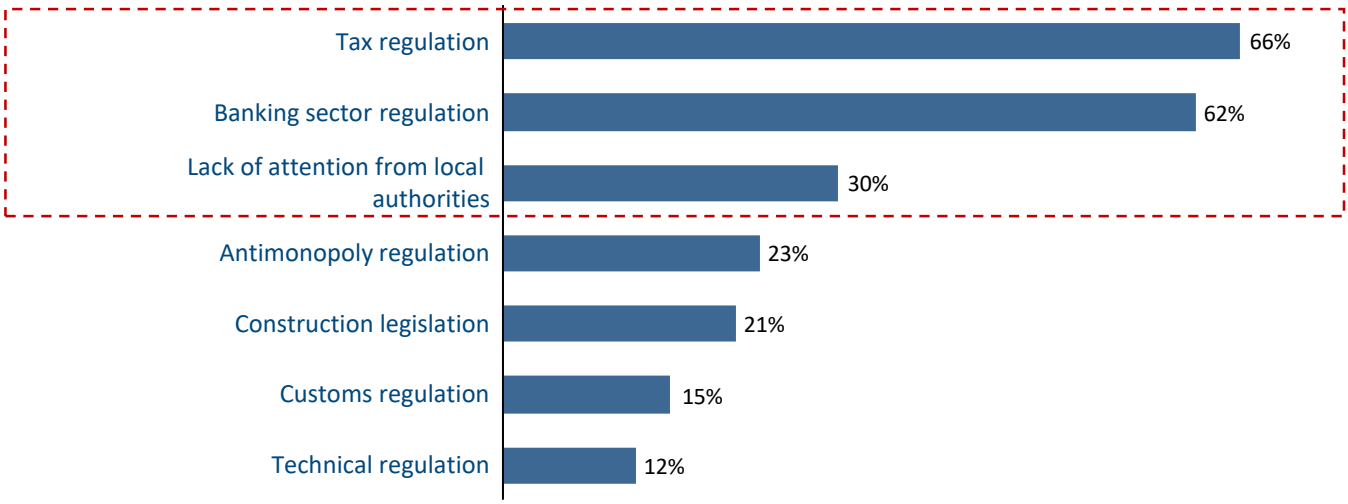
Factors negatively affecting the development of entrepreneurship

The interviewed entrepreneurs identified the following factors that negatively affect the development of entrepreneurship:

- From the point of view of regulation, entrepreneurs negatively comment on the problems of tax regulation and banking sector regulation, as well as the lack of attention by local authorities to the existing problems
- Among the key barriers to attracting foreign investments are the staffing issue, lack of information for investors, and lack of interest from local authorities

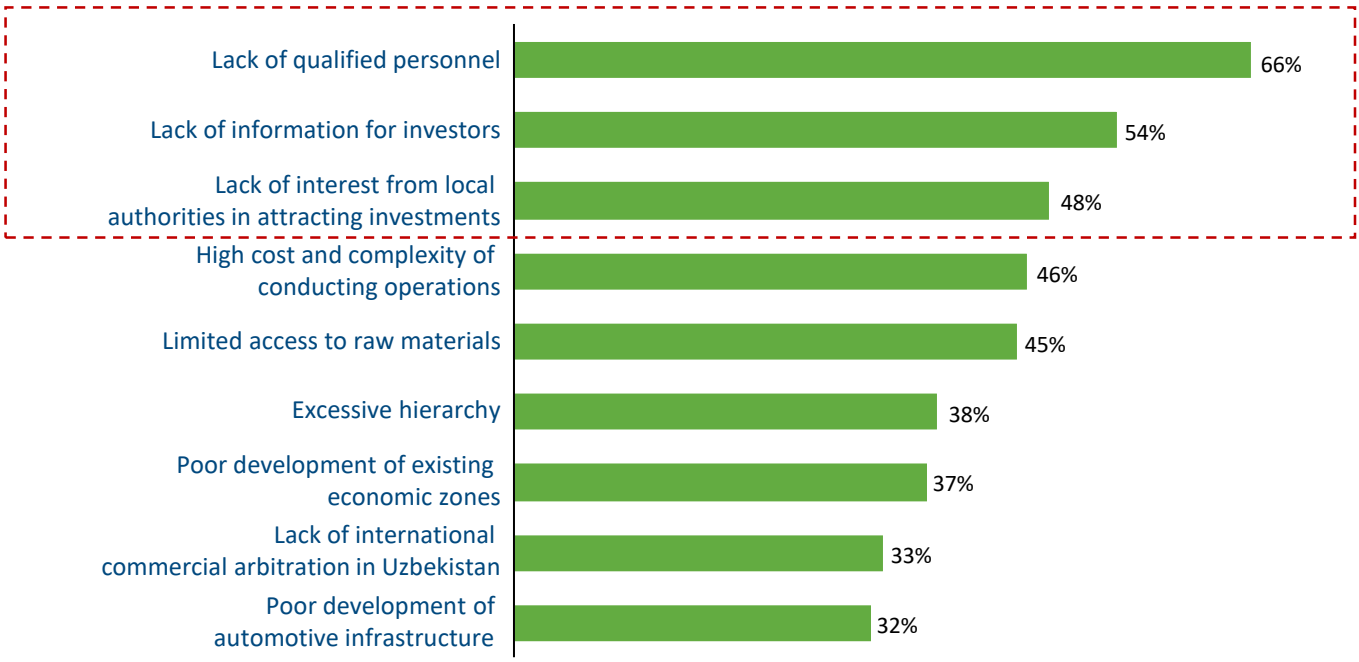
Regulatory factors with the most negative impact on business development

% of the total number of interviewed



Key barriers to the growth of foreign investments

% of the total number of interviewed



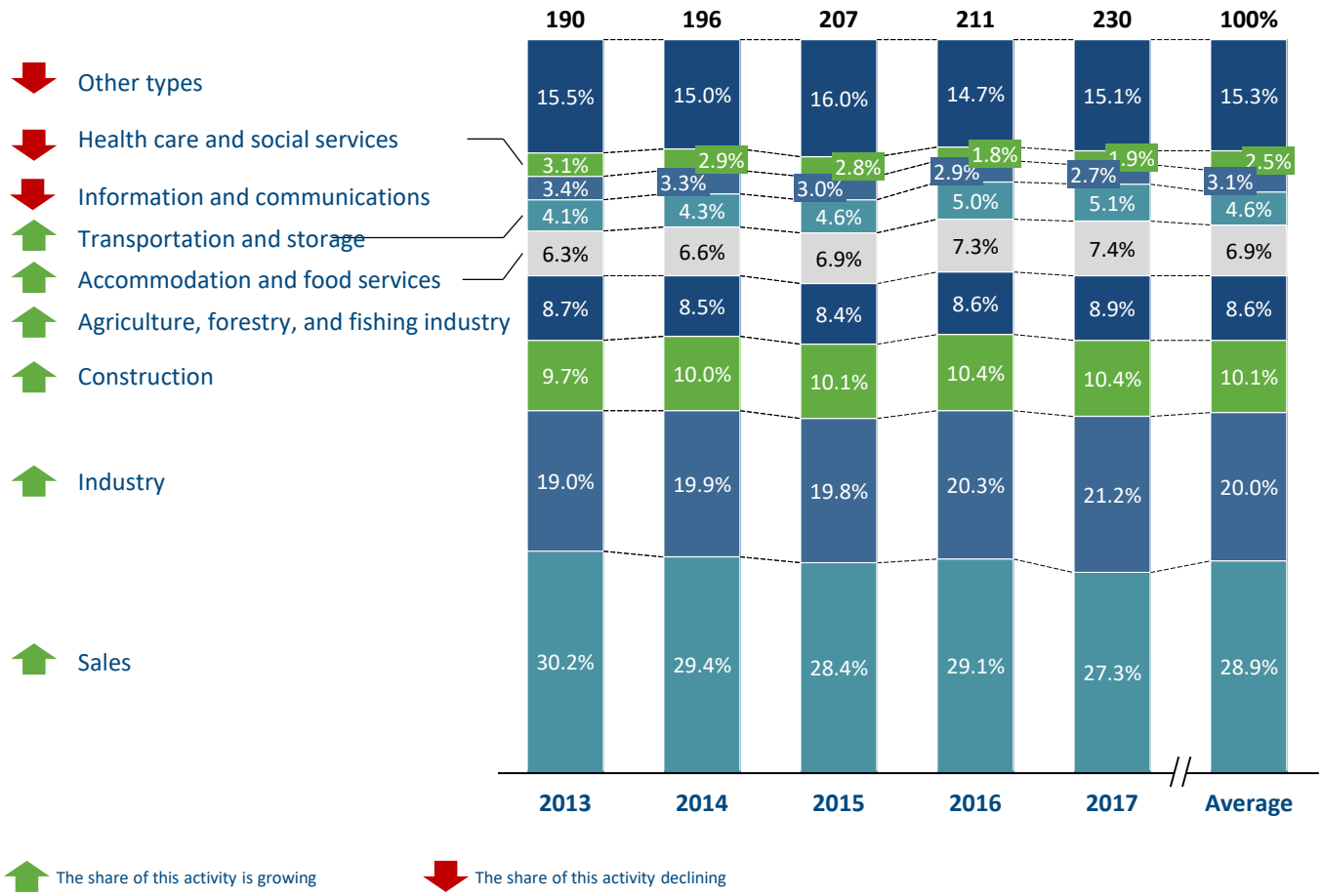
Source: CCI, UN DP, Oliy Majlis (interview of over 600 entrepreneurs, 2018), analysis of the project team

Small business and private entrepreneurship

Division of existing SB&PE by type of activity

%, thousand enterprises

Analysis of the last five years shows that SME, from an industry-specific point of view, are undergoing stagnation with insignificant growth in trade and industry



- Trading enterprises comprise the largest share in the SME structure, though their share slightly declined from 30.2 to 27.3%
- The share of enterprises involved in the industry grew by 2.2%
- The growth in enterprises is also observed in construction, agriculture, forestry, and the fishing industry, as well as in hospitality services, transportation, and storage

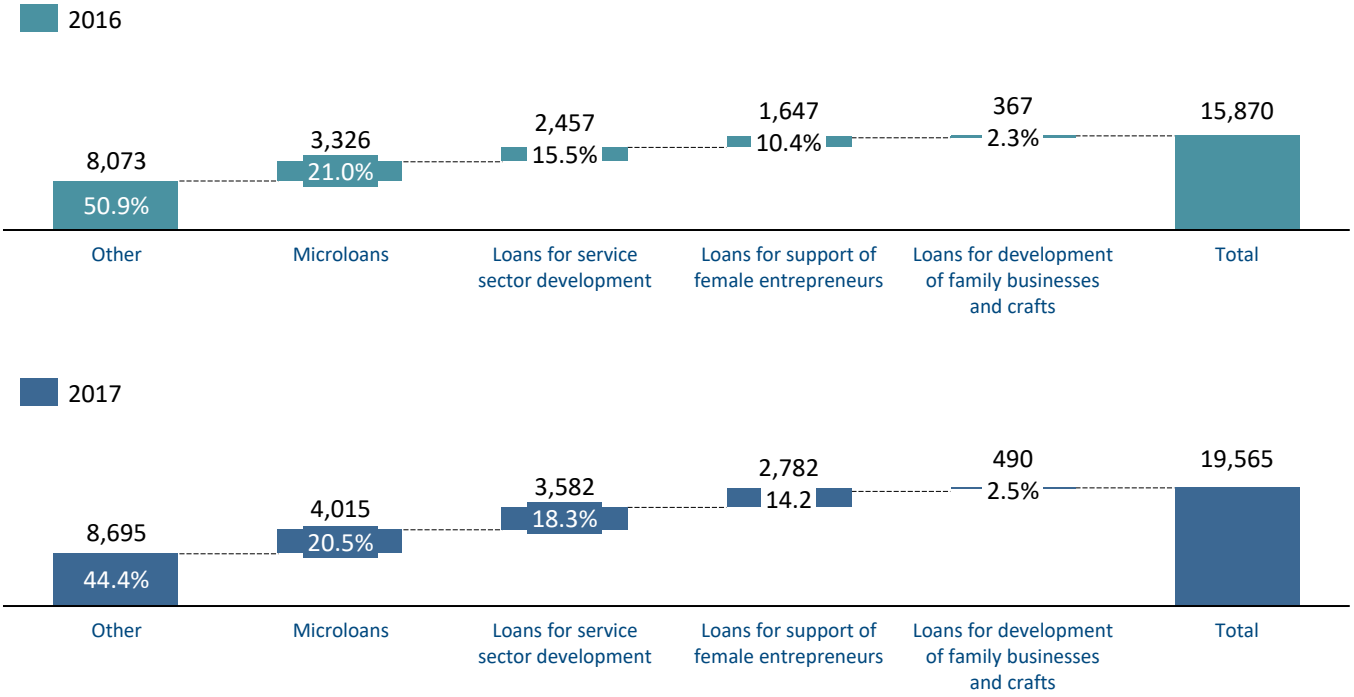
Source: State Statistics Committee of the Republic of Uzbekistan, analysis of the working group

Small business and private entrepreneurship

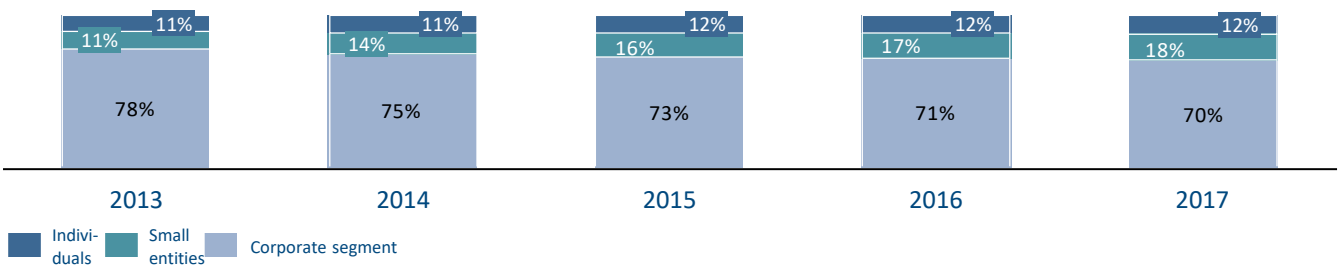
Loans granted to small businesses

UZS billion

- **23% growth in lending to small business and private entrepreneurs is observed, but microloans comprise the major share**
- **The problem is the lack of collateral value of SME, which leads to the impossibility to issue traditional loans and also to a significant volume of microlending**



Loan portfolio structure, 2013–2017



- In absolute terms, lending to SB&PE **grew by +23%** in 2017 compared to 2016
- **Microloans** constitute a significant portion of loans **(about 20%)**, which evidences the impossibility to receive **traditional bank loans**
- The share of small businesses in the loan portfolio is growing due to a decline in the corporate segment and currently accounts for 18%
- The **real share** of small businesses in the loan portfolio may be **higher** due to a portion of loans to individuals that are used for the needs of small businesses

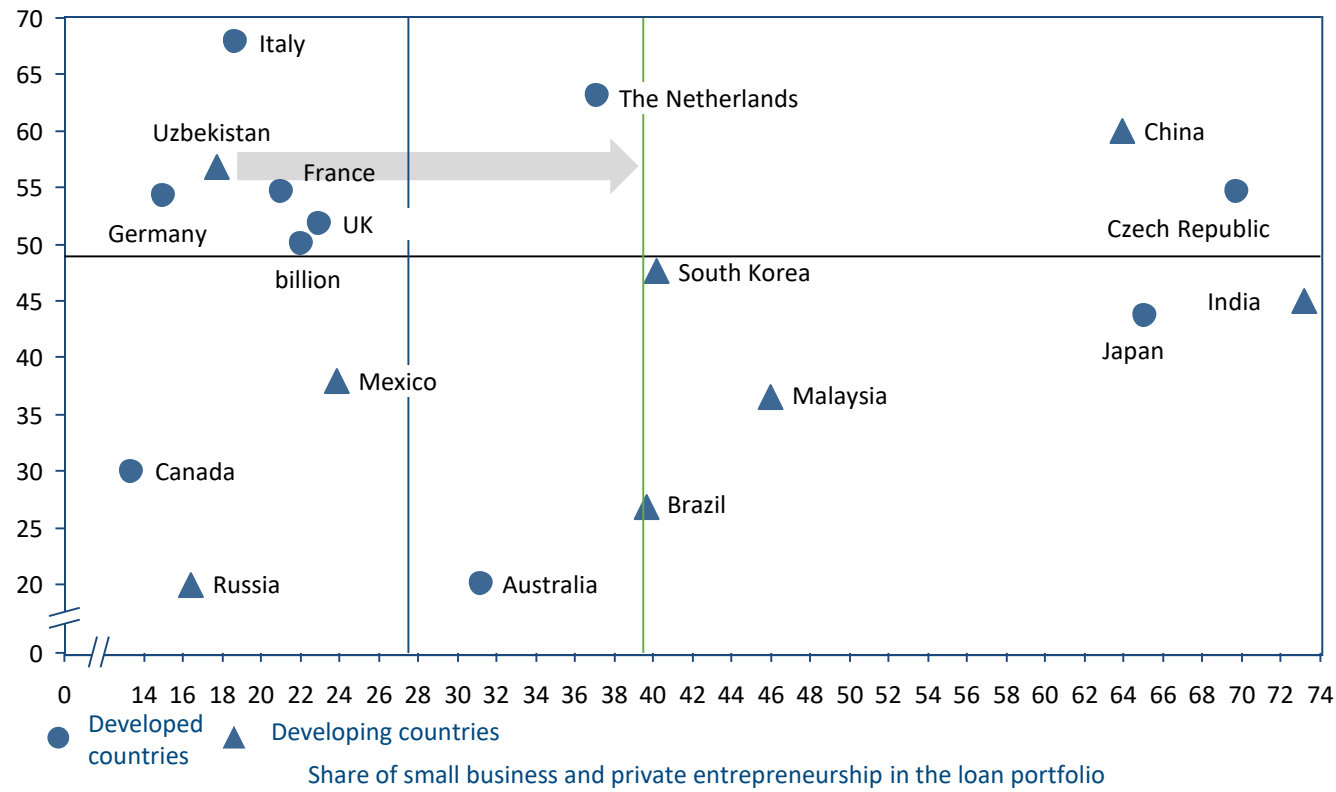
Source: Central Bank of Uzbekistan, overview of the economy of the Republic of Uzbekistan, commercial representative office of the Russian Federation in the Republic of Uzbekistan, analysis of the project team

Small business and private entrepreneurship

Share of small business and private entrepreneurship in the loan portfolio* and share of SMEs in GDP

- **Developed countries with a high share of SME in GDP are characterized by a low share of SME in the loan portfolio**
- **Emerging countries are characterized by more intensive financing of SME in order to stimulate their growth**
- **Compared to developing countries, Uzbekistan lags behind in financing small businesses and private entrepreneurship with a share of SMEs in the loan portfolio of 18%**
- **The target value for Uzbekistan for the purpose of growth stimulation may be 30–40% in the loan portfolio**

Share of SMEs in GDP



- **A moderate share of small business and private entrepreneurship in the loan portfolio with a high level of SMEs in GDP** is typical of **developed countries:** Italy, Germany, France, UK, and USA
- **Developing countries are** characterized by a **higher share of small business and private entrepreneurs** in the loan portfolio: China, India, South Korea, etc.
- Uzbekistan, with its high share of small business and private entrepreneurs in GDP, has a relatively **low share of small business and private entrepreneurship** in the loan portfolio (about 18%), where the median is 39.8% in developing countries

Note: * Data for 2014–2017, the latest available information was used
Source: World Bank, OECD, data from open sources, analysis of the project team

Small business and private entrepreneurship

- **International ratings on the state of the economy and society show weak development of the entrepreneurial climate in Uzbekistan**
- **Uzbekistan is not represented in a number of important ratings, such as Global Entrepreneurship Monitor**

	Index	Description	Position of the Republic of Uzbekistan
1	**Index of Economic Freedom, 2017** The Heritage Foundation	Index of Economic Freedom, that is, the lack of government intervention or obstruction in the production, distribution, and consumption of goods and services, except for the protection required for citizens and the support of freedom	152 out of 180
2	**Doing Business, 2018** WORLD BANK GROUP DOING BUSINESS MEASURING BUSINESS REGULATIONS	Assessment of indicators that contribute to the expansion of entrepreneurial activity as well as the norms that restrict it	74 out of 180
3	**Indigo Index, 2018** global perspectives POWERED BY LETTER ONE	Assessment of the economy's ability to adapt and develop when transitioning from the use of raw materials and natural resources to the use of innovations and technologies	128 out of 180

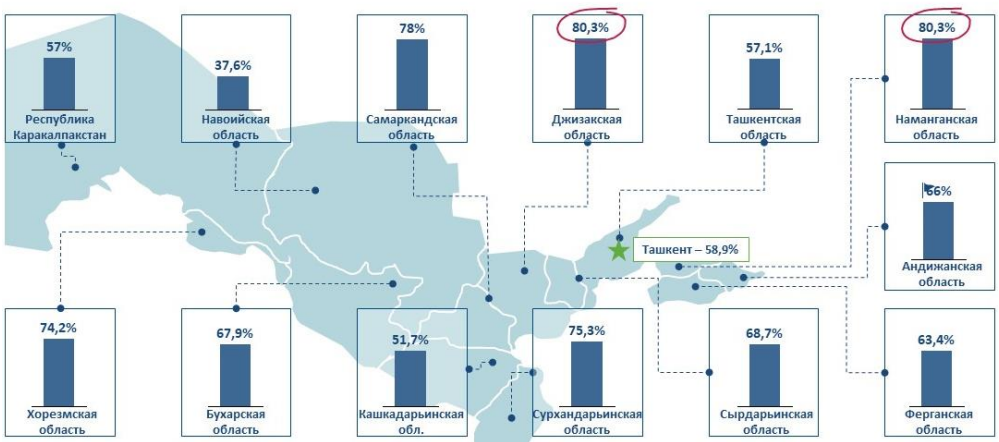
Is in the top part of the rating

Is in the middle of the rating

Is in the lower part of the rating

SB&PE share in GRP (gross regional product) of regions, 2016

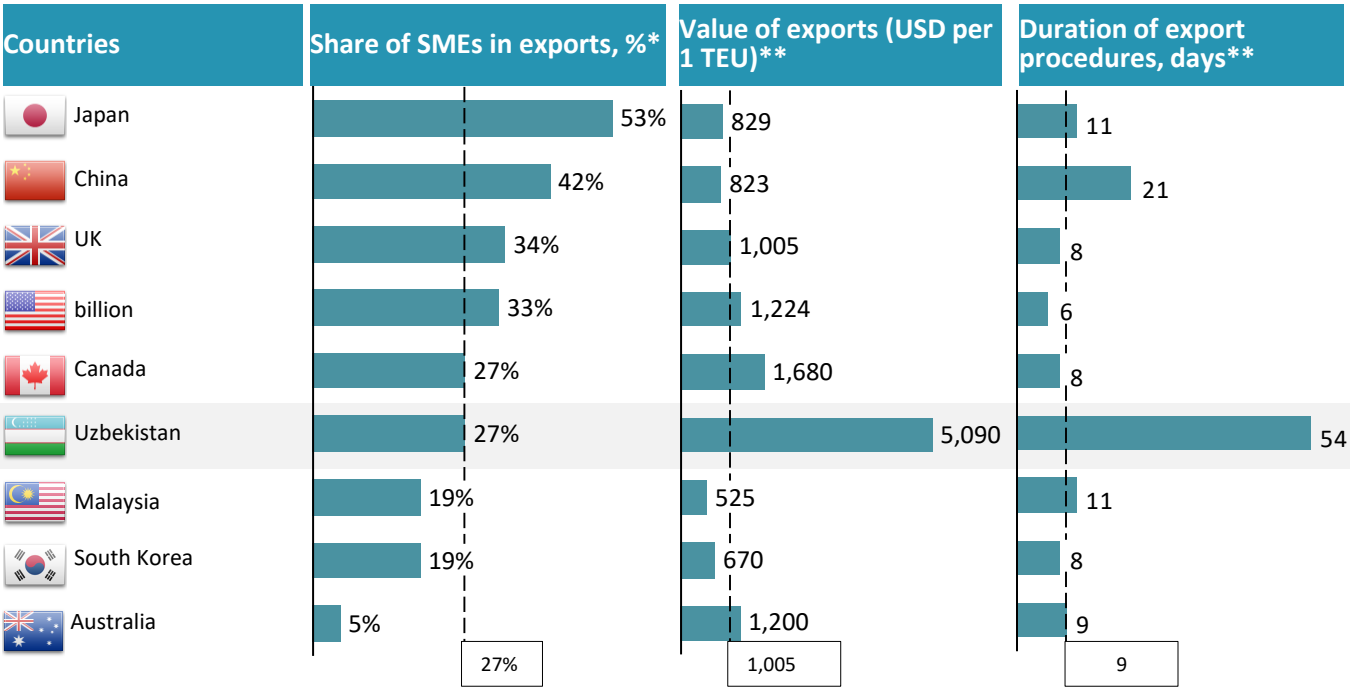
- **Jizzakh and Namangan regions are the leaders in SB&PE's share in GRP of the region**
- **Regional development of SB&PE is largely shaped by historical reasons, including the prescence of large businesses, population density, etc.**



Source: data of relevant ratings, analysis of the project team; International Labor Organization, data from open sources, Uzbekistan 2035 Forum

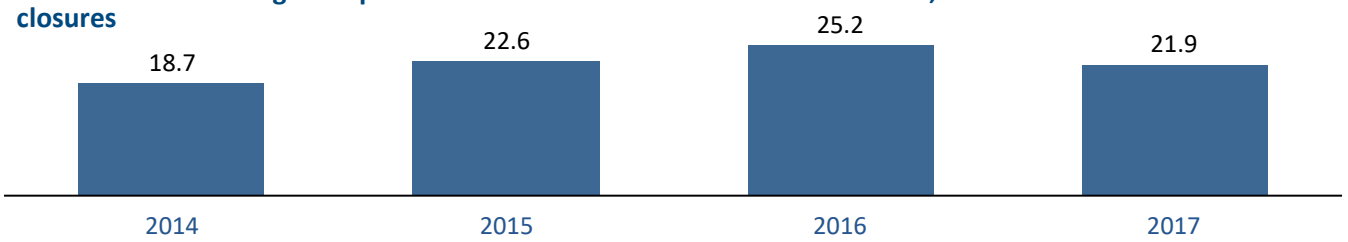
Small business and private entrepreneurship

State regulation of export procedures and customs barriers greatly complicate export development by SB&PE: documentation of goods takes a long time along with a high export cost

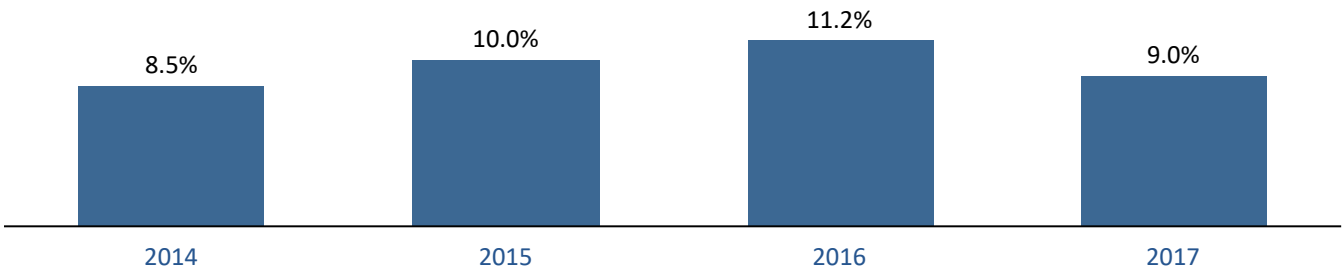


Dynamics of the number of small and private enterprises closing down (calculation based on statistics), thousand enterprises, 2014–2017

The number of closing enterprises remains at the same level. In 2014–2016, there was an increase in closures



Share of closing small and private enterprises in the number of registered ones



Note: * data for the last available period (2015-2017) from open sources ** data for the last available period (2014)

Source: World Bank, OECD, data from open sources, analysis of the project team

Small business and private entrepreneurship

Lack of SB&PE support infrastructure

Development institute	Description
Fund for Support of Export of Small and Medium Businesses and Private Enterprises	• The institute set up to expand the export potential of small and private business entities • Provision of the necessary legal, financial, and organizational support to SME in increasing the manufacture of modern products that would be competitive in foreign markets
State Support Fund for the Development of Entrepreneurship under the Cabinet of Ministers	• The main area of activity is to expand entrepreneur access to financial services (warranty support) • Participation in the implementation of special state, industry-specific, and regional programs, projects, and activities
Chamber of Commerce and Industry (CCI)	• Non-governmental non-commercial organization whose purpose is to improve the business environment and create favorable conditions for developing entrepreneurship • Provides advising services • Has regional branch offices

- **Despite a number of development institutes, some key elements of SB&PE support are not represented**
- **In Uzbekistan there is no regional consultancy infrastructure, in particular, ESC (entrepreneur support centers), ExSC (export support centers), regional financial infrastructure (regional guarantee funds), and other kinds of support infrastructure (technology parks, business incubators)**

Lack of a unified body of SB&PE support

There is no unified consolidating body in Uzbekistan in charge of development of the SB&PE support strategy and subsequent monitoring of its implementation

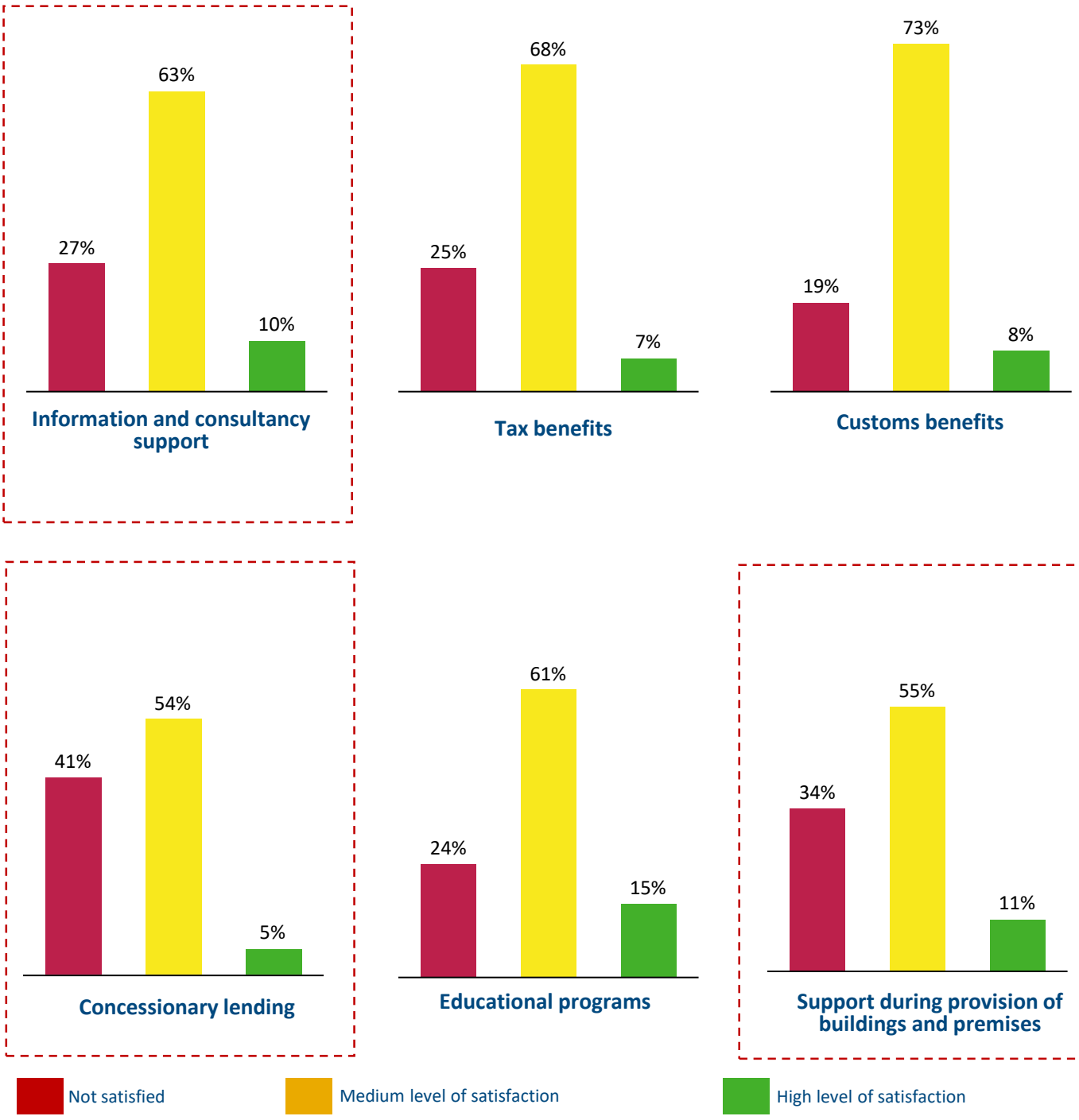
	Development of SME strategy	Introduction of support measures	Monitoring
Singapore	SPRING Singapore	Several organizations	SPRING Singapore, Ministry of Trade and Industry of Singapore
Malaysia	SME Corporation		SME Corporation
Japan	SME Agency		SME Agency
billion	SBA		SBA
Vietnam	SME Development council		SME Development council
Thailand	OSMEP		OSMEP
India	Ministry of SME		Ministry of SME
South Africa	Small Enterprise Development Agency		Small Enterprise Development Agency
South Korea	SMB Administration		SMB Administration
Russia	Ministry of Economic Development of Russia		Ministry of Economic Development of Russia
Uzbekistan	None		Several organizations

Source: data of SME support bodies of the represented countries, analysis of the working group

Small business and private entrepreneurship

Satisfaction with entrepreneurship support measures

- The following support measures have the lowest satisfaction level: concessionary lending, support during provision of buildings and premises, and information and consultancy support
- In general, a low percentage of complete satisfaction with support measures is observed; maximum satisfaction is observed in educational programs, which evidences the need for reorganization and improvement of support measures



Source: CCI, UN DP, Oliy Majlis (interview with over 600 entrepreneurs, 2018), analysis of the working group

Small business and private entrepreneurship

Strategic options

1

Financial support to SMEs

Use of credit support to small and medium-sized enterprises as the main support instrument. Financing is provided from the state funds and by extending concessionary loans in commercial banks, which in their turn receive certain preferences from the state. Skills and competencies are developed through the efforts of entrepreneurs themselves

Examples of countries:


billion


Canada

+

- Ability to quickly start a business and get results

–

- Risk of unprofitability of SMEs due to insufficient analysis when issuing loans
- Short-term effect of support
- Need for large budgetary expenditures

Provision of resources to SMEs in the short term

2

Nonfinancial support to SMEs

Use of mainly nonfinancial support to SMEs. Main support instruments are consultation, education, assistance in progressing to foreign markets, and provision of guarantees. SMEs do not have quick access to the financial resources required to establish new companies

Examples of countries:


India


Singapore

+

- Long-term effect of support
- SMEs have better business management skills, which has a positive impact on their profitability

–

- The problem of the lack of financing is made greater by low income and poor investment opportunities of people in Uzbekistan

Development of knowledge and skills of entrepreneurs amid insufficient resources for SMEs

3

Target development option

Mixed support of SMEs and regulation

Combination of financial and non-financial support upon removal of regulatory and infrastructure barriers. The state supports functioning of a stable institutional environment along with the delivery of targeted financial or non-financial support through the regional infrastructure network, subject to the presence of an SME policy coordinator

Examples of countries:


UK


France

+

- Ability to launch SMEs quickly, with long-term support

–

- Need for significant administrative efforts to establish a support system

Combination of available financial resources and skills of SME representatives subject to a stable institutional environment

Sources: analysis of data from open sources, analysis of the working group

Small business and private entrepreneurship

Target vision 2035

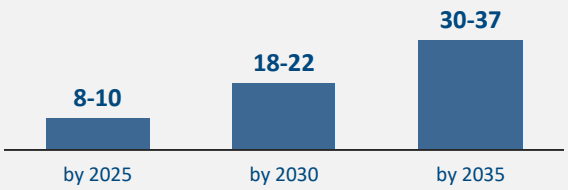
The country uses various financial and non-financial measures of state support for the comprehensive development of entrepreneurial spirit and business, which allows entrepreneurs to easily open and freely conduct and develop their business. Mixed support model

- Legalization of unofficial employment through the amnesty of capital (including tax amnesty)
- Creation of a single support institution, support infrastructure (business support centers, expert training centers, technology parks, accelerators, etc.) and introduction of new support products
- Provision of access to financing through guarantee support
- Greater access of SMEs to state orders (quotas) and export incentives
- Improvement of the tax system, including introduction of a profit tax in the simplified tax system
- Separation of medium-sized enterprises and differentiation of the state policy with respect to support products depending on the size of an enterprise

Figures

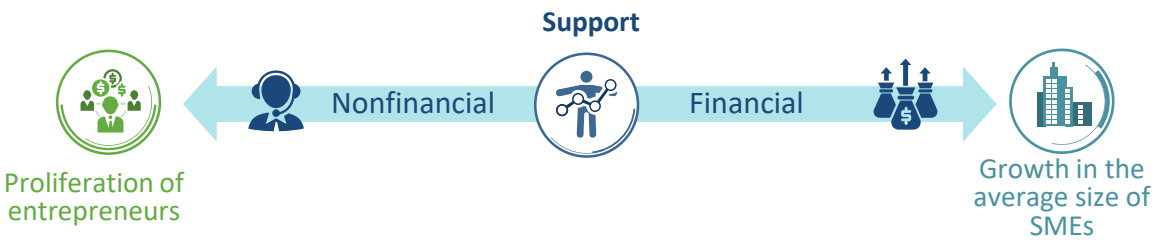
	2017	2035
Share of SMEs, per 1,000 people	7.1	25
Value added per 1 SME, USD thous./SME	113	273
Doing Business Index (rating position)	74	Top 20
Index of Economic Freedom (rating position)	152	Top 50
Share of SMEs in the loan loan portfolio	18%	40%
Period for connecting SMEs to electrical supply network (days)	88	20
Export clearance period (days)	54	9

Investment



USD cumulative

Guidelines for action



Sources: analysis of data from open sources, analysis of the working group

Small business and private entrepreneurship

Key strategic initiatives (1/2)

- Improvement in legislation: separation of medium business and reform of accounting criteria for SMEs in accordance with international practice
- Creation of a single institution for SMEs support
- Transfer of all functions related to SME development to a single institution ("single window") and consolidation of this status in the legislation
- Appointment of a manager in charge of SME support at the government level
- Legalization of private enterprises through amnesty and registration as simple notification
- Introduction of measures to support SME lending, including guarantee support
- Improvement in the simplified taxation system due to the introduction of income tax
- Reduction in the cost of SME administration by reducing the number of reports
- Introduction of supervisory holidays: ban on inspections of SMEs during the first 3 years of their activity, including regulation of the supervision system
- Digitalization of the interaction between the state and SMEs in order to reduce administration costs

- Popularization of entrepreneurship at the state level for the purpose of stimulating conversion of private entrepreneurs into small businesses (holding educational and marketing campaigns)
- Development of business education (increasing the number of training areas in higher educational institutions, training courses for young teachers, management courses for experienced entrepreneurs)
- Introduction of a simplified procedure for SMEs' access to infrastructure, including access to the electrical supply network
- Simplification of the SME closure procedure
- Improvement in the business climate: enter TOP 80 of the Corruption Perceptions Index and Index of Economic Freedom
- Shift of the industry focus to trade and tourism
- Development of export of SMEs by providing export loans and insurance
- Expansion of access to the state order through implementation of a program of firm order from SMEs
- Elaboration of measures to prevent illegal activities
- System of grants to establish SMEs
- Reform of the SME accounting system based on a SME support institution

- Creation of a unified knowledge for SMEs based on a single SME support institution
- Expansion of the guarantee support program to increase lending to the SME sector
- Stimulation of creation of mutual guarantee funds
- Simplification of state regulation (application of the principle of regulatory guillotine)
- Support of high-tech and innovative enterprises
- Maximization of support coverage (by number of supported SMEs)
- Creation of a favorable business climate: enter TOP 50 of Corruption Perceptions Index, Index of Economic Freedom, and TOP 20 of Doing Business Index

personnel · finance · technologies · legislation and state regulation · infrastructure

Sources: analysis of data from open sources, analysis of the working group

Small business and private entrepreneurship

Key strategic initiatives (2/2)

- Development of youth and female entrepreneurship
- Creation of a system of platforms for testing ideas with preferential conditions for SMEs: business incubators, career centers, co-working spaces, technology parks
- Preparation of SME support strategy, including differentiation of the state policy by support tools depending on the size of a company
- Making amendments and supplements in the Law of the Republic of Uzbekistan "On Competition"
- Development of social entrepreneurship
- Creation of regional support infrastructure (independent one or in cooperation with the CCI or on the basis of the State Fund for support of entrepreneurship development) in two directions: guarantee funds and consulting centers as well as expert training centers, technology parks, accelerators, etc.

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of data from open sources, analysis of the working group

2.6

Financial system

Economic development

2.6.1

Banking system and compliance

Economic development

Banking system and compliance

Current level of development

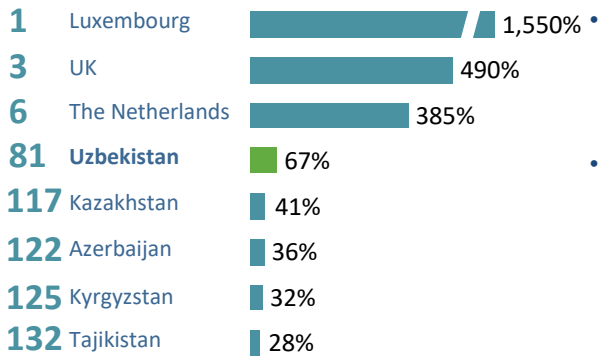
Key challenges

- Inefficient mechanisms of transferring financing to the economy's strategically important areas
- Range of banking products does not meet the requirements of the economy
- Low volume of the banking sector: 86th place in the world
- High cost of borrowed capital: over 23% per annum
- Low level of public confidence in the financial system, less than 60%
- Low level of market processes, international accounting systems, and compliance practices
- Lack of trust from international investors
- Lack of competition, closed market of processing services, and high cost for banks
- Low level of integration with international payment system

Key findings

- The Republic of Uzbekistan lags behind developed countries considerably by the banking system size (assets), which needs to be increased significantly in order to achieve the goals of economic development. The total growth of assets for the year was 98%, but 60% was due to devaluation of the exchange rate and the proportional growth in foreign currency assets
- Banks with state participation occupy a dominant position both in terms of the size of capital and the size of the loan portfolio, but this situation is acceptable for a developing economy, as it allows one to direct credit flows to strategically important sectors of the economy
- There is a crisis of confidence in the banking system of Uzbekistan among the population, which slows development and helps maintain the shadow economy. However, the share of banking services is gradually increasing due to the development of infrastructure. At the moment, more than half of the population is still not provided with basic banking products

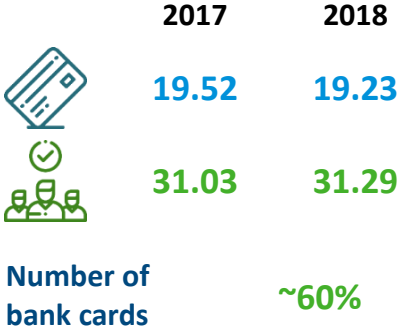
Ratio of banking assets in % to GDP and place in the global ranking



- In 2017, the total **assets of commercial banks increased by** UZS 82.6 trillion, or 98.2% in percentage terms (in 2016, 29%), and amounted to UZS 166.6 trillion as of January 1, 2018, while the **country's GDP reached more than UZS 249.13 trillion**
- At the same time, **64%** (or UZS 52.8 trillion) of the total increase in the total assets **were due to sharp devaluation** of the exchange rate of the national currency. Under the influence of this factor, **the ratio of bank assets to GDP in 2017 increased to 67%** (in 2016, 42.2%), which allows the Republic of Uzbekistan to take 81st place in the world

Share of bank cards

million bank cards



- The share of the banking services is gradually increasing due to the development of infrastructure, but a significant part of the population is still **not provided with basic banking products**
- The low share of banking services generally hinders the development of the banking sector due to the **lack of sources of cheap liabilities**—deposits from the population. At the moment, UZS 1 of cash accounts for only UZS 0.55 of deposits of individuals

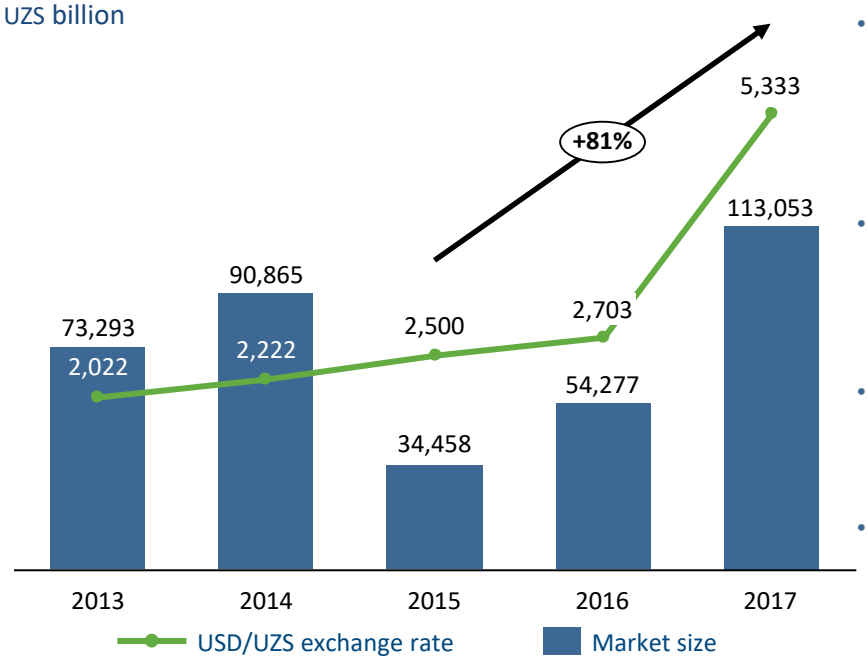
Sources: International Finance Corporation, World Bank Open Data

Banking system and compliance

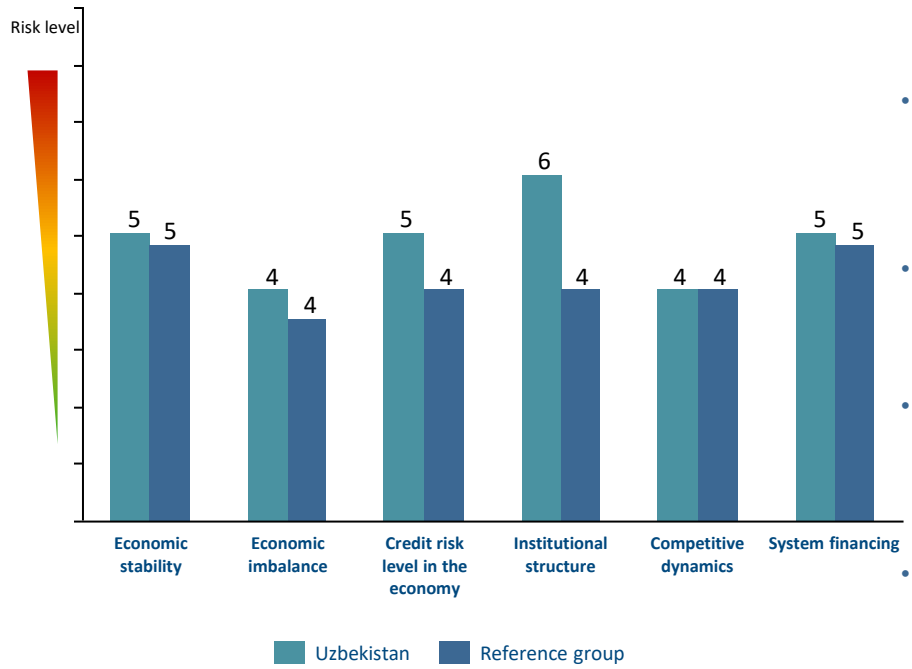
Current level of development

Size of the financial services market of the Republic of Uzbekistan [1]

UZS billion



Financial system risk comparison by category[2], 2017 Categories 1 to 9 (9 = high risk, 1 = low risk)



Reference group

Kazakhstan, Russia, Argentina, Kenya, Tunisia, Georgia

Comments

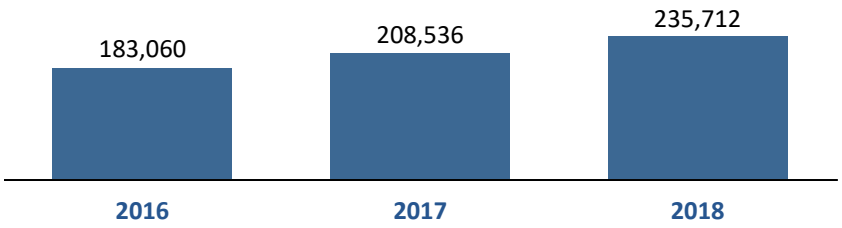
- **The capacity of the domestic financial market is small**. The domestic capital market is underdeveloped, and there is no active market for the issuance of speculative debt of the private sector in the country
- **Investment in the banking system and the country is very risky** due to the high degree of state participation, lack of transparency, and selective law enforcement
- **Low effective demand from the population** significantly limits the attraction of liabilities and the development of banking products
- **There is a low level of compliance with international requirements,** including in respect of **the compliance** system, financial **reporting,** and **corporate governance standards**
- **Lending practices and underwriting standards** in Uzbekistan **lag behind the global level**. The state often interferes with the decision-making process on lending
- The Central Bank issued a resolution[3] increasing the transparency of the banking system, including recommendations to **reduce tariffs and cancel fees on a number of banking services**
- **Introduction of new standards** aimed at **improving the financial stability** of financial institutions as well as improving the population's deposit guarantee system
- **Liberalization of the monetary policy** and improvement of **inflation targeting** in order to reduce shocks and increase the attractiveness of the banking system for investment
- One of the problems for development is the lack of laboratories and cooperation of banks and state institutions on products

Sources: 1 = amount of the bank loan portfolio, leasing portfolio, and collected insurance portfolio; 2 = S&P according to BICRA methodology (dated June 25, 2018); 3 = No. PP-3270 dated September 12, 2017 "On Measures for Further Development and Improvement of the Stability of the Banking System of the Republic"

Banking system and compliance

Current level of development

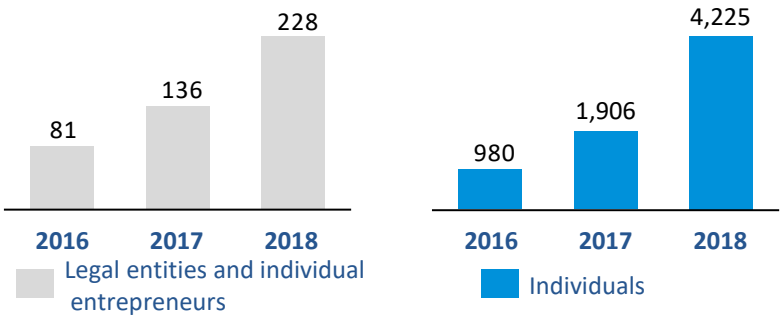
Number of payment terminals in the Republic of Uzbekistan[1]



Comments

- The number of payment terminals increased by 29% in 2 years
- However, the entry to the market of payments implies high expenditures on purchasing mandatory devices from a single player and payment of high fees on system maintenance

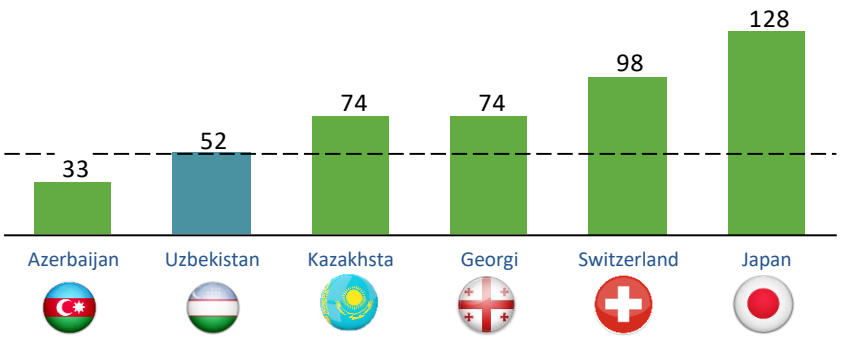
Number of users of the remote banking service system[2] in Uzbekistan



Comments

- In 2018, the number of users of the remote banking service increased greatly: nearly 3 times among legal entities and individual entrepreneurs, and 4.3 times among individuals

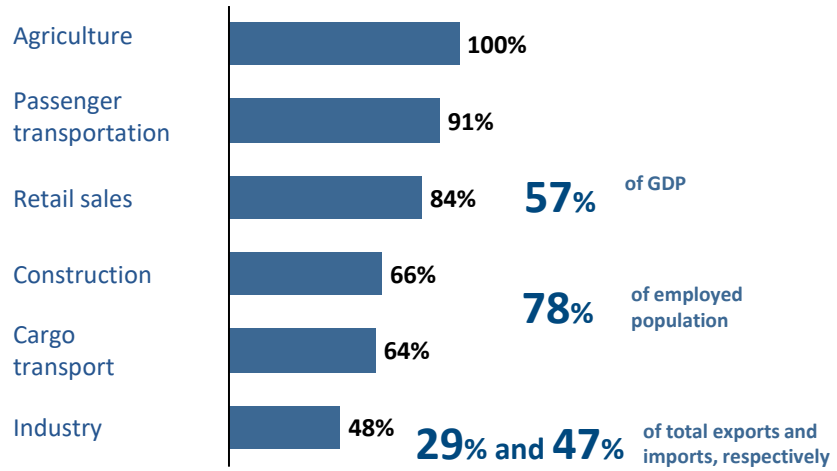
Number of ATMs per 100,000 people, 2017



Comments

- The share of the banking services is gradually increasing due to the development of infrastructure, but a significant part of the population is still not provided with basic banking products

Share of SMEs in production volume in the Republic of Uzbekistan, 2017



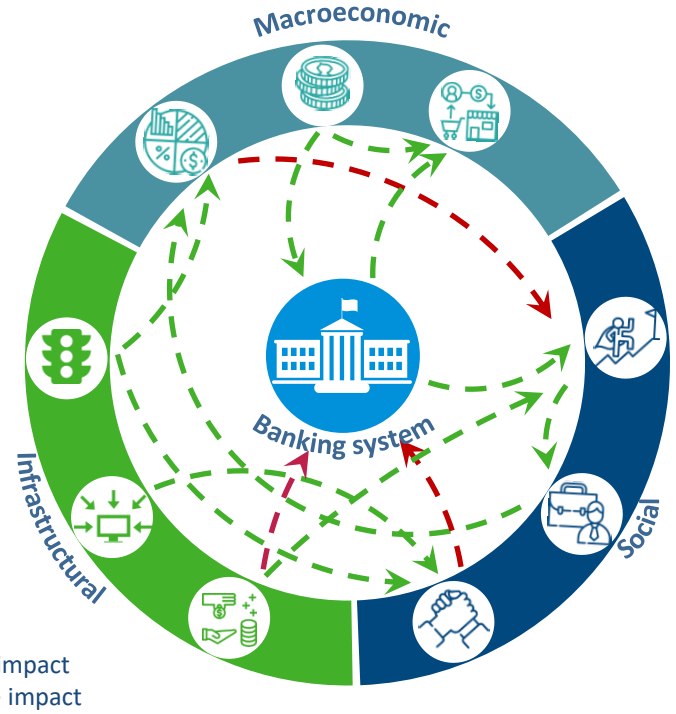
Comments

- The high share of SMEs in the structure of production and job creation requires the expansion of the offer of banks products for this segment
- **It is necessary to actively develop the following products:**
  - Working with current liquidity and placement
  - Bank certificates, guarantees, and letters of credit
  - Consulting services on the basis of financial institutions

Sources: 1 = Central Bank of the Republic of Uzbekistan as of January 1; 2 = remote service

Banking system and compliance

Current level of development



Currency regulation
- ↗ Liberalization of the FX policy contributes to the development and activation of international trade
- ↗ Currency revaluation led to an increase in bank assets

Monetary policy
- ↗ A restrained monetary policy will reduce inflation
- ↘ Toughening of the monetary policy will have a negative impact on business development

International trade and balance of payments
- ↗ Development of trade will provide the country with equipment
- ↘ The open market will have a negative impact on local producers in the short term

Confidence in the banking system
- ↘ The low level of confidence prevents the growth of liabilities
- ↘ The low level of confidence leads to a shadow economy

Employment level
- ↘ The low employment level reduces effective demand in the country
- ↗ The low employment level increases the competitiveness of labor

Level of development of small- and medium-sized enterprises
- ↗ Large number of SMEs contributes to equitable distribution
- ↗ Large number of SMEs stimulates competition

Development of nonbanking financial institutions
- ↗ Development of leasing and insurance companies will expand opportunities for companies and citizens by reducing the share of banking services

Development of banking infrastructure
- ↗ Development of banking infrastructure will increase business activity
- ↗ Development of banking infrastructure will increase transparency of the system

Increasing independence of the regulator
- ↗ It will increase the level of confidence in banks
- ↗ It will improve the stability of the financial system

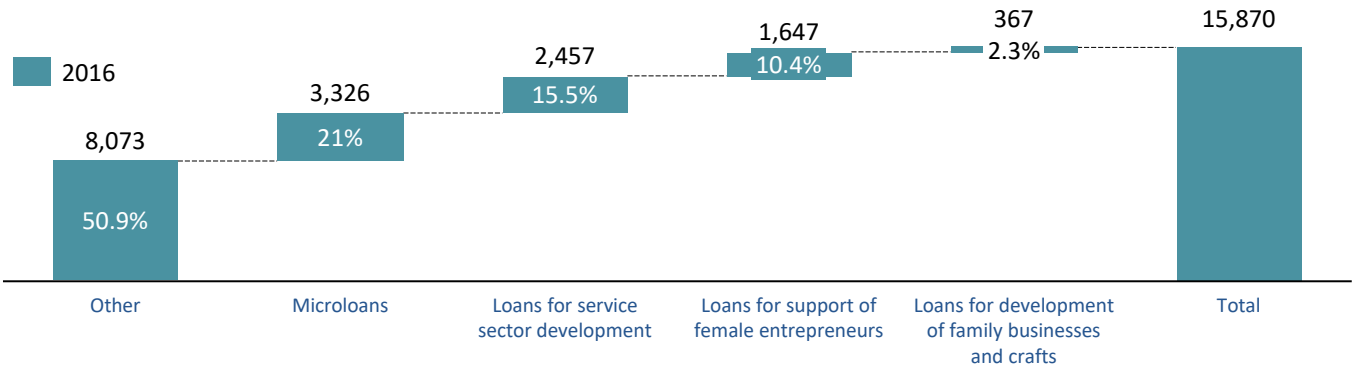
Sources: analysis of the working group

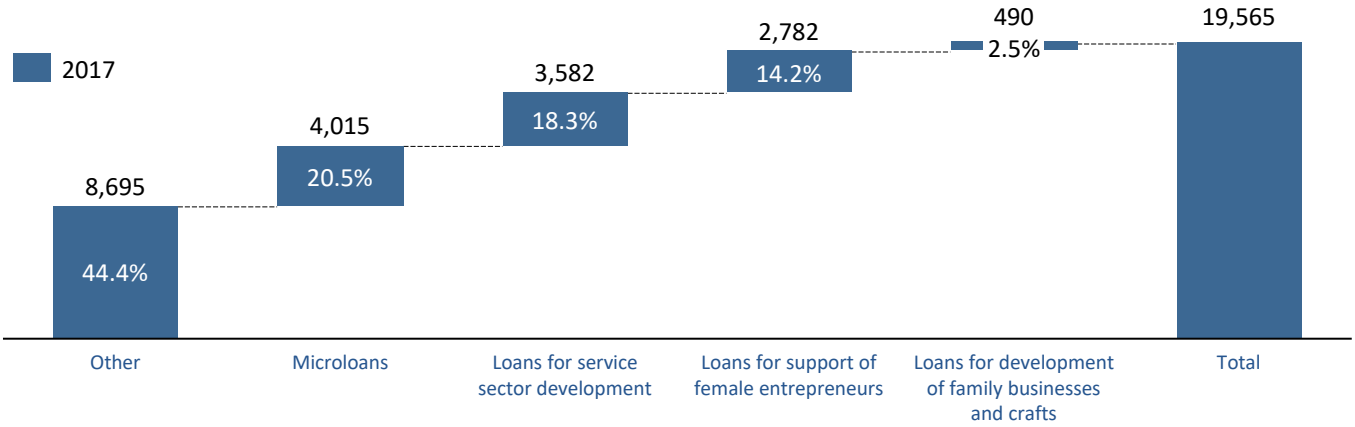
Banking system and compliance

Current level of development

Loans granted to small businesses [1]

UZS billion





The great importance of the SME segment for social and economic security **necessitates the priority development of banking services in this segment of the economy**, in particular:

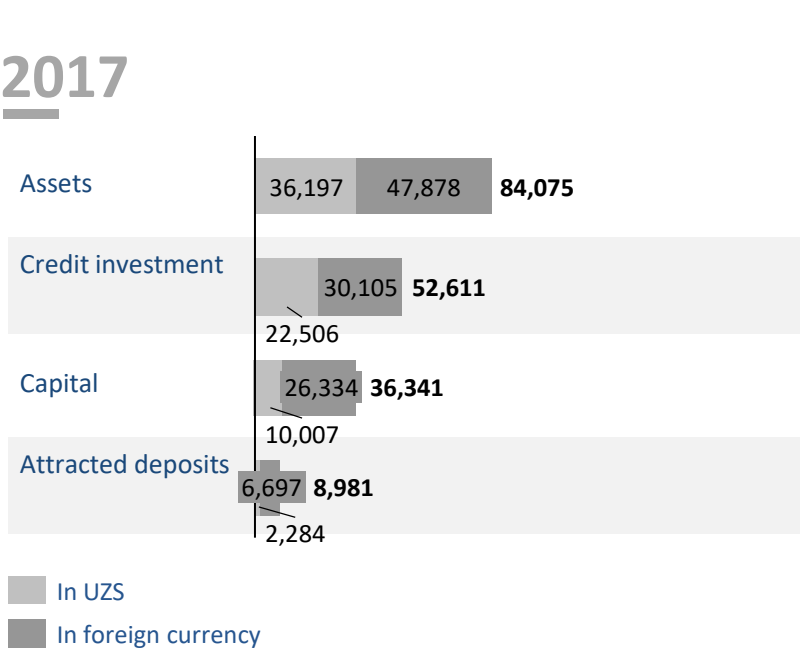
- **Development of crediting**
  Creation of new, more flexible credit instruments
- **Development of transactional products**
  Work with current liquidity and placement
- **Expansion of export-import instruments**
  Bank certificates, guarantees, and letters of credit
- **Provision of consulting services on the basis of financial institutions**
  Consulting of SMEs on legal, financial, and tax issues
- **Improvement in operational efficiency and digital accessibility**
  Improvement in service quality and rate, reduction in decision-making time, remote identification, online and mobile banking

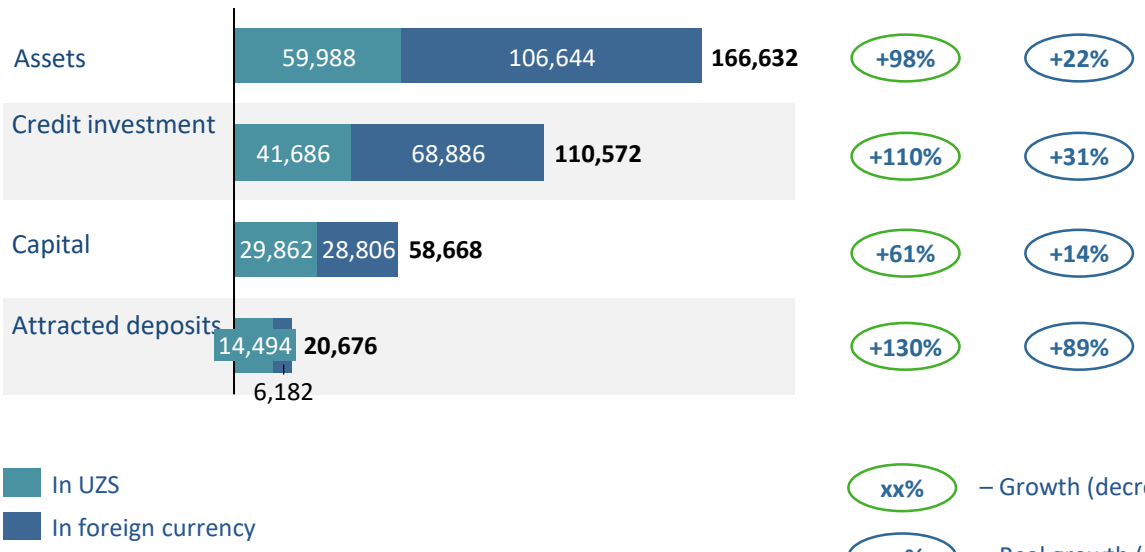
Source: 1 = Central Bank of Uzbekistan

Banking system and compliance

Current level of development

Loans issued to small business entities[1]





Comments

- In 2017, total liabilities of commercial banks increased by UZS 70.9 trillion, or 1.9 times (1.3 times in 2016), and amounted to UZS 146 trillion as of January 1, 2018. At the same time, 71% of this growth (or UZS 50 trillion) was due to the increase in the value (in national currency) of loans and deposits that were raised in foreign currency as a result of sharp devaluation of the national currency.

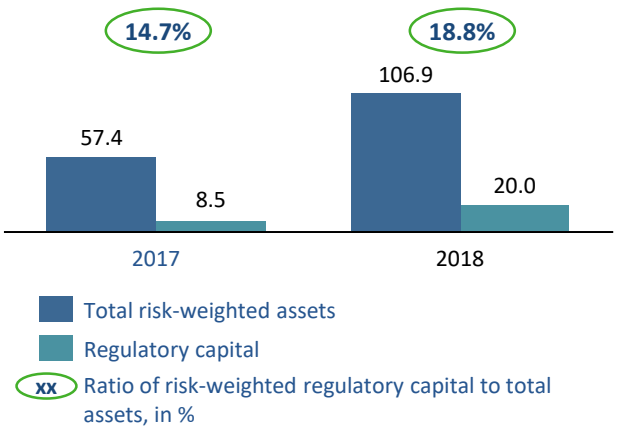
Source: 1 = Central Bank of Uzbekistan

Banking system and compliance

Current level of development

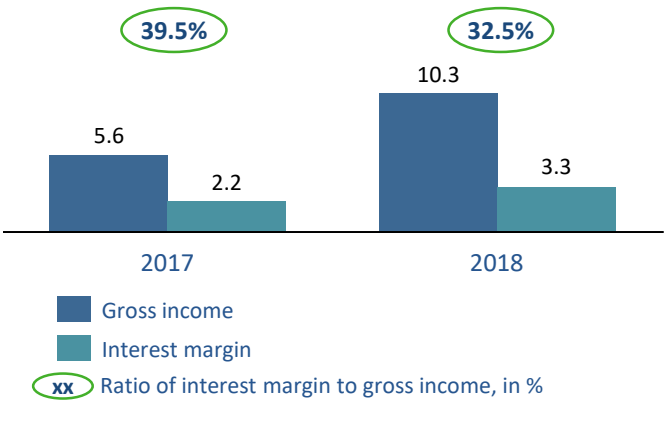
Capital adequacy indicators[1]

UZS trillion



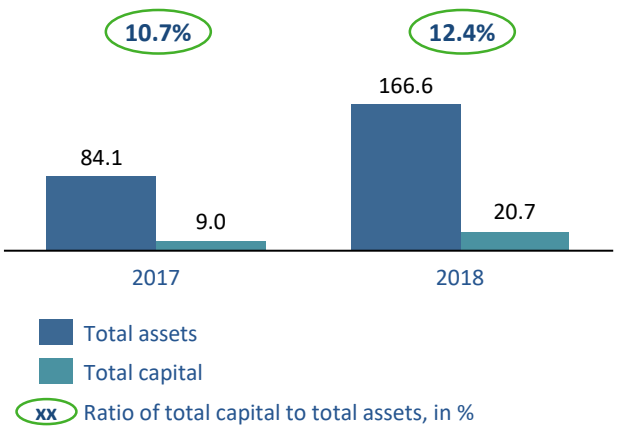
Financial performance indicators[1]

UZS trillion



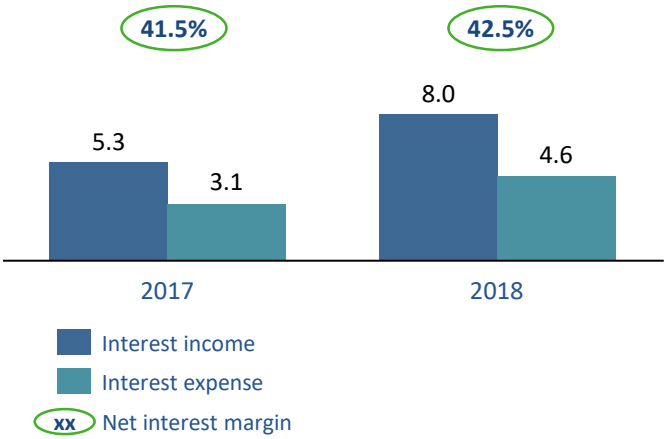
Capital stability indicators

UZS trillion

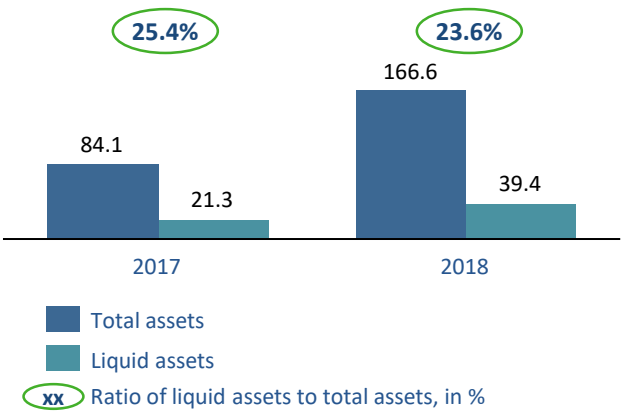


Financial performance indicators[1]

UZS trillion



Liquidity indicators[1]



Financial performance indicators[1]

	2017	2018	
UZS billion	-239.9	836.5	Interest-free income (loss)
UZS billion	1,152.8	1,881.0	Net profit (loss)
%	2.00	1.87	Ratio of net profit before tax to total assets (ROA)
%	17.95	17.13	Ratio of net profit before tax to total capital (ROE)

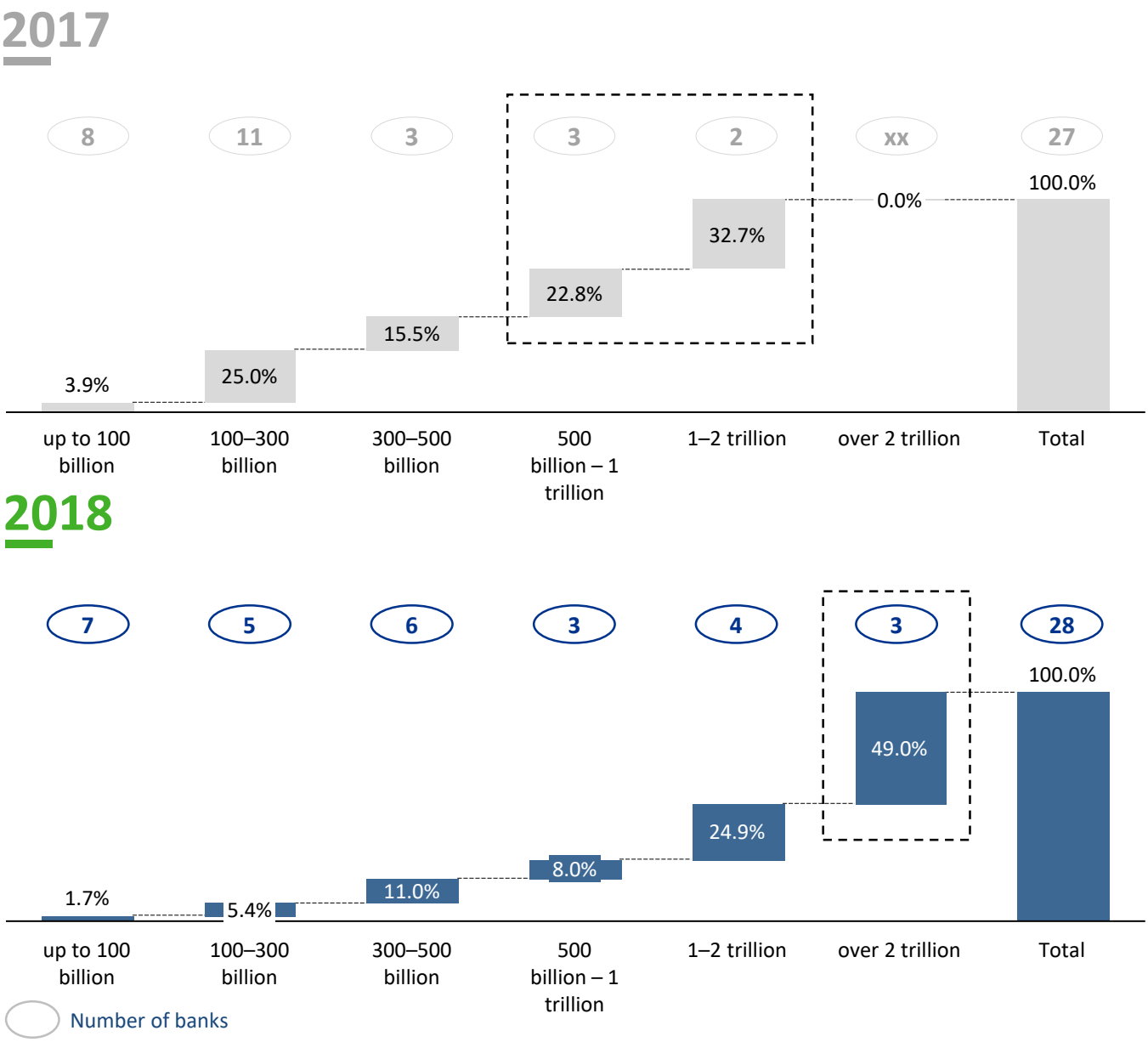
Source: 1 = Central Bank of Uzbekistan

Banking system and compliance

Current level of development

Classification of commercial banks by total capital[1]

UZS



High level of banking sector concentration:

at the beginning of 2017, the **5** largest banks had half of the total banking capital, at the beginning of 2018, this dropped to only **3** banks

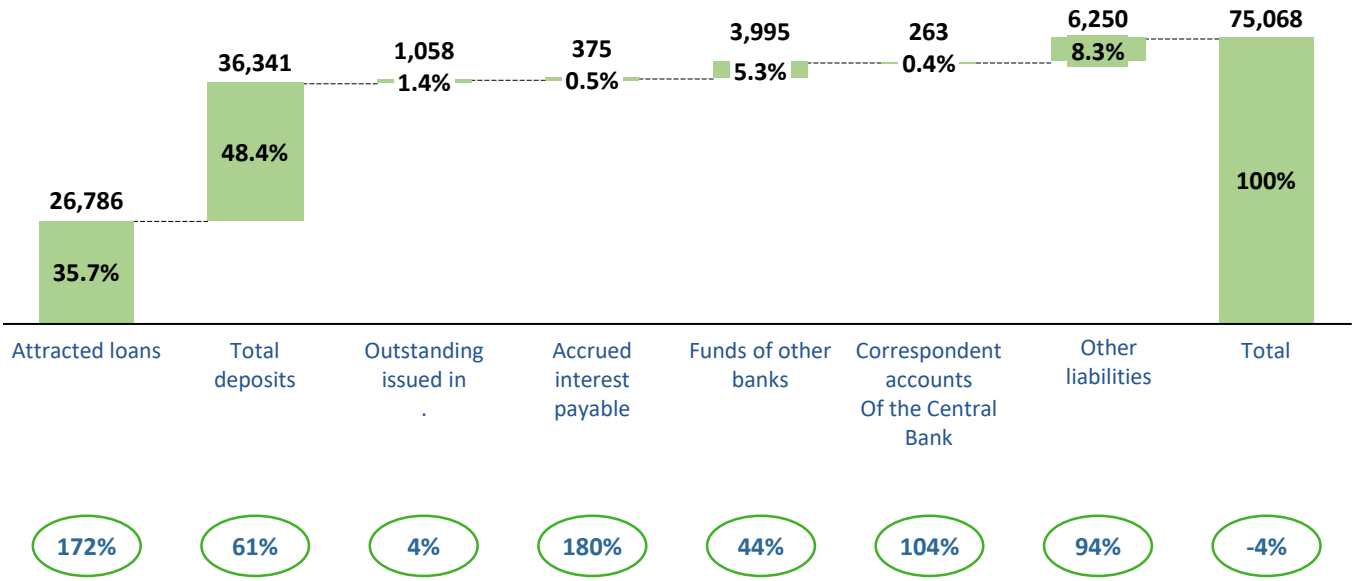
Source: 1 = Central Bank of Uzbekistan

Banking system and compliance

Current level of development

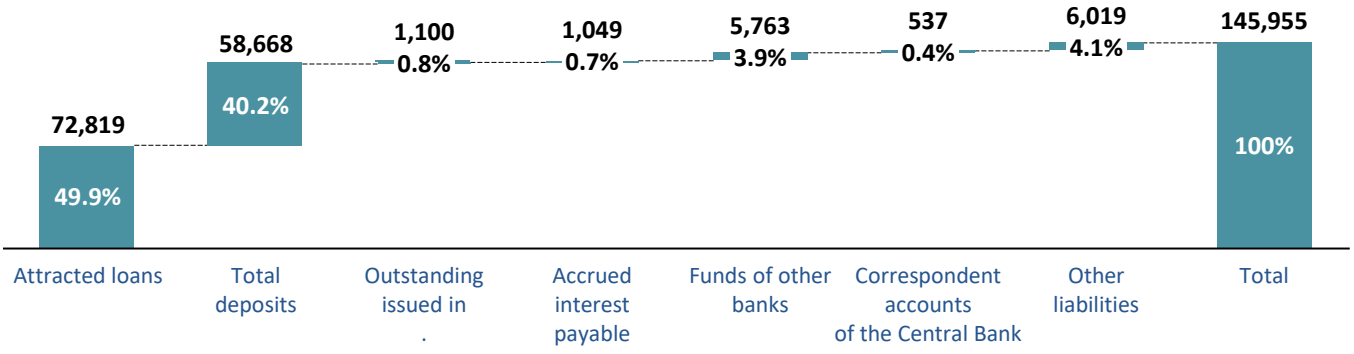
Indicator description, 2017[1] (as of January 1)

UZS billion



Indicator description, 2018[1] (as of January 1)

UZS billion



increase compared to the previous year, in %

The volume of liabilities of the banking sector increased by **94%** for the year mainly due to attracted loans and deposits

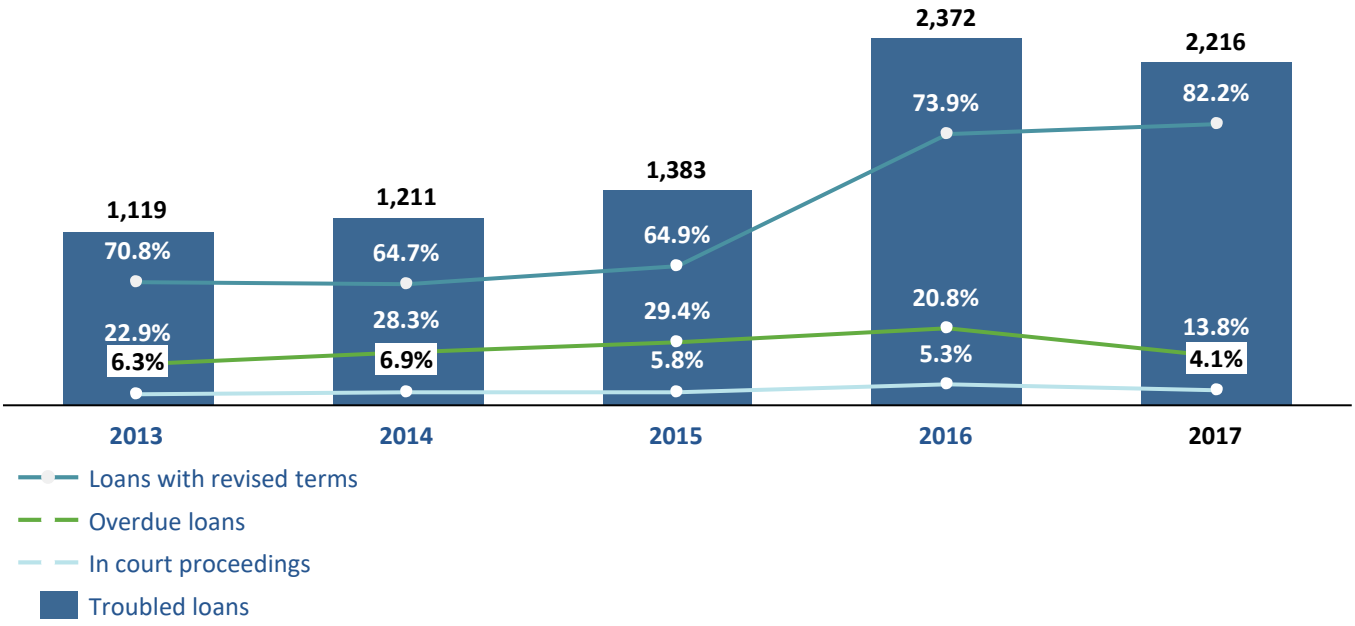
Source: 1 = Central Bank of Uzbekistan

Banking system and compliance

Current level of development

Trend of troubled loans[1]

UZS billion



Comments

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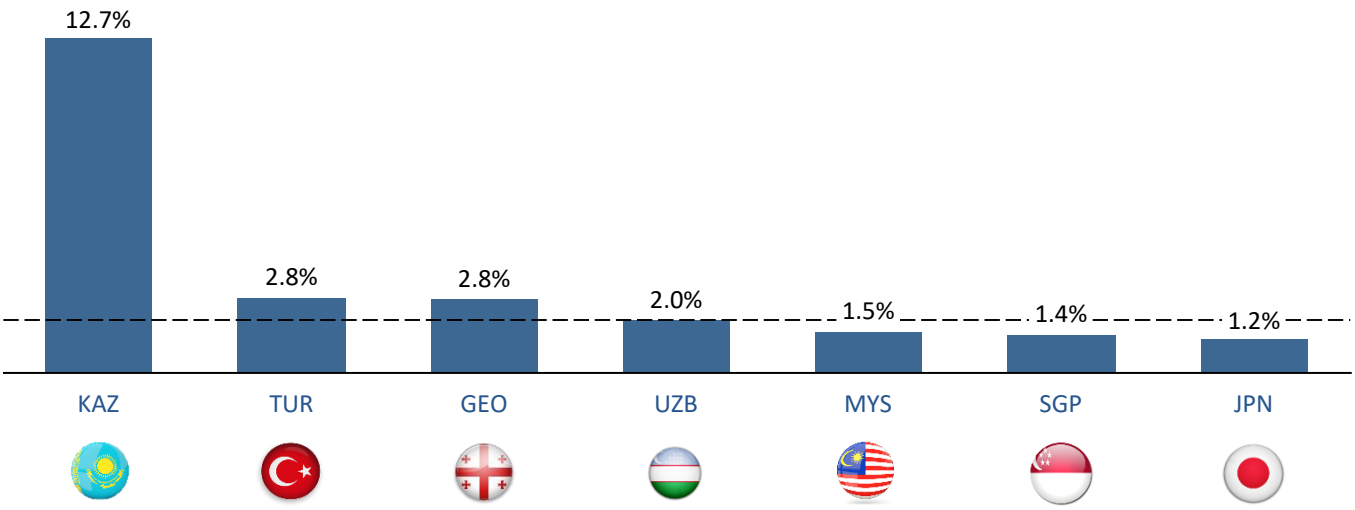
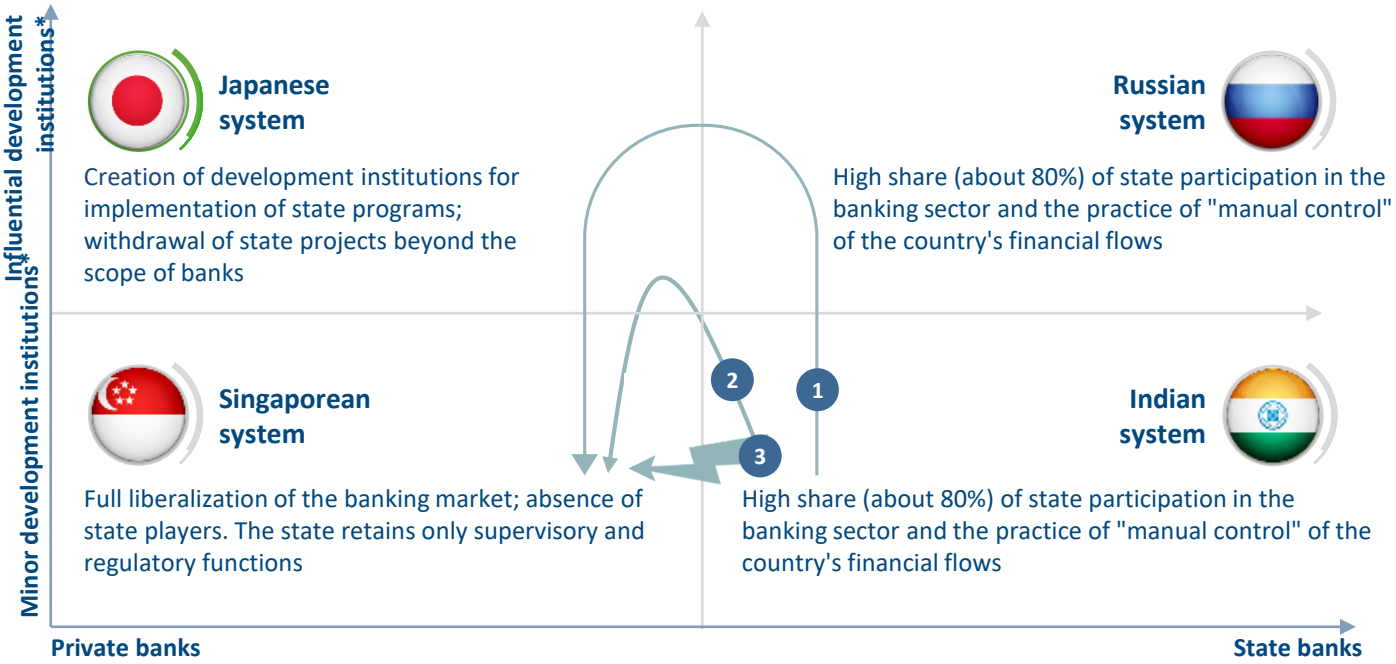


Source: 1 = Central Bank of Uzbekistan

Banking system and compliance

Strategic options



Key problems today	The system solves the specified problem
Inability to direct funds to strategically important areas of the economy	● ○ ○ ●
Range of banking products does not meet the requirements of the economy	○ ● ● ●
Low volume of the banking sector: 81st place in the world	○ ● ● ○
High cost of borrowed capital: over 23% per annum	○ ● ● ○
Low level of public confidence in the financial system, less than 60%	○ ● ● ●
Lack of market processes and international accounting and compliance systems	○ ● ● ●
Lack of trust from international investors	○ ● ● ○

Sources: analysis of the working group

Banking system and compliance

Strategic options

1

Gradual

Gradual transition from the current model (high level of state sector involvement) to the distribution of financial flows through development institutions, privatization of the banking sector, and further full liberalization

Examples of countries:

Russia

+

- Does not require destruction of the traditional structure of the financial sector
- Allows support for priority industries through development institutions

–

- Inefficient spending of public funds
- High share of the state in the banking sector
- Does not allow all the challenges of the banking sector to be solved

Slow evolutionary transition of the sector to full liberalization

2

Target development option*

Liberal

At the first stage, there are private and independent banks; state projects are implemented in development institutions. At the second stage, full liberalization of the banking market takes place; absence of state players. The state retains only supervisory and regulatory functions

Examples of countries:

Japan

Singapore

+

- Relatively gradual transition bypassing the stage with a high share of state participation
- Allows support for priority industries through development institutions

–

- Does not allow all the challenges of the banking sector to be solved in the short term

Gradual transition of the sector to full liberalization bypassing the stage with a high share of state participation

3

Shock

Sharp transition from the current state to the Singaporean model of the banking sector. Full liberalization of the banking market; absence of state players. The state retains only supervisory and regulatory functions

Examples of countries:

Singapore

+

- Allows all the challenges of the banking sector to be solved in the short term

–

- Requires destruction of the traditional model of the financial sector's operation
- Does not allow the state to use the banking sector to support priority programs and projects
- Possible "excesses" at the local level

Shock transition to complete liberalization of the banking sector

Note: * A number of experts specified the Strategic Option No. 3 "Shock" as the target development option; however, the Strategic Option No. 2 "Liberal" is supported as the target option by the majority as a more balanced one

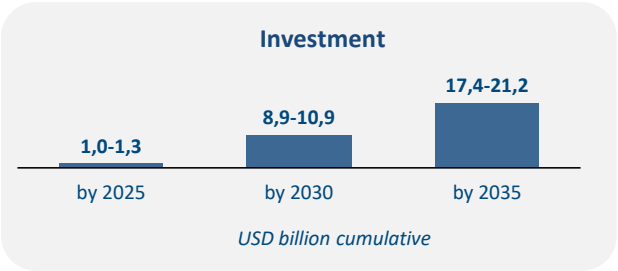
Source: analysis of the working group

Banking system and compliance

Target vision of banking in 2035

Private commercial banks and other financial institutions meet the people's needs for financial services, while development institutions and private investors finance state projects

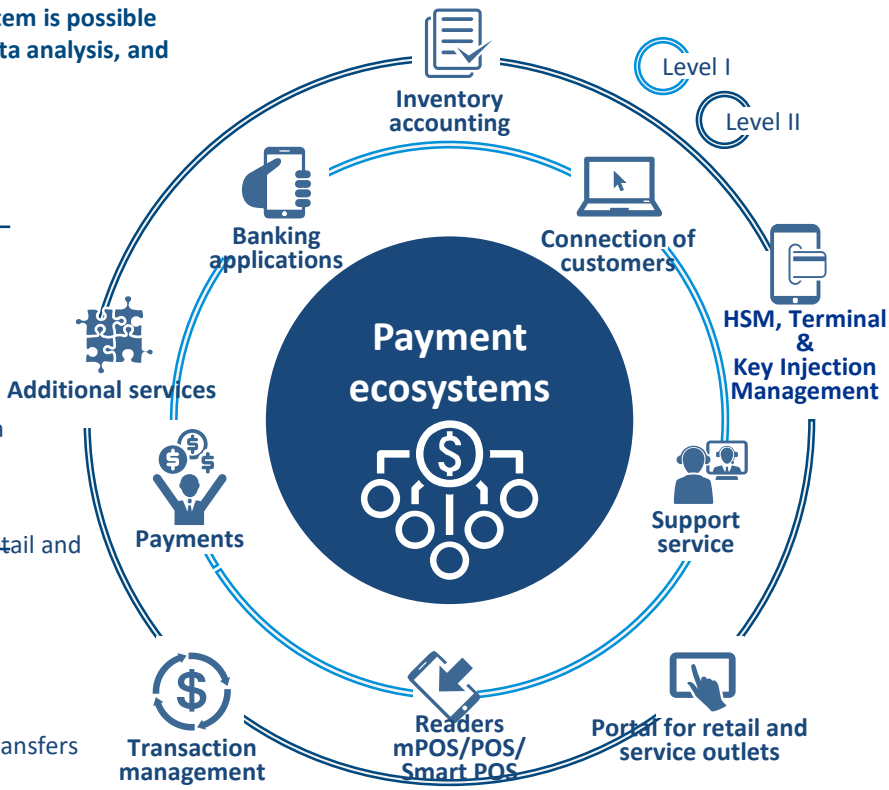
- Infrastructure upgrades
- Implementation of modern banking practices and standards, including modern IT systems
- Adoption of digital banking and retention of service types implemented earlier
- Full liberalization of the banking sector
- The state retains only supervisory and regulatory functions



Figures

	2017	2035	CAGR
Bank assets to GDP, % (place in the rating)	67	Top 50	-
Share of banking services	60%	90%	2.3%
Share of cash in the money supply	27%	5%	-8.9%
Share of the state in the capital structure	88%	10%	-11%
Share of lending to small business and private entrepreneurship	17%	40%	4.9%
Cost-to-income ratio	70%	40%	-3%

Further development of the banking system is possible thanks to innovations in digital labor, data analysis, and remote service



Level I, by 2020

- Banking applications
- Connection of customers
- Support service
- Card readers and mobile terminals P2P settlement
- Fiscalization of payments, collection and processing of fiscal data

Level II, by 2025

- ~~Inventory accounting and portal for retail~~ and service outlets
- Transaction management
- Cryptographic identifiers of mobile banking
- Integration of related services into digital banking platforms
- Implementation of instant B2B, B2C transfers
- Open API
- Remote identification, products based on artificial intelligence and machine learning in the banking business
- Provision of financial services via retailers and telecom
- Introduction of several fiscal operators

Sources: international benchmarking, analysis of the working group

Banking system and compliance

Key strategic initiatives (1/2)

- Improved the corporate governance standards: standardization of the structure of the board of directors with obligatory participation of independent directors; removability of a chairman; separation of the roles of chairman and chief executive officer
- Development of a product portfolio to better reflect the needs of retail customers, individual entrepreneurs, and medium-sized businesses. Expansion of support for import and export activities
- Convergence of international reporting standards
- Development of digital banking, expansion of banking services in remote regions
- Adaptation of international regulation standards and control in the banking sector
- Membership in the leading international banking associations
- Development of correspondent relations with international banks
- Mandatory installation of modern mobile cash registers in all service infrastructure companies
- Implementation of due diligence/KYC practices in the banking system

- Optimization of banking processes, reduction of CIR to 40%, including through partial automation of processes
- Creation of investment incubators and accelerators for the development and growth of small- and medium-sized businesses
- Introduction of cryptographic identifier technologies and portable platforms of the mobile bank
- Integration of related services into digital banking platforms
- Creation of banking ecosystems that will help integrate related services; development of commission systems of cooperation
- Development of investment banking
- Gradual termination of the issue of small denomination banknotes
- The implementation of the database KYC
- Development of contactless payment systems using wearable devices

- Reduction of cash payments; full transition to noncash payments
- Integration of banking applications with a personal digital device
- Development of mutual investment and lending mechanisms
- Creation of liquidity placement systems and integration with banking products
- Integration of banking, insurance, investment, and savings products into a "one-stop solution"
- Transition from a product sales model to a model of support of the customer's life cycle and customer's actual financial needs
- Review of corporate governance standards

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

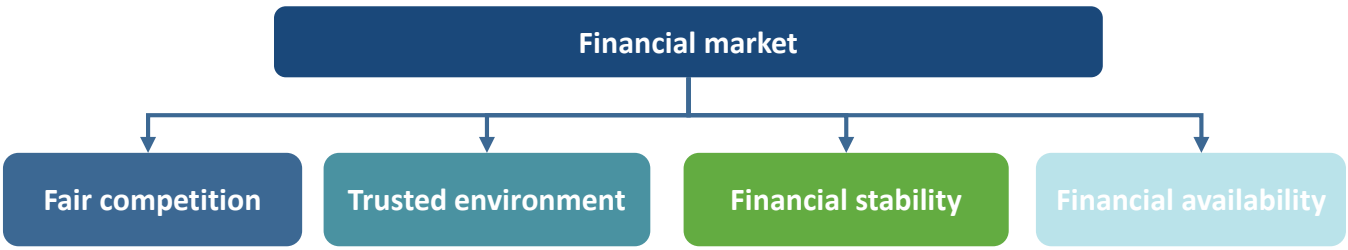
Banking system and compliance

Key strategic initiatives (2/2)

Sources: analysis of the working group

Banking system and compliance

Target vision of compliance in 2035



Counteract the use of insider information: implementation of modern standards to combat the use of insider information

Antimoney laundering and combating the financing of terrorism (AML/CFT): application of remote identification; introduction of strict internal rules of zero tolerance to unfair and illegal practices, including AML/FT of heads and owners of financial institutions and their clients, adoption of a cross-sectoral approach, creation of conditions for zero tolerance to illegal practices, achievement of full compliance with FATF recommendations

SCA, API (PSD2 as a possible legislative framework) (more in the section "fin. availability»)

Improvement in financial market regulation; optimization of the regulatory load on financial market participants: further implementation and development of the global financial market regulation rules – Basel 2/3 and Solvency 2, implementation of modern standards and requirements for operations involving politically significant and equalled persons: creation of regulatory requirements for such operations

Application of electronic interaction mechanisms in the financial market: improvement of the mechanism for piloting innovative financial technology, products and services; use of blockchain technology, creation of Sandbox for testing financial products and services

Counteraction to unfair practices; prevention and suppression of misconduct in the financial market: expansion of legal and regulatory requirements for implementation of an integrated anti-fraud and anti-corruption system in the financial institutions both with respect to their activity and within the framework of operations financed by such institutions

Toughening of requirements for personal data protection: adoption of the General Data Protection Regulation (GDPR), which is a directly applicable law and applies to all companies processing personal data of personal data subjects in the EU, regardless of the company's location

Development of control over the practices of corporate governance, transparency, and reporting: creation of a regulatory framework to govern the scope of participants of the management bodies of financial organizations based on the "fit and proper" principle, frequency of their rotation, information disclosure on independence and the amount of remuneration, as well as principles and frequency of communications with investors

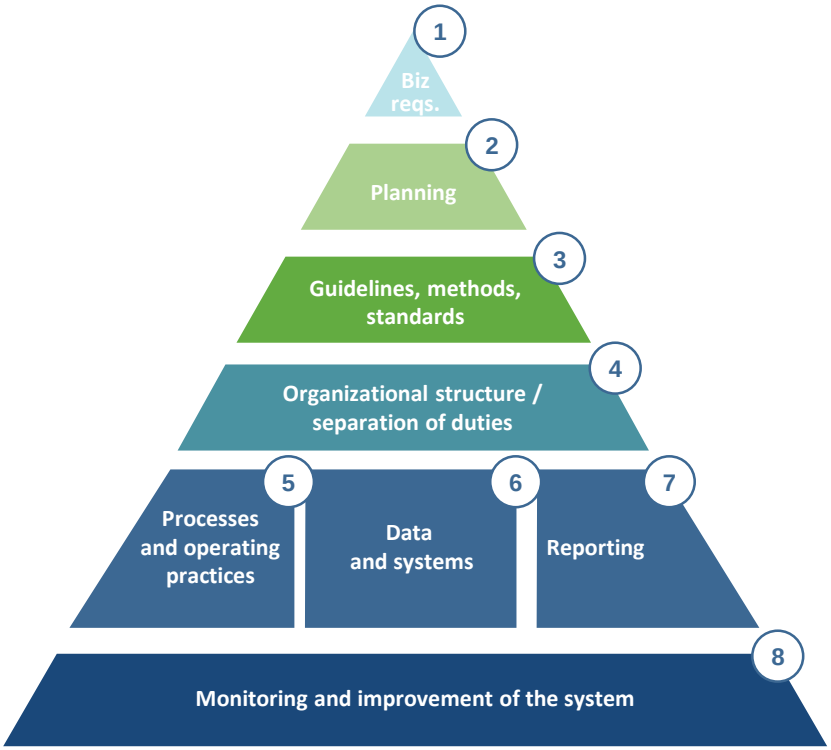
SCA, API (PSD2 as possible legislative framework):

- improvement of the remote customer authentication mechanisms, including biometric data – SCA (Strong Customer Authentication)
- development of open software platforms (API – Application Programming Interface) for the development of cross-banking interaction and integration of non-banking providers

Banking system and compliance

Target vision of compliance in 2035

Antifraud and anticorruption system



1. Creation of a compliance system paradigm
- Strategic goals and principles
- Estimated level of acceptable risk of fraud and corruption
- Instilled culture of the fraud and corruption risk management system

2. Implementation and control
- Implementation plan for strategic initiatives
- Continuous system audit plan
- Mobilization plan for effective functioning of the system

3. Methodology
- Implemented Code of Ethics
- Risk management standards for the entire company structure
- Set of necessary policies ("Know your customer," "Know your product")

4. Separation of duties
- Separation of duties in the system
- Establishment of an operational risk management department and compliance department
- Description of functions of the operational risk management department and compliance department

5. Process audit
- Creation of a fraud and corruption risk identification process
- Fraud and corruption risk assessment procedures
- Internal control procedures

6. Data analysis
- Determination of IT requirements for the system
- Determination of data storage principles
- Differentiation of database access rights
- Implementation of spare systems in the event of main system disturbance
- Implementation of a testing practice for all systems

7. Reporting and cascading of objectives
- System of internal and external reporting on fraud and corruption risks
- Key risk indicators (KRI) of the fraud and corruption risk management system

8. Continuous monitoring
- Formation and improvement of the fraud and corruption risk monitoring system
- Collection of data on external and internal fraud and corruption risks
- Development of measures to improve the risk management system and process
- IT system monitoring by the regulator
- Outsourcing monitoring by the regulator
- Regular monitoring of financial institutions by the regulator
- Automation of reporting to the regulator

A similar system should be implemented not only in the banking and financial systems but also in every company in the Republic of Uzbekistan, especially in state bodies and companies

Sources: analysis of the working group

Banking system and compliance

Target vision of compliance in 2035

Implementation of SCA, API (PSD2 as possible legislative framework)

Regarding customer authentication, it is necessary to develop remote methods, since it will accelerate and reduce the cost of banking services:

- SCA (Strong Customer Authentication) is mandatory for EU banks only, **but other countries should also implement this standard, since it will facilitate international banking cooperation and will greatly increase the possibility of cooperation with large international banks**
- **Implementation of a unified database of citizens and organizations in the Republic of Uzbekistan will reduce the cost of KYC procedures[1] for international banks and will significantly reduce the cutoff threshold for the volume of transactions with which international banks are willing to work**
- Development of remote authentication will also increase the remote service quality and expand the Uzbek population's coverage with banking services

In the field of interbank and cross-platform interaction, it is necessary to develop platforms with open source code

- API interfaces provide **banks with the technological ability to link their payments and services for data transfer with third parties**, which is the main goal of PSD2
- This cooperation **will allow operators and competitors to use clients' data and innovations to create new income flows** and personalized offers of services
- Development of stable and secure "platforms with open source code" (API) **is the underlying project for implementing the initiatives to create financial marketplaces** from 2025 to 2030**, and for the subsequent integration of banking, insurance, and investment and savings products**

Implementation of current FinCEN rules

According to this rule, financial institutions should establish procedures for:

- Identification of an individual who directly or indirectly owns more than 25% in the customer's/legal entity's capital ("ownership")
- Identification of an individual who is responsible for the control, management, and direction of the customer's activities ("right of control")
- Verification of the identity of the above persons in accordance with procedures performed on the basis of risk assessment, which should include a number of mandatory elements in accordance with the customer identification rule.

The rule contains four main elements of the customer's due diligence process within AML/CFT:

- Identification and verification of a customer
- Verification and identification of a beneficial owner
- Understanding the purpose of the customer relationship to determine the customer's risk
- Continuous monitoring to identify suspicious transactions; timely updating of information about a customer in its file
- Creation of a database of legal entities with open access to 2–3 basic identifiers (company name, year of founding)
- Creation of a database on the basis of the tax regulator's unified data

Sources: analysis of the working group
Note: KYC – Know Your Client – the customer's due diligence procedure for the occurrence of regulatory risk

Banking system and compliance

Target vision of compliance in 2035

FATF[1]

Priority: In the area of correspondent banking

1. **Provision of banking services by one bank** (correspondent bank) to another bank (respondent bank)
2. The respondent bank may be provided with a **wide range of services, including management of financial indicators** (including maintaining savings accounts in various currencies), international bank transfers, payments by check, transit payments and transit (payable through) accounts, services for operations with foreign currency
3. **Correspondent banking** does not offer one-time transactions and SWIFT messaging in terms of non-client interaction but **has a long-term recurring nature**
4. Major international banks act as correspondent banks for thousands of other banks around the world

FATF requirements

1. **Collect sufficient information** about **a** respondent financial **institution to get a full understanding of the** respondent's business/ to evaluate **the reputation of the financial institution and practices of mutual annual inspections and supervision, including whether it is subject to AML/CFT regulation**
2. **Assess the** respondent's means of control with respect to AML/CFT
3. **To obtain the approval** of the leadership of the FI in the establishment of correspondent relations
4. Have **fixed areas of responsibility for financial institutions /** respondents
5. For transactions made through correspondent accounts, **make sure that the respondent bank has taken sufficient measures to identify** and assess/manage the risks from customers who have direct access to the correspondent bank's accounts

Implementation stages of FATF recommendations (in respect of all recommendations)

2019	2022	2025	2030	2035
• Tactical steps • Training - Banks - Business - Main government agencies	• Step No. 1 follow-up • Correction of errors based on FATF recommendations • The main goal is to prepare for the next FATF audit	• FATF audit • Work on technical systems • Unified database for banks of businesses	FATF audit	FATF audit

Sources: analysis of the working group
Note: FATF – Financial Action Task Force

Banking system and compliance

Financial Action Task Force on Money Laundering (FATF)

The Financial Action Task Force on Money Laundering (FATF) is an intergovernmental organization founded to establish standards and facilitate effective application of legal, regulatory, and operational measures to combat money laundering, financing of terrorism, and financing of the proliferation of weapons of mass destruction, and other relevant threats to the international financial system's integrity. The main tool used by FATF in carrying out its mandate is 40 recommendations in the field of AML/CFT, which undergo revision every five years on average.

List of FATF recommendations*

Policy for Countering the Laundering of Proceeds from Crime and the Financing of Terrorism (AML/CFT) and coordination

1) Risk assessment and application of a risk-oriented approach
2) National cooperation and coordination

Money laundering and confiscation

3) Crime of money laundering
4) Confiscation and security measures

Financing of terrorism and financing of proliferation of weapons of mass destruction (WMD)

5) Crime of financing of terrorism
6) Targeted financial sanctions related to terrorism and financing of terrorism
7) Targeted financial sanctions related to proliferation of WMD
8) Nonprofit organizations

Preventive measures

9) Laws on protection of the secrecy of financial institutions
10) Due diligence of clients
11) Data storage
12) Public officials
13) Correspondent banks
14) Services for money transfer or transfer of valuable items
15) New technology
16) Electronic money transfers
17) Confidence in third parties' measures
18) Internal control and foreign branches and subsidiaries
19) Countries with a higher risk
20) Notifications about suspicious operations (transactions)
21) Disclosure and confidentiality
22) DNFBP – client's due diligence
23) DNFBP – other measures

Transparency and beneficial ownership of legal entities and formations

24) Transparency and beneficial owners of legal entities
25) Transparency and beneficial owners of legal formations

Powers and liability of the competent bodies and other institutional measures

26) Regulation and supervision of financial institutions
27) Powers of supervisory bodies
28) Regulation and supervision of DNFBP
29) Financial intelligence units
30) Liability of law enforcement and investigative agencies
31) Powers of law enforcement and investigative agencies
32) Cash couriers
33) Statistical data
34) Guiding principles and feedback
35) Sanctions

International cooperation

36) International instruments
37) Mutual legal assistance
38) Mutual legal assistance: freezing and confiscation
39) Extradition
40) Other forms of cooperation

Countries and organizations participating in FATF*

Countries

1. Argentina
2. Australia
3. Austria
4. Belgium
5. Brazil
6. Canada
7. China
8. Denmark
9. Finland
10. France
11. Germany
12. Greece
13. Hong Kong, China
14. Iceland
15. India
16. Ireland
17. Italy
18. Japan
19. South Korea
20. Luxembourg
21. Malaysia
22. Mexico
23. The Netherlands
24. New Zealand
25. Norway
26. Portugal
27. Russian Federation
28. Singapore
29. South Africa
30. Spain
31. Sweden
32. Switzerland
33. Turkey
34. UK
35. United States

Organizations:

1. European Commission
2. Gulf Cooperation Council

Observer states:

1. Indonesia
2. Israel
3. Saudi Arabia

Source: * – Financial Action Task Force on Money Laundering (FATF)

Target vision of compliance in 2035

General Data Protection Regulation ("GDPR")

Organizations covered by GDPR:

- Companies incorporated in the EU and being controllers and/or processors of personal data
- Companies not incorporated in the EU and being controllers and/or processors of personal data and whose activity is related to:
  - Providing goods or services to EU citizens
  - Monitoring the behavior of personal data subjects within the EU

Basic principles of personal data processing

Legality, fairness, and clarity of personal data processing

Limiting personal data processing in accordance with the purposes of processing

Reducing the redundancy of processed personal data

Ensuring the accuracy and relevance of processed personal data

Personal data storage time limit

Ensuring the integrity and confidentiality of processed personal data

Sources: analysis of the working group
Note: FATF – Financial Action Task Force

Banking system and compliance

The main changes that will bring SCA, API (PSD2 as a possible legislative framework)

1

New companies will get access to clients' payment accounts

New companies will be registered, will obtain a license, and will be regulated at the level of the European Union. All barriers for newcomers will be eliminated, which will promote competition in the market. As a result of this, prices for consumers will drop. New companies will get access to clients' payment accounts (account access is defined as "XS2A") to make payments on their behalf (only after preliminary approval).

How will it work?

The organization holding the client's payment account will grant access to the companies via the program interface ("API"). Its operation may be compared with a messenger that enables information exchange: it receives a request from the company and sends a reply.

2

Strong Customer Authentication (SCA) will improve the security of Internet payments

PSD2 directive is aimed at reducing the probability of fraud with electronic transactions. It should improve customer data protection. When using SCA in electronic transactions, there are two or more independent components from the list below involved:

Knowledge

Information available only to the customer (password, PIN number...)

Property

Items belonging only to the customer (card, etc.)

Customer

Client's biometric data (fingerprints, voice...)

\+ additional component for remote transactions (Internet, mobile devices)

Unique authentication code that dynamically links the transaction with a specific amount and beneficiary

Sources: Informa Knowledge & Networking division

The main changes that will bring the SCA API (PSD2 as a possible legislative framework) (continued)

Cases of Strong Customer Authentication (SCA) application

Every time the customer makes a payment, except for the following situations:

- Payment amount is below a certain level
- Beneficiary has already undergone identification

When the customer views their payment account or requests summary information on all their accounts using an additional service

- Upon the first view of the account (or several accounts)
- Every 90 days

3

Geographic coverage of transactions is expanded

All transactions, even those in which one of the parties is outside the EU, will be settled within the framework of the directive. PSD2 will apply to transactions in all types of currency (except cryptocurrency). The directive will increase the awareness of customers and the security level of the European part of transactions

4

The EPC SDD rulebook on the unconditional right to refund a direct debiting amount becomes a formal legal requirement (effective for up to 8 weeks after making the payment)

5

Charging of additional fees for making most payments by card will be limited (the fee will change according to the interbank fee charging rules)

6

When trying to make a payment without authorization, the customer will not be able to spend more than EUR 50 (previously, EUR 150). A larger amount can be spent only in case of emergency, e.g., if the customer shows unacceptable negligence, or if thieves gain access to the customer's account

Sources: Informa Knowledge & Networking division

Banking system and compliance

Opportunities of blockchain technology

Blockchain is a decentralized register of all transactions in a P2P network. Using this technology, participants can settle transactions without a centralized certification center. Potential applications include money transfers, settlements, product distribution, data storage, voting, and many others

Principal process flow chart

The user initiates the transaction

Check

Network of nodes checks the transaction and the user status with algorithms known in advance

A verified transaction may include cryptocurrencies, contracts, records, or other information

After verification, the transaction will be united with other transactions to set up a new data block for the register

A new block is then added to the existing blockchain with a permanent and unchanged path

The transaction is completed

Benefits

- Enhanced transparency
- Accurate tracking
- "Eternal" register
- Reduced expenditures

Disadvantages

- Complex technology
- Regulatory consequences
- Implementation problems
- Competing platforms

Cryptocurrency

Cryptocurrency is an exchange environment created and stored in electronic form in the blockchain using cryptographic methods of encryption to control the creation of monetary units and check money transfers. Bitcoin is the most popular example

Does not have value itself, as it is not secured with gold and forex reserves (like the US dollar)

Has no physical form and only exists online

Issuance of new units is not determined by the central bank, and the network is fully decentralized

Potential applications

Vehicles

Consumers may use a blockchain to control partial ownership in autonomous vehicles

Financial services

Quicker and cheaper payments may reduce transaction costs by billions of dollars and increase their transparency

Voting

Using a block code, people will be able to vote using a smartphone, tablet, or PC, which will provide an instant and more accurate result

Health care

Encrypted medical information of patients may be shared with several parties with no risk of a breach of confidentiality

Sources: Informa Knowledge & Networking division

2.6.2

Insurance and pension system

Economic development

BUYUK KELAJAK

Insurance and pension system

Current development level of the insurance system

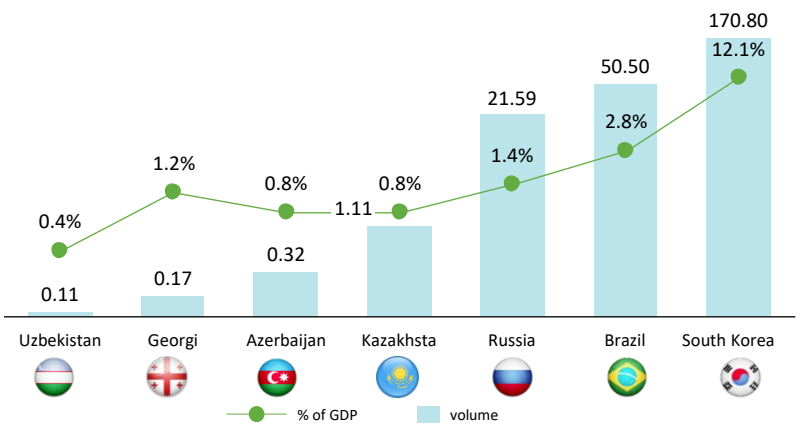
Key challenges

- The size of Uzbekistan's insurance sector does not correspond to the economic indicators comparison with international benchmarks
- The level of compulsory insurance in the country is much lower than the voluntary one
- The range of insurance products does not meet the economy's current requirements: there are no such types of insurance as medical insurance, life and health insurance

Key findings

- The insurance system is extremely small in relation to GDP – 0.4%
- The low level of financial literacy, personal disposable income, and regulatory support from the state complicates the overall situation for development of the country's insurance system
- The total unprofitability is growing along with the volume of collected insurance premiums but is still low, which will attract additional players to the market
- The share of the state in the insurance sector is relatively low compared to Uzbekistan's financial system as a whole
- High concentration in the capital region
- Insurance companies widely use international reinsurance. The largest share of the outward reinsurance is owned by British companies
- To diversify the reinsurance portfolio, it is necessary to introduce a mandatory state reinsurer that will shift part of the risks of insurance companies onto itself

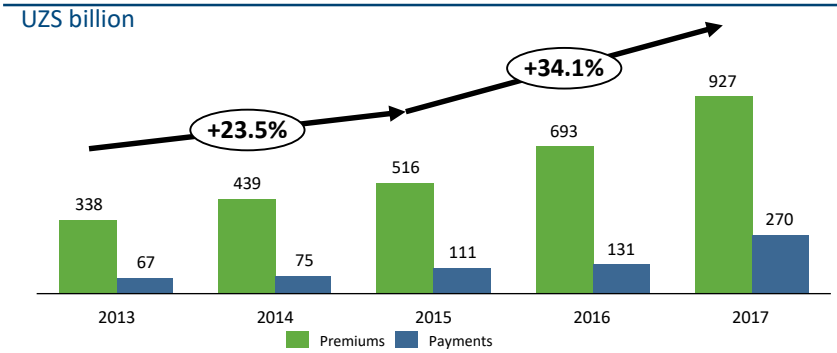
Insurance system, USD 2017



Comments

- The overall insurance system is poorly developed, so the country has great potential for its development
- Uzbekistan has the smallest insurance portfolio in relation to GDP among the benchmarks
- The size of the insurance system in relation to GDP is 30 times smaller than in South Korea

Dynamics of growth of insurance premiums and payments



Comments

- In UZS terms, the insurance premium portfolio is growing rapidly, especially since 2015
- A significant excess of premiums of insurance companies over payments will lead to the emergence of new participants in the insurance market

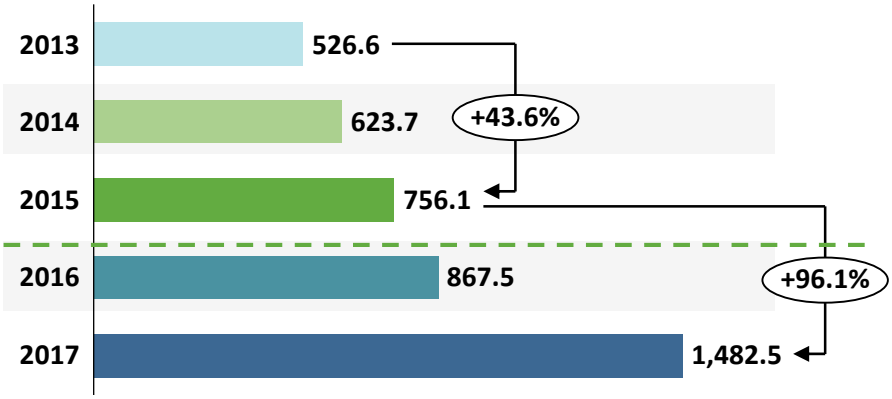
Sources: World Bank, State Inspectorate for Insurance Supervision as of June 27, 2018

Insurance and pension system

Current development level of the insurance system

Dynamics of growth of insurers' investments

UZS billion

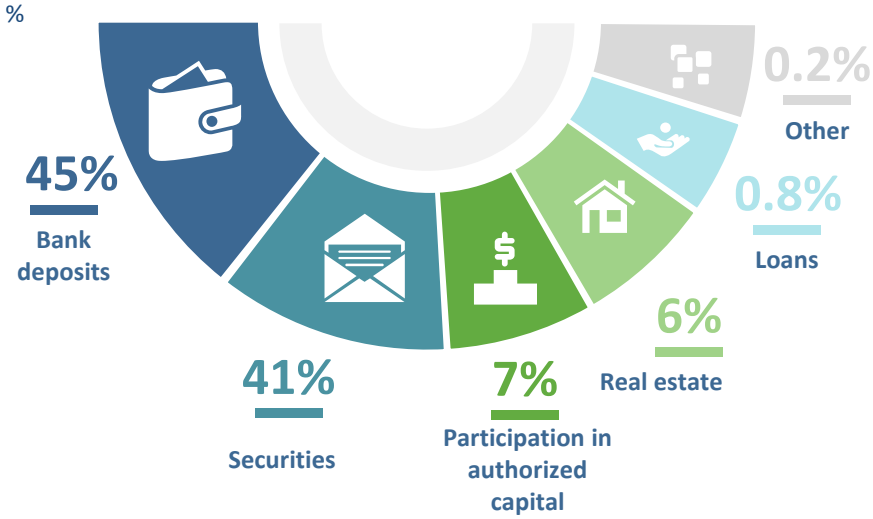


Comments

- The volume of the investment portfolio of insurance companies is growing rapidly due to growth in collected premiums
- The sharp increase in investments in 2017 is due to weakening of the national currency against the US dollar

Structure of insurers' investments at the end of 2016

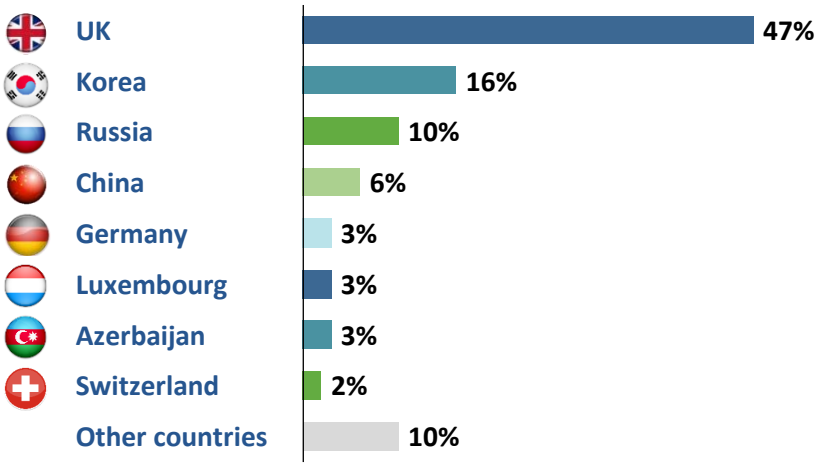
%



Comments

- The investment structure of the insurance sector is moderately conservative and shows a high level of diversification
- The high share of bank deposits is not typical for the investment structure of insurance companies, but in Uzbekistan's current market conditions it can be a rational option
- In the future, with the normalization of the banking service market and the reduction of the key rate, insurers will place a much larger share of their funds in securities

Structure of outwards reinsurance at the end of 2017, %



Comments

- Insurance companies widely use international reinsurance mechanisms. The largest share of the outward reinsurance is owned by British companies
- According to the Regulation on Solvency of Insurers and Reinsurers (Reg. No. 1806 dated May 12, 2008), reinsurance of risks abroad is allowed **only by approved reinsurers and solvent insurers that have corresponding international ratings**

Sources: State Inspectorate for Insurance Supervision as of June 27, 2018

Insurance and pension system

Current development level of the pension system

Key challenges

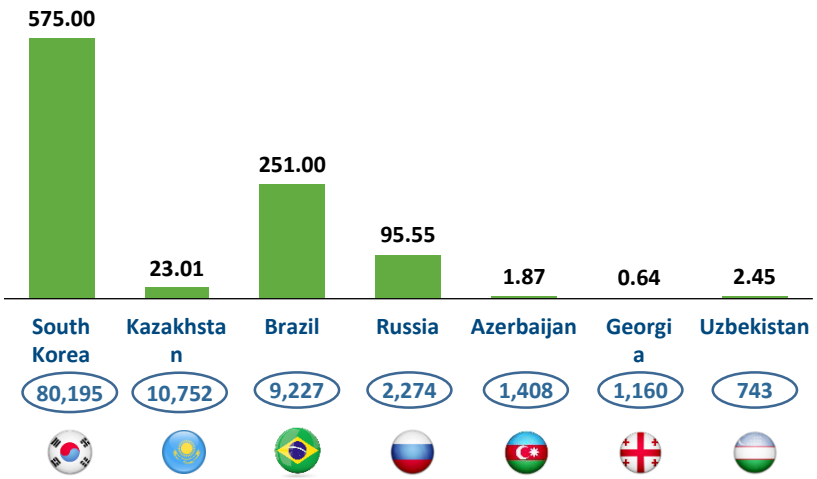
- The current size of the pension fund of the Republic of Uzbekistan does not match the number of pensioners according to a comparative analysis of international indicators
- The load on the country's pension system will continue to grow due to structural demographic changes, even despite the proposed pension reform

Key findings

- The size of the fund does not allow it to adequately cover the demands of the population for pensions
- The high rate of population growth in recent years will lead to an increase in demands on the pension system by 2035 and, consequently, to an additional burden on the budget
- 48% of the pension fund is funded through unified social payment and, therefore, the need to diversify sources of revenue through nonstate sources arises
- Uzbekistan's pension system structure should be based on different levels of provision, including mandatory, supplemental, and one's own savings

Pension fund

USD billion million

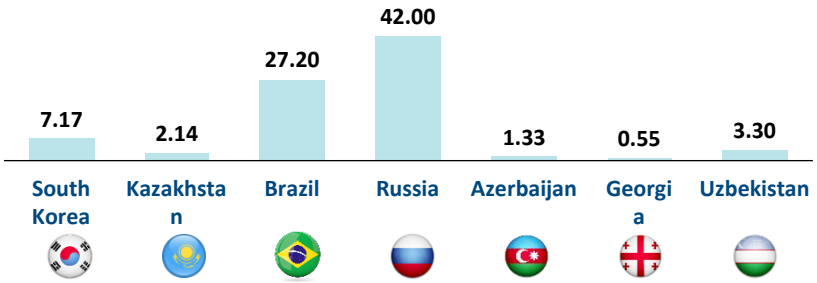


Per pensioner (USD)

Comments

- The pension fund of Uzbekistan ranks last in its group on payments per pensioner (the size of the fund cannot fully cover the entire pension population of the country)

Number of people of pension age, million people



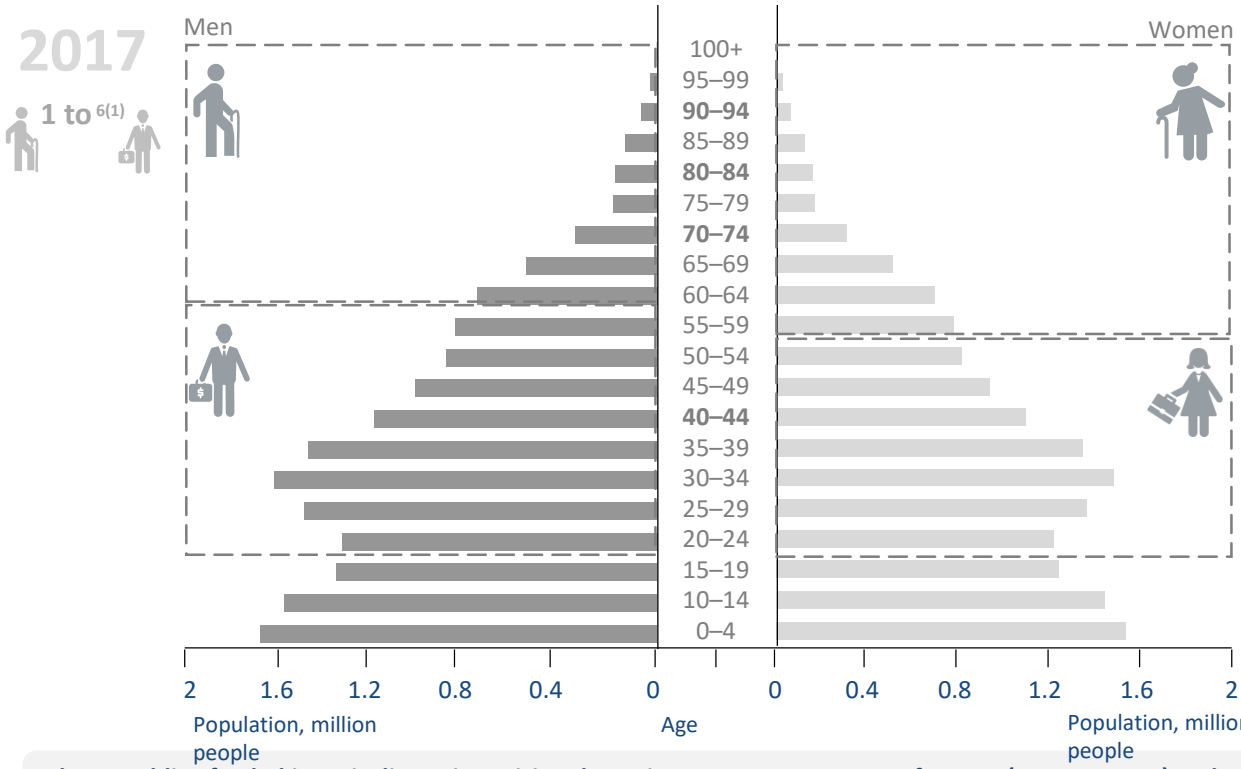
Comments

- The pension fund amount of the Republic of Uzbekistan is USD 743 per one pensioner. This makes it impossible to ensure the independence of the pension fund from the state budget

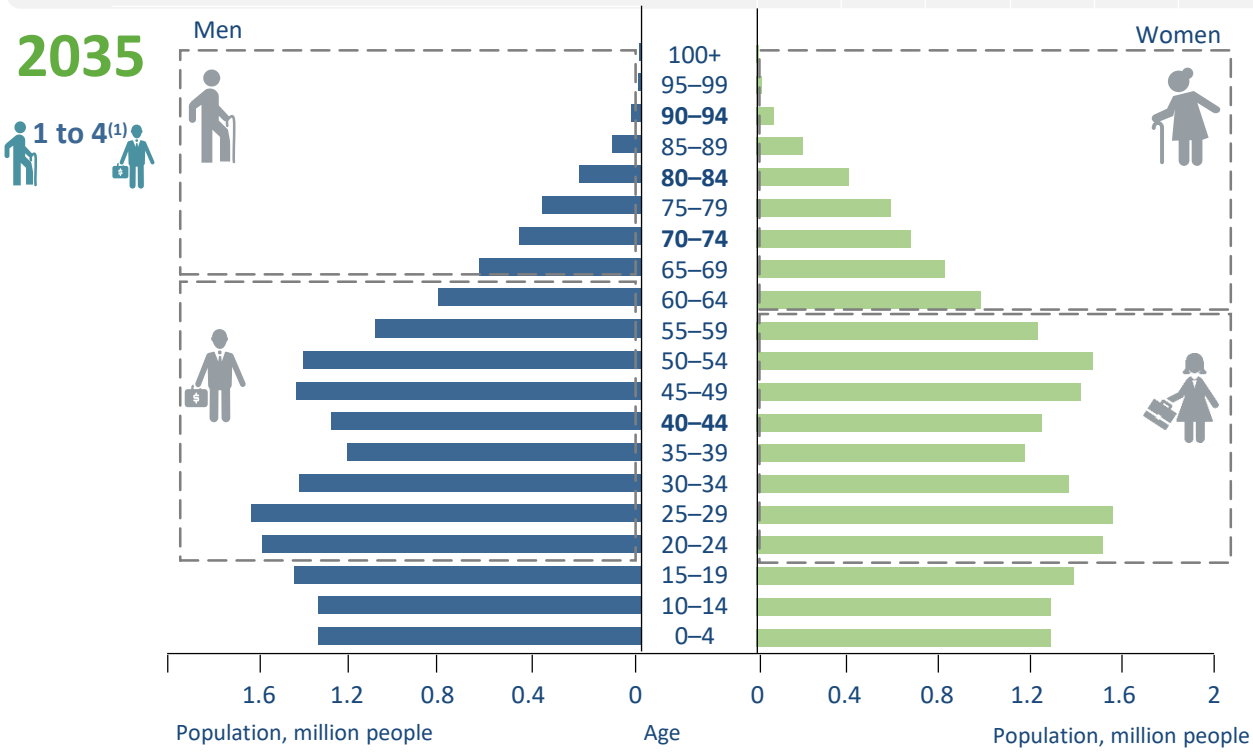
Source: World Bank Open Data

Current development level of the pension system

Age and sex pyramid of the population of Uzbekistan



The Republic of Uzbekistan is discussing raising the retirement age to 63 years for men (now 60 years) and to 58 years for women (now 55) in connection with the concept of reforming the state pension system



Note: 1 - ratio of the number of citizens of retirement age (men aged up to 60 years and women aged up to 55 years); to the number of citizens of working age (men aged 15-59 years and women aged 15-54 years)
Sources: World Bank, Population Pyramid, analysis of the working group

Insurance and pension system

Current development level of the pension system

14.3 million people.

Number of economically active people in the structure of employable people

out of which

4.8 million people

Number of payers of contributions to the Pension Fund

Ratio of payers of contributions to the number of pension recipients

1.5:1

(pursuant to recommendations of the International Labor Organization, the favorable ratio is **4:1**)

The current pension system provides for awarding a pension to people having at least 7 years of employment (pursuant to Convention of the International Labor Organization No. 102, the minimum required length of employment to award retirement pensions is 15 years). Minimum requirements for the length of employment of 7 years has a negative impact on the desire of citizens to participate in the state social insurance system

The pension benefits of citizens in the Republic of Uzbekistan covers the following main systems:

- state pension benefits (pay-as-you-go pension system based on compulsory social deductions of employees and employers)
- defined contribution pension system (notional defined contribution system based on compulsory and voluntary deductions of an employee)

Concept of Reforming the State Pension System for Citizens

For the purpose of implementing advanced mechanisms promoting citizens to participate on a continuous basis in the social insurance system and pursuant to Minutes No. 1 of the meeting for ensuring stability of the pension system of the Republic of Uzbekistan in the mid-term, detecting current problems, and elaborating proposals for their resolution approved by the Head of the Presidential Administration of the Republic of Uzbekistan dated September 16, 2018, a draft Concept of Reforming the State Pension System for Citizens for 2019–2030 is being elaborated

To accomplish the tasks established by the draft Concept of Reforming the State Pension System for Citizens by 2019–2030, measures are being elaborated in the following main areas:

1. To prevent the social discontent of citizens and prepare them for forthcoming changes in the pension system, it is necessary to announce innovations beforehand (e.g., 1–3 years before their implementation)

   To avoid any possible deficit of the budget of the Pension Fund, to take respective preventive measures
2. Elaboration of the mechanism for paying the minimum (guaranteed) portion of the pensions from the funds of the state budget
3. Perfection of the mechanism of individual income legalization, including extension of coverage of payers of contributions to the self-employed population and labor migrants working abroad
4. As the effective Law of the Republic of Uzbekistan "On State Pension Benefits of Citizens" was approved in 1993, subject to proposed changes in the area of the pension benefits, it is necessary to elaborate and approve the new version of the Law
5.

Implementation of the electronic employment record

It is planned to create for each individual an electronic personal card containing electronic information on the length of employment and salary. Those electronic personal cards will reflect information for the period after 2006 received by electronic information exchange with databases of the State Tax Committee and the People's Bank (INPS and INN). Electronic records of employment will be kept on the basis of insurance contributions paid to the Pension Fund, the mechanism of which was implemented starting in 2016

- There are plans to revise and improve the official website of the Pension Fund before the end of 2018, providing for functions of the personal account of pensioners and employed persons. The electronic personal account will make it possible to check pension amounts, dates of delivery, and actual receipt; and for employed persons, length of employment accumulated

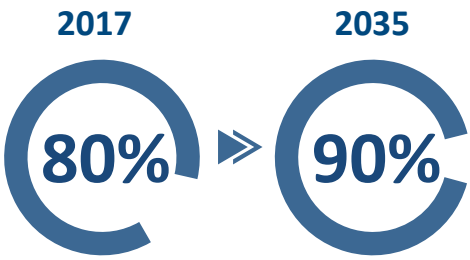
Insurance and pension system

Current development level of the pension system

1

Natural growth

The state does not interfere in the country's insurance system and takes measures for minimum control over the main forms of insurance



- The low share of compulsory insurance does not create a heavy burden on business

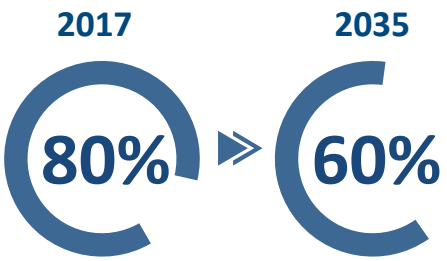
- Slow development of the insurance system
- Additional burden falls on the state budget

The insurance system develops slowly; insurance coverage of citizens does not grow

2

Basic development

The state gradually introduces additional types of compulsory insurance, subsidizing private insurance



- The insurance system is developed more actively
- Protection of the population

- Increased burden on business

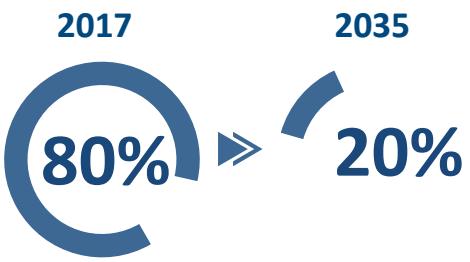
The insurance system develops at a medium rate; insurance coverage of citizens grows

3

Target development option

Active assistance

Introduction of a significant number of compulsory forms of insurance, which would greatly limit financial losses of individuals and companies upon the occurrence of negative circumstances



- Increase in funds for the economy
- Broad social protection of the population
- Development of health care and financial services

- Additional burden on business

The insurance system develops rapidly; insurance coverage of citizens increases significantly; the burden on the state budget decreases

Sources: analysis of the working group

Insurance and pension system

Strategic options for the pension system

1

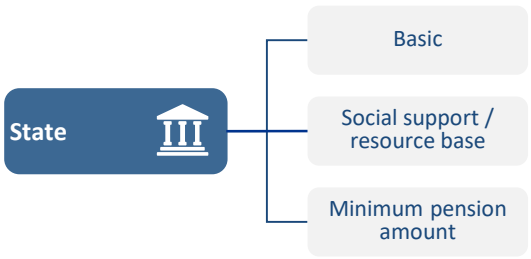
Compulsory pension (one level)

The state is the only guarantor of pension income of the population. This type is specific to developing countries or for welfare states that do not have a shortage of resources to form the pension fund

Examples of countries:

Moldova

UK



- Additional funds in departments
- Motivation of state and municipal employees

- Public pressure
- Additional burden on the budget

2

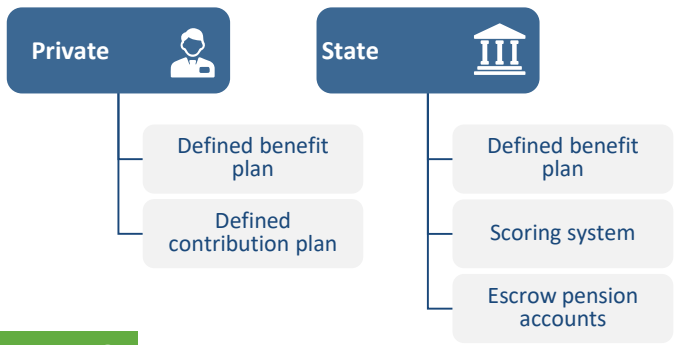
Compulsory pension + savings (two levels)

This type of pension system is characterized by the active involvement of employers in the formation of the pension income of their own employees. The state provides for the poorest sectors of society and makes payments from the budget

Examples of countries:

Chile

Ireland



- Stimulation of the private financial industry

- Public pressure
- Additional burden on the budget
- Reduction of the sources of replenishment of the state budget

3

Target development option

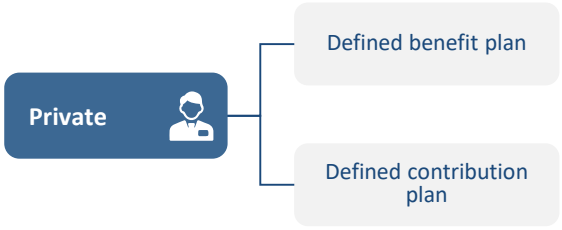
Compulsory pension + voluntary pension + savings (three levels)

The third level is based mainly on the voluntary and savings types of pensions. The state provides minimum payments to all citizens, but to achieve a comfortable standard of living, their own savings are needed The implementation of the scenario will require the development of accessibility of investment products for private pension investments in capital markets

Examples of countries:

milli on

Australia



- Reduction of the burden on the budget
- Stimulation of the private financial industry
- Reduction of public pressure

- Reduction of the sources of replenishment of the state budget
- Maintaining the risk of rapid growth of state

Gradual transition of pension support to a private system of pension support

Sources: analysis of the working group

Insurance and pension systems

Target vision of the insurance system in 2035

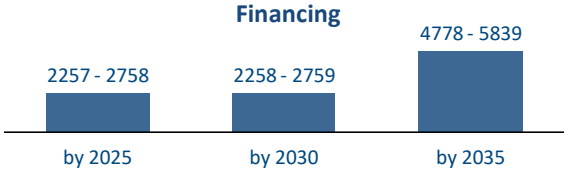
Active assistance to insurance system development

- Private insurance system that supports the main areas of the economy and society and is aimed at reducing the total costs of the population, business, and the state
- It is necessary to introduce compulsory medical insurance

Figures

Share of the insurance system, % of GDP	0.4% » 2.8%
Share of voluntary insurance	80% » 20%
Share of compulsory insurance	20% » 80%

Financing



USD million, cumulative

Target vision of the pension system in 2035

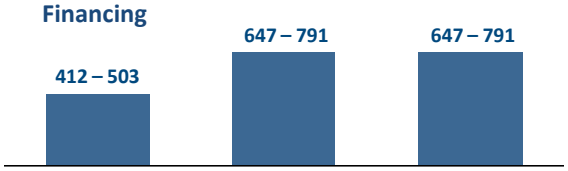
Three-level pension system

- The pension system consists of three levels: basic state pension, corporate pension, and individual pension
- A private pension system with variable structure of accumulation allows citizens to determine for themselves what income they will have in the future

Figures

Share of the pension system, % of GDP	4% » 7%
Amount of the pension fund per capita, USD million	0.74 » 2.51
Share of the state pension in the total structure of pension payments	100% » 35%

Financing



USD million , cumulative

Key strategic initiatives

- Compulsory medical insurance
- Stimulation of private insurance
- Two-level pension system
- Industrial pension
- Introducing an electronic policy
- Development of professional insurance
- Three-level pension system
- Integration of banking, insurance, investment, and savings products

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

2.6.3

Capital markets

Economic development

Capital markets

Current development level of capital markets

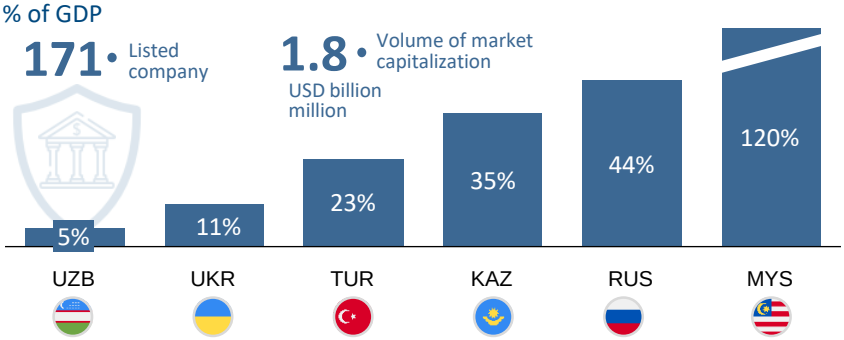
Key challenges

- Very low market capitalization of companies in Uzbekistan
- Ratings of players outside the banking sector are extremely low
- International investors have a relatively low share in the turnover compared to developed markets
- High expected return on capital due to the high level of country risks, which significantly limits the investment potential of the Republic of Uzbekistan

Key findings

- Low market capitalization of companies in Uzbekistan compared to emerging markets, the share of banks is 60%. Bank shares are the most traded and make up 86% of turnover
- High expected return on capital due to the high level of country risks, which significantly limits the investment potential of the Republic of Uzbekistan
- Due to the high level of expected return on equity, investors are not inclined to make significant capital infusions into Uzbekistan's market
- Institutional investors hold securities of the corporate sector of Uzbekistan as "exotic" assets designed to be more profitable than assets of an "investment" nature
- In the corporate sector, the level of communications with investors is extremely low (IR = investor relations)
- The lack of sufficient information about the corporate sector on the exchange portal hinders the active development of the market

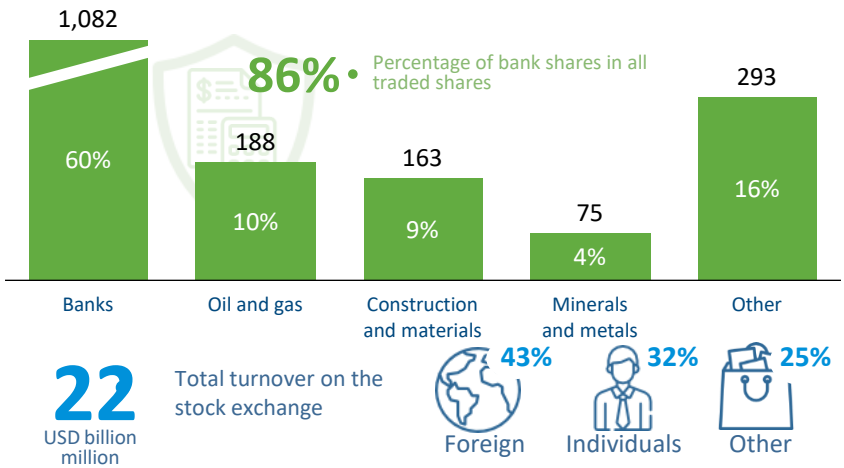
Market capitalization of listed companies



Comments

- At the beginning of 2017, there were 191 companies in the exchange quotation list
- Market capitalization lags behind many emerging markets not only in terms of its absolute value, but also in terms of its volume relative to the country's GDP

Market capitalization of companies in the economy's sectors



Comments

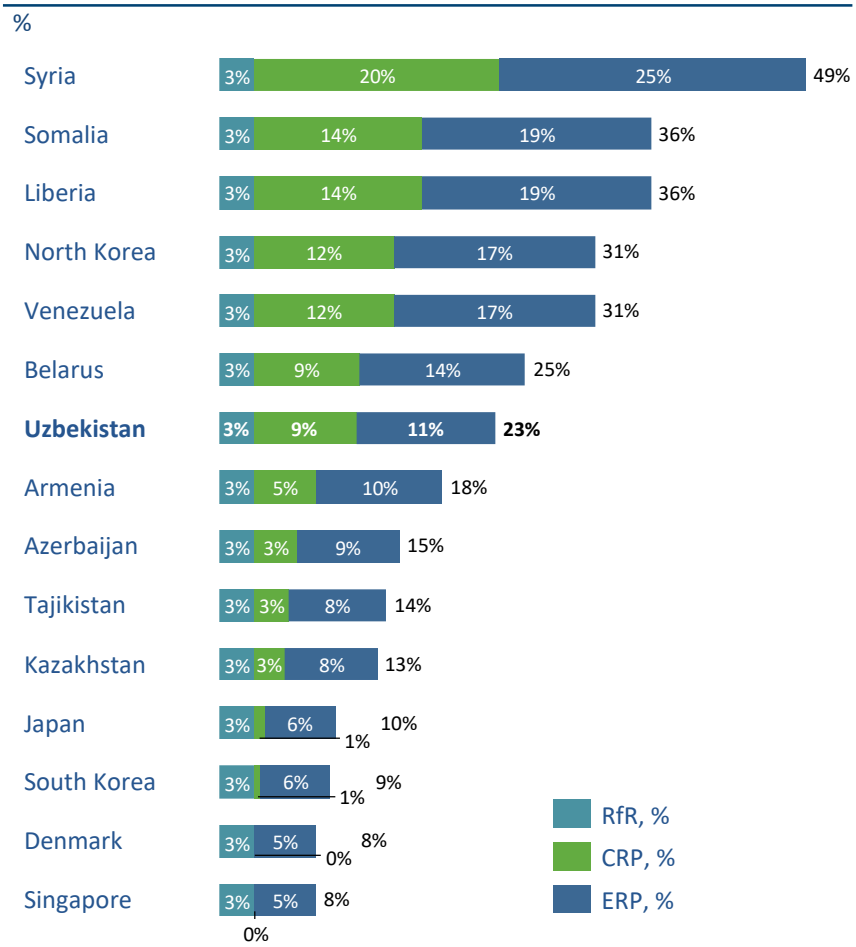
- The listed companies include commercial banks, insurance companies, oil and gas enterprises, construction material producers, agricultural companies, energy companies, metallurgy plants, etc.
- The largest part of the turnover is made up of foreign investors, as the market grows, their share may reach 80% (for example, South Korea)

Source: Center for Coordination and Development of the Securities Market of the Republic of Uzbekistan

Capital markets

Current development level of capital markets

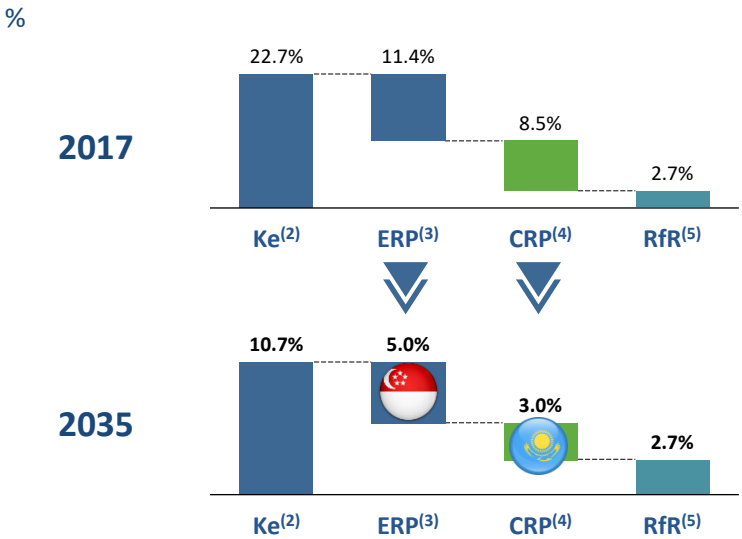
Value of equity in terms of other indicators, 2017



Comments

- High expected return on capital due to the high level of country risks, which significantly limits the investment potential of the Republic of Uzbekistan
- The high level of expected return on capital significantly limits the number of projects and companies in which local and, in particular, foreign investors are willing to invest
- Reduction in the cost of capital is possible by reducing the country risk, reducing the risk of doing business, establishing the supremacy of law and the judicial system, and reducing the risk of equity: growth of the corporate governance level, development of corporate culture, acceptance of and compliance with International Financial Reporting Standards (IFRS) and International Standards of Auditing
  Improvement of sovereign credit rating will be an indicator and catalyst for reducing country risk

Value of equity by component



Comments

- Since the system will be based on Singapore's experience, the ERP indicator will decrease to 5% as the key institutions of capital markets develop
- With the further development of the financial system and state institutions, the CRP indicator of the Republic of Uzbekistan will reach 3%, which is equivalent to the level of the most developed countries of Central Asia

Note: 1 - Legal entities, 2 - Ke-cost of share capital, 3 - ERP-risk-share capital premium, 4 - CRP - country risk premium, 5 - RfR - risk – free rate (based on long-term U.S. government bonds).
Source: Center for Coordination and Development of the Securities Market of the Republic of Uzbekistan

Capital markets

Strategic options

1

Target development option

Balance between debt instruments and equity

The proportional use of debt and equity allows one to receive the maximum benefit from a fast-growing market

D/E[1] < 1

Examples of countries:


Singapore


Ireland


Hungary

- High financial stability
- Less dependence of an enterprise on borrowed capital and liabilities
- Increasing confidence in the financial institutions of the country among the population and foreign investors

- Heavy burden on business, especially during an economic recession
- Reduction in the capital supply during an economic recession

Equity and borrowed funds in equal proportions, on average

2

Primarily: debt instruments

A less conservative option that is usually typical for more mature economies. A moderate degree of susceptibility to the economic cycle allows one to ensure growth in the value of equity in the economic growth phase and supports the capital supply in the economic recession phase

D/E[1] > 6

Examples of countries:


UK


Czech Republic

- Facilitates a moderate increase in the value of equity
- Optimal choice for a mature economy

- Is not an optimal choice for a country's fast-growing economy

High level of borrowed funds in relation to equity

3

Maximum use of debt instruments

High corporate debt means a low risk appetite as well as low expectations for market growth and expected return of the corporate sector. Characterized by low sensitivity to investment

D/E[1] > 9

Examples of countries:


Japan


Australia

- Such model is less exposed to market fluctuations
- More beneficial for equity holders during the growth phase

- The high level of debt service puts the corporate sector at risk of bankruptcy in the event of economic shocks

Volume of debt instruments exceeds equity tenfold

Note: 1 = average ratio of debt instruments to equity in the corporate segment of the respective country
Sources: OECD Data: Financial corporations debt to equity ratio, analysis of the working group

Capital markets

Target vision of the insurance system in 2035

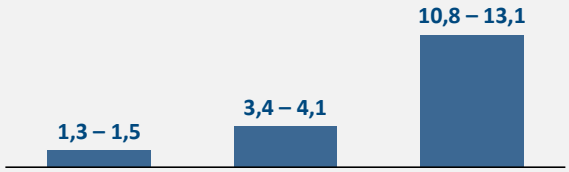
Balance between debt and equity

- The capital market meets all modern requirements in terms of regulation, infrastructure, and technology
- High quality of information delivery and high speed of access
- Stable supervision and transparent regulation
- Predictive tax policy
- Maintaining the balance between debt and equity financing
- Attraction of international institutional investments
- Development of local companies

Figures

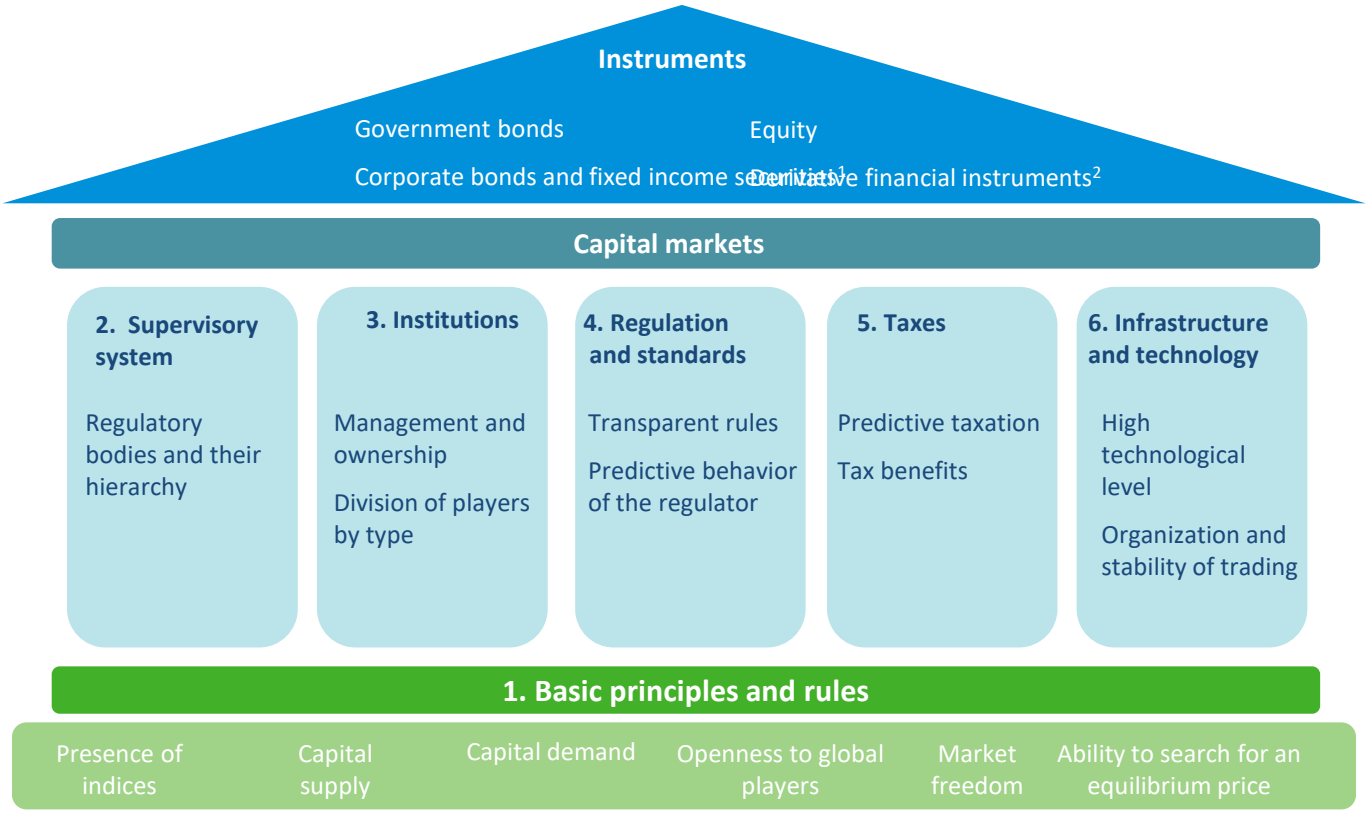
Capital market size, USD million	2.5	114
Capital market size, % of GDP	3.7%	80%
Share of foreign investors	43%	70%
Expected return on equity	22.7%	11.7%

Financing



USD billion , cumulative

Target structure of capital markets



Note: 1 = fixed income securities, 2 = derivative financial instruments
Sources: Monetary Authority of Singapore

Capital markets

Target vision of the insurance system in 2035

Singapore's case study on increasing capital market capacity

1. Preparing long-term goals and achieving consensus

- In the late 1990s, the Prime Minister and Deputy Prime Minister chose a top-down approach to transform Singapore into a major financial center with a full scope of services in Asia
- This vision has become a national priority and is associated with achievement of the social and economic goals of creating jobs and ensuring a high growth rate of GDP, respectively

2. Creating and expanding the capabilities of regulatory institutions

- The powers to implement this vision were given to the supreme body: the Monetary Authority of Singapore (MAS)
- MAS is authorized to take all necessary measures to achieve the vision

3. Managing a wide circle of interested parties

- The private sector was actively engaged in the development and implementation of the policy
- The private sector was offered different stimuli to expand their participation in the market

4. Creating a growth driver by identifying the catalyst for change

- Stock exchanges were united and opened to a wide circle of participants
- The state bonds market was modernized to create additional points of debt market growth
- Management of funds and private banking were transformed so as to meet the current challenges of local capital market growth to a fuller extent

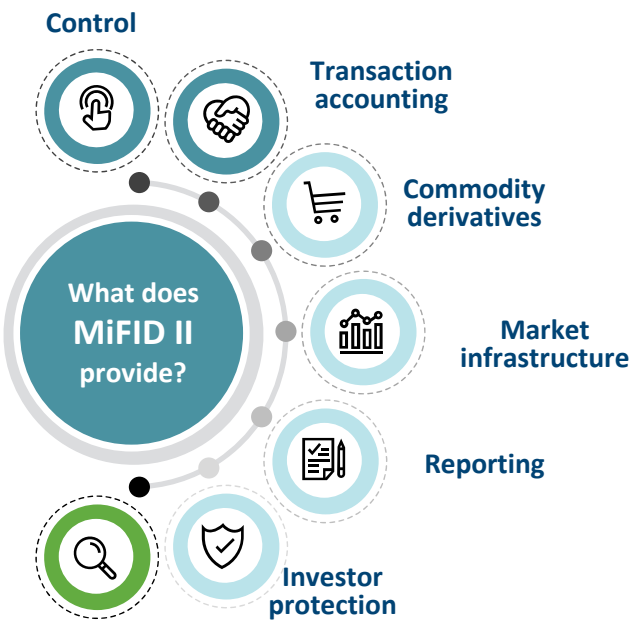
5. Ensuring long-term availability of talent

- The education sector was reformed, for example, with specialized training courses and invitations to foreign universities. Emphasis was placed on research and innovation in academic circles, etc. to create a talent tool for the financial sphere
- Foreign talent were supported in their arrival and stay in Singapore

6. Investments in strategic advancement

- Broad advancement and transparency from the government, including regular involvement of print media, and a high level of development of communications with investors by the state and companies
- Creation of a special promotions division for processing investors' roadshows and campaigns

Introduce MIFID1 II for the development of capital markets



- Entities must divide customers into certain categories: a company must know the level of financial literacy, which will be the main factor necessary to provide a more suitable service
- All organizations offering services must fully inform customers about trading terms
- Transactions must be performed immediately, after receiving the customer's request
- MiFID helps create a single market so that its participants are provided with more favorable conditions
- Financial services are regulated. Grounds for licensing entities that have permission to carry out activities are considered

Note: 1 = The Markets in Financial Instruments Directive (EU Directive)

Capital markets

Key strategic initiatives

2025

- Adapt international standards of regulation and control, including standards of corporate governance, reporting of funds and companies (including IFRS and MCA), standards of customer classification, information storage and disclosure, etc.
- Create codes of ethics and standards of conduct for professional market participants
- Join the world's leading associations of member countries of capital markets, in particular, Asian and European supervisory and regulatory organizations
- Increase the attractiveness of the domestic capital market, introduce individual investment accounts, and provide tax incentives to individuals
- Issue of investment grade government and corporate Eurobonds, as well as government short-term and local currency bonds with a high credit rating
- Development of local brokerage companies in terms of standardization and supervision and integrate international players into the capital market as participants and/or partners

2030

- Create investment incubators and accelerators to integrate investors and business owners, in particular, in innovative areas of development
- Develop a product portfolio that meets the requirements of a modern economy to a greater extent, in particular, ETF for individuals, resource and currency derivatives for manufacturing companies, and structural products for institutional investors
- Develop the technological level and computing power of ICT infrastructure of exchanges
- Develop the principles of special tax schemes to attract foreign investors

2035

- Creation of liquidity placement systems and integration with banking products in the corporate segment
- Integrate banking, insurance, and investment savings products into the retail segment and transition to a life cycle service model

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources:

Capital markets

Key strategic initiatives

- Create an independent financial regulator with wide powers based on the example of FCA (Great Britain)
- License financial market employees through testing and checkups

personnel finance technologies legislation and state regulation infrastructure

Sources:

3. Social development

Concept of the Development Strategy of
the Republic of Uzbekistan until 2035

3.1

Health care

Social development

Health care

Current development level of capital markets

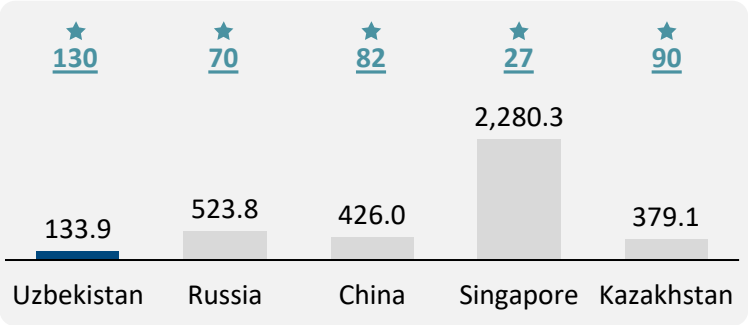
Key challenges

- High rates of cardiovascular diseases and high infant mortality
- Low funding of the health care system
- Unequal access to health care
- Low wages of health care workers
- Low share of capital expenditures and, as a consequence, low level of technological development of health care (lack of facilities with modern equipment)
- The threat of the spread of HIV / AIDS
- Poor quality of medical training

Key findings

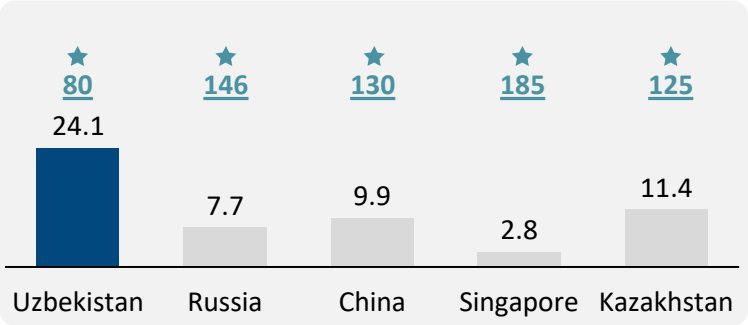
- The health of the population is characterized by average life expectancy at birth (73.8 years) and low mortality (4.9 deaths per 1,000 people). Life expectancy is affected by the high rate of cardiovascular disease and high child mortality (among the leaders of the corresponding ratings according to the WHO)
- The main problem in health care is the current state of the funding system, which is expressed in:
- Low health expenditures per capita (estimated indicator fell to USD 54 per capita in 2018)
- Unequal access to health care. Secondary and tertiary health care in most cases is paid, the share of payments by citizens in the funding of health care is more than 40% [1]
- Undeveloped funding instruments. For example, there is no compulsory medical insurance
- As a consequence, the quality of medical care decreases, which may have a negative impact on the health of the population

Health expenditures per capita, USD, 2015



- Poor financing of the industry results in many problems, including the following:
  - **Low salary of** doctors, which leads to **corruption**
  - Corruption **that limits the access of low-income** groups **to health care**
  - Low funding (including capital expenditures) **reduces the quality of health care**

Infant mortality, deaths of children under the age of 5 years per 1,000 newborns, 2016



- **Infant mortality is high in Uzbekistan.** 14.1 of 1,000 children under the age of 5 die
- **The highest mortality rate is observed under the age of 1 year** – 21.4 deaths per 1,000 newborns, and the mortality rate under the age of 28 days is 13.8 deaths per 1,000 newborns

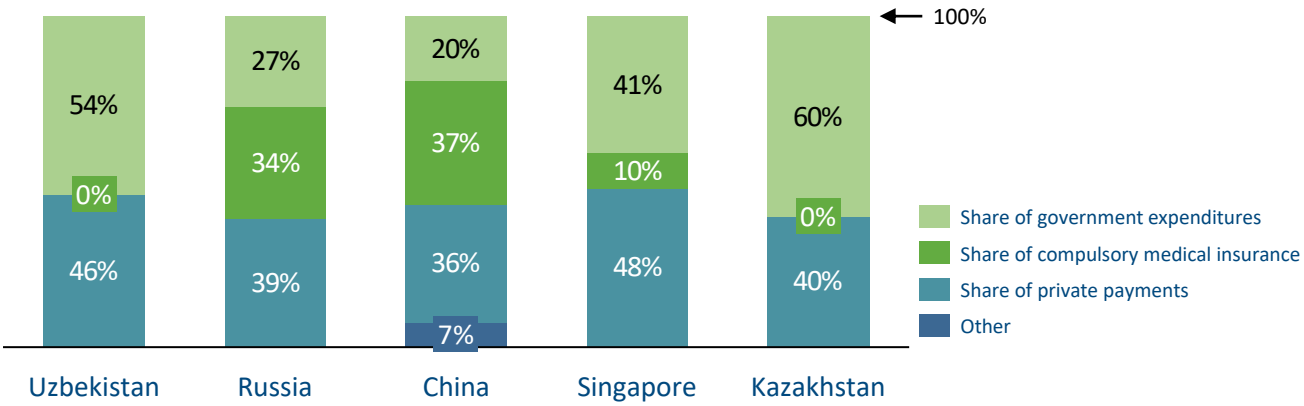
★ 127 Position in the international rating according to the World Health Organization

Note: 1 – According to some experts, the share of personal payments of citizens in financing health care is about 70%
Sources: World Health Organization, analysis of the working group

Health care

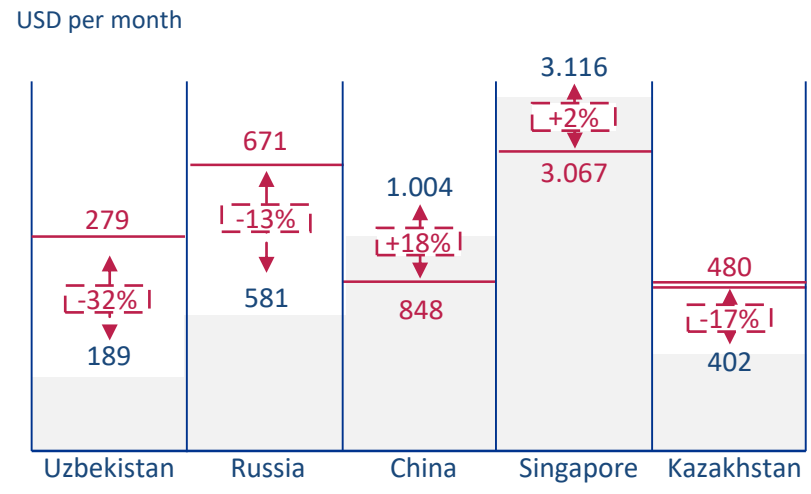
Current level of development

Private payments prevail in the health financing system. At the same time, there is no compulsory medical insurance, which limits equal access



- In Uzbekistan, **there is no compulsory medical insurance system**, and the voluntary medical insurance system is poorly developed
- The state health-care system in Uzbekistan includes the provision of primary medical visits free of charge, but additional services and repeat visits are paid
- **Private payments include payments for medical services rendered in state institutions and private insurance contributions.** In the Republic of Uzbekistan, private payments consist almost entirely of citizens' payment for medical services
- Health care funding systems in other countries, for example, **in Singapore**, operate on the basis **of mandatory contributions from working citizens and state support** for the lowest income groups of the population. The amount of mandatory contributions varies depending on the age and general health of a citizen
- Pursuant to the opinion of the experts of the working group, official statistical data do not reflect reality; the share of private payments of citizens may reach 70%–80%.

Average salary of a health care worker



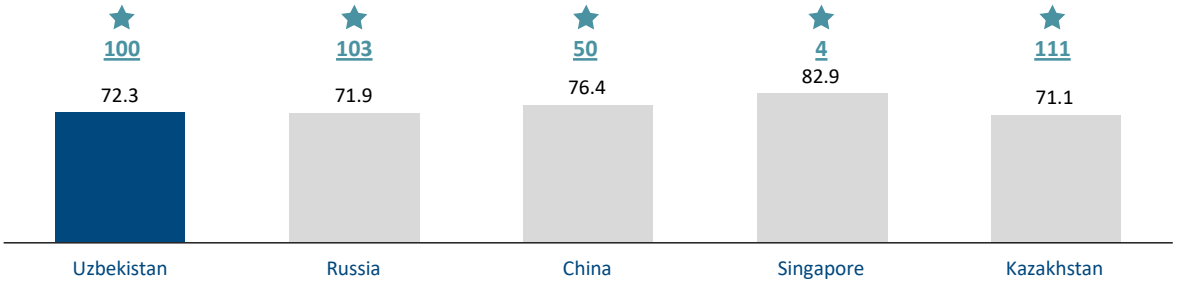
- The salary of doctors in Uzbekistan is lower than **the average salary in the country**
- Bonuses depend on a doctor's qualification category, length of service, and specialty. For example, the average salary of surgeons of the highest category is USD 351
- Low salaries of doctors lead to **development of a shadow economy in the sector**. For example, unofficial income from patients may be added **to the salaries of medical staff**. Also, according to experts, a significant proportion of medical workers **cooperate with pharmaceutical companies and receive from them often non-ethical remuneration, which negatively affects the quality of medical advice**

Sources: World Health Organization, analysis of the working group

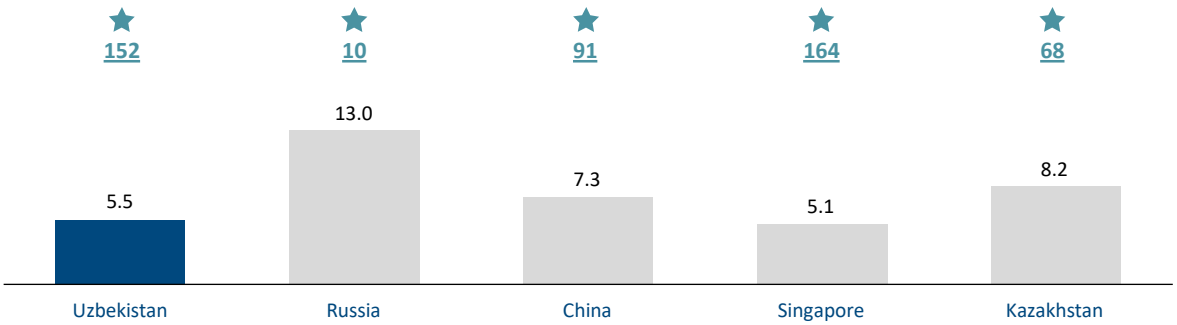
Health care

Current level of development

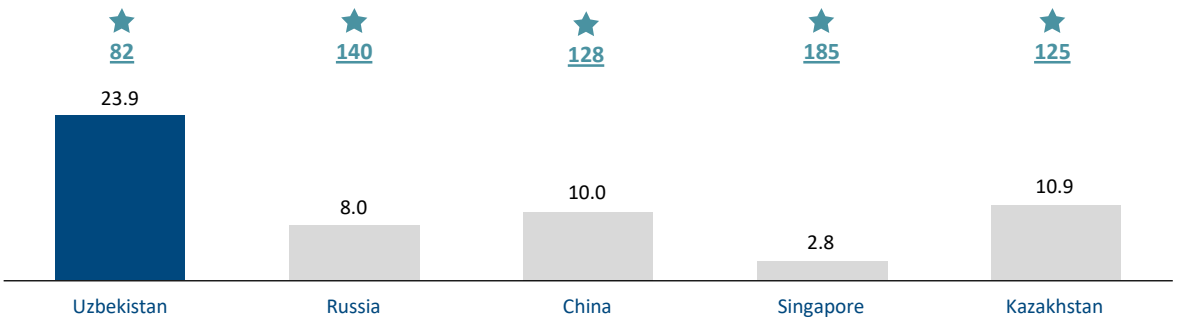
Life expectancy at birth[(a)], years, 2016



Total mortality per 1,000 people, deaths, 2016



Mortality rate of children under the age of 5 years, per 1,000 children, deaths, 2016



127 Position in the international rating according to the World Health Organization

Comments

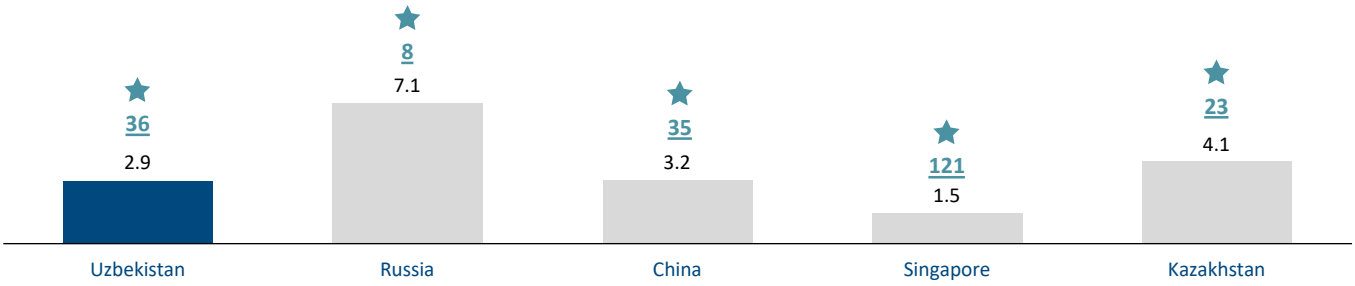
- **Uzbekistan has average life expectancy.** Despite the fact that Uzbekistan is one of the leaders in life expectancy in the post-Soviet space and a leader in Central Asia, Uzbekistan lags far behind the leading European and Asian countries, including China and Singapore
- **Uzbekistan is characterized by a low mortality rate and is one of the leaders in the world rating according to the World Health Organization** (152 out of 183 countries)
- However, there is an acute problem with child mortality under the age of 5 years (82 out of 5 countries)

Note: a = Life expectancy at birth shows the number of years a newborn will live if the mortality rate established at the time of their birth remains unchanged throughout their life; b = including birth complications as well as perinatal complications and nutritional disorders; c = including house collapses, safety violations, etc.
Source: World Health Organization

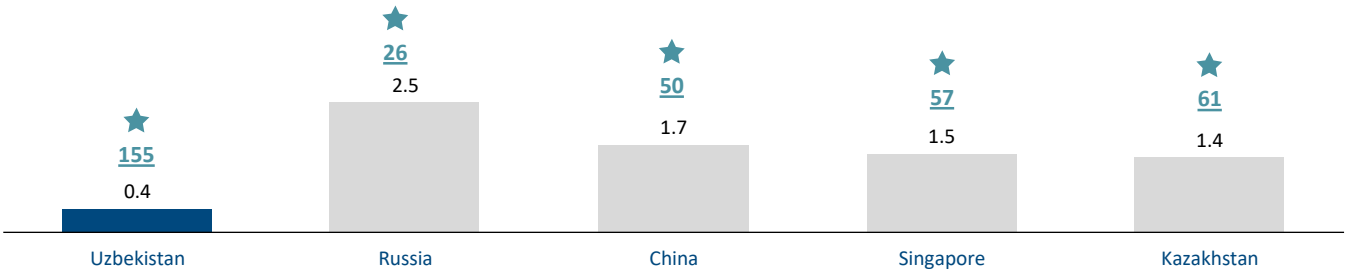
Health care

Current level of development

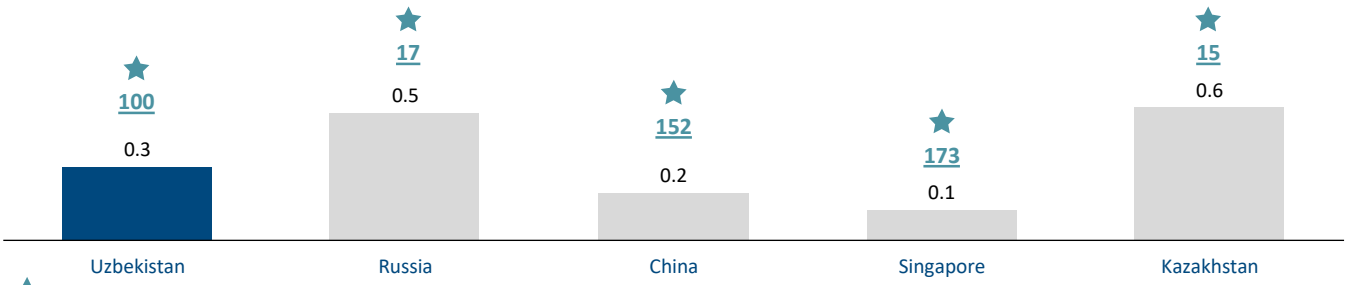
Mortality from cardiovascular diseases, deaths per 1,000 people, 2016



Mortality from cancer, deaths per 1,000 people, 2016



Mortality from gastrointestinal illnesses, deaths per 1,000 people, 2016



127 Position in the international rating according to the World Health Organization

Comments

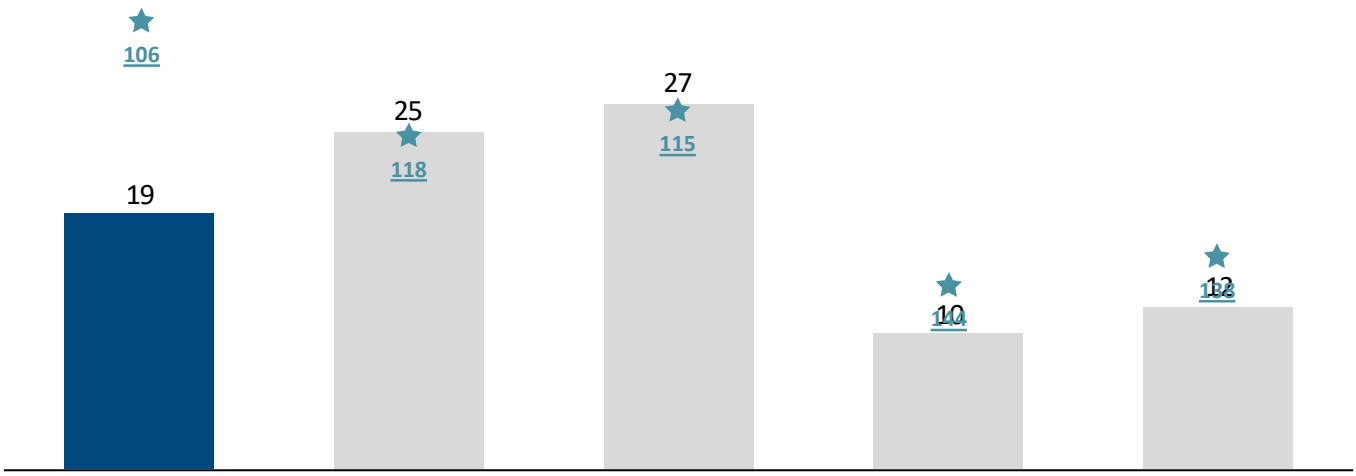
- **Uzbekistan is one of the world leaders in mortality from cardiovascular diseases** (36th out of 183 countries). 66% of deaths are caused by coronary heart disease and 17% by strokes
- Despite a high share in overall mortality (8%), **mortality rate from cancer in Uzbekistan is one of the lowest in the world**
  - The most common cause of death from cancer is stomach cancer (14% of deaths), lung cancer (11%), and breast cancer (10%)
  - Among the causes of a high mortality rate from cancer are poor or late detection of cancer and poor development of preventative medicine
- **Mortality from gastrointestinal illnesses in Uzbekistan is average compared to other countries.** The main causes of death from gastrointestinal illnesses is liver cirrhosis (74%), which is caused by hepatitis B (39%), excessive alcohol consumption (26%), and hepatitis C (16%) and the lack of timely and quality diagnosis

Source: World Health Organization

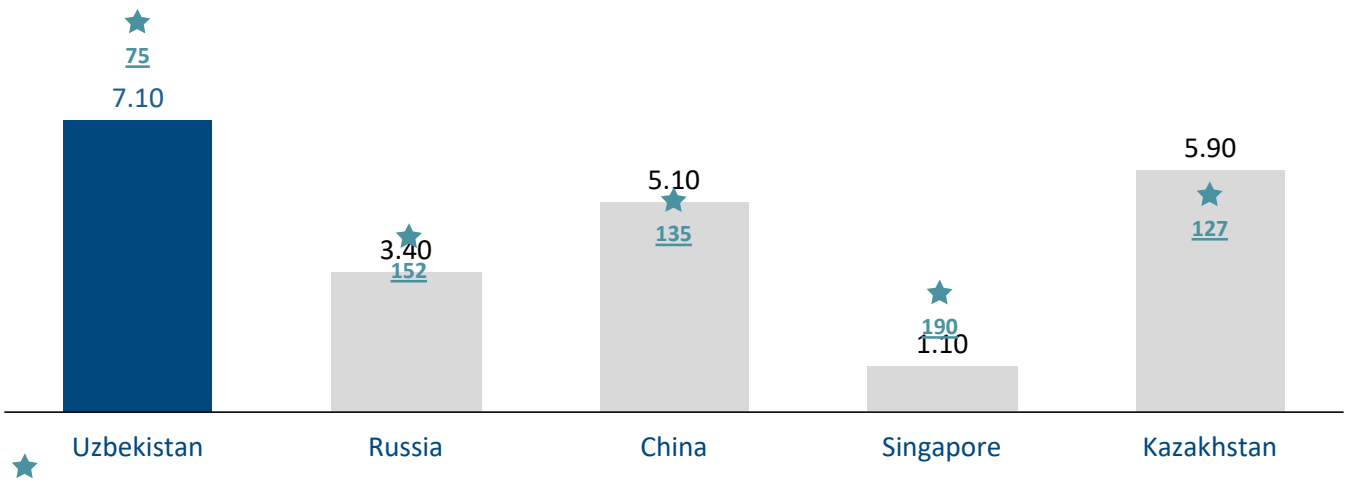
Health care

Current level of development

Maternal mortality, deaths per 100,000 newborns, 2015



Neonatal mortality, deaths of children under the age of 28 days per 1,000 newborns, 2016



127 Position in the international rating according to the World Health Organization

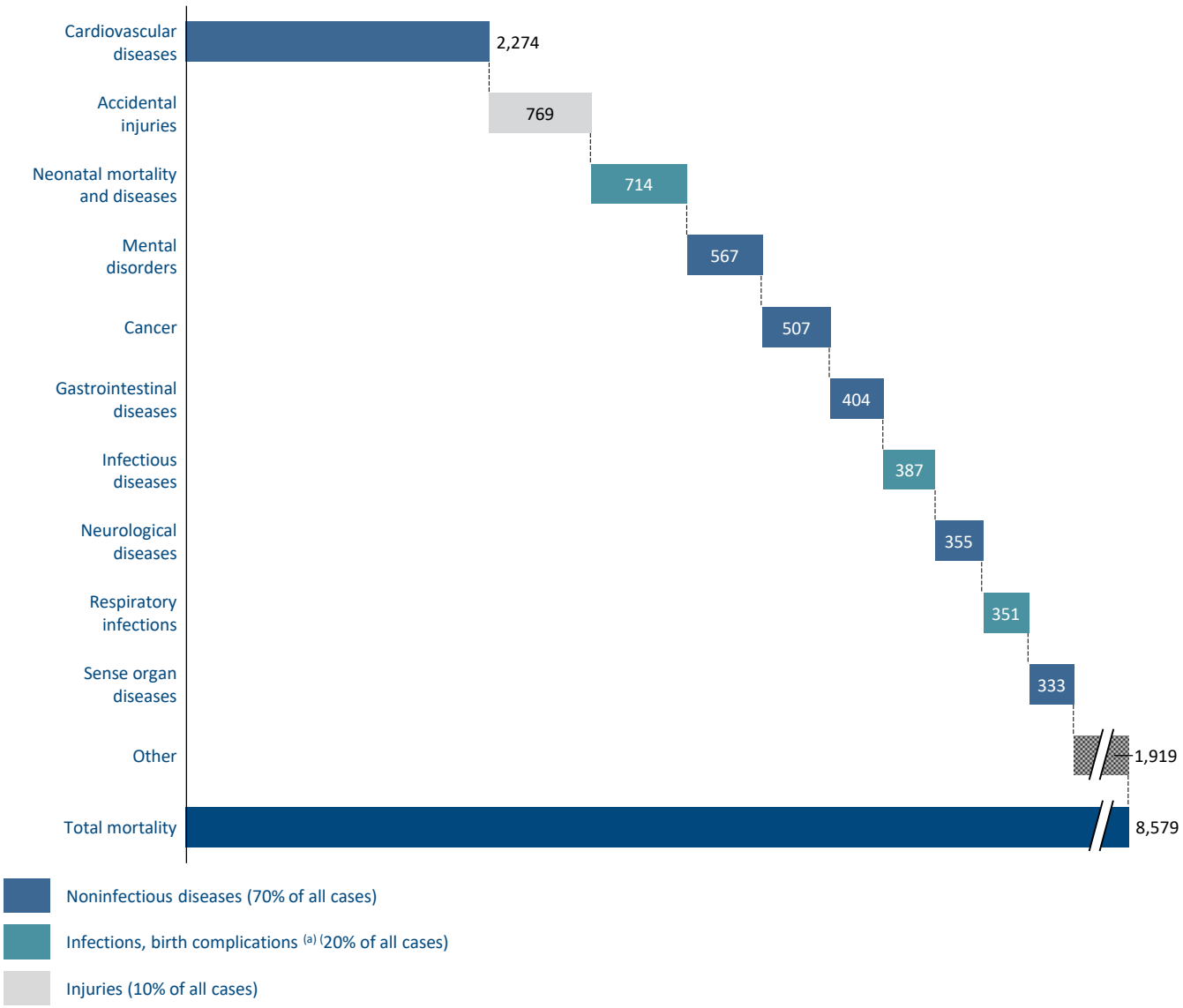
Comments

- **Uzbekistan has an average maternal mortality rate**. According to the WHO, 100% of births in the country are supervised by medical specialists.
  - The causes of deaths include bleeding (45%), infections (12%), and late toxicosis (5%)
  - The care of a doctor during pregnancy and the correct actions of medical personnel may prevent maternal mortality
- **Uzbekistan has a high neonatal mortality rate** (77 out of 183 countries). The main causes of neonatal mortality are complications after premature birth (44% of deaths), fetal asphyxia and birth injuries (42%), and neonatal infections (16%)

Note: based on the rating according to the World Health Organization; the rating is based on data for 181 countries

Current level of development

Number of years lost due to premature death and disability caused by disease (DALYs), thousand years, 2016



Examples

Methodology: "Disability-adjusted life years" was used to assess the morbidity level. This indicator is a linear sum of potential years of life lost due to premature death and disability

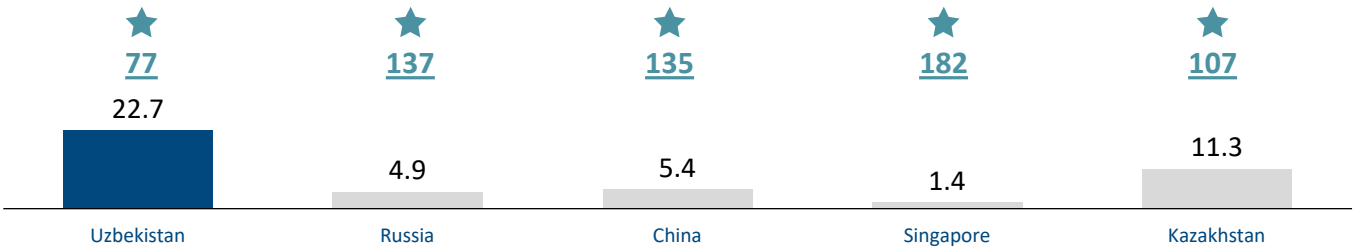
Note: (a) including birth complications as well as perinatal complications and nutritional disorders; (b) including house collapses, safety violations, etc.
Source: World Health Organization

Health care

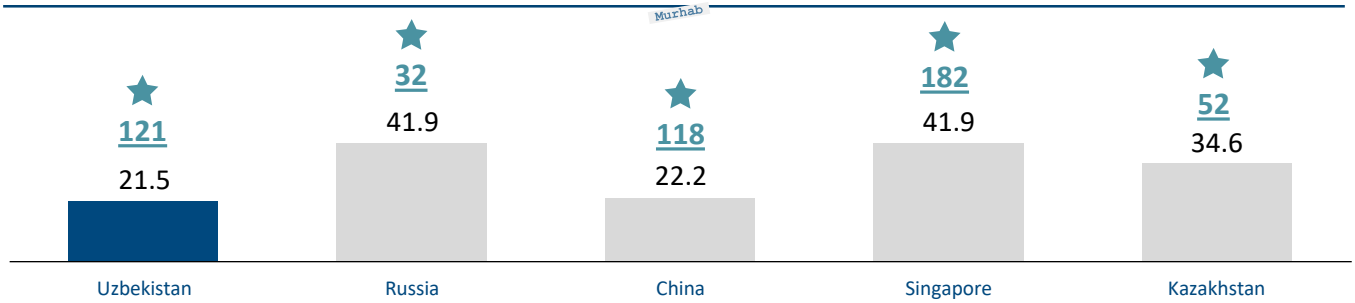
Current level of development

Number of years lost due to premature death and disability caused by cardiovascular diseases, per 1,000 people, 2016

Number of years lost due to neonatal mortality and diseases, per 1,000 people, 2016



Number of years lost due to premature death and disability caused by accidental injuries, per 1,000 people, 2016



127 Position in the international rating according to the World Health Organization

Comments

- **Uzbekistan is one of the top countries in the world rating according to prevalence of cardiovascular diseases**. 63% of cases are caused by coronary heart disease, 19% by stroke, and 11% **by** hypertension

- **Uzbekistan is also characterized by a high level of neonatal illnesses with a fatal outcome.** The main causes are complications after premature birth (44%), fetal asphyxia and birth injuries (31%), and neonatal infections (16%)

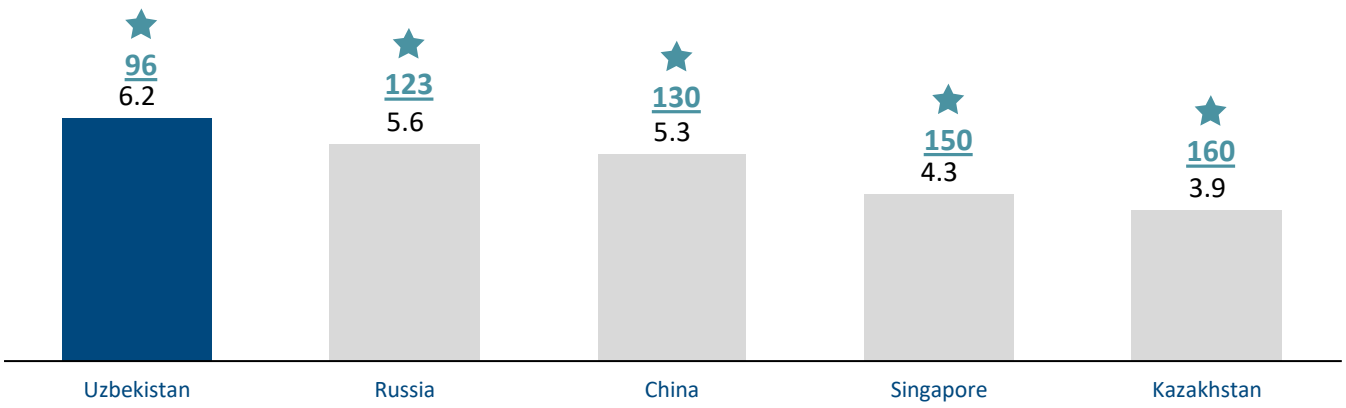
- **Accidental injuries also worsen quality of life.** The main causes include traffic accidents (27%), falls (21%), and drownings (10%)

Note: Rating according to the World Health Organization; the rating is based on data for 183 countries

Health care

Current level of development

Share of health expenditures in GDP1, %, 2015



Health expenditures[2] per capita, purchasing power parity index, 2015, international dollar

96 Position in the international rating according to the World Health Organization

Comments

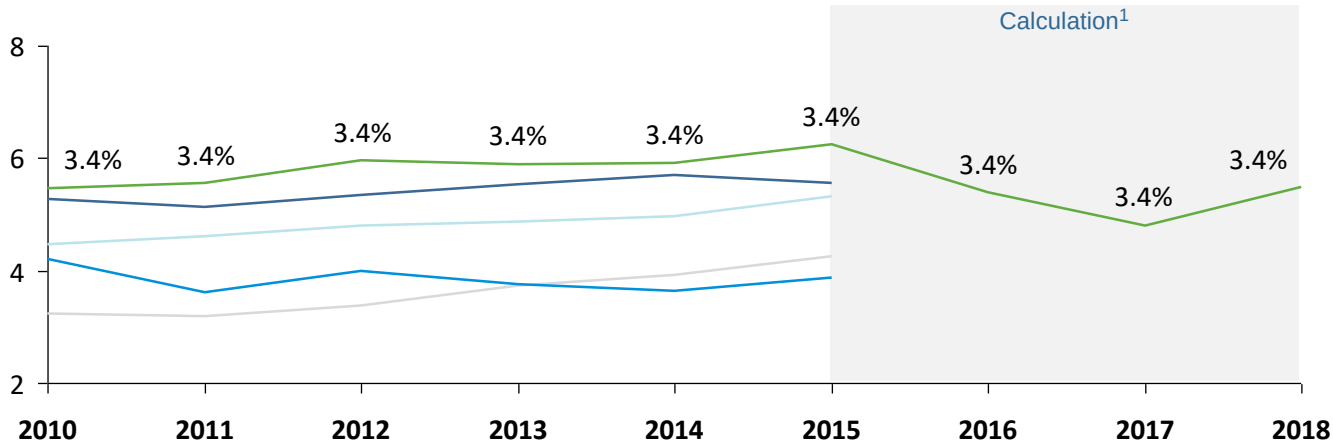
- The share of health expenditures in the country's GDP **is average** compared to 189 countries ranked by the WHO
- However**, the share of health expenditures per capita in Uzbekistan is lower** than in other countries
- Uzbekistan is also at a rather low level (122nd place in the rating) according to the health expenditure per capita rating, which was calculated based on purchasing power parity
- Uzbekistan's low position in the rating is partly explained **by the difference in GDP:** the volume of GDP of Uzbekistan is lower in comparison with many other countries participating in the rating, so health expenditures in monetary terms are at a lower level

Note: 1 = based on the World Health Organization's data, rating based on the data of 189 countries; 2 = includes private and public sector expenditures
Source: World Health Organization

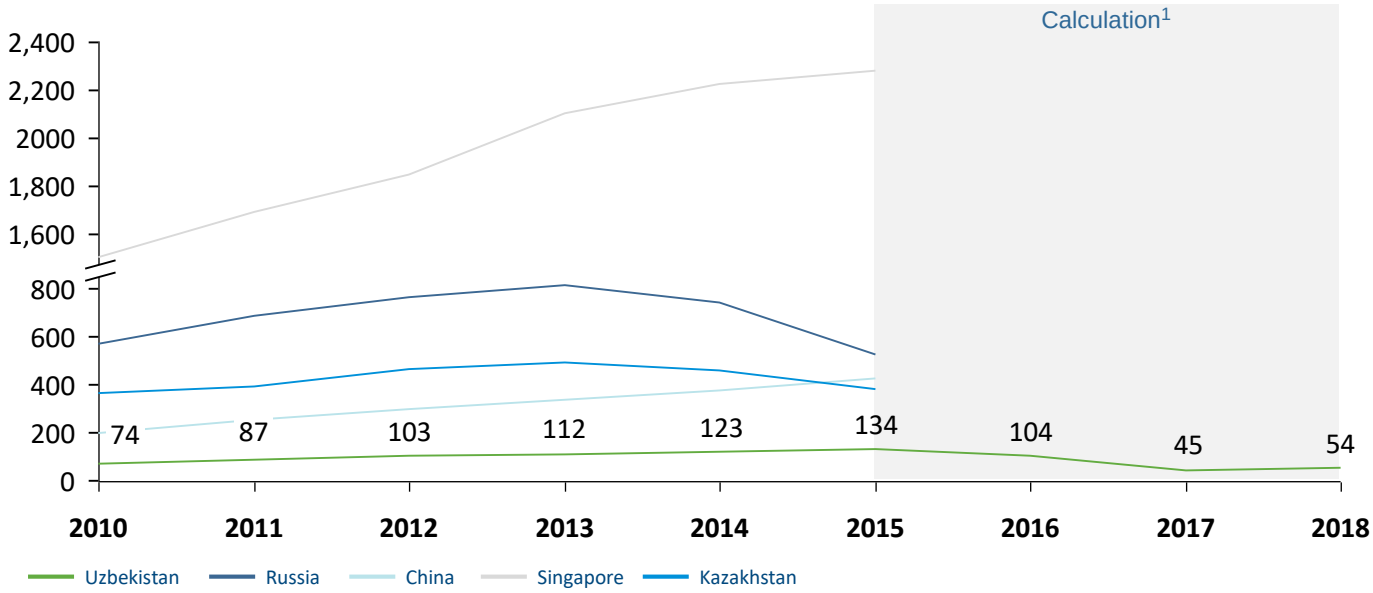
Health care

Current level of development

Share of health expenditures in GDP1, %, 2010–2015



Health expenditures[1] per capita, USD, 2010–2015



Comments

- Since 2010, health expenditures have been at 5–6% of GDP, **while health expenditures per capita for the 8-year period have been fairly low –** lower than in neighboring countries and developed Asian countries

- **In 2018, health care funding increased by 40%,** but when calculating the expenditures per capita in US dollars, the amount appeared to be quite small due to the fall of the Uzbekistani som against the US dollar. Real health expenditures per capita in Uzbekistani soms increased by 5% in 2018

Note: 1 = the calculation is based on data of the Ministry of Finance of the Republic of Uzbekistan, State Statistics Committee of the Republic of Uzbekistan, World Health Organization; the calculation is based on the assumption of the invariability of private sector expenditures since 2015; 2 = includes expenses of the private and public sectors
Sources: Ministry of Finance of the Republic of Uzbekistan, State Committee of the Republic of Uzbekistan, World Health Organization, Economist Intelligence Unit, data from open sources

Health care

Current level of development

Available services by care type

Primary care Consultation with general practitioners	Secondary care Consultation with doctors of relevant specializations	Tertiary care High-tech methods of diagnosis and treatment
Treatment of the most common diseases, injuries, poisonings, and other emergencies	Outpatient treatment of oncological, mental, infectious, and endocrine diseases, syphilis, AIDS and HIV, tuberculosis, drug addiction, leprosy, and radiation sickness	Cardiology
Examination and treatment of children		Oncology
Examination and treatment of adolescents 15–17 years old and draft-age persons (18–27 years) according to draft board orders	Treatment and diagnosis of skin, venereal, cardiovascular, urological, and orthopedic diseases and the consequences of injuries	Orthopedics
		Ophthalmology
Provision of obstetric services (except for paid institutions)		Traumatology and orthopedics
		Endocrinology
Immunization and vaccination against a number of infectious diseases	Neurosurgery, allergology, purulent, and surgical illnesses	Neurosurgery
		Cardiology
Acute care		Urology

Available free of charge to all citizens[a]

Available free of charge only to certain categories of citizens[a]

Comments

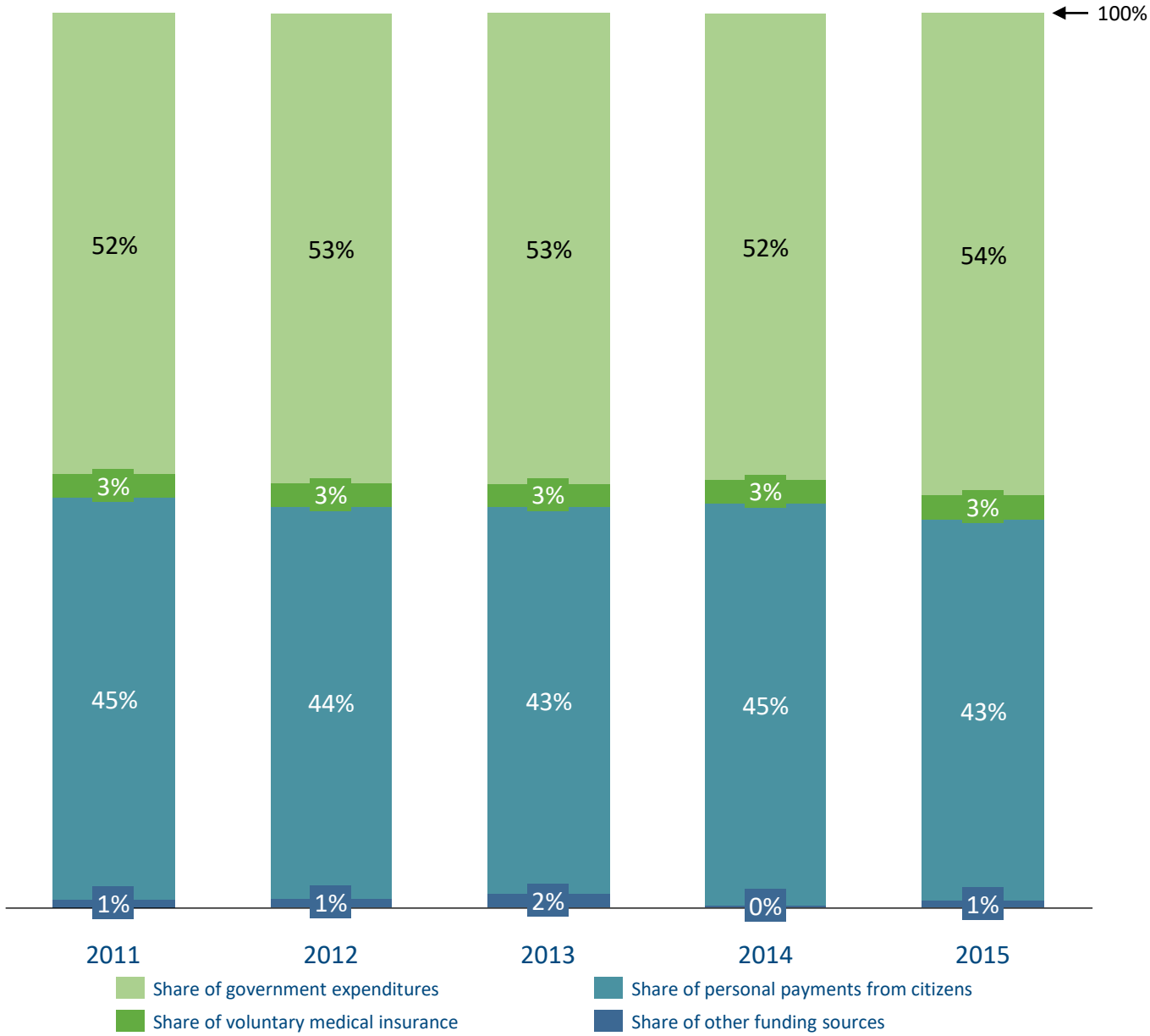
- Socially vulnerable groups of citizens have the right to receive free medical services of all categories
- Treatment of illnesses is not available to all categories of citizens. People may receive medical care only in case of a life-threatening emergency. Thus, **diseases are not prevented from worsening**
- A large number of paid services in the state sector can be a reason for **development of the informal sector**. According to experts, due to the practice of informal payments, primary care is paid for by the people in most cases
- In Uzbekistan, the share of the population's expenses on health care is high – payments for medical services make up 45% of all expenses

Note: (a) list of citizens to whom secondary and tertiary care is available free of charge:
- Elderly citizens living alone who need care
- Disabled persons of groups I and II, disabled children
- Legally incompetent and incapacitated citizens
- Persons with socially significant diseases (e.g., HIV)
- Orphans and children left without parental care
- Invalids and war and labor veterans of 1941–1945
- Other persons

Sources: Law of the Republic of Uzbekistan "On Protection of Citizens' Health," other regulatory acts

Current level of development

Share of expenditures by source type in total health expenditures, %, 2011–2015



Comments

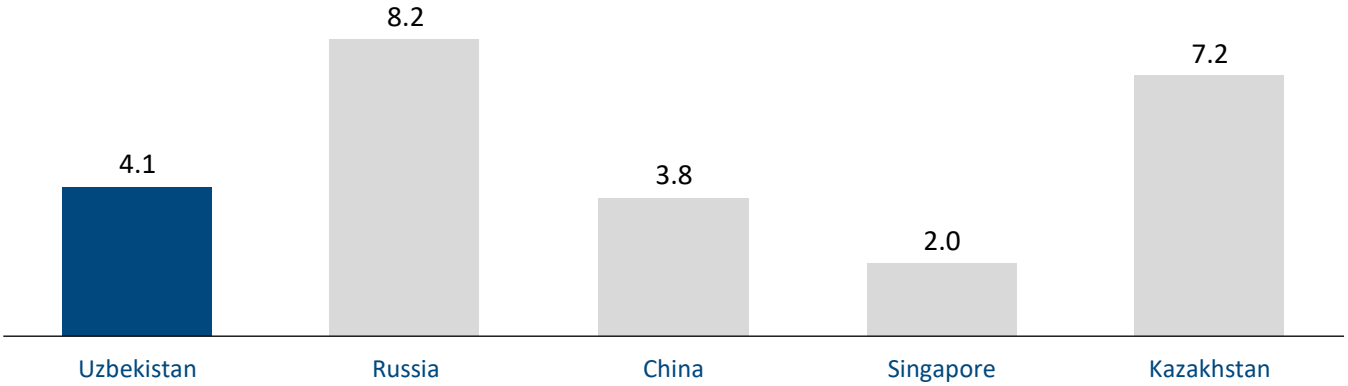
- **The structure of health expenditures has remained virtually unchanged since 2011**: government expenditures and private payments from citizens make up the majority of all expenditures
- Uzbekistan has introduced voluntary medical insurance, but it covers only 3% of total expenditures
- Since 2011, the voluntary medical insurance sector has not replaced other sources of health care funding

Sources: World Health Organization data

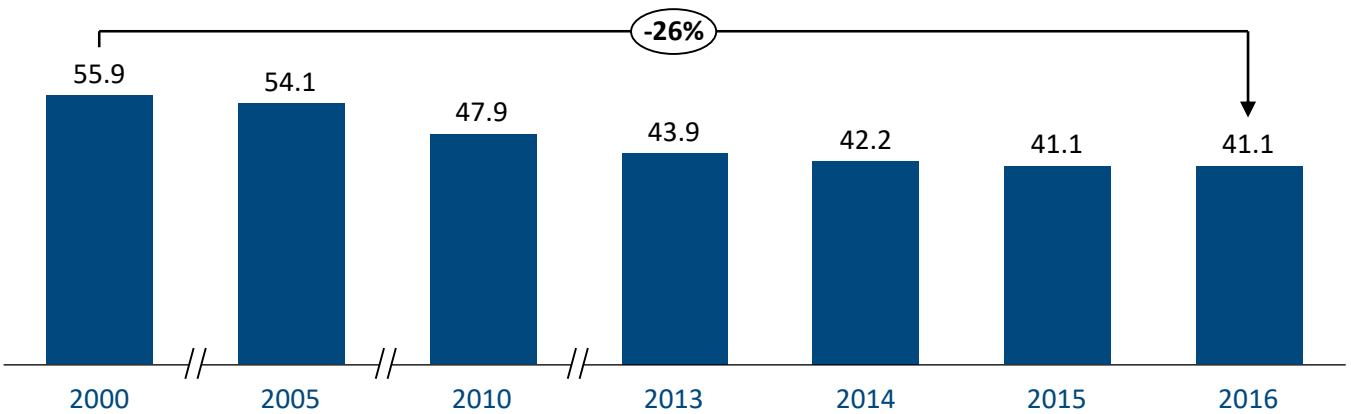
Health care

Current level of development

Number of hospital beds per 1000 people as of the last available date



Number of hospital beds in Uzbekistan per 10,000 people



Comments

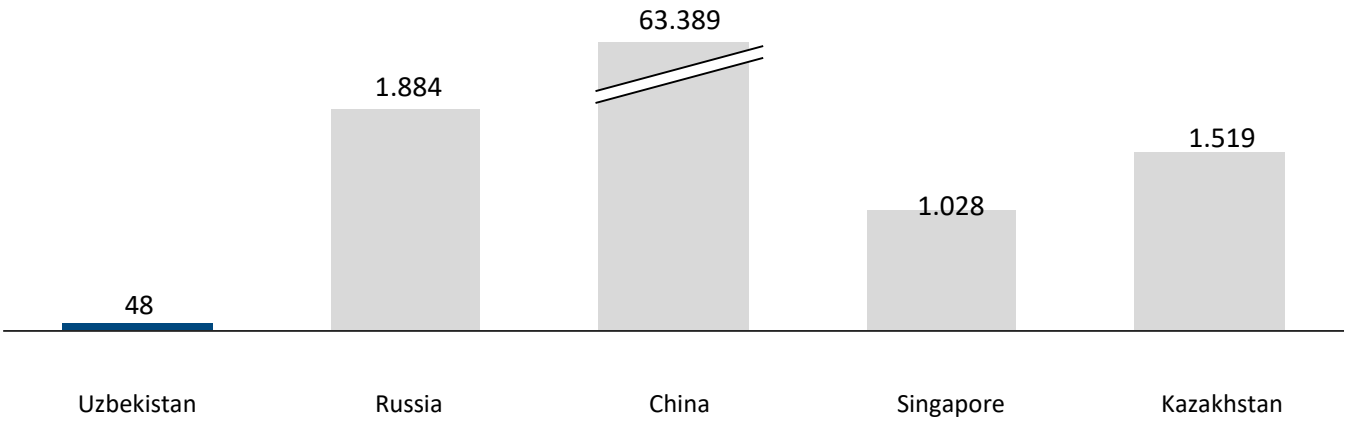
- **The number of hospital beds** (including emergency hospital beds) **per 10,000 people has decreased since 2000 both in Uzbekistan and in other countries of the region**
  - The available data reflects information on the number of hospital beds in Uzbekistan's public medical facilities that are financed from the state budget or from self-financing
  - Thus, **the number of hospital beds available free of charge is lower than the indicated values**
  - During the period of 1990–2016, **the hospital admission** rate for inpatient health care facilities per 100 people also **decreased gradually from 24.6 to 15.5 cases**
- The number of hospital beds must be considered along with their turnover ratios. **The turnover of hospital beds** reflects the effectiveness of management in the health-care system. For example, Singapore has the lowest number of hospital beds in medical facilities in the group of considered countries, but Singapore's medical system is characterized as highly effective[(b)]. Data on the turnover of hospital beds in Uzbekistan is not published in open sources, so it is **impossible to draw a conclusion about the effectiveness of hospital bed management in** medical facilities in the country.

Sources: World Health Organization, State Statistics Committee of the Republic of Uzbekistan, official website of the President of the Republic of Uzbekistan, data from open sources, analysis of the working group

Health care

Current level of development

Total capital investments in health care, USD million, 2015



Technical and technological equipping level (according to data from open sources)

Area	Evaluation	Comments
Information technology	✗	"Smart Medicine" program was launched in 2018
Electronic accounting or document management system	✗	Since 2017, information from medical records cards is entered into electronic databases, but there is no system for information exchange between healthcare facilities
Medical equipment	✗	Investments in purchasing equipment are insignificant

Comments

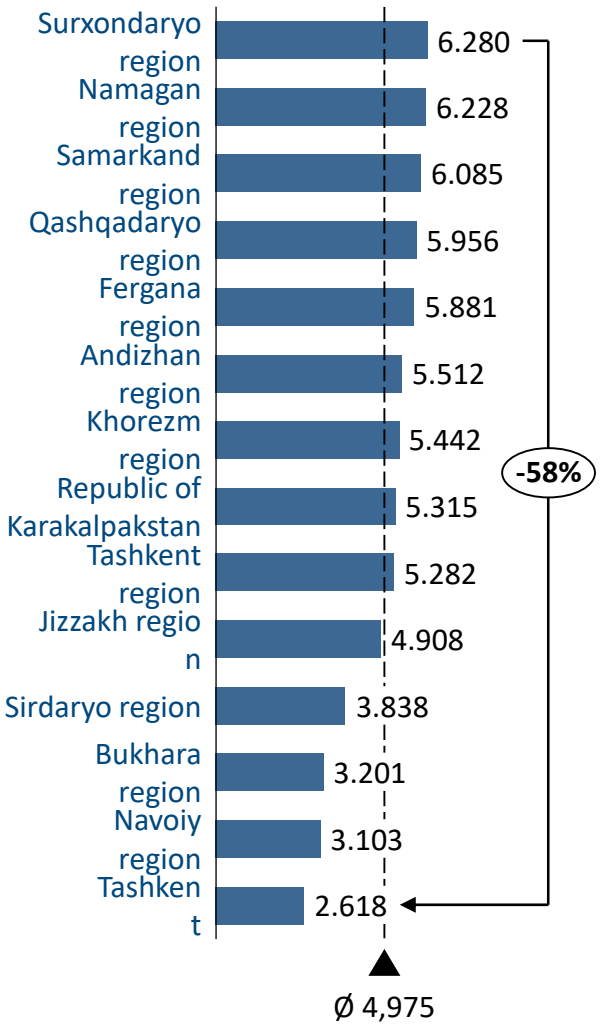
- Capital investments include costs for construction and purchasing equipment as well as repair works
- **The amount of capital investments in Uzbekistan is insignificant**. According to the official statistic data[1], in 2012–2015, they amounted to about USD 48 million annually on average, which was **much lower than in other countries.**
- Unlike countries with a more developed health care system, the Republic of Uzbekistan **has no organization that determines the list** of priority **drugs, medical equipment, and devices** for state procurement. Therefore, purchases are made using state funds, international loans, private capital, or through sponsorship The purchases made are insignificant in their volumes (e.g. in Kazakhstan, whose population is 2 times less, the volume of purchases is 400-600 times more)
- In 2018, a program for the development and implementation of information technology systems was adopted – "Smart Medicine" (system of remote communication between doctors and patients) and "Unified Medical Information Center" (unified digital database on patients' health)

Sources: World Health Organization, data from open sources

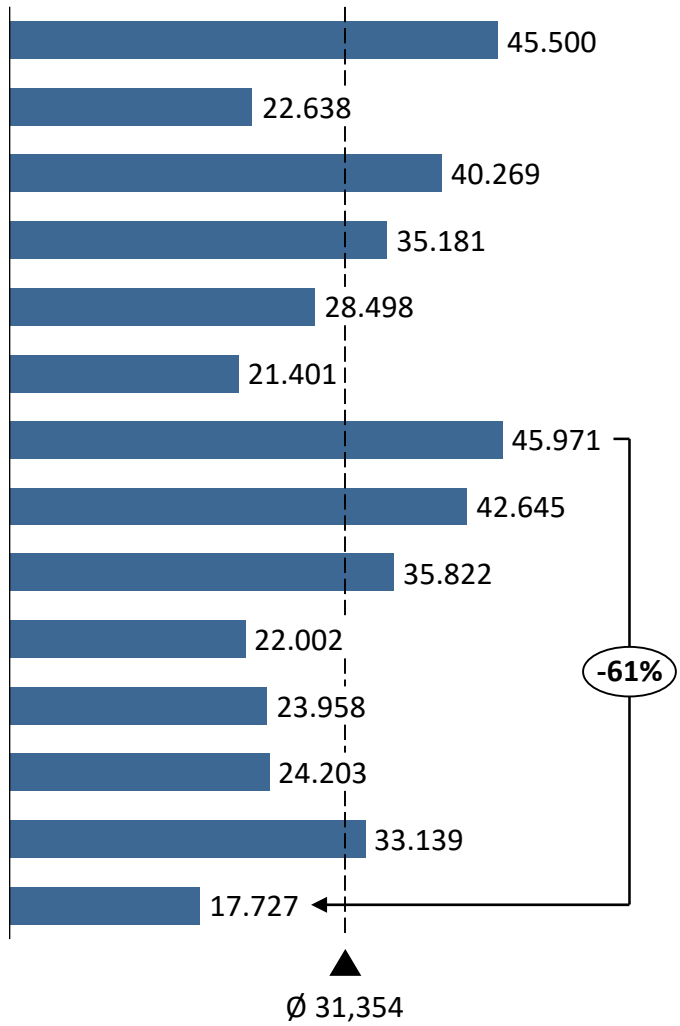
Health care

Current level of development

Number of people per one hospital, 2016



Number of people per one outpatient polyclinic, 2016



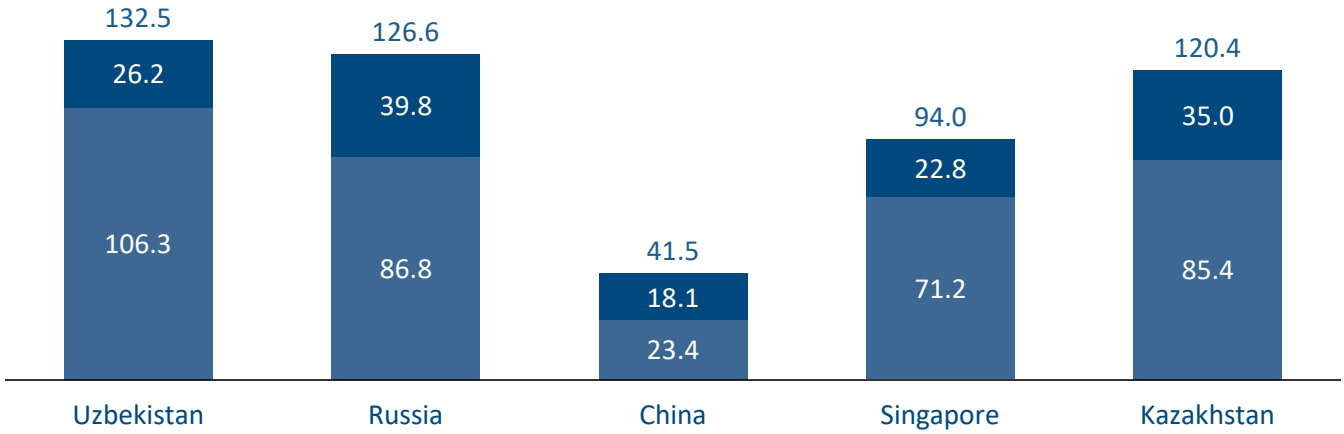
Comments

- The "hospital" category includes institutions providing inpatient treatment, the "outpatient polyclinics" category includes institutions providing primary care
- **The number of people per one hospital differs between regions**, the difference can reach 137%
- **The number of people per one outpatient polyclinic is also unevenly distributed across the regions**: the difference can reach 159%.
- The levels of population coverage with inpatient and outpatient health-care facilities by district do not correlate with each other
- **The capacity of outpatient health-care facilities** significantly differs by regions: the difference can reach 138%.
- Tashkent is the region with the highest level of population coverage

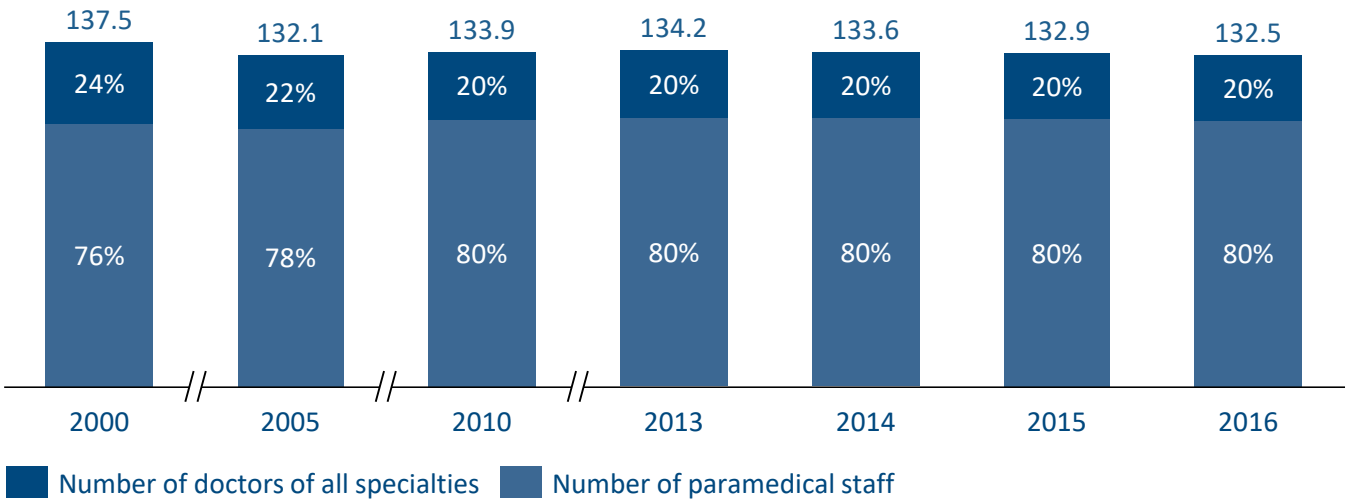
Sources: State Statistics Committee of the Republic of Uzbekistan, data from open sources
1 – Outpatient health-care facility

International experience

Number of doctors and nurses[1] per 100,000 people as of the last available date



Number of doctors and paramedical staff per 100,000 people in Uzbekistan, 2000–2016



Comments

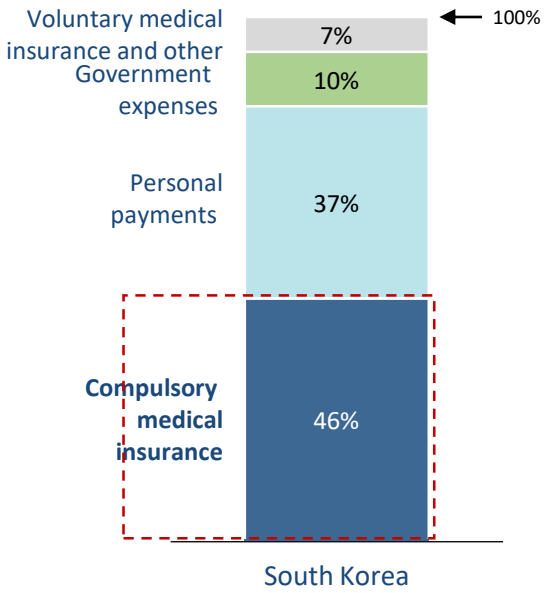
- Uzbekistan has the largest number of medical specialists per 100,000 people compared to other countries. For example, China suffers an acute shortage of medical personnel
- Uzbekistan is also characterized by the lowest share of doctors to nursing staff within the group of compared countries
- The number of medical specialists in Uzbekistan fell by 4%, and the number of doctors in the total number of specialists also decreased
- The **number of doctors per 10,000 people has decreased by 18%** since 2010. The same trend is observed in other CIS countries. Thus, in Russia this indicator fell by 20% in 2010–2015, and in Kazakhstan by 7% in 2010–2014.

Note: 1 – Paramedical staff include nurses, obstetricians, dentists, pharmacists, physician assistants, etc.
Sources: World Health Organization data, State Statistics Committee of the Republic of Uzbekistan, NCBI

Health care

International experience

Sources of health care expenses in South Korea, 2015



National Health Insurance Program

Working citizens and their relatives:

- Medical insurance that covers all working citizens and their relatives
- Working citizens deduct funds to a personal account that can be used by the payer themselves or their family
- The personal account is a savings account

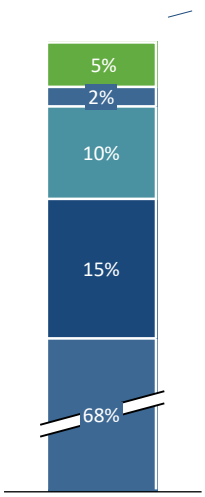
Pensioners

- After retirement, medical services are provided through a savings account and the government (15–20% of the cost of services)

Low-income groups

- The program covers expenses for unemployed and low-income citizens (the state pays the cost)

Sources of funding of the national insurance system, 2015



Other	
Tobacco companies	Tobacco companies must form 2% of the program's annual budget
Government	Deductions from collected taxes
Self-employed	Annual contributions depend on income, property value, age, etc. For citizens from rural areas, the amount of deductions is reduced
Employees and employers	Deductions from salary (about 5%) are divided equally between the employee and the employer

Comments

- South Korea's health care system is **dominated by the private sector**: almost all hospitals and 94% of inpatient facilities were owned by nongovernment owners in 2012

System achievements:

- 100% coverage of the population with health insurance

System disadvantages:

- The highest share of private expenses on health care among OECD countries due to a partial payment system: apart from medical insurance fees, people also pay for treatment, stays in outpatient healthcare facilities, medicines, etc.

Note: Data as of 2013 (NHIS Statistical Yearbook, 2013)
Sources: Korea National Health Insurance Service, International Medical Community, OECD Health Policy Overview, EIU

International experience

Canadian Institute for Health Information

The institute was established in 1994.
It is an independent nonprofit organization that centrally collects data on the health care system and the health of citizens in the country.
The institute has its own databases and own system of standards and reports. Its main partners are the Ministry of Health of Canada and Statistics Canada. The institute's databases can be used for research.
Monitoring medical statistics makes it possible to identify existing problems in health care.

In 2016, the institute released a report on hospitalization due to drug intoxication: 13 Canadians are hospitalized every day with symptoms of drug intoxication. At the same time, the elderly are hospitalized more often than other population groups, and the highest growth rate of drug intoxications is observed among young people. Canada is currently combating drug abuse.

Canadian Patient Safety Institute

The institute was established in 1994. It is a nonprofit organization that aims to support and spread the best practices in the medical field that will help improve patient safety.
According to the Commonwealth Fund's forecasts, over the next 30 years, every year in Canada, 400,000 cases related to the violation of patient safety will occur. This will create an additional burden on the health-care budget in the amount of USD 2.75 billion.
Patient safety includes the safety of medicines, surgical operations, treatment at home, and the prevention of infectious diseases.

Activities of the institute:

1. Improvement in safety: creation of a mechanism to collect information on best practices and then use this information.
2. Wider coverage of information on the patient safety in the media
3. Implementation of standards and legal practices to improve patient safety
4. Creation of a unified network of interaction of state bodies

Financing is provided at the cost of the Ministry of Health of Canada

Sources: Canadian Patient Safety Institute, Canadian Institute for Health Information, the Commonwealth Fund

International experience

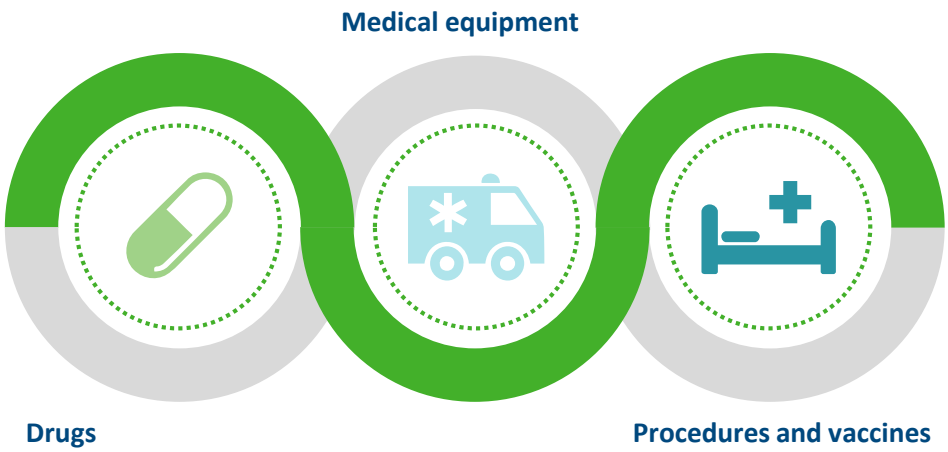
CADTH

Canadian Agency for Drugs and Technologies in Health (CADTH) is an independent non-profit organization founded in 1989 by federal, provincial, and territorial governments of Canada. It is responsible for providing unbiased information to the designated persons for making informed decisions on the best use of health care technology. CADTH uses the Health Technology Assessment as its methodology.

Health technology assessment

Health Technology Assessment (HTA) is the process of studying clinical, economic, and social consequences of the development, distribution, and use of medical technologies. HTA allows one to choose the most clinically and economically optimal choice of several medicines. Also, the results obtained during the technology assessment may be used for determining the economically optimal price of a drug in negotiations with pharmaceutical companies. The main task of HTA is to inform persons who make decisions of the consequences of implementing health care technologies.

Health technologies include:



Today, health technology assessment is used in making decisions on funding in all developed countries of the world (USA, England, Europe, Australia, etc.). This approach allows one to make the process of decision-making on project funding and the tendering process in healthcare more transparent, and it saves billions dollars of state funds.

The economic effect from the implementation of just 10 projects, whose priority was determined with the help of HTA, amounted to GBP 3 billion annually in Great Britain.

HTA process in Uzbekistan

Diagram of the creation of the HTA process in Uzbekistan

1 stage

Educational component:
Training personnel for clinical and economic assessment of drugs and medical devices.

- Educating young scientists and specialists of the Ministry of Health
- Establishment of a laboratory or "HTA and pharmoeconomics" department in universities. Preparation of a textbook for economic assessment of HTA

2 stage

Institutional component:
Creation of a structure (Health Technology Assessment (HTA) Center) elaborating recommendations for the Ministry of Health about the priority of financing drugs and medical devices from the state budget

- Creation of a structure (HTA Center) with staff trained in the educational component
- Establishment of an Expert Board consisting of leading clinical specialists for elaboration of recommendations about the priority of health-care technology financing.
- Conducting economic assessment of the health-care technology under consideration, preparation of systematic reviews of clinical evidence, and calculation of volumes of financing for its implementation.

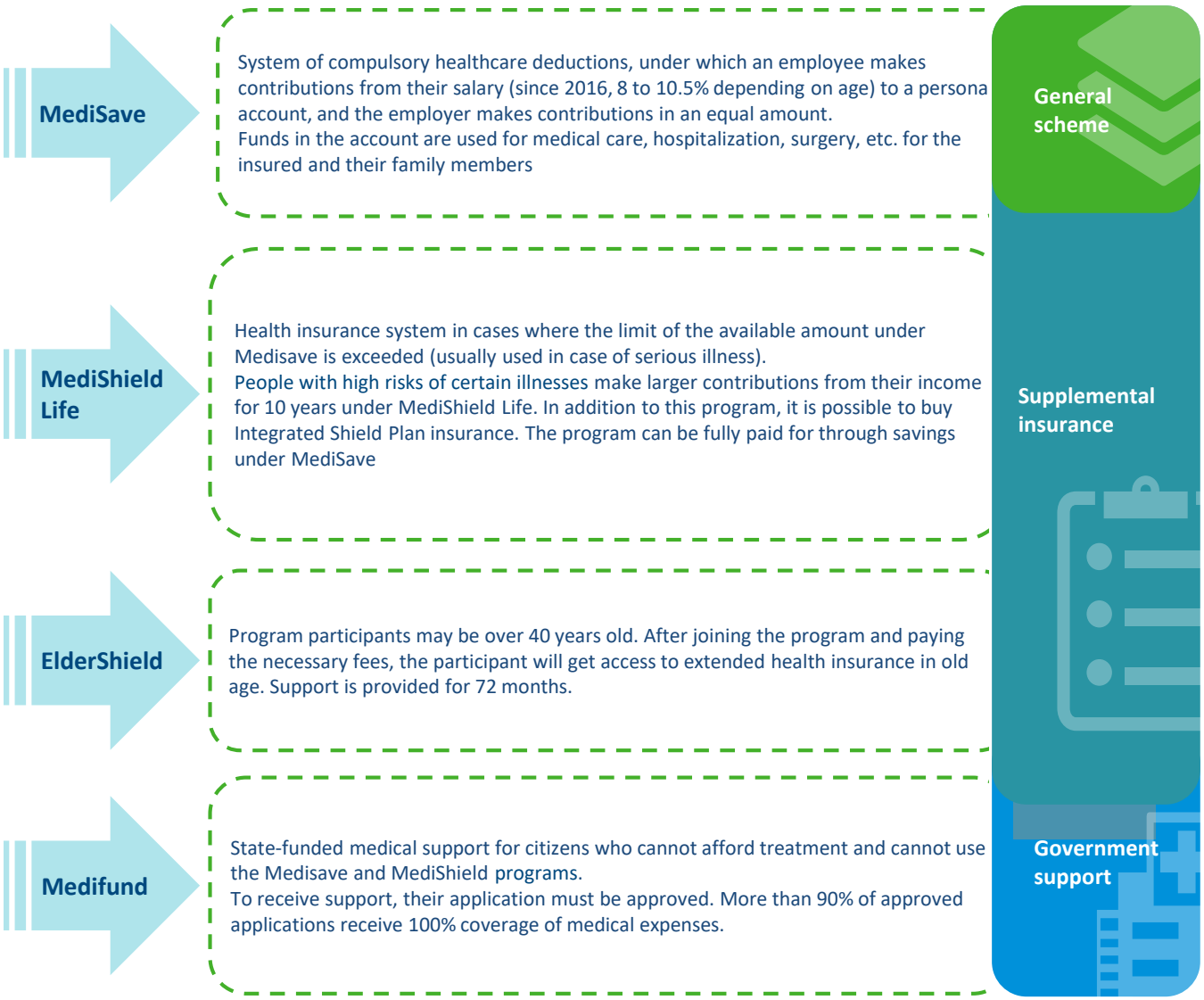
What makes HTA different from the existing system?

Indicators	Current practice	Health-care technology assessment
Experts to be retained for assessment	Chief specialists, clinical pharmacologists, principal clinicians (at best; and nobody, at worst)	Experts in clinical epidemiology, statistics, economists, principal clinicians.
Assessment duration	1–3 months	6–12 months
Materials to be assessed	Documents (study data) provided by drug manufacturers	Results of the systematic review + documents provided by drug manufacturers
Procedure	Opaque and indefinite	Formalized, uniform for all participants of the process and transparent.
Results	Unstructured report	Systematic review of clinical and economic evidence; economic model.
Budget effect analysis	None	Volume and substantiation of state resources necessary for implementation of the technology
Making a decision about financing	Subjective opinion	Impartial opinion based on scientific evidence and the results of clinical and economic assessment.

Sources: analysis of the working group

International experience

Health care funding system in Singapore



Capital health care expenditures are funded from the state budget

Sources: CPF Singapore, Vox, analysis of the working group

International experience

Health care funding system in China

Category	Problem	Resolution
Basic medical insurance for urban workers	• Lack of access to medical insurance for family members of an employee. Lack of mandatory accession to the medical insurance system	• Insurance coverage was expanded: the insurance program included non-government sector employees, self-employed individuals, and unofficially employed persons • The state funded a program to support the most disadvantaged groups of the population in the event of unforeseen medical expenses
Cooperative medical insurance system for rural residents	• The cooperative system of the rural economy practiced in the 20th century ceased to exist in the 1980s, after which the share of insured persons fell to less than 10%. In the 1990s, 65% of the rural population in need of hospitalization were not hospitalized. Low-income citizens could not afford to pay for insurance	• A new system was partially funded by the state and covered all family members
Basic medical insurance for urban residents	• Urban residents without official employment were not covered by insurance	• A new system was funded partly by citizens and partly by the government – subsidies from the central office and local government accounted for 36%
Basic medical insurance for migrant workers	• Migrant workers – citizens migrating from rural to urban areas – did not fall into any of the insurance categories	• Local authorities were required to provide medical insurance to all migrant workers. The sources of funding were insurance contributions from an employee and/or an employer, and for low-income migrants, subsidies from local governments

Result of the program: increased number of people provided with free medical care

Medical insurance coverage
2002: 55.2% of the urban population
2002: 20.9% of the rural population
2009: 94% of the rural population

International experience

Health care funding system in Southeast Asian countries

China

- In 2010, the government established a scholarship for rural medical workers. Participants of the program received a five-year free medical education and a monthly stipend for the next 6 years of work in rural areas. Since 2010, 5,000 students have taken part in the program each year. 90.7% of the program participants met the conditions and worked in rural areas, while only 2.8% of students who did not participate in the program moved from cities
- In 2008, the government launched a program for doctors who work in rural areas. They are paid 20,000 yuan (about USD 3,000). According to the results of the program, 1,080 doctors were employed in 828 local medical centers
- From 2009 to 2013, the government has subsidized training programs for doctors in rural areas. Since 2010, the government has funded the development of medical infrastructure to improve the working conditions of doctors

Vietnam

- In Vietnam, the government launched development programs along with funding and support mechanisms
- In 2012, there were 1,816 training programs implemented in the country, mostly in rural areas
- From 2009 to 2014, the government issued laws to support medical specialists in rural areas. For example, medical workers in rural areas could receive a 70% increase in wages for the first 5 years of work in rural areas. According to a law adopted in 2014, medical workers who had worked in rural areas for more than 2014 years could obtain the status of civil servants (stable and promising work in Asian countries)

Thailand

- In 1968, Thailand introduced a period of mandatory work in rural areas for graduates of state-funded medical institutes. The duration of such work was 3 years for doctors and dentists and 2 years for paramedical staff

Cambodia

- In Cambodia, the government offered midwives USD 15 in medical centers and USD 10 in hospitals for each successful delivery
- Health-care institutions had the right to spend 60% of collected revenue to attract medical specialists to the rural area
- In 2012, the government with the participation of sponsors established the Health Equity Fund to pay for health services for low-income groups of the population
- Part of the fund's money was spent to improve the working conditions of medical personnel in rural areas
- Also, medical workers in rural areas had access to grants from international organizations
- In 2012, the Cambodian government announced that all medical workers were granted the status of civil servants

Note: data from open sources

Health care

Digitalization in the experience of Kazakhstan

- Time and cost saving
- Early detection of diseases
- Improving the quality of life
- Decreasing "unnecessary" visits
- Improving the quality of medical aid
- Elimination of the "first come, first served" principle
- More time for the patient

Economic effect

Keeping patient-specific record of drugs
Savings on the procurement of drugs

7%

294 million

Efficient use of budget funds for provision of medical aid
Extending the scope of services without changing the resource base

8.6%

Decreasing fee-based services in regional diagnostic centers

6%

Decreasing costs through digital data exchange and decreasing research duplication

311 million

Eliminating inefficient labor of healthcare specialists

200 units

216 million

Saved in 2018 by the Ministry of Health of the Republic of Kazakhstan due to ***digitalization***

KZT 38.2 billion

Sources: www.krg.dmed.kz
Website: https://bnews.kz/ru/news/38_mlrd_tenge_za_schet_otkaza_ot_bumagi_i_perehoda_na_tsifrovizatsiu_sekonomil_minzdrav_rk?fbclid=IwAR3QtL7o-N6FGCiq-KQszpiXmAhltjRDnmUNRzqEJHVr93JyUtCobfgYvfA

Health care

Strategic options

1

High share of state participation

Provision of services by the state; funding through tax revenues; the private sector and private insurance meet only the needs of the wealthy

Examples of countries:


UK


France

+

- High availability of the health care system for low-income groups

–

- Quality of health care depends on the amount of tax revenues
- High risks of being provided low quality services, especially in secondary and tertiary care
- Low level of overall innovation development of the system

Guaranteed support for all groups of the population[1], but with limited opportunities to receive high-quality services

2

Target development option

Mixed model

Development of private service providers while maintaining state service providers for the low-income population; creation of a national insurance system and development of private insurance; creation of conditions for the development of science and innovation

Examples of countries:


Canada


Germany

+

- High accessibility to the health care system
- Uniform quality at all stages of health care

–

- Low development of the private sector
- Low development of private financing institutions

Wide scope of the population provided with health care, with stable quality

3

High share of private sector participation

Provision of medical services is fully delegated to private companies; funding is performed through private insurance companies or payment from citizens; state support is provided only for the low-income population through mechanisms for co-financing expenses

Examples of countries:


USA

+

- High quality of service, especially in secondary and tertiary care
- The state as the main regulatory body

–

- Incomplete medical coverage
- High cost of medical services
- Primary care is poorly developed (since it is less profitable)
- Poorly developed disease prevention

Low accessibility to health care, with high quality

Sources: data from open sources, analysis of the working group.
Note: 1 = subject to a sufficient number of health care facilities and specialist doctors

Health care

Target vision 2035

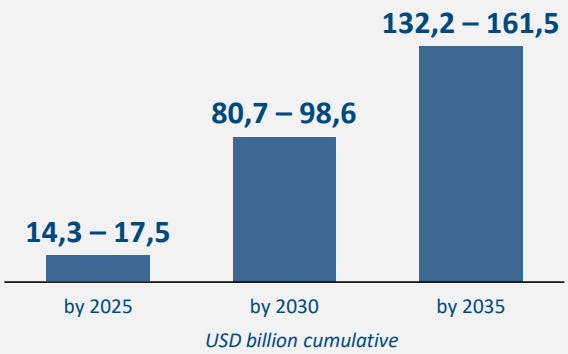
Affordable high-tech medicine based on the developed system of funding, high-quality education, and effective management

- Introduction of compulsory medical insurance and development of voluntary medical insurance
- Ensuring access to health care in rural areas
- Infrastructure upgrades (repairs, equipment)
- Implementation of IT tools
- Development of education of doctors and medical workers
- Increase in compensation and social package for doctors (not lower than the average market salary)
- Involvement of the private sector; development of private-public partnership (PPP) (up to 80%)
- Development of regulation of medical science and research procedures (GCP, project financing)
- Creation of conditions for innovative development of medicine (tax havens for R&D)
- Creation of highly innovative medical care centers
- Creation of the Health Technology Assessment process to secure the transparency of state procurements
- Development of cooperation with international organizations, in particular the International Society for Pharmacoeconomic Research and Results Assessment (ISPOR)

Figures

	2017	2035	CAGR
Health expenditures per capita *, USD, [(a)]*	45	1000	19%
Life expectancy at birth, *years[(b)]*	72.3	80	0.6%
Child mortality, *number of deaths of children under the age of 5 years per 1,000 births[(c)]*	24.1	< 10	
Share of health care expenditures through personal payments by citizens, *%*	43%	< 20 %	

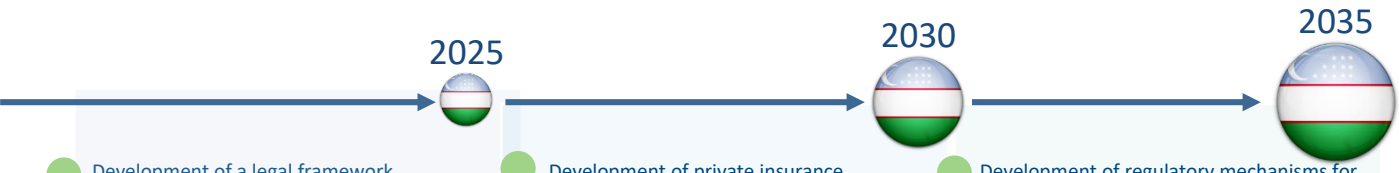
Health care funding



Note: (a) estimated data for 2017, (b), (c) data for 2016, (d) data for 2015
Sources: Ministry of Finance of the Republic of Uzbekistan, State Committee of the Republic of Uzbekistan, World Health Organization, Economist Intelligence Unit, data from open sources, analysis of the working group

Health care

Key strategic initiatives



2025

- Development of a legal framework (determination of the guaranteed volume of care, implementation of international regulatory acts, etc.)
- Development of clinical standards and other regulatory acts necessary for introduction of an insurance program
- Preparation for the implementation of compulsory health insurance, pilot launches, launch of CHI
- Increase in wages and benefits for doctors
- Increase in healthcare affordability for low-income population groups and people living in regions
- Implementation of a Code of Ethics for doctors that regulates the rules of work of medical workers and also restricts their cooperation with pharmaceutical companies
- Creation of a national plan for the prevention of key illnesses (e.g., cardiovascular disease)
- Elaboration of a policy governing the approach to treatment of chronic illnesses
- Development of a program for HIV/AIDS prevention
- Development of the educational and institutional components of the health-care technology assessment process

2030

- Development of private insurance
- Development of medical liability insurance (for doctors)
- Development of infrastructure (funds, agents) for financing private health-care providers on the basis of compulsory medical insurance
- Development of PPP tools within the projects on construction of new clinics
- Introduction of licensing of doctors' work and a remuneration system based on establishing wages depending on the performance result
- Introduction of a system for retraining medical personnel
- Creation of conditions for the development of private health care providers
- Development of regulatory bodies related to health care
- Development of education (attracting international specialists, upgrading equipment, creating conditions for advanced training)

2035

- Development of regulatory mechanisms for medical science and research procedures
- Creation of conditions for innovative development of medicine (technology parks, benefits for research centers, involvement of foreign R&D centers)
- Attraction of investments in the technological development of medicine
- Optimization of the network of medical and preventive institutions; elimination of the least effective ones
- Creation of highly innovative health care centers (innovative neonatal centers, etc.
- Integration of Uzbekistan's medical universities into a system of international alliances; advanced training of doctors at international centers
- Creation of the Health Technology Assessment process at the level of the regions and health care facilities
- Infrastructure updates (capital repairs, construction, equipment purchases)
- Introduction of IT tools for disease recording and creation of unified republican databases
- Development of high-tech infrastructure
- Widespread introduction of electronic medical charts
- Development of science (increasing funding of scientific activity in medicine; recruiting international specialists to work in Uzbekistan's medical universities both for teaching and research)

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

3.2

Social policy

Social development

Social policy

Current level of development

Key challenges

- Low level of expenditure on social support programs
- High poverty rate: 10% of the population lives in extreme poverty
- High unemployment; support measures only partially solve the problem
- Lack of environment conducive for people with disabilities
- Number of people in need may be higher than officially registered
- Nonfinancial support system is not developed
- High crime rate
- Discrimination against women

Key findings

- **The model for** social protection in Uzbekistan **does not correspond to the current state of the economy**
  - The priority of the government **– a high level of social support** for all citizens – is difficult **to achieve due to budget constraints**
  - Uzbekistan places an emphasis on **financial support of people in need,** while developing countries pay much attention to non-financial support mechanisms
- **There is no unified centralized system** of all areas of social support in Uzbekistan
  - **There is no unified body** to regulate, manage, and coordinate social sector activity: these functions are divided between the Ministry of Finance and the Ministry of Health
  - **Criteria** for selecting the recipients of social support **are not established in accordance with international standards**
  - **There are no objective statistics** on the number of people in need of such support

	Scandinavian model		Uzbekistan model		Asian model
State's role	Protection of the population		Social development		Ensuring economic growth
Support objectives	Support for all population groups	←	Support for all groups with focus on pensioners		Support for the most needy
Taxation level (share of tax burden)	**60%**	←	**40%**		**10%**
Share of budget expenditures in social sphere[a]	**20–25%**	←	**22%[a]**		**5–10%**
Amount of social expenditures per capita	**10–13** USD thousand million		**131** USD [b]	→	**2–4** USD thousand million
Leading support institutions	State	←	State		Private companies
Key support tools	Financial	←	Financial		Nonfinancial

Note: (a) excluding pension fund expenses, (b) including pensions
Sources: OECD, Ministry of Finance of the Republic of Uzbekistan, State Statistics Committee of the Republic of Uzbekistan, data from open sources, analysis of the working group

Social policy

Current level of development

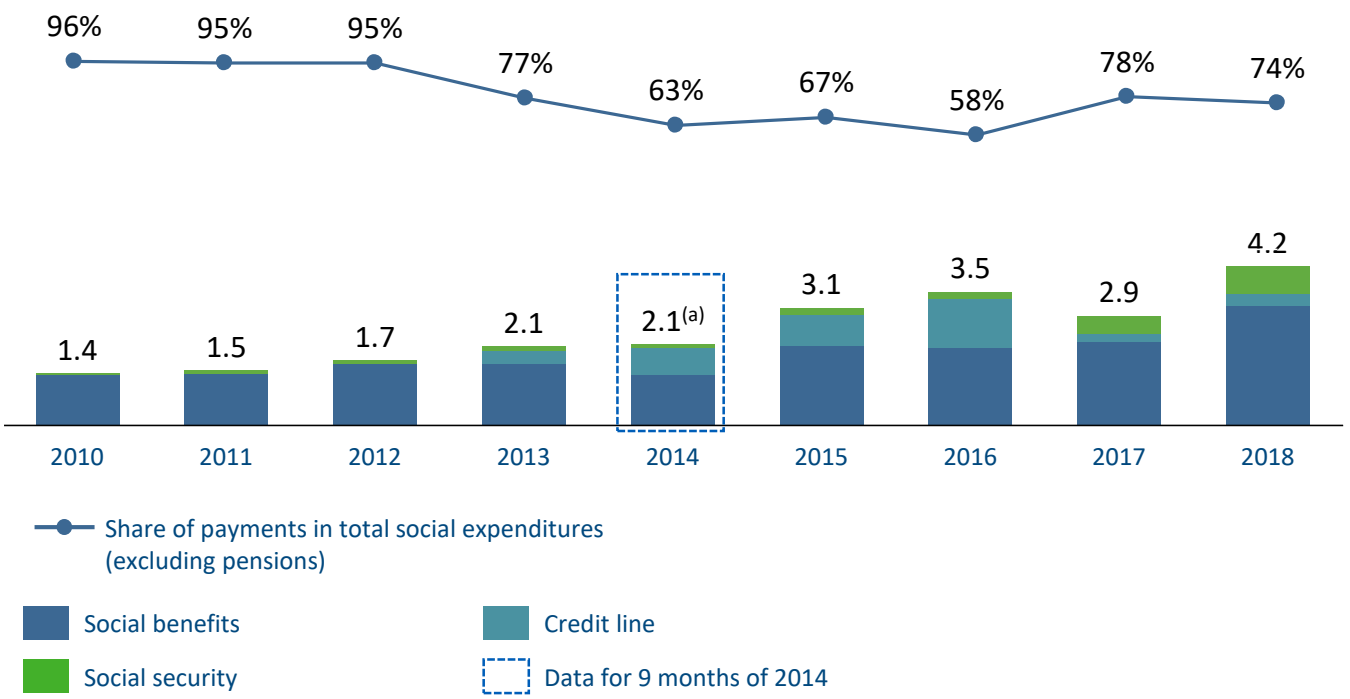
Most of the social spending is aimed at providing financial measures of social support, which does not correspond with the trends in countries with growing economies

Financial measures: direct payments and benefits to recipients of social support (unemployment benefits, maternity benefits, discounted rates for housing and utility services, etc.)

Non-financial measures: provision of services to recipients of social support (training and consulting for successful employment, etc.)

Social expenditures from Uzbekistan's state budget by category of expenditures,

UZS billion



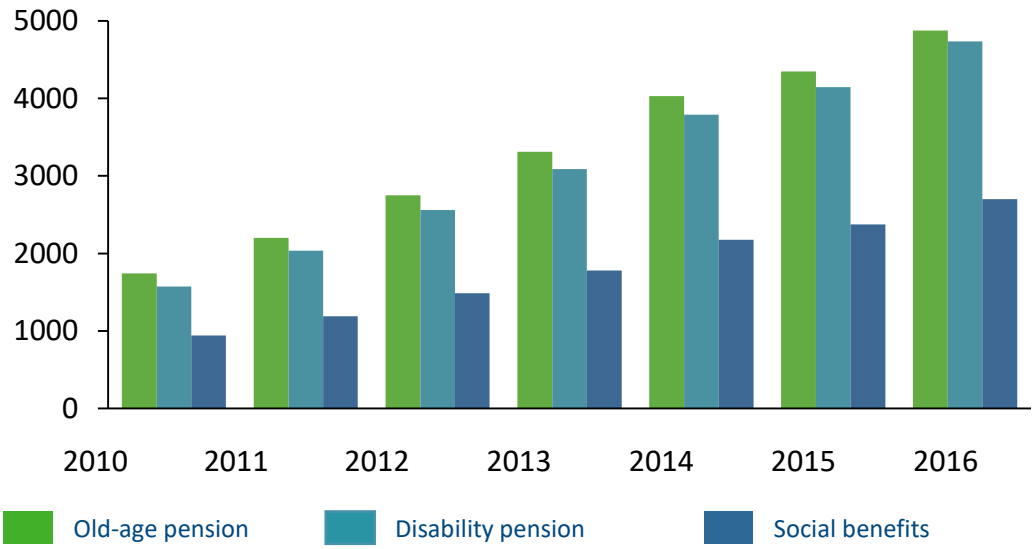
Source: Ministry of Finance of the Republic of Uzbekistan, People's Bank of the Republic of Uzbekistan, Gazeta.uz, data from open sources, analysis of the working group

Social policy

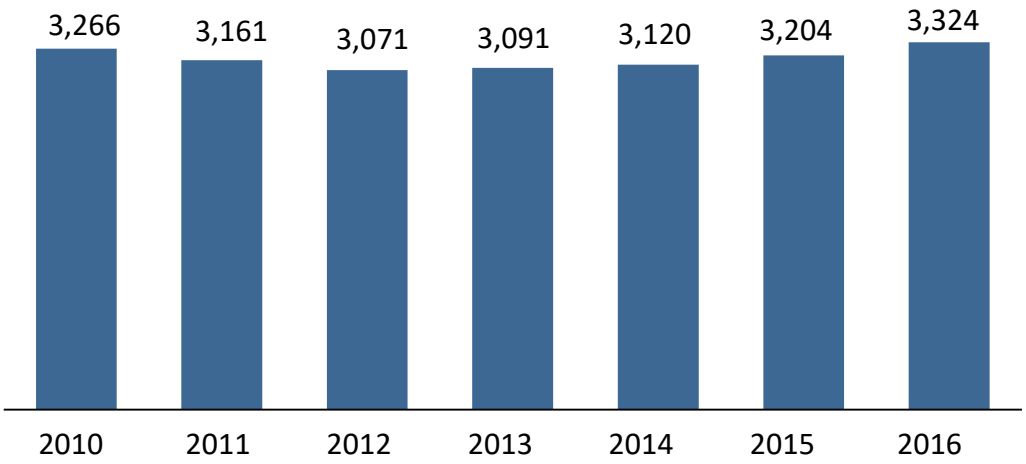
Current level of development

The volume of social payments in the Republic of Uzbekistan is increasing due to growth in the amount of social benefits and not due to growth in the number of recipients

Average amount of social benefits, UZS



Number of persons receiving pensions and social benefits, thousand people



Comments

- The average amount of social benefits more than doubled. At the same time, the number of people receiving social benefits increased by only 2%
- Thus, the increase in the payment amount is not due to an increase in the number of recipients of benefits but due to an increase in the size of social payments

Source: Ministry of Finance of the Republic of Uzbekistan, People's Bank of the Republic of Uzbekistan, Gazeta.uz, data from open sources, analysis of the working group

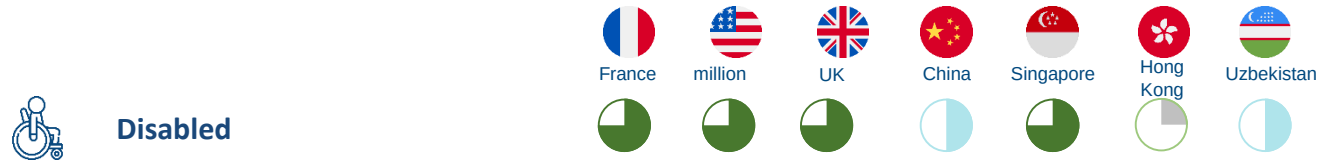
Social policy

Current level of development

Developing countries focus on several groups of recipients of support.

Recipient groups of social support in world practice

Social support focus on recipient groups

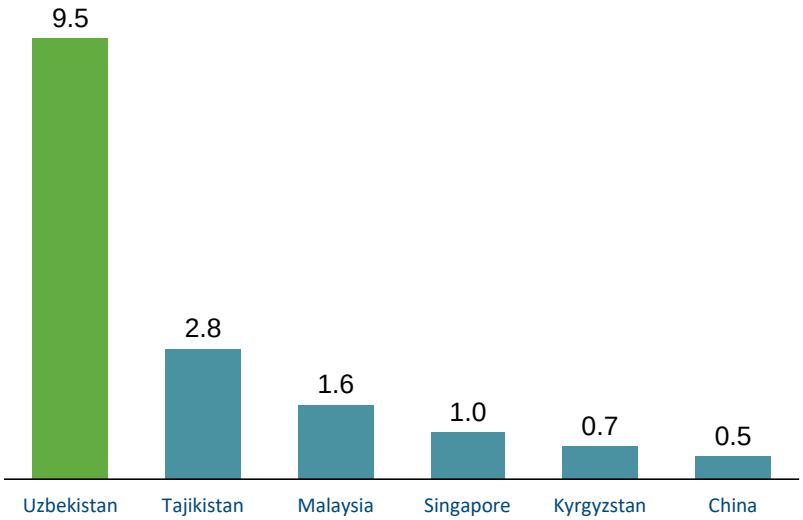


Source: Ministry of Finance of the Republic of Uzbekistan, People's Bank of the Republic of Uzbekistan, Gazeta.uz, data from open sources, analysis of the working group

Social policy

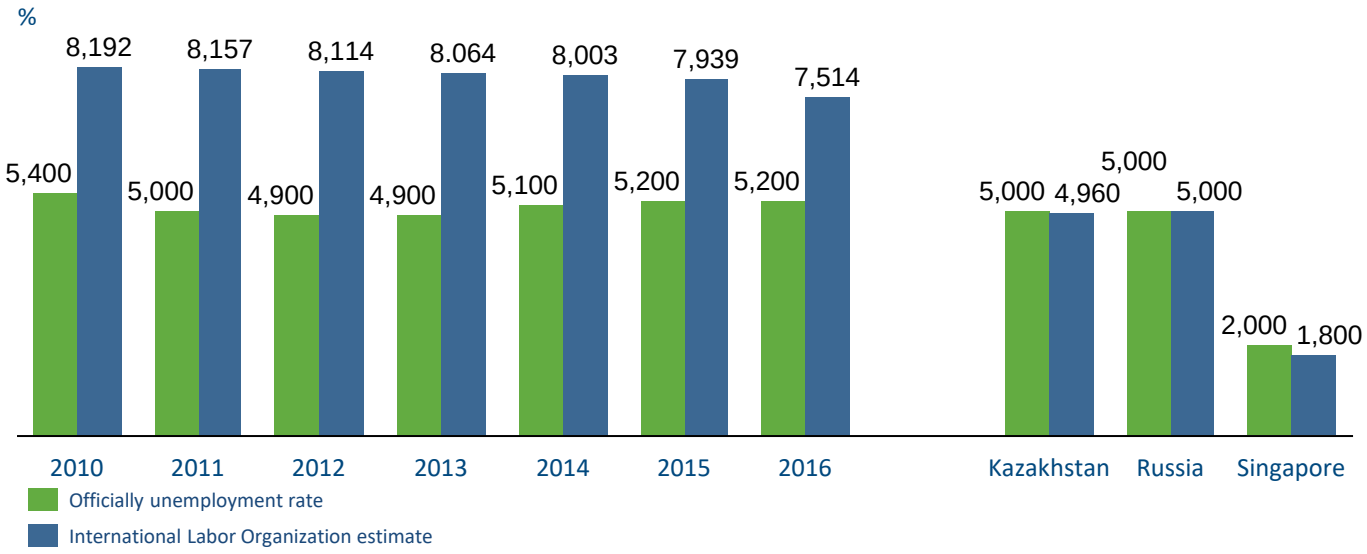
Current level of development

Share of the population living in extreme poverty[1]



- Poverty is one of the main problems in the social sphere in Uzbekistan
- In Uzbekistan there is no definition of minimum subsistence based on the consumer basket
- In the ranking of the Food Security Index 2017, Uzbekistan ranks 78th. The index calculates the availability and quality of food resources in terms of financial capacity and the availability of healthy food in 113 countries

Unemployment rate in Uzbekistan and other countries



- According to international estimates, the unemployment rate in Uzbekistan is 4% above the officially registered rate
- **According** to **unofficial estimates, the unemployment rate in Uzbekistan may be 35%**, that is, every third citizen of working age of the country is unemployed
- A significant part (almost one-third) of the working population of the country works abroad. Migration flows are not controlled by the state
- According to experts, the share of Uzbekistan's shadow economy may be more than 50%

Note: 1 = extreme poverty is defined as living on less than USD 1.90 per person per day
Sources: official statistics of the Republic of Uzbekistan, International Labor Organization, Gazeta.uz, Federal State Statistics Service of the Russian Federation, Zakon.kz, Statista, Deutsche Welle

Social policy

Current level of development

Existing support measures for low-income families partially solve the poverty problem

Financial

Benefits for low-income families

Benefit amount:

- For families with 1 child: 60% of the minimum wage
- For families with 2 children: 100% of the minimum wage
- For families with 3 children: 120% of the minimum wage
- The minimum wage (as of July 2018) is UZS 184,[illegible]

- Benefits for families with 1–2 children may not cover the minimum wage
- Criteria for granting benefits are feasible only for families with the most extreme poverty levels.

Labor

Loans to low-income families

- Up to 100 minimum wages
- 4%
- Up to 3 years

Commercial banks (the list is determined by the Central Bank of Uzbekistan)

Purpose of the loan:

- Purchase necessary equipment or develop household land plots (farming, gardening)

Promotion of self-employment for low-income families

Household

Home repair

2018: 25 families from each district

Provision of housing

2018: 5 families from each district living in substandard and dilapidated housing

Purchase of household appliances

2018: 70 families from each district

- Less than 1% of the low-income population[1] receive such assistance
- There are no food supply programs for low-income families

Education

- Provide children from low-income families with free textbooks
- Provide primary school children with free winter clothing and footwear
- Free access to kindergartens and boarding schools

- Lack of incentive mechanisms for graduates of grades 9-11 to receive full education instead of working

Transport

Uzbekistan offers no benefits to low-income families for using public transportation

Note: 1 – 10% of Uzbekistan's population live in extreme poverty (about 3 million people), 1,200 families receive assistance, which is less than 300,000 people
Sources: legislation of Uzbekistan, National Association of Electronic Mass Media of the Republic of Uzbekistan, Norma informational and legal website

Social policy

Current level of development

Existing support measures only partially solve the unemployment problem

Employment centers

- Employment of citizens who requested assistance
- Plans for the development of an electronic job bank of Uzbekistan

By year-end of 2017, 229,900 people were employed, which is **28%** of the officially registered unemployed

Organization of public work

Participants: citizens recognized as unemployed who received a referral from the Center for Assistance and Employment

Duration: 2 weeks to 3 months of the financial year with an entry in the employment record book

Payment:

- for work organized by public organizations: no more than 5 minimum wages per month (100% compensation from the Public Work Fund)
- For work organized by business entities or nongovernmental nonprofit organizations: no more than 2,5 minimum wages per month (50% compensation from the Public Work Fund)

In 2017, **27,100** people were involved in public work, which is 3% of **officially registered** unemployed individuals

Creation of training centers for the unemployed: 240 seats in each center in 12 districts

Areas of training

- Electricity and electronics, information technology, agriculture, construction, repair and maintenance of vehicles and equipment, etc.

Source of funding:

Tashkent, Samarkand, Shakhrisabz:

- Grant from the Government of South Korea

Other regions of Uzbekistan:

- State Employment Promotion Fund, grants from donor countries
- Preferential loans from international financial institutions

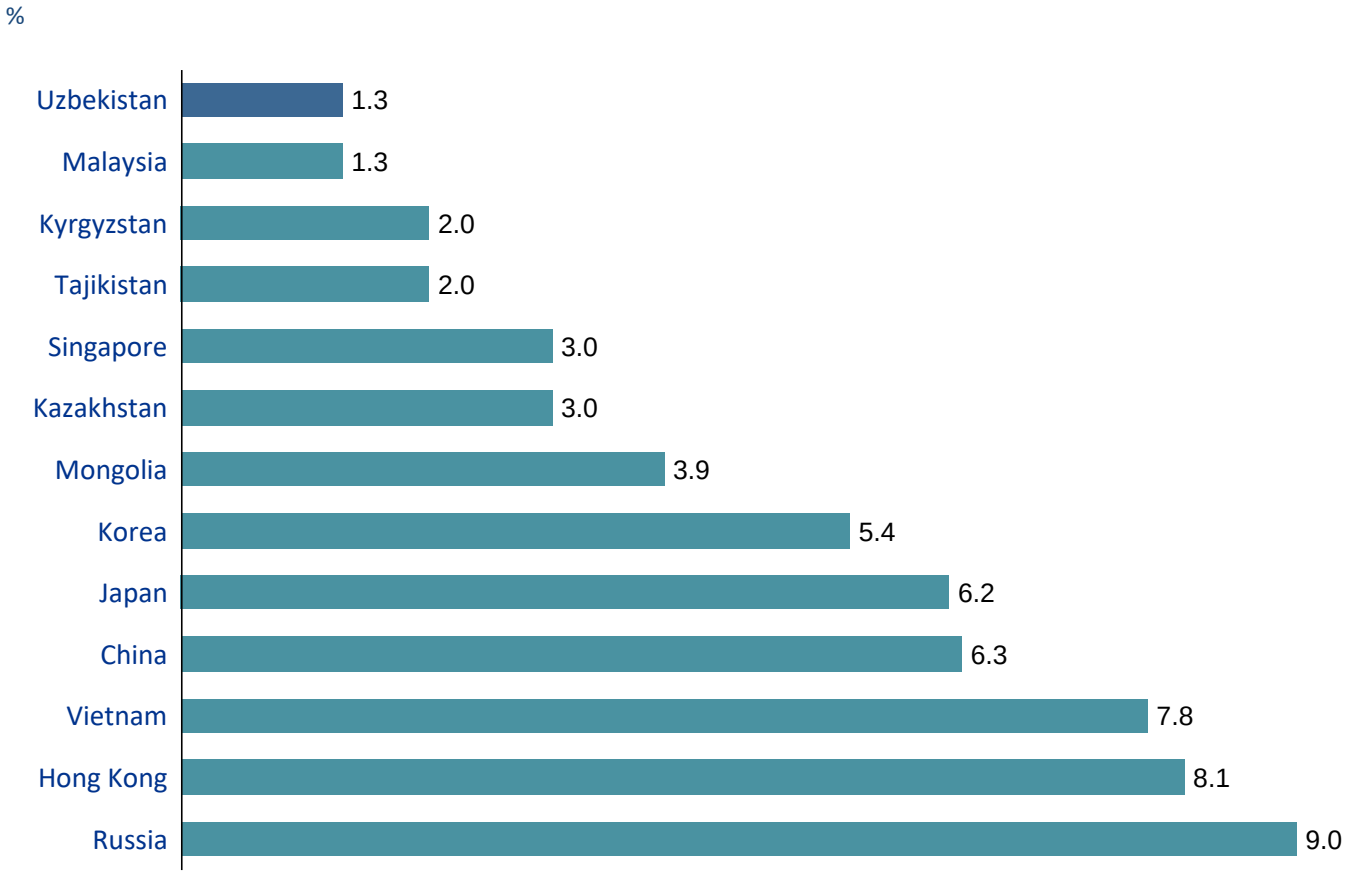
In 2017, **6,600 people** completed training, which is **less** than **1%** of the officially registered unemployed. This shows poor coverage in the implementation of nonfinancial support measures, which greatly reduces their efficacy

Key problems of the labor market have not been eliminated yet: high level of the potential unemployment, high share of the informal employment sector, lack of a system of assignment and confirmation of qualification, high percentage of uncoordinated migration, lack of reliable data on capacity and structure of the labor market

Note: in 2017, there were 14,357,300 economically active people, and the unemployment rate was 5.8%. 832,723 people were unemployed.
Sources: Norma informational and legal website, Ministry of Employment and Labor Relations of the Republic of Uzbekistan, State Statistics Committee of the Republic of Uzbekistan

Current level of development

Share of the disabled in the total population by country



Criteria for recognition of disability in Uzbekistan

It is necessary to go through the medical and labor expert commission and receive an annual medical examination, even in case of severe disability

do not comply with modern international criteria for recognition of disability

Comments

- A too complicated procedure for recognition and confirmation of disability in Uzbekistan often leads to the exclusion of part of the disabled population that need support
- The criteria for recognizing disability are based on methodology developed 40 years ago
- The process of recognizing disability is complicated by bureaucracy
- It is necessary to optimize the criteria and procedures for recognizing disability in accordance with international practices and standards
- Work on revising the criteria for recognition of disability has already begun in Uzbekistan, but the new criteria have not yet been approved

Sources: UN ESCAP, UNStats, News of Uzbekistan information portal (Upl.uz), official website of the President of Uzbekistan

Social policy

Current level of development

In Uzbekistan, there is not an environment conducive for the life of disabled people, since not all their needs are met

Financial needs

2017:

- Payments to persons disabled since birth: UZS 396,500 per month
- Average salary (according to the State Statistics Committee of Uzbekistan): UZS 1,684 million per month
- Minimum wage: UZS 184,300 per month
- Payments to the disabled are 23% of the average salary, or 196% of the minimum wage

People with group III disabilities do not receive social benefits

Barrier-free environment

- 2017: only 37% of public institutions in Uzbekistan are equipped for the handicapped
- Work on creating a barrier-free environment is in an early stage: on March 1, 2018, a ban on the purchase of city passenger vehicles not adapted for the handicapped was introduced
- According to experts, the barrier-free environment is characterized by poor quality

Employment of the disabled

In Uzbekistan, there are benefits for companies who employ the disabled:

- Fixed tax rate for individual entrepreneurs with disabilities
- Assignment of quotas in the amount of 3% on enterprises

In 2017, **the employment rate of the disabled was 2%** (while the same indicator in South Korea in 2013 was 36%)

Inclusive environment

- In 2014, 38% of children with special educational needs were educated in an inclusive environment
- In 2010, an information campaign on protecting the rights of the disabled was carried out at the state level

Education of the disabled

- The quota for the disabled is 2% of places in higher educational institutions
- There are no statistical data on the disabled receiving an education

Sources: Order of the Ministry of Finance of Uzbekistan, State Statistics Committee of the Republic of Uzbekistan, Uzbekistan Today, Education without Borders (edu-open.ru), Report of the Republic of Uzbekistan to the UN Committee on Economic, Social, and Cultural Rights, National Human Rights Commission of Korea, UNDP

Social policy

Current level of development

A system of nonfinancial support for senior citizens is not developed

Needs

Household

- **Tax benefits**: exemption from property tax (up to 60 m^2) and land tax (under certain conditions)
- **Reduced utility rates** for pensioners

Transport

- **Right to free transit on the subway** (from 10:00 a.m. to 4:00 p.m.)
- **Right to free transit on other public transport is** granted to certain categories of pensioners

Health and wellness

- **Free medical care only for pensioners living alone**
- **Free health resort care (**about 85,000 places in Uzbekistan) is provided to about **3% of pensioners**

Leisure

- **There are plans to open leisure centers** for pensioners **in every city in the Republic of Uzbekistan**

In 2015, the government program "Year of Attention and Care for the Elderly" **was implemented.** A series of events were held to support certain groups of senior citizens, veterans, and disabled persons.

Sources: Norma informational website, UzNews, Podrobno.uz news agency, Gazeta.uz

Social policy

Strategic options

1

Scandinavian model

Wide coverage; high tax burden on the population and businesses; high social expenditures per capita; wide financial support; prevalence of the state's role in providing support

Examples of countries:


Finland


Sweden

+

- Large number of the population provided with social security

—

- Need for greater social spending and larger tax revenues
- High tax burden does not contribute to economic growth
- High risks of providing poor-quality services

Considerable support for all population categories

2

Target development option

Preserve the state's role in developing CSR

Support to the most needy and vulnerable groups of the population, high level of targeted support, medium level of spending on social support, focus on non-financial measures, attraction of private providers, including through the development of CSR

Examples of countries:


Singapore


South Korea

+

- Reduction of the tax burden while maintaining an average level of support
- Improvement of the quality of social support

—

- Low development of the private sector
- Low level of CSR development

High coverage through nonfinancial measures

3

Minimize support

Provide support to separate groups of the population, low taxes, low level of state spending on social support, prevalence of non-financial support measures, social support imposed on private companies

Examples of countries:


India


Bangladesh

+

- Low taxes contribute to economic growth

—

- Poor coverage of social protection
- Underdeveloped private sector

Little support for some categories of the population

Sources: data from open sources, analysis of the working group.

Social policy

Target vision 2035

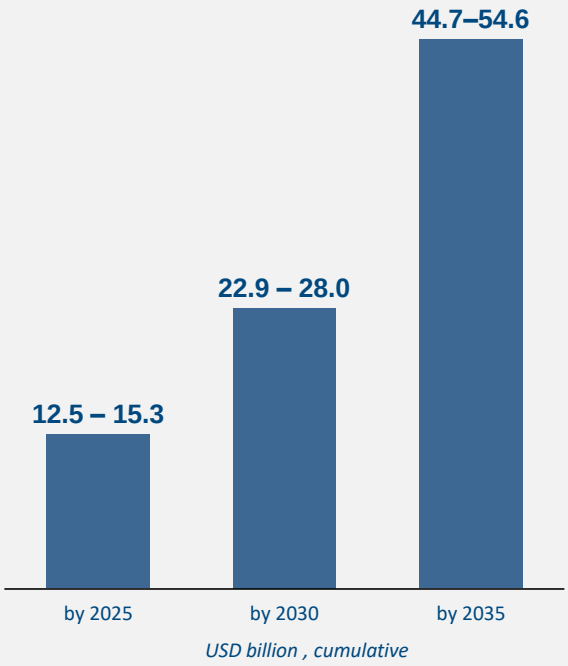
Effective social security of vulnerable categories of the population aimed at unlocking their economic potential

- Active use of non-financial support measures, involvement of the private sector in the provision of social support, development of Corporate and Social Responsibility
- Wide and highly targeted social support coverage; support for the most vulnerable people, thus ensuring social stability
- Official statistic base of families in difficult circumstances, systems of social work with families in difficult circumstances at all territorial levels (mahalla, district, city, region, republic)
- The focus of the system on the fight against poverty and unemployment, advanced training and employment programs (in particular: Building IT centers in each community where young people can learn IT skills for free)
- Restoration of 11-year education in schools and cancellation of compulsory 3-year education in vocational education institutions and vocational schools
- Development of social integration tools at the mahalla level
- Development of information and analytical support for social support
- Implementation of comprehensive social support for less protected groups of the population: ethnic minorities, women, etc.
- Development of a barrier-free environment that allows all citizens of society to develop their economic and social potential (an environment that promotes vertical social mobility)
- Implementation of the WHO Community Rehabilitation Strategy using the existing traditional Mahalla structure
- The implementation of measures to facilitate the country's entry into "Tier 2" in the rating "Social progress indicator"

Figures

	2017	2035	CAGR
Gini index, %	35.3	31.6	-0.6%
Proportion of the population living in extreme poverty, %[(a)]	10	< 1	

Funding[(b)]

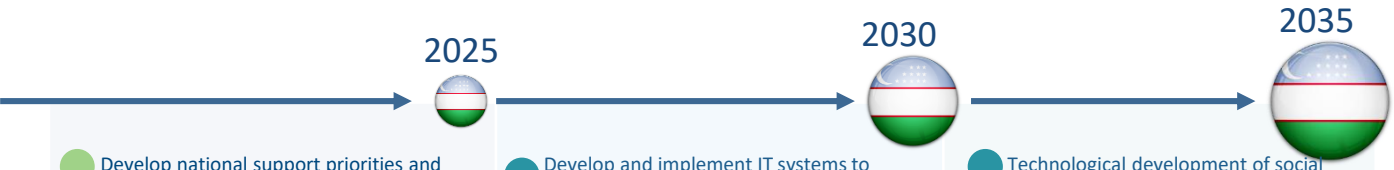


[6] Note: (a) less than USD 1,9 per person per day, (b) excluding social insurance

Sources: Ministry of Finance of the Republic of Uzbekistan, People's Bank of the Republic of Uzbekistan, data from open sources, UNStats, World Poverty Clock, data from open sources, analysis of the working group

Social policy

Key strategic initiatives



2025

- Develop national support priorities and identify key groups to receive support (with priority on providing support to low-income and unemployed groups)
- Detail the targeted criteria for recognizing a person as in need of support
- Update and clarification of the criteria for recognizing the disability condition in accordance with the international practices (use of the International classification of functioning, disability and health)
- Update and improve the effectiveness of social support infrastructure (social support centers, organizations)
- Develop and launch programs and tools to combat poverty and support the unemployed, including
  - Training courses
  - Trainings sessions to develop skills for employment
  - Programs to develop communication with potential employers
- Develop a system to train social support personnel (expansion of the number of universities providing training in this area)
- Invest in the creation of a barrier-free environment
- Launch programs aimed at providing equal opportunities for women (education, employment of women, equal income and opportunities for career progress, stopping domestic violence)

2030

- Develop and implement IT systems to organize social support (identification of key social support problems; search of tools)
- Launch educational programs based on websites for those needing support
- Create and develop social institutions for caring for children, the elderly, and the sick
- Facilitate the development of nongovernmental organizations (NGOs) and charities

2035

- Technological development of social support
- Use of IT tools to identify the population in need
- Application of IT tools to determine the individual amount of social support for people in need
- Increased application of financial measures of support for certain population groups
- Expand social support coverage (inclusion of additional categories in the focus of support: young mothers, socially disadvantaged workers, etc.)

personnel · finance · technologies · legislation and state regulation · infrastructure

Sources: analysis of the working group

Social policy

Key strategic initiatives

- Establish research centers dedicated to social policy
- Implement programs to fight drug, alcohol, and gambling addition
- Development of "Social work" field of study at universities
- Develop corporate social responsibility and involve private companies in social support of vulnerable categories of the population (creation of national ratings of the level of social responsibility of companies; holding round tables with key employers)
- Involve private providers in the provision of social support (transfer of social patronage services and other forms of support to private companies)
- Development and implementation of public awareness programmes on the equal rights of women, persons with disabilities and other disadvantaged groups.
- Forming the official statistical base of families in difficult circumstances
- Implementation of the system of social work with families in difficult circumstances at all territorial levels (mahalla, district, city, region, republic)

personnel finance technologies legislation and state regulation infrastructure

Sources: analysis of the working group

3.3

Human capital

Social development

BUYUK KELAJAK

Human capital

Current level of development

Key challenges

- The need to employ 20.7 million people of working age in 2035
- Lack of engineering and management personnel reserve for innovative development of the economy
- Unofficial unemployment rate (35%) is several times higher than the official rate (8%)
- Almost one-third of the working population of the country works abroad
- There is no relationship between industry-specific higher educational institutions in terms of applied sciences and sectors of the national economy

Key findings

- Insufficient education level constrains innovative development in Uzbekistan: investments in education are 10 times lower than in developed countries. The situation is aggravated by low salaries of teachers (30 times less than salaries of teachers in developed countries), poor material and technical resources, and lack of computer classrooms
- More than 60% of university lecturers do not have academic qualifications
- Uzbekistan has the necessary number of teachers, but a lack of places and low-quality infrastructure in educational institutions are one of the main problems in the school system
- Low enrollment in colleges and universities: less than 10% of students were enrolled in higher education institutions in 2017
- There is a shortage of higher education institutions (66 universities in 2016)
- Outdated educational infrastructure with a high level of depreciation of fixed assets: 3644 schools (38%) are in need of major repairs, only 37% of schools have modern computer equipment, and just 7% have access to the internet

Investment in the full education cycle of a student and the return as added value

Amount of state investments in the student training cycle, USD [1]	*18.909*	*182.103*	*231.263*	*44.202*	*130.887*
	x4	x12	x13	x15	x17
Amount of added value created by an employee, USD [2]	*77.291*	*2,176.818*	*3,105.898*	*647.313*	*2,169.152*

Note: 1 = education expenditures on the full education cycle of one student (from 3 to 22 years); (b) cumulative labor productivity of one citizen until retirement
Sources: World Bank Open Data, United Nations Department of Economic and Social Affairs Population Division 2017, OECD, data from open sources, analysis of the working group

Human capital

Current level of development

At the present time, a number of problem areas related to education ministries limit the educational system's development in Uzbekistan

List of education ministries

01 Ministry of Preschool Education (MPrE)

02 Ministry of Public Education (MPE)

03 Ministry of Higher and Specialized Secondary Education (MHSSE)

Problem areas

Lack of integrated strategy

- The goals of each ministry are determined individually and do not have a unified development vector set out in the general strategy
- A number of areas to be developed may be not touched on by any ministry
- There is no single road map for "raising" specialists from pre-school to post-graduate

Lack of control of educational results

- The existing model has excessive focus on building the educational process without paying due attention to the results of educational institutions
- As a result, quality of education is at risk

Management crisis in the ministries and supervisory agencies

- There is not enough expertise in terms of implementation of suggested changes and new concepts
- Lack of qualified managerial personnel
- Lack of innovative methods of governance

Influence of the supervisory bodies

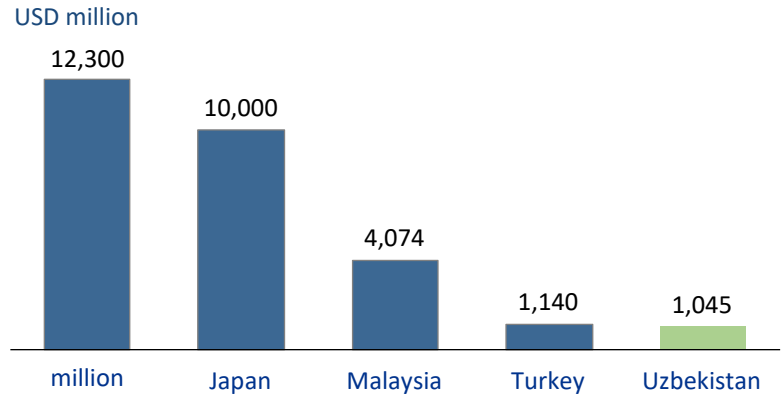
- The supervisory bodies have a significant influence on the education ministries
- A number of tasks and functions delegated to the ministries by the supervisory bodies are not connected with or are in conflict with the educational system's development vector

Sources: data from open sources, analysis of the working group.

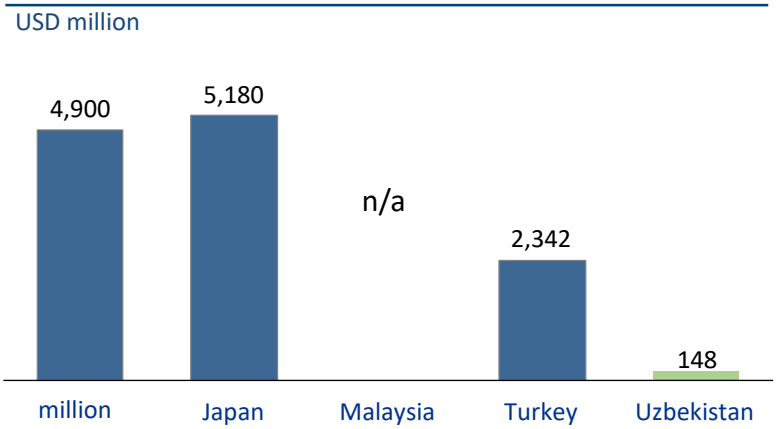
Human capital

Current level of development

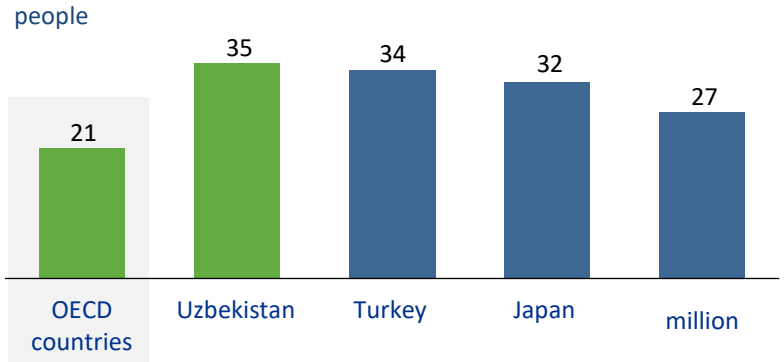
Average education expenditures per student[1] in 2015



Average monthly salary of teachers in general education schools in 2017



Average number of students in classes at general education schools



- Today, the average expenditures on education per student in the Republic of Uzbekistan **lag behind the same indicators in other emerging countries significantly**
- Lack of investment in education has a negative impact on the physical infrastructure of educational institutions. According to experts, **a big problem is the lack of water and electricity** as well as the lack of computer classes in educational institutions in all regions of the country
- In the period from **2008 to 2015, the average education spending per student more than doubled**, but it is still significantly lower than the same indicators in other developed and developing countries
- Despite the existence of state support programs and annual review of wages, **teacher salaries in Uzbekistan are lower (by 20–30 times)** than in other countries

- In Uzbekistan, there is a general tendency to reduce the number of educational institutions, and there is a need for major repairs to them. This has **a negative impact on educational potential**
- In some schools in the Republic of Uzbekistan, classes have **45–50 students, which hinders the pupils' receiving a quality education**
- Over the past 8 years**, 72 general education schools** have closed **in Uzbekistan**

Designated ministries

01 MPrE

02 MPE

03 MHSSE

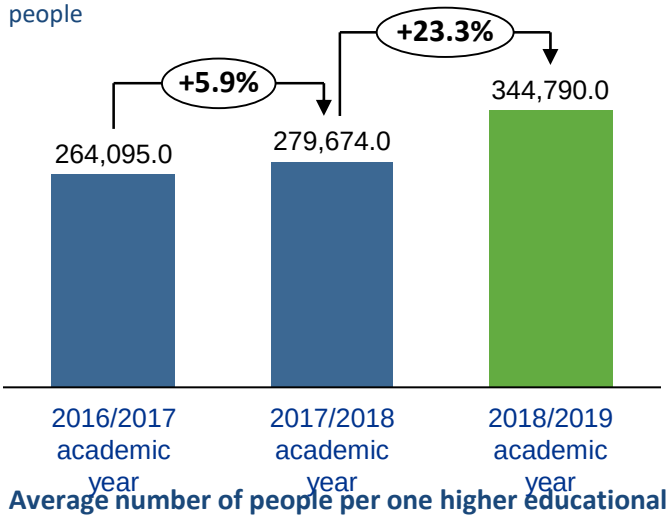
Sources: World Bank Open Data, United Nations Department of Economic and Social Affairs Population Division 2017, OECD, data from open sources, analysis of the working group

Human capital

Current level of development

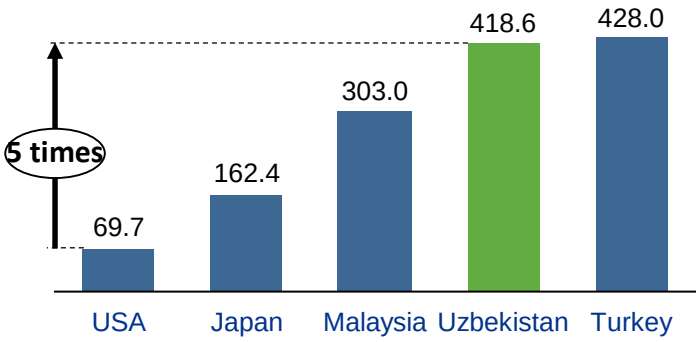
Number of students in higher educational institutions of the Republic of Uzbekistan,

people



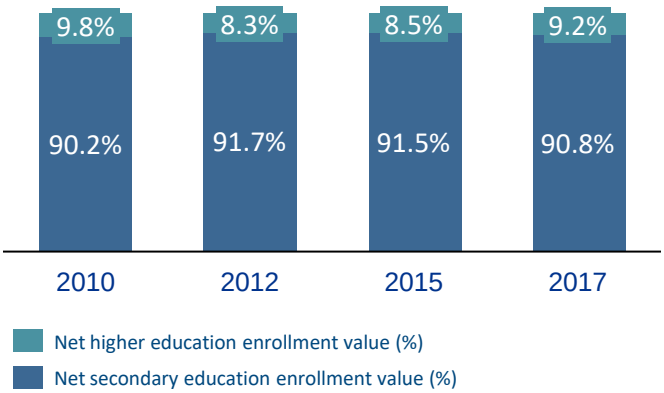
Average number of people per one higher educational institution

thousand people



Share of people with secondary and higher education

% of the total population



Designated ministries

01 MPrE

02 MPE

03 **MHSSE**

Comments

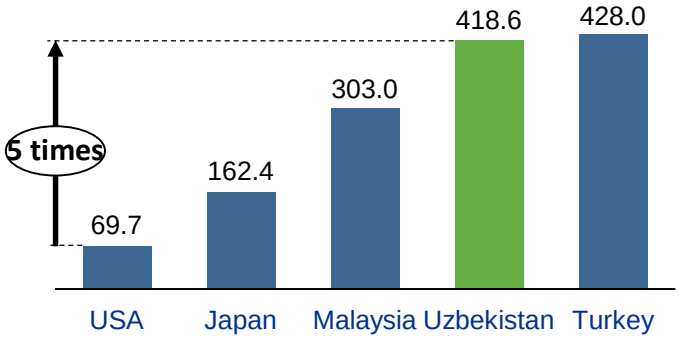
- The inadequate number of higher education institutions and the existence of quotas for entrance to universities **significantly** slow the development of human capital in the Republic of **Uzbekistan**
- At present, there are **96 higher educational institutions** and branches in the Republic of Uzbekistan. This indicator in the 2016/2017 academic year was equal to 77, and in 2017/2018 academic year, 86.
- Despite an increase in the number of higher education institutions by almost 8% from 2008 to 2016, the number of **graduates decreased by 20%** as a result of the use of quotas (**only 9% of applicants annually enter Uzbekistan's higher education institutions**)
- 51 higher educational institutions have **an extramural form of study**, 22 higher educational institutions have a special extramural form of study, and 9 higher educational institutions have an evening-time form of education.
- In the 2016/2017 academic year, 15 **new educational areas** and 14 specialties were introduced; in the 2017/2018 academic year, 8 areas and 10 specialties; in the 2018/2019 academic year, 66 new areas of the bachelor's program and 48 specialties of the master's program were introduced.
- The average number of people per higher education institution is **5 times higher than in developed countries,** which negatively affects the accessibility of education
- Today, **students** who finished secondary school may apply **for admission to only one higher education institution**

Note: 1 – not including temporarily employed teachers
Sources: State Statistics Committee of the Republic of Uzbekistan, UNESCO Institute for Statistics, OECD, data from open sources, analysis of the working group

Human capital

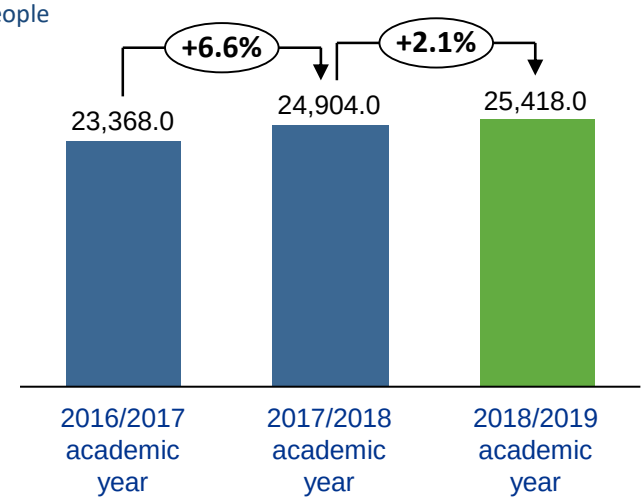
Current level of development

Number of higher educational institutions in the Republic of Kazakhstan



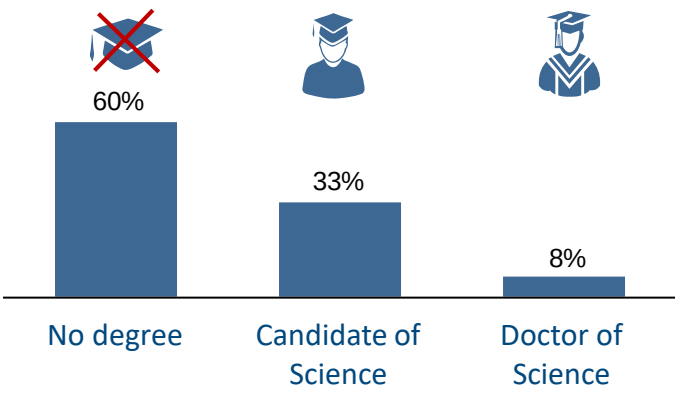
Number of lecturers in higher educational institutions of the Republic of Uzbekistan,

people



Distribution of higher education teachers by academic qualification[1]

% of the total number of teachers



Designated ministries

01 MPrE

02 MPE

03 MHSSE

Comments

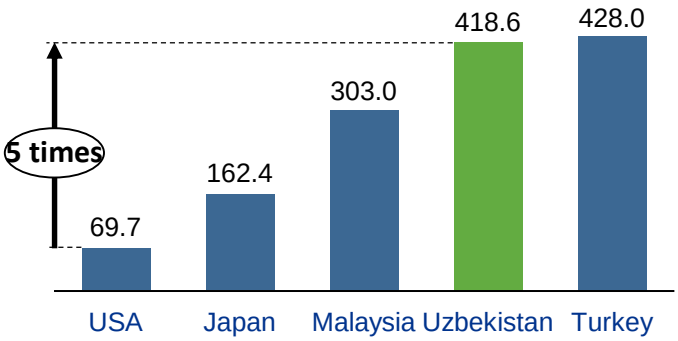
- The increase in the number of students in turn required an increase in the number of lecturers. **The number of lecturers** in higher educational institutions of the Republic of Uzbekistan in 2018/2019 **increased by 9%** as compared to the 2016/2017 academic year
- The low quality of higher education in the Republic of Uzbekistan is caused by the fact **that the most of the teaching staff do not have academic qualifications**
- Since 2017, e-learning forms **have been implemented in the system of upgrading qualification of senior executives and teaching staff of higher educational institutions.** Up to now, **1,855 participants of those courses have upgraded their qualification.**
- Only one-third **of these lecturers have academic qualifications**
- The motivation system **does not provide the necessary level of interest in the academic profession** among young people
- **The scientific potential** of higher educational institutions at the end of the 2017/2018 academic year reached 34.2%, which is 3.1% higher than the indicator at the end of 2016, although it is still low as compared to foreign countries where a potential of at least 50% is required for accreditation
- In February of 2017, the Decree of the President of the Republic of Uzbekistan on the transition to a two-stage system of preparation of academic staff was issued.
- The doctorate acceptance quota was doubled
- Thesis review procedures were simplified. As a result, the number of theses was double that for 2016 and 2.5 times greater based on the results of H1 2018.

Notes: 1 – not including temporarily employed teachers
Sources: State Statistics Committee of the Republic of Uzbekistan, UNESCO Institute for Statistics, OECD, Ministry of Higher and Vocational Education, data from open sources, analysis of the working group

Human capital

Current level of development

Number of higher educational institutions in the Republic of Kazakhstan

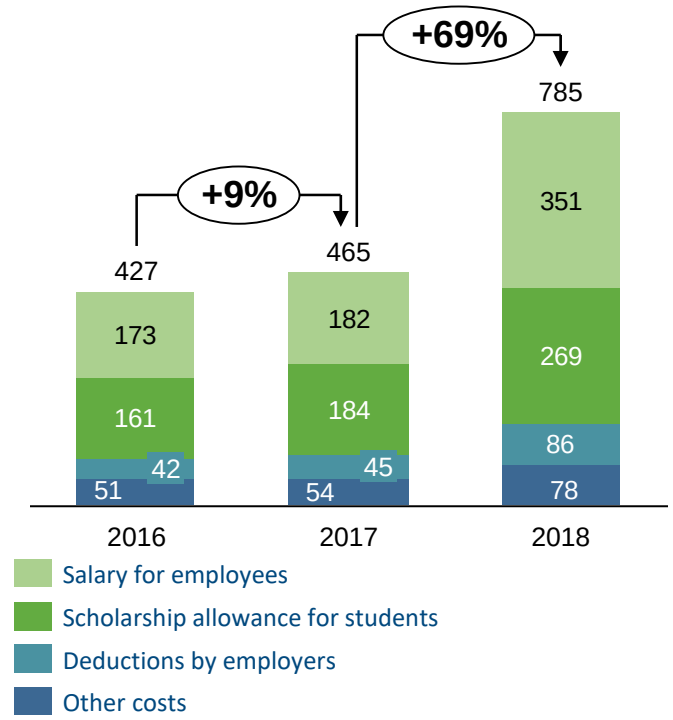


Comments

- Educational reforms conducted for the last two years promoted an increase in financing from the state budget
- Financing for subordinate educational institutions of the Ministry of Higher and Vocational Education increased by 83.7%
- Largest

Financing of educational institutions subordinate to the Ministry of Higher and Vocational Education,

UZS billion



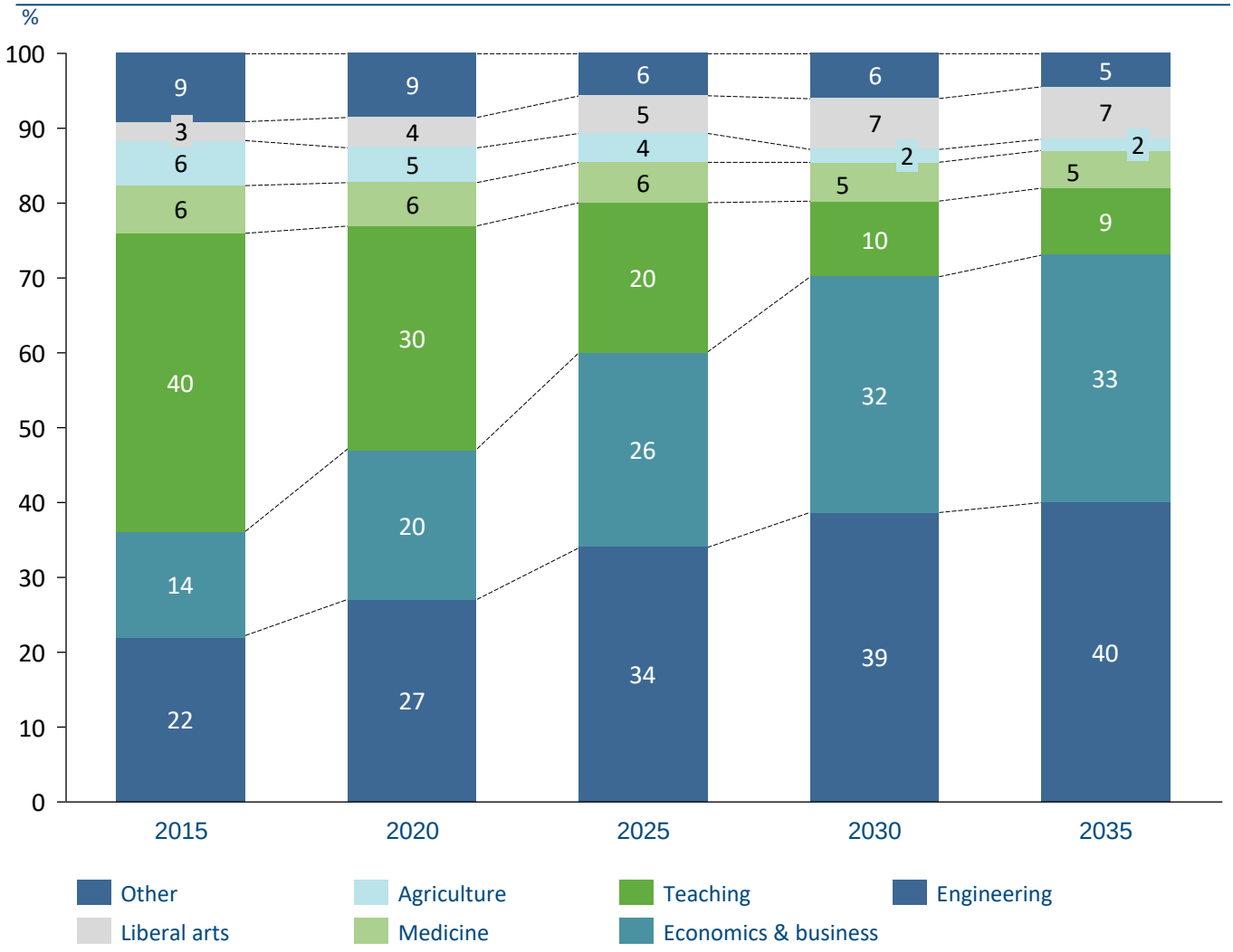
Designated ministries

01 MPrE | 02 MPE | 03 **MHSSE**

Note: 1 – not including temporarily employed teachers
Sources: State Statistics Committee of the Republic of Uzbekistan, UNESCO Institute for Statistics, OECD, Ministry of Higher and Vocational Education, data from open sources, analysis of the working group

Human capital

Structure of workforce specializations



- The country **has an acute shortage of engineers, technical specialists**, and managers needed to implement innovative development
- It is necessary to ensure that the quality and structure of higher education meet the demands of the labor market
- In countries with above average income and at least a 20% share of the manufacturing industry**, there are on average 1,500–2,000 engineers** and specialists in the natural sciences per 1 million people. **In Uzbekistan**, today the value of the same indicator is **540 specialists per 1 million people**
- Also, there is **a shortage in the reserve pool** of managers for the innovative development of Uzbekistan's economy

Designated ministries

01 MPrE 02 MPE **03 MHSSE**

Sources: official statistics of the Republic of Uzbekistan, International Labor Organization, Gazeta.uz, Federal State Statistics Service of the Russian Federation, Zakon.kz, Statista, Deutsche Welle, State Statistics Committee of the Republic of Uzbekistan, UNESCO Institute for Statistics, OECD, data from open sources, analysis of the working group

Human capital

Strategic options for development of education

1

Model with a high level of state participation

Provision of services by the state; financing through tax revenues. The private sector meets only the needs of the wealthy

Examples of countries:


Germany


Austria

Pros

- High accessibility of public education to low-income groups of the population

Cons

- Quality of education depends on the amount of tax revenues
- High risks of low-quality services, especially in public and higher education
- Low level of innovation development of the system

Overall coverage with quality education only subject to sufficient tax revenues

2

Target development option

Mixed model

Development of private service providers while maintaining state service providers for the low-income population; development of the private sector in education; creation of conditions for the development of science and innovation

Examples of countries:


Brazil


Canada

Pros

- High accessibility to the education system
- Uniform quality at all stages of education

Cons

- Low level of private sector development
- Poor development of private financing institutions

Wide coverage of all groups of the population with high-quality education

3

High share of private players

Provision of educational services is fully delegated to private companies; funding is performed through private companies or payment from citizens; state support is provided only for the low-income population through mechanisms for co-financing expenses

Examples of countries:


UK


Japan

Pros

- High quality of educational services

Cons

- Limited coverage of educational services
- High cost of education

Low coverage of poor groups of the population with high-quality education

Sources: data from open sources, analysis of the working group.

Human capital

Strategic options for labor market development

Target development option

1 Export of low-skilled workforce

Uzbekistan continues to export workers; the current structure and training level of personnel remains the same to rapidly form a large workforce

Examples of countries:


Kyrgyzstan


Tajikistan

+
- Large number of available workers

−
- Shortage of high-skilled workforce for the formation of a personnel reserve and economic development

2 Export of high-skilled workforce

There will be changes in the training methodology and programs according to industry needs in the formation of highly qualified personnel potential.

Examples of countries:


India


China

Preparation of labor resources for export to foreign labor markets to increase income from the exported workforce and gain experience abroad

+
- Overcoming the job shortage in Uzbekistan
- Increase in export revenue
- Professional development of domestic specialists

−
- Problem of family and generational disruption
- Increased drain of high-skilled staff abroad

3 Import of low-skilled workforce

This option is not suitable for Uzbekistan

4 Import of high-skilled workforce

Recruitment of foreign experts for the development of Uzbekistan's economy, and use of the internal workforce while preserving the current education level

Examples of countries:


Myanmar


Vietnam

+
- Experience of foreign high-skilled specialists

−
- Need for large investments in recruiting specialists
- Dependence on foreign specialists

Workforce flows

Workforce qualifications

Sources: data from open sources, analysis of the working group.

Human capital

Target vision 2035

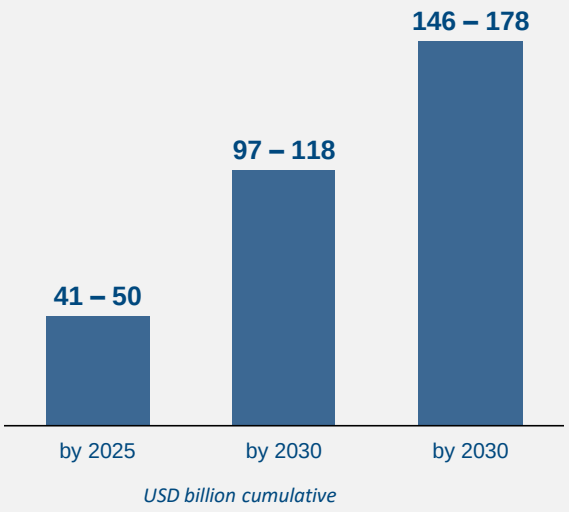
Human capital is the driving force of economic development. The concept of continuous education has been introduced, which makes it possible to cultivate highly qualified personnel and stimulate the development of innovations

- Affordable and quality education for all population groups
- Unified development strategy of education ministries
- State system of education quality assessment
- Developed infrastructure; increased number of schools (no more than 27 students per class), universities (170,000 people per university), and kindergartens
- Transition from mass education to inclusive education
- Implementation of a voucher[1] system of education
- High salaries for lecturers and teachers (higher than the market average), providing lecturers and teachers with a wide range of benefits
- Active implementation of online education
- Developed private education market
- Lowered unemployment to 6.2%
- Creation of the system of expert assessment of the labor market
- Strong protection of migrant labor rights
- Introduction of a continuing education system
- Qualifications of specialists meet the needs of the market: the market is dominated by engineers, economists, and managers (more than 70% of workforce)
- Improving the level of professional training of migrant workers
- Increasing the prestige of education by promoting the image of an educated person on television, holding open events with popularizers of science and with leading experts in various fields
- Taking measures to counter the outflow of qualified personnel abroad
- Decreasing the informal sector of the labor market
- Implementation of the state system of assignment and confirmation of a qualification
- Development of organized labor migration
- Forming reliable and complete data on the capacity and structure of the labor market.

Figures

	2017	2035	CAGR
Number of children involved in forced labor, *million people*	2	0	-100%
Education expenses, *% of GDP*	6.4	7.5	0.9%
Number of graduates who entered colleges and universities *, per 100 people*	9	80	13.7%

Financing

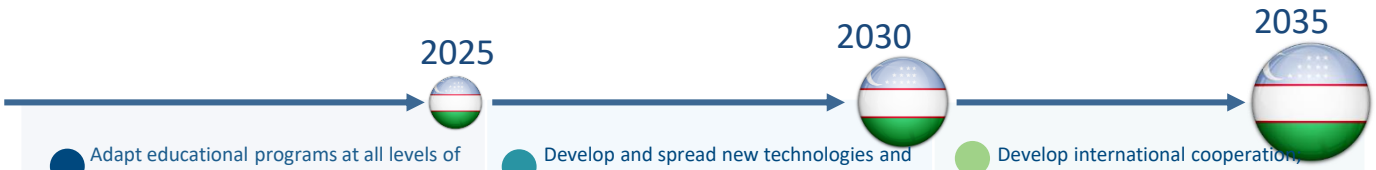


USD billion cumulative

Notes: 1 = educational system in which students receive state funding in the form of vouchers, which they can use to attend the school of their choice
Sources: World Bank, UNESCO Institute for Statistics, State Statistics Committee of the Republic of Uzbekistan, OECD.stat, Innovation Development Strategy of the Republic of Uzbekistan for 2019–2021, data from open sources, analysis of the working group

Human capital

Key strategic initiatives



2025

- Adapt educational programs at all levels of education to the needs of the economy (increase the number of subjects related to engineering, economics, and business, but preserving education in the field of natural sciences)
- Raising teachers' salaries and changing their social benefits
- Increase the inclusiveness of education and entry of children with disabilities to schools and universities
- Form and implement continuous education on the basis of pilot industry sectors
- Encourage private educational institutions
- Improve protection of migrants' labor rights (including development of a professional training system)
- Implement a state system of education quality assessment
- Create Foresight Centers[1] at leading higher educational institutions
- Improve the legislative framework to provide maternity leave and ensure pay equality
- Creation of the system of expert assessment of the labor market
- Improve employment legislation

2030

- Develop and spread new technologies and forms of education in the professional education system
- Create a network of schools that implement experimental and innovative programs for trying out new technologies and the content of training and education
- Develop educational projects that allow students to work without discontinuing their education (methodological support of companies, etc.)
- Develop social entrepreneurship and creative industries as a key driver of economic development and job creation (grants for training in creative specialties, etc.)
- Increase in the number of employees with the highest scientific degree, incentivization of obtaining a scientific degree in order to increase the share of highly qualified employees
- Promote international cooperation between universities; recruit foreign teachers to improve the quality of education in colleges and universities
- Expand the list of industries for continuing education
- Develop a voucher educational system
- Introduce high technologies in education (e.g., virtual classrooms, digital paper and ink)

2035

- Develop international cooperation, recognition of qualifications from Uzbekistan's universities abroad
- Development of virtual workspaces
- Promote the use of artificial intelligence, robots, and drones in agriculture, industry, and the service sector (tax incentives, methodological support)
- Improve accessibility of preschool education (increase the number of kindergartens, major repairs to existing kindergartens, implement inclusive preschool education)
- Improve the material support of schools (lowering the average number of students in a classroom to 27)
- Develop a system of professional and technical education (opening new specialized schools and vocational schools, expanding the list of educational programs with a focus on the target economic sectors)
- Develop a training and re-training system for teachers
- Increase the number of universities (reduce the population per one university from 419,000 to 170,000 people)
- Transition to mass online education (introduction of online education for all levels of the educational process)

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: Innovation Development Strategy of the Republic of Uzbekistan for 2019–2021, analysis of the working group
Notes: 1 = business unit of a higher educational institution, which assesses strategic areas of social, economic, and innovation development

3.4

Culture

Social development

Culture

Current level of development

Key challenges

- High level of state involvement in the cultural sphere, which hinders its development
- Lack of cultural and leisure facilities
- Despite the measures taken by the government to encourage the creation of private exhibition structures, this type of activity is not widespread
- Large number of libraries and low number of users
- Insufficient use of cultural potential to resolve foreign economic and foreign political challenges
- Lack of modern fiction and professional literature in libraries

Key findings

- High level of state involvement in the cultural sphere, which hinders its development (museums are 99% financed from the state budget, while in developed countries they are also funded through income from commercial activities, crowdfunding, various investments and contributions)
- Lack of cultural and leisure facilities (the number of museums per 1 million people on average is 20 times less than in developed countries)
- Despite the measures taken by the government to encourage the creation of private exhibition structures, this type of activity is not widespread (there are only 3 private exhibitions, but they are characterized by a high share of state participation) There is no sufficient experience in private exhibition structures, there are limiting factors in the form of a number of reviews and permit documentations
- The number of libraries per one million people in Uzbekistan is more than in developed countries (1.5 times more than in the USA), but the number of users is less than 1%

Cultural Influence Ranking

U.S.News & WORLD REPORT

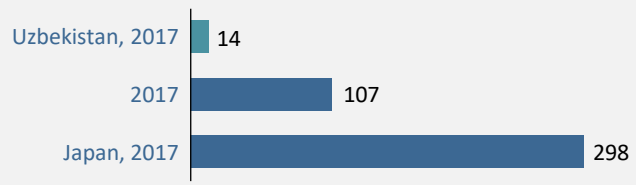
Not included

Cultural Influence Ranking, 2017

In the ranking of 80 countries

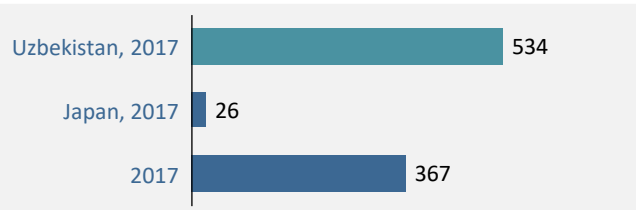
- **The Cultural Influence Ranking** assesses countries according to seven criteria: a country is culturally significant in terms of leisure, fashion, happiness (World Happiness Index); its culture is important, modern, prestigious, and popular

Number of museums per 1 million people



- **The number of museums** per 1 million people in Uzbekistan **remains low** compared to developed countries
- **The absence of a law on patronage** prevents the attraction of private and commercial investments to develop this market segment

Number of libraries per 1 million people

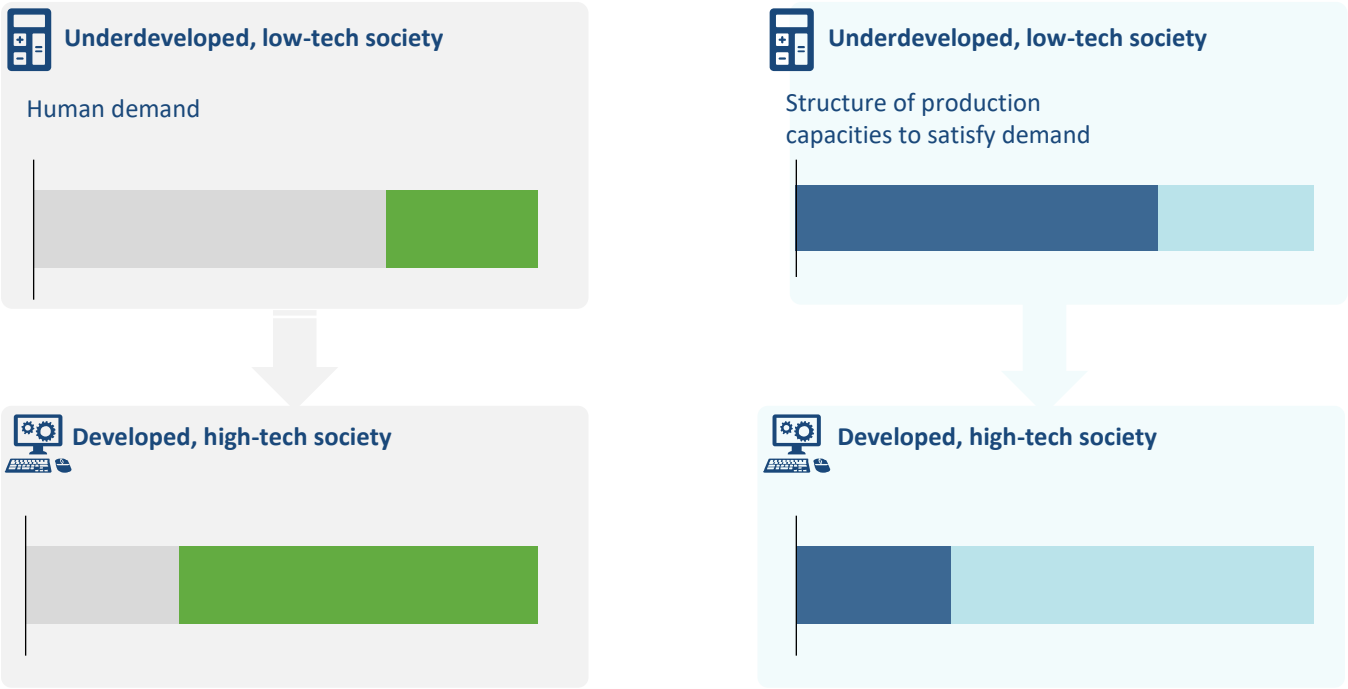


- **Digitizing the book supply** and **giving** citizens **access to electronic information resources helps** reduce the number of libraries

Sources: Open data portal of the Republic of Uzbekistan, the Japan Times, US News & World Report, analysis of the working group

Culture

Current level of development



Top 6 countries according to the Cultural Influence Ranking

1. France
2. UK
3. USA
4. Germany
5. Canada
6. Japan

Uzbekistan — Not included in the rating

Comments

- A more **developed society** is characterized **by a shift in human demand from satisfaction of lower**, purely physiological **needs to higher needs**. **At the same** time**, scientific and technological progress ensures the satisfaction of these needs through** supply
- **The development of culture spurs the advancement of higher needs in society;** cognitive, aesthetic, and the need for self-realization. **This, in turn, is one of the determining factors in** fostering **scientific and technological progress**

Sources: World Economic Forum, International Monetary Fund (IMF), analysis of the working group

Culture

Current level of development

Private exhibitions

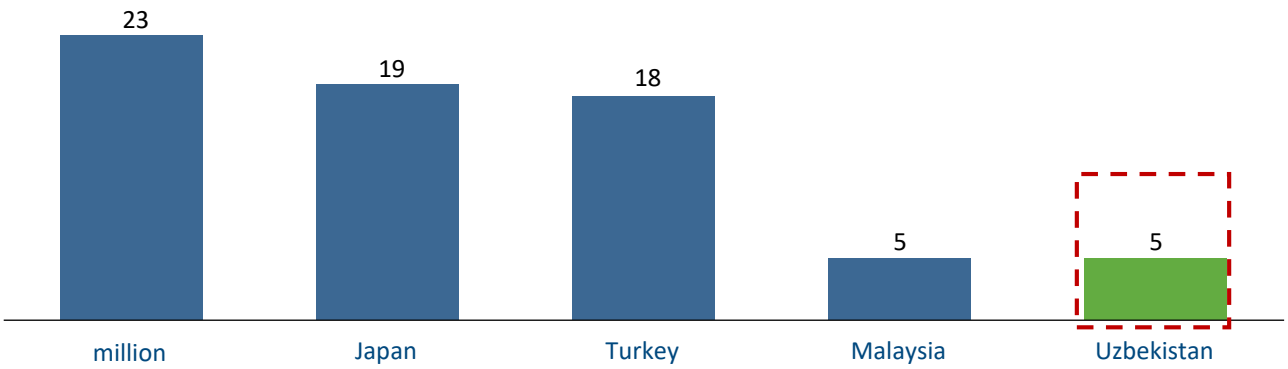
Chodra Hovli ethnographic museum in Khiva District

Bogishamol cultural complex in the village of Kyzyl-Su

The city of Khiva (historically significant site) in Khorezm region

Despite **the measures taken by the Government of Uzbekistan** to encourage the creation **of private exhibition structures**, this **type of activity is not widespread**. At the moment, **three exhibitions are known,** but even **they are characterized by a predominant share of state participation**

Number of UNESCO world heritage sites



UNESCO world heritage sites in Uzbekistan

Itchan Kala

Historical center of the city of Bukhara

Historical center of the city of Shakhrisabz

Samarkand: a crossroads of cultures

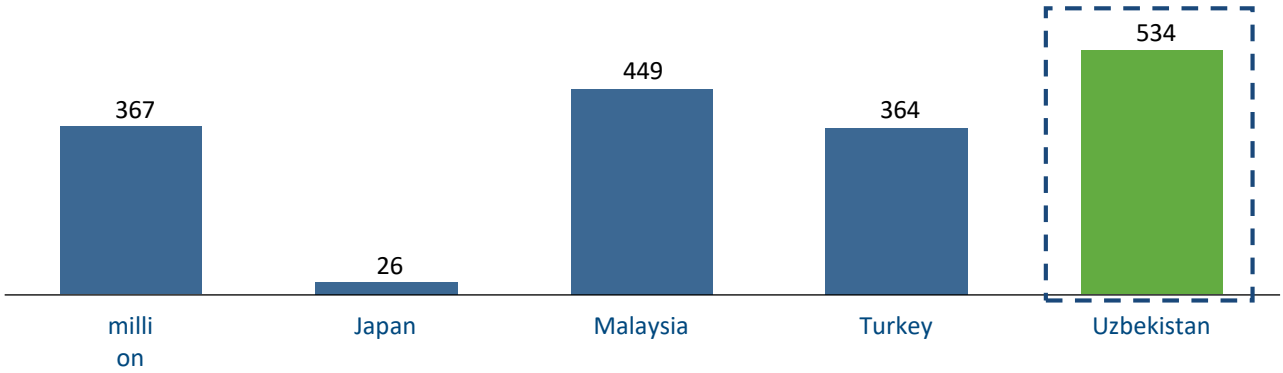
Western Tien Shan (Chatkal nature reserve)

Source: Open data portal of the Republic of Uzbekistan, Turkish Statistical Institute, the Japan Times, Annual Report of National Library of Malaysia

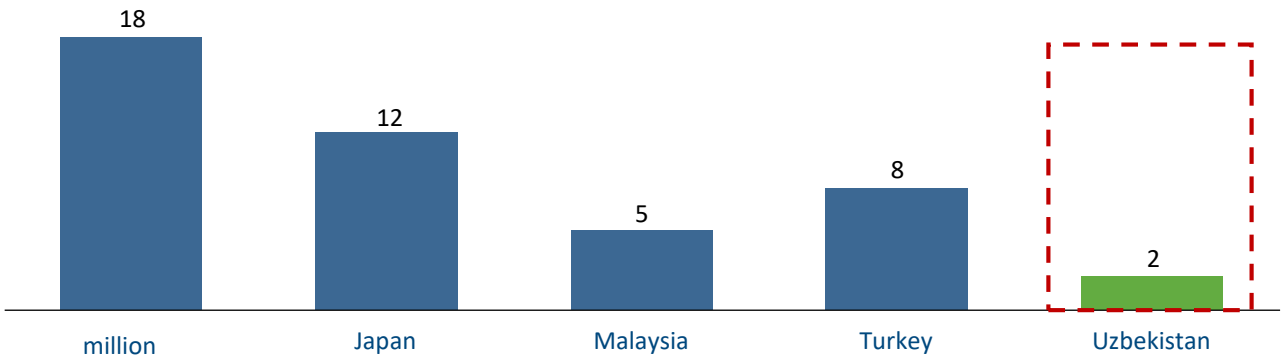
Culture

Current level of development

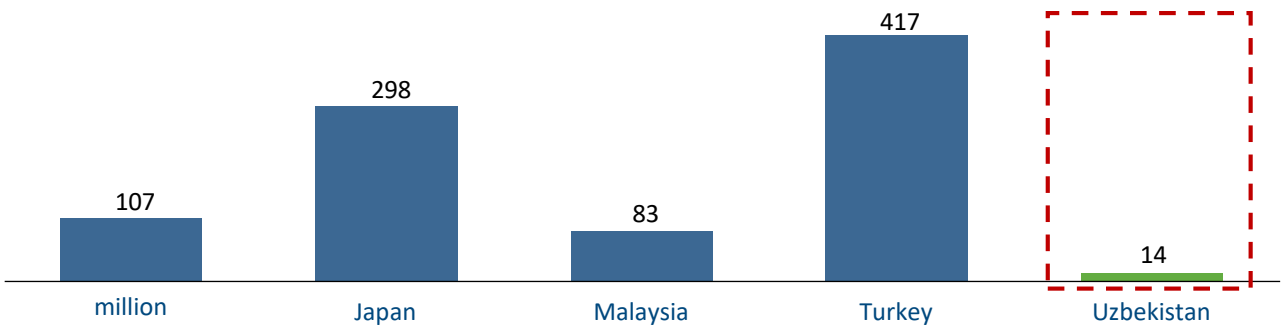
Number of libraries per 1 million people



Number of movie theaters per 1 million people



Number of museums per 1 million people, 2016



Comments

- Despite the large number of libraries in Uzbekistan**, only 0.5% of the country's population uses libraries**
- There are 312 cinemas in Uzbekistan, but at the moment only **68 of them are in use**

Source: Open data portal of the Republic of Uzbekistan, Statista, Statistics of Japan
Note: data for 2016, 1 = data for 2012

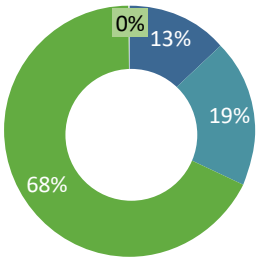
Culture

Strategic options

1

Private financing model

Sources of financing



- Donations
- Crowdfunding/investments/contributions
- Income from commercial activities
- State support

- High level of development of the cultural environment due to a significant share of private business participation
- In an unstable economy, the cultural sphere "suffers" first

Examples of countries:

million Russia

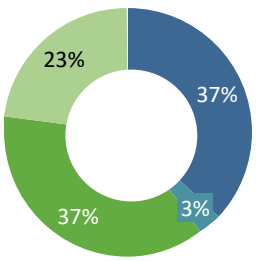
Lack of government interference

2

Target development option

Diversified financing model

Sources of financing



- Donations
- Crowdfunding/investments/contributions
- Income from commercial activities
- State support

- A diversified approach to financing reduces intraindustry risks
- High share of private (unique) cultural and leisure sites
- High share of financing through donations, which may cause a number of difficulties in the economies of developing countries

Examples of countries:

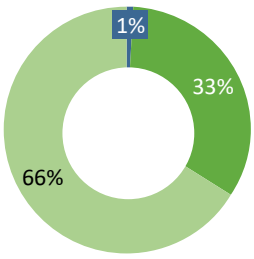
UK Finland

Diversified approach to financing

3

State financing model

Sources of financing



- Donations
- Crowdfunding/investments/contributions
- Income from commercial activities
- State support

- Significant share of finances comes from the income from commercial activities, which improves the quality of the cultural environment
- High degree of state participation, which may affect the quality and innovative component of the cultural environment

Examples of countries:

France Sweden Germany

The foundation is state financing

Sources: analysis of the working group

Culture

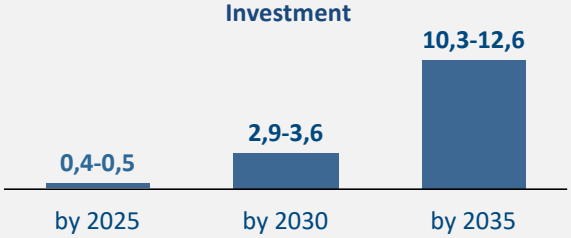
Target vision 2035

- Modernization and development of regional and district centers of culture and leisure; introduction of cultural centers to help socially underadapted groups of the population, creation of various leisure programs with regard to inclusiveness
- Creation of a national code of ethics and professional/industry standards
- Involvement of private business in cultural projects (construction of private exhibition facilities and other culture and leisure facilities)
- Creation of motivation systems to improve corporate culture
- Opening of specialized archival centers at universities in the field of art to preserve intangible assets (performances, films, concerts, conferences)
- Opening of branches of foreign universities in the field of art
- Formation of image and increase of prestige of Uzbekistan through online platforms, encyclopedias, and museums
- Development of the concepts of cultural mediation and international cultural law
- Promotion of the creation and development of second-hand book store networks
- Republication of works written by academics and outstanding scientists of Uzbekistan, textbooks and books in the field of culture and art

Figures

	2017	2035	CAGR
Cultural Influence Ranking	-	Top 40	11%
Share of state participation in the cultural sphere	99%	20%	-9%
Number of libraries per 1 million people	534	100	-9%

Investment



USD billion, cumulative

Sources: State Statistics Committee of the Republic of Uzbekistan, US News & World Report, analysis of the working group

Culture

Key strategic initiatives

- Development and approval of professional standards for employees of cultural institutions
- Formation of a national code of ethics
- Development of cultural development training programs (culture of speech, etiquette, etc.) in educational institutions with a focus on the international experience of Russia, Germany, the USA, France, Great Britain, and Japan
- Formation of the concept of a national brand
- Digitalization of Uzbek printed items involving volunteers
- Creation of interactive museums
- Creation of conditions and incentives to attract private business

- Application of qualification requirements for employees; retraining; advanced training
- Formation of qualification requirements and professional standards for employees, retraining, and advanced training
- Approval of a national code of ethics
- Modernization and development of regional and district centers of culture management; modernization of cultural centers to help socially underadapted groups of the population
- Reorganization of inefficient cultural institutions
- Approval of cultural development training programs (culture of speech, etiquette, etc.) in educational institutions
- Approval of the concept of a national brand
- Taking comprehensive measures to preserve world heritage sites
- Creation of an electronic information resource; provision of access to citizens of Uzbekistan
- Creation of virtual museums; introduction of QR code system
- Engagement of private investors in culture and leisure projects

- Ensuring the inflow of qualified personnel
- Implementation of professional standards for employees of cultural institutions
- Implementation of a national code of ethics
- Implementation of cultural centers to help socially underadapted groups of the population
- Reorganization of inefficient cultural institutions
- Implementation of cultural development training programs (culture of speech, etiquette, etc.) in educational institutions
- Implementation of the concept of a national brand
- Introduction of comprehensive measures to preserve world heritage sites
- Ensuring access of citizens of Uzbekistan to the electronic information resource
- Creation of virtual museums
- Engagement of private investors in culture and leisure projects
- Creation of an incentive mechanism for employees of institutions of culture and corporate culture motivation; updating of qualification requirements for workers; retraining; advanced training; creation of prerequisites for the emergence of competitive specialists and managers in the public sector; preservation and development of the potential of cultural sphere employees
- Modernization and development of regional and district centers of culture management
- Reorganization of inefficient cultural institutions
- Taking comprehensive measures to preserve world heritage sites

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

3.5

Environment

Social development

Environment

Current level of development

Key challenges

- Shortage of water to satisfy the growing needs of the population, agriculture, and industry
- Soil salinization and pesticide pollution
- Desertification associated with deforestation
- Waste processing
- Aral Sea crisis
- Climate change
- Biodiversity conservation
- Transition to sustainable development
- Lack of education on environmental issues, ethical production, and ethical consumption

Key findings

- In 2018, Uzbekistan was ranked 52nd out of 156 countries by progress in sustainable development goals, which is high. However, it dropped 5 positions compared to 2017
- Though Uzbekistan is not in the Top 100 countries by ecological footprint volume, the country maintains an environmental deficit, which proves that its activity harms the global environment
- The State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection developed measures to prevent the consequences of climate change
- Over 35% of the population do not have access to the centralized water supply, 11% depend on imported water due to the absence of alternatives
- The forest area of the Republic of Uzbekistan is shrinking as a result of illegal logging and desertification: since 2005, the forest area decreased by 2.3% and comprised 7.6% of the total area in 2015
- At the moment, the share of saline soils is over 50%
- There are 221 SHW[2] burial and disposal landfills in Uzbekistan. At the present time, 33,4 million tons of SHW have accumulated
- In 1995–2015, energy generated by renewable energy sources (RES) grew by 3.3% annually. However, the share of RES in the total volume of generated electricity remains low compared to the leading international practices

UN Sustainable Development Goals

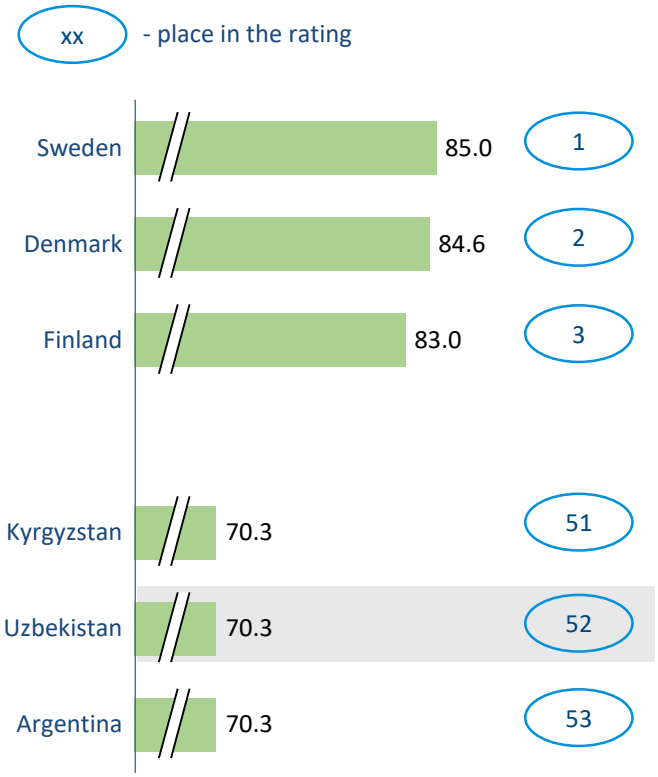
- Adopted in 2015 as part of the new sustainable development program "Transformation of Our World: Sustainable Development Agenda to 2030"
- Include 17 goals and 169 targets to be achieved by UN member states by 2030
- In 2016, 17 Sustainable Development Goals officially entered into force in Uzbekistan
- Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs
- To achieve sustainable development, it is extremely important to coordinate three main elements: economic growth, social integration, and environmental protection

Sources: World Bank, Report on the Millennium Development Goals of Uzbekistan (2015), State Statistics Committee, State Committee of the Republic of Uzbekistan for Environmental Protection, analysis of the working group
Notes: 1 = Ecological footprint includes the area of biologically productive territory and water area necessary for the production of resources used by people and for waste absorption; 2 = solid household waste

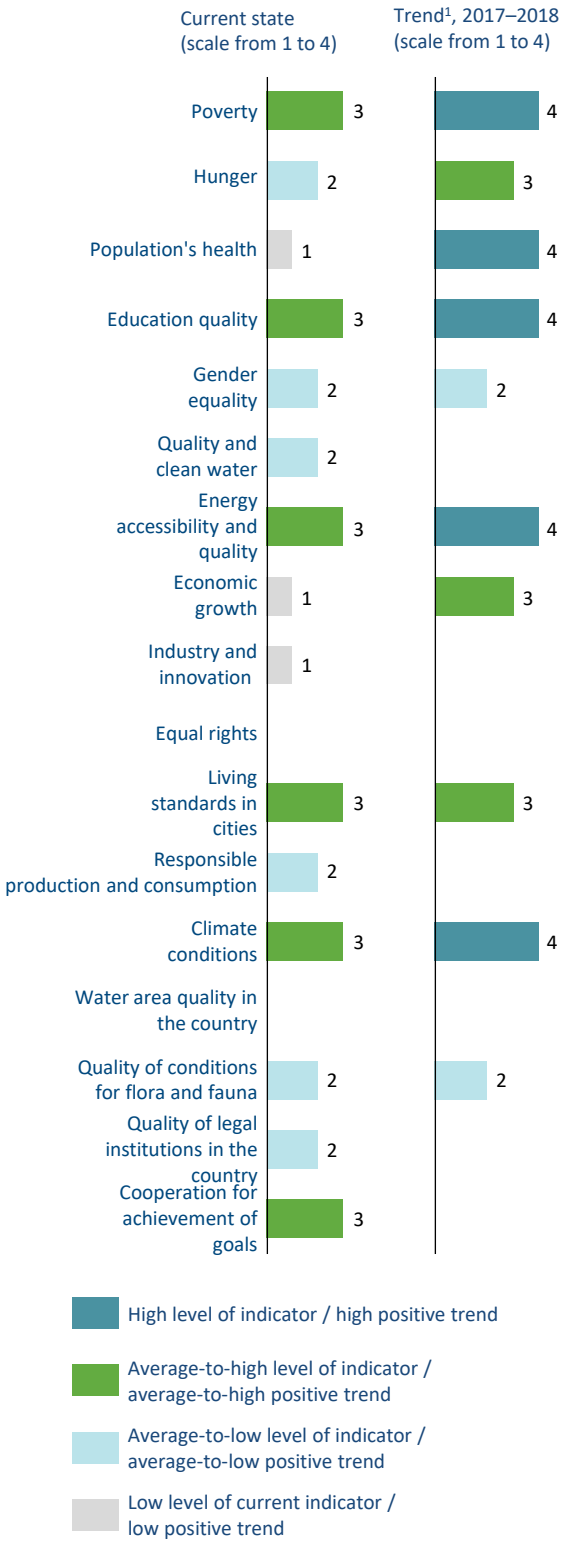
Environment

Current level of development

Sustainable Development Goals Progress Index, 2018



Detailed information on Uzbekistan's Sustainable Development Goals Index, 2018



Comments

- In 2018, Uzbekistan was ranked 52nd out of 156 countries by progress in sustainable development goals, which is high
- However, compared to 2017, Uzbekistan dropped 5 positions in the rating, which indicates an overall negative trend in terms of achieving Sustainable Development Goals
- Today, in accordance with the UN Sustainable Development Goals in Uzbekistan, special attention is paid to reducing the negative impact of waste on the environment and public health

Source: United Nations Global SDG Database, State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection, analysis of the working group
Notes: 1 - improvement trend from 2017 to 2018 on a scale from 1 to 4

Environment

Current level of development: climate change

Key threats caused by climate change

Defense capability

- Example of the US:
  - In October 2014, the Department of Defense published the Climate Change Adaptation Roadmap, which announced the beginning of work on protecting the US defense capability from possible consequences
  - US Secretary of Defense Chuck Hagel called global warming a "threat multiplier" and noted that climate change may facilitate materialization of other threats, from dissemination of contagions to acts of terrorism

Food safety

- Research and intergovernmental organizations unanimously emphasize the urgency of the threat to food safety in the world
- Climate change involves risks related to growing agricultural products in a sufficient amount, which may lead to changes in agricultural practices and the population's diet
- Example of Australia: in 2018, the government allocated a total of USD 1.8 billion to support farmers due to unprecedented drought

"Limiting global warming to 1,5 °C will require 'quick and far-reaching' transition processes concerning land, energy, industrial systems, as well as buildings, transport, and cities. Global carbon dioxide (CO^2) emissions caused by human activities will need to be reduced by almost 45% by 2030 versus 2010 levels to reach a "clean zero" by approximately 2050."

IPCC press release, October 8, 2018

Measures to prevent the consequences of climate change adopted in Uzbekistan

Energy consumption

- At least 30% of energy consumption should be from renewable energy sources by 2030

Forest fund

- Expansion of the forest area of the country by 2030
- Improvement in the quality of forest plantations and diversity of species through increased mechanization in forest restoration
- Implementation of new technology for creating planted forests
- Research on the creation of quickly growing forest plantations

Motor transport

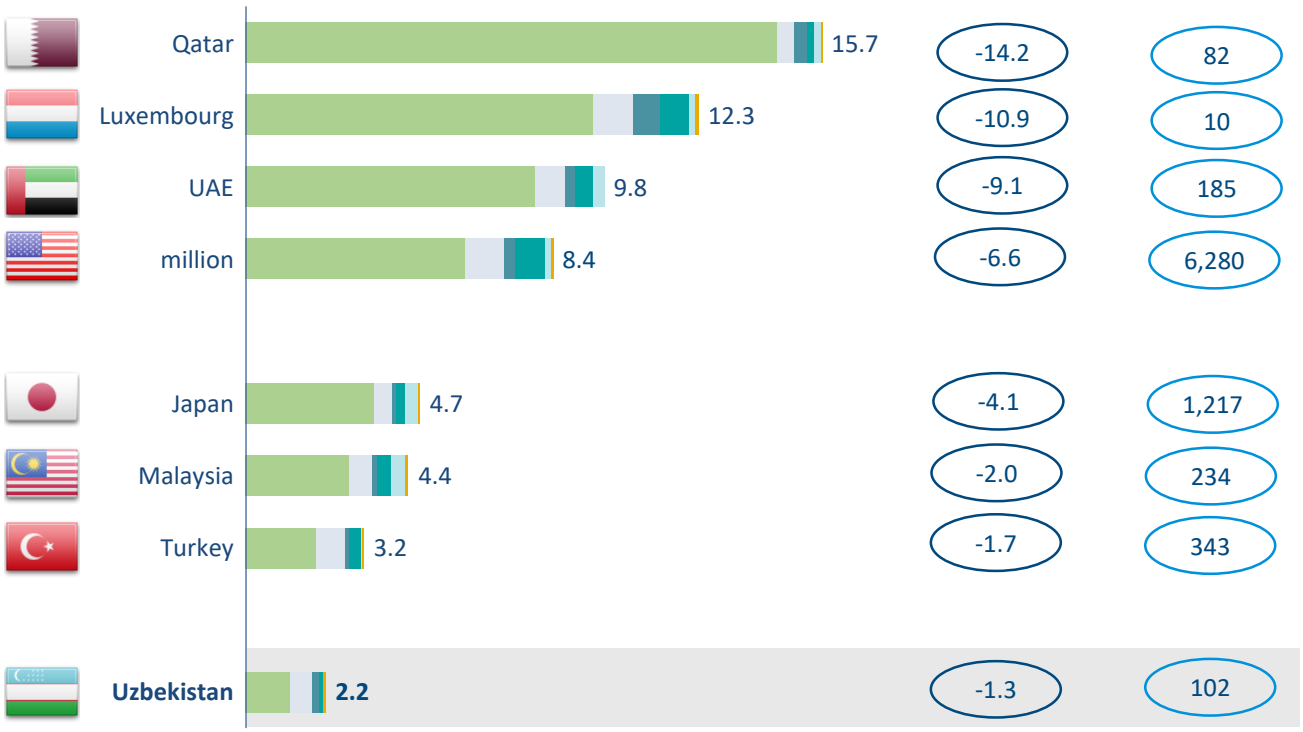
- Introduction of motor transport standards
- Introduction of Euro-6 motor fuel standards

Source: State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection, analysis of the working group
Note: 1 = Intergovernmental Panel on Climate Change; 2 = according to the data provided by the State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection

Current level of development: climate change

Ecological footprint,

gha[1] per person, 2014[2]



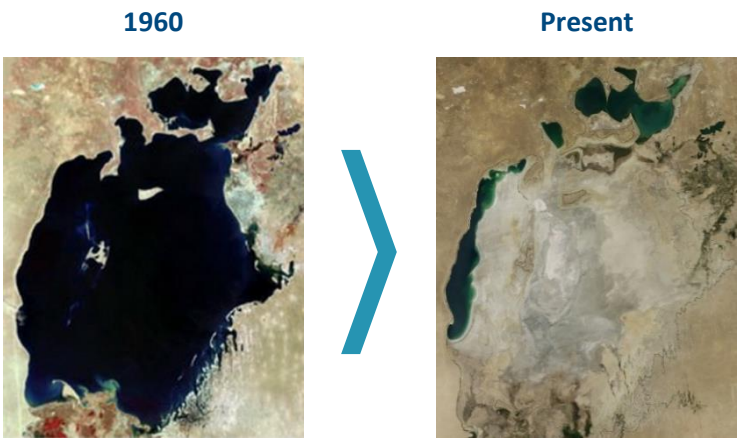
Comments

- The Ecological Footprint Index is prepared by Global Footprint Network and includes 190 countries
- Ecological footprint includes the area of biologically productive territory and water area necessary for the production of resources used by people and for waste absorption
- Though Uzbekistan is not in the Top 100 countries by ecological footprint volume, the country maintains an environmental deficit, which proves that its activity harms the global environment
- Furthermore, the amount of carbon dioxide emissions is low and comprises only 0.3% of the total emissions in the world
- In 2017, Uzbekistan signed the Paris Agreement, which will improve the environmental situation through activities to reduce emissions, and through modernization and measures to increase energy efficiency

Source: Global Footprint Network, World Resources Institute, analysis of the working group
Note: 1 = global hectare: a hectare of a biologically active area or water area with the average global bioproductivity indicator for a certain year: 2 = rating issued in 2018, included data for 2014

Current level of development: Aral Sea

Water level reduction in the Aral Sea

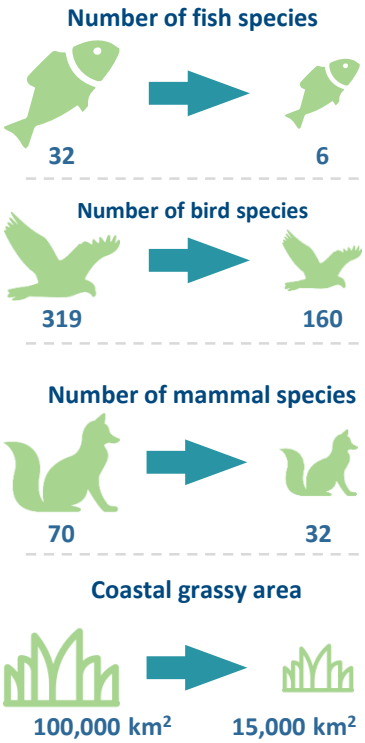


Main stages of the biodiversity decline in the Aral Sea as a result of salinization:

- 1971–1976: salinity exceeded 12–14 g/l, brackish water species of freshwater origin disappeared (carp, grass carp, river perch, Aral spined loach, European carp)
- 1986–1989: salinity exceeded 23–25 g/l, brackish water species of Caspian origin disappeared (sand smelt, stone moroko, sabre carp)
- 1990–2000: salinity exceeded 80–100 g/l, sea species disappeared (pike-perch, catfish, pike)

53.4	Water level, m	**31**(1)	**x1.72**
67.5	Area, thousand km^2	**13.9**	**x4.85**
10	Salinity, g/l	**91**(2)	**x9.1**
56	River flow, km^3/hour	**3.2**(1)	**x17.5**

Consequences of Aral Sea dryout



Environment:

- Disappearance of 90% of fauna as a result of increased water salinity
- Increase in climate drought and continentality
- Appearance and continuous growth of the Aralkum Desert with an area of 38 km2
- Disappearance of the natural barrier: the Aral Sea used to protect against the spread of dangerous bacteria that appeared in connection with the biological weapons tests at Vozrozhdeniya Island (Barkhan biochemical training center; years of activity 1942–1992)

Economy:

- Termination of fishing
- Unsuitability of water for irrigation of rice, cotton, and wheat

Social aspects:

- Increase in illnesses in the region: constant dust storms (75 million tons of dust annually) disperse sand and toxic chemicals from the bottom of the drying sea
- During 2012–2018, the population of the coastal city Muynak dropped by 25%

Sources: Union for Defense of the Aral Sea and Amu Darya; analysis of the working group
Note: 1 = data for 2003, 2 = data for 2004

Current level of development: Aral Sea

Project for construction of an earth bank and a dam with a flood gate

Dam with a flood gate

Project description:

- In 1990–1998, the government of Uzbekistan built an earth bank to separate the Small and the Large Aral. In 2001, with the support of the World Bank, construction of a dam with a flood gate began. It was finished in 2005

Budget:

- USD 85 million

Result:

- Over the first 8 months, the water level rose 2 meters
- Water area increased by 18%
- Water salinity halved (from 20 to 10 g/l)
- Freshwater species of fish (pike-perch, European carp) returned

Project for creating windbreak forests

Forest ranges on the dry bottom of the Aral Sea

Project description:

- The State Forestry Committee of the Republic of Uzbekistan elaborated a special program for acceleration of the planting of shelter forests on the drained bottom of the Aral Sea. The project is scheduled to be completed by 2017–2019. With respect to this matter, the draft Ruling of the Cabinet of Ministers of the Republic of Uzbekistan was prepared and submitted for approval

Budget:

- UZS 890 billion (USD 110 million)[1]

Expected result:

- Planting shelter forests with the total area of 1.5 million ha on the drained bottom of the Aral Sea;
- Prevention of the penetration of salt and dust in surrounding areas
- Anchoring of moving sands
- Reduction of wind erosion.

Additional options to solve the existing problem

- Reduction of water intake for the irrigation of fields; modernization of the entire irrigation system
- Development of an international general water strategy
- Replacement of cotton plantations with winter wheat
- Creation of a monitoring system

Sources: data of IFAS agency; World Bank; Astrakhan Newsletter of Environmental Education; analysis of the working group
1 – At the rate USD 1 = UZS 8,065

Current level of development: water

Water supply to the population of Uzbekistan,

million people, 2017

Population with access to the main water supply line

Population using alternative water sources

Population depending on imported water

Population with access to the main water supply line,

million people, 2017

Of these, the population's share:

with home connections to the network

using outdoor standpipes

Population using alternative water sources,

million people, 2017

Of these, population receiving water from:

Wells, pumps

Rivers, streams, channels, ponds

Springs

Comments

- Over 35% of the population do not have access to the centralized water supply, 11% depend on imported water due to the absence of alternatives
- However, about one-third of the population with access to the main water supply line need to use standpipes
- A quarter of the population using alternative sources need to use natural sources of water supply
- In some districts of Uzbekistan a high level of ground water is observed (e.g., Central Kyzylkum). With the development of desalinization technology, ground water may form the basis for a decentralized autonomous freshwater supply system.

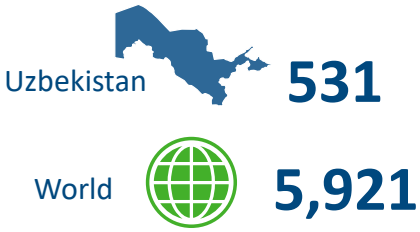
Sources: Ministry of Housing and Communal Services, analysis of the working group

Environment

Current level of development: water

The national project "Water" will be aimed at restoration and environmental rehabilitation of water bodies

Water resources yield capacity, GDP/m3 of pure water



Volume of domestic renewable water resources per capita, m3 per person

Project goals

Assurance of sustainable social and economic development with water resources

Preservation and restoration of water bodies

Ensuring protection of population and economic facilities from floods and other adverse impacts of water

Guidelines for action

- Elimination of water resource shortages
- Increased efficiency of water resource use by businesses and individuals

- Reduction of the adverse man-made impact on water bodies
- Restoration and environmental rehabilitation of water bodies that lost the self-purification capability
- Monitoring of water bodies, including at the border areas

- Increasing performance reliability of hydraulic facilities by bringing them into a safe technical condition
- Providing the population and economic facilities with engineering protection structures taking into account economic expediency

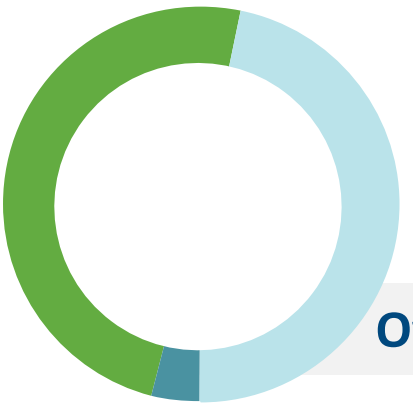
Source: international benchmarking, analysis of the working group

Environment

Current level of development: soil and forest areas

Share of saline land in Uzbekistan today,

thousand hectares



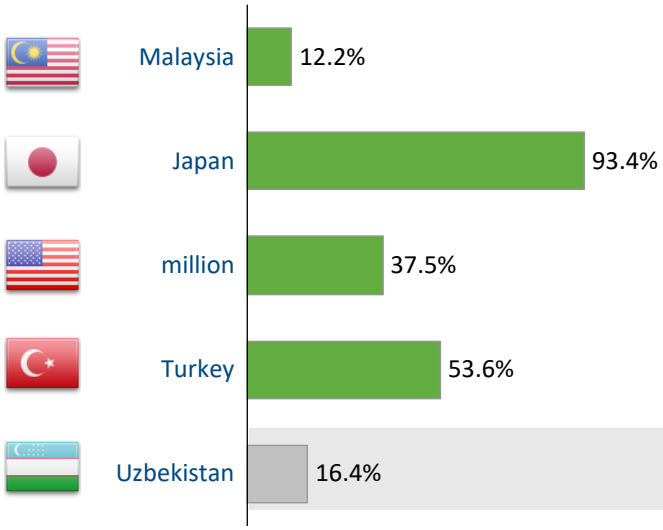
- In the most densely settled part of Uzbekistan, Central Fergana, 84% of irrigated land is saline
- In the Khorezm region, 95% of utilized irrigated lands are eroded

Over 50% of soil in Uzbekistan is saline

Nonsaline soils | Medium and slightly saline soils | Highly saline soils

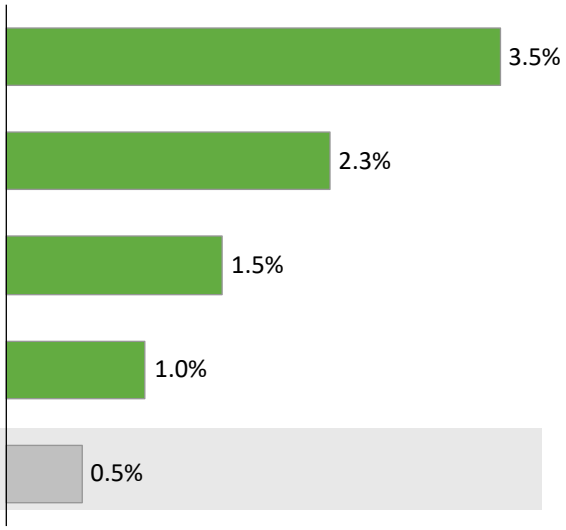
Share of arable land in the agricultural zone

%, 2015



Average carbon content in topsoil

%, 2008



Comments

- The share of arable land is rather low
- Low carbon content also indicates a low level of soil fertility
- Over half of all soils in Uzbekistan remain saline, and in some regions the share of saline soils may reach 95%
- The UN Stockholm Convention on Persistent Organic Pollutants has not been adopted yet

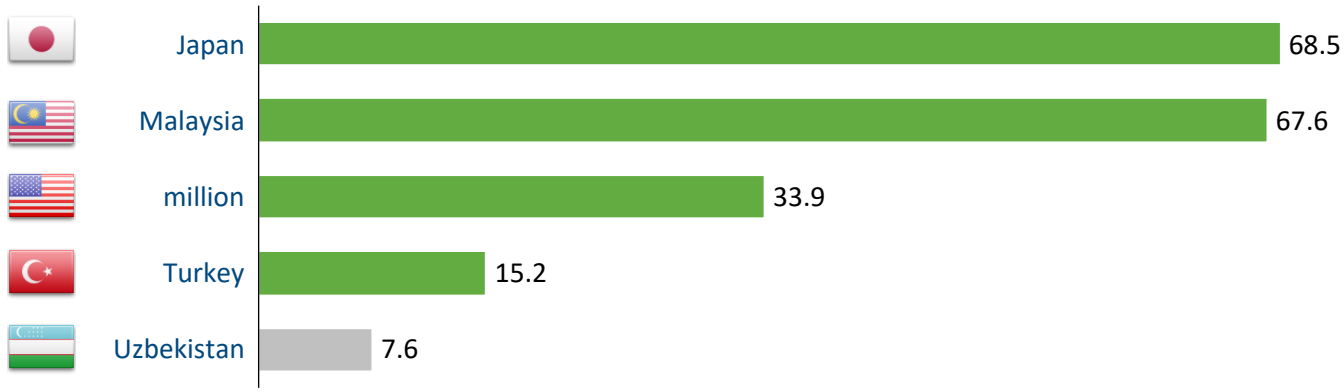
Sources: UN Food and Agriculture Association (FAO), State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection, State Statistics Committee, State Committee of the Republic of Uzbekistan for Nature Protection, analysis of the working group

Environment

Current level of development: soil and forest areas

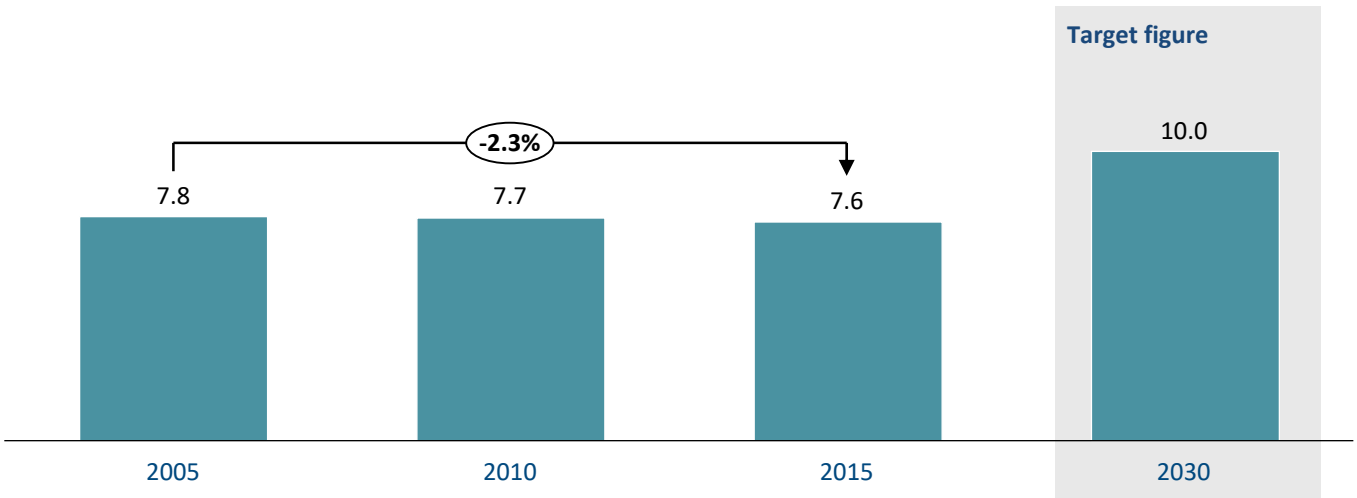
Share of forest cover in the total area

%, 2015



Share of forest cover in Uzbekistan (over time)

%



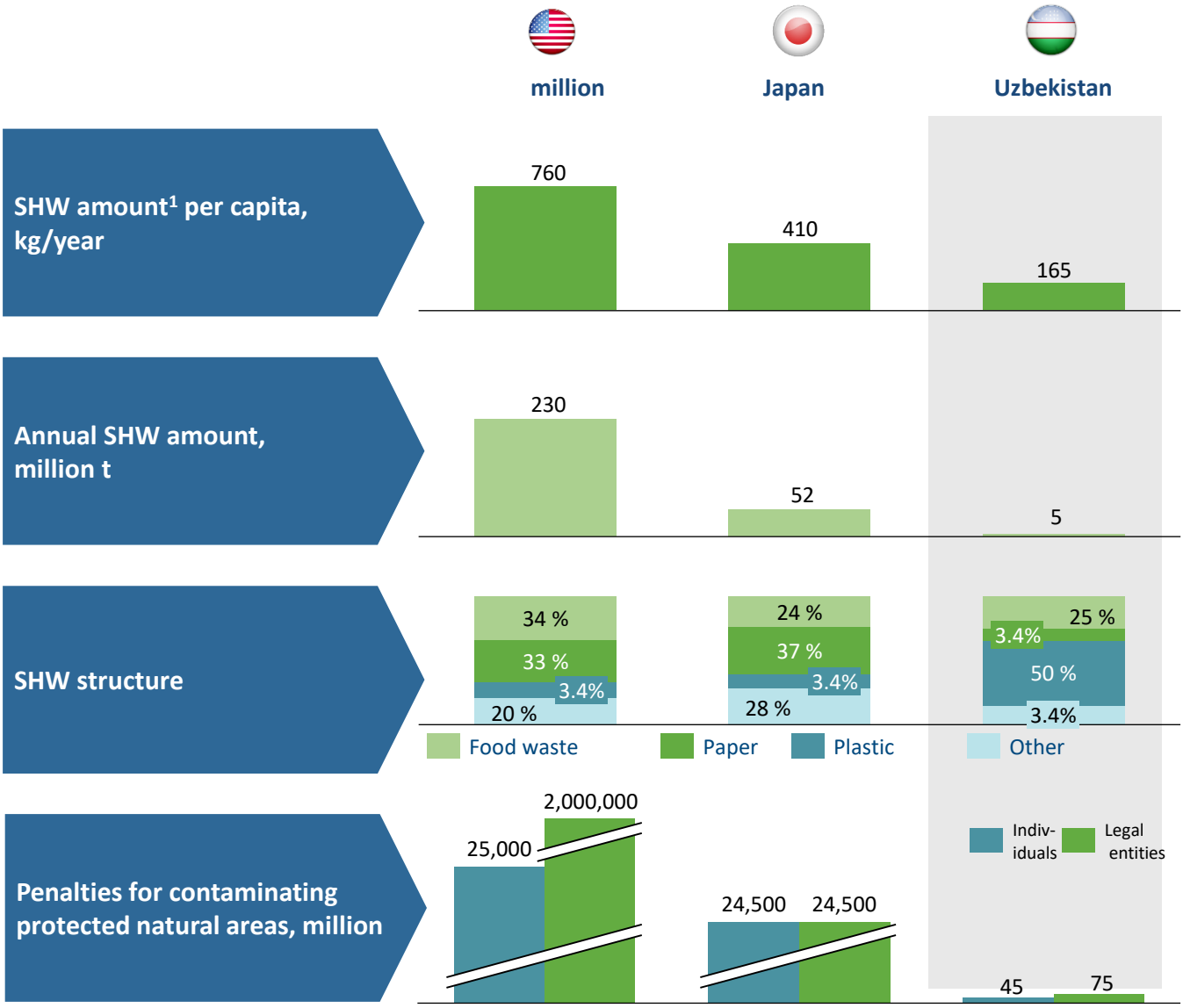
Comments

- Despite the International Fund for Saving the Aral Sea's project to create protective forest ranges on the Akkum ridge and the Akhantai section of the dry bottom of the Aral Sea with an area of 20 ha, the area of the forest cover in Uzbekistan is shrinking
- The main reasons for the decrease in the share of forest cover are:
  - Legal and illegal logging
  - Spread of deserts
- Implementation of the project elaborated by the State Forestry Committee of the Republic of Uzbekistan for planting shelter forests on the drained bottom of the Aral Sea will make it possible to increase the size of the forested area of Uzbekistan, which is forecasted to reach 10% by 2030

Source: United Nations Global SDG Database, REGNUM news agency, State Committee of the Republic of Uzbekistan for Ecology and Environmental Protection, analysis of the working group

Environment

Current level of development: waste



Comments

- In 2018, the country's first waste processing plant opened in the Surxondaryo region of Uzbekistan. The capacity of the plant is about 182 thousand tons of waste per year. The plant is engaged in the collecting, sorting, processing of more than 10 types of waste from the Termez and Angora regions, as well as the production of finished products based on them
- There are 221 SHW burial and disposal landfills in Uzbekistan. At the present time, 33,4 million tons of SHW have accumulated
- There are penalties for environmental pollution in Uzbekistan, but they are ineffective

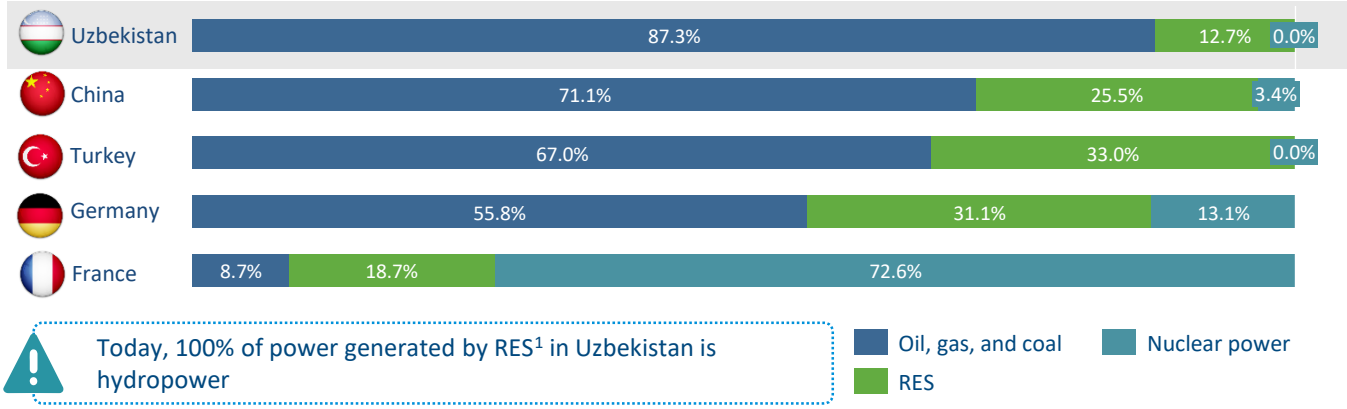
Waste processing plant in Surxondaryo region

Source: Uzbekistan Communal Services Company, State Committee for Environmental Protection of the Republic of Uzbekistan
Notes: 1 - solid household waste

Current level of development: renewable energy

Shares of electricity sources by type

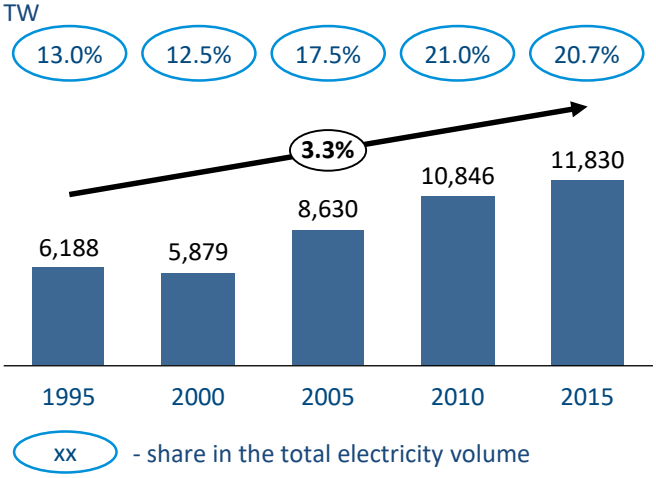
2017, %



Today, 100% of power generated by RES[1] in Uzbekistan is hydropower

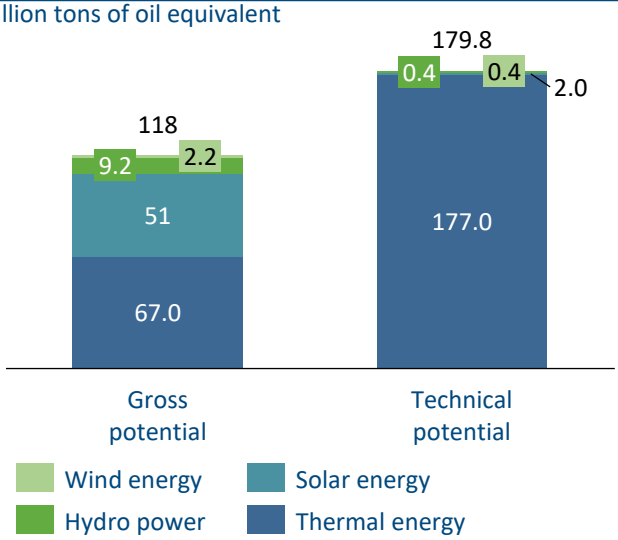
Electricity generated by RES

TW



RES potential in Uzbekistan

million tons of oil equivalent



Comments

- Despite the great potential of the use of solar and wind energy, today the main sources of electricity in Uzbekistan are natural gas, coal, and oil products. In 2017, they accounted for 85.8%
- In 1995–2015, electricity generated by RES grew by 3.3% annually. However, the share of RES in the total volume of generated electricity remains low compared to the leading international practices
- By 2025, plans are to spend UZS 314.1 billion (USD 81 million) from the state budget on the development of renewable energy sources in Uzbekistan and raise UZS 20.5 trillion (USD 5.3 billion) in the form of foreign investments
- Solar energy of the Republic of Uzbekistan can cover 98% of the total technical potential of RES in the country. Yet, the use of only one source of electricity involves economic risks. Combined use of different RES is the best solution from the point of view of risk assessment, economic costs, and efficiency

Source: International Energy Agency, State Committee, Association of Alternative Fuels and Energy of Uzbekistan, analysis of the working group
Notes: 1 = renewable energy sources

What is required for the safe development of the agricultural sector

Key challenges

- Processing has not yet become a driving force of the agricultural sector.
- Developing climate change exacerbates the difficulties of agricultural production in semidesert and desert areas, creating a danger for the population.
- The high risk is caused by the lack of safety of food products: the absence of full-fledged laboratories certified pursuant to international standards for control of quality and safety of food products and their conformity with technical requirements.
- Valuable food products, such as fruits and vegetables (especially, organic and biocertified), are important export goods—that is, the lack of an effective system of food product safety prevents Uzbekistan from maximizing its involvement in international trade.

Key findings

- Reforming the food product safety system in Uzbekistan to support complete harmonization with the EU and other key international advanced methods is difficult but strategically important for the growth and prosperity of the country subject to its natural competitive advantage in the agricultural business. To conduct significant structural reforms in legislative, statutory, institutional, and infrastructural areas, ongoing political support will be required.
- Pursuant to the Law of the Republic of Uzbekistan on Food Product Safety, responsibility for the monitoring of food product safety is allocated between several agencies, most of which are controlled by and subordinate to the Ministry of Health, the Ministry of the Economy, the Ministry of Agriculture, and the Ministry of Water Resources. The roles and obligations of those institutions sometimes cross over, but the system also has some evident gaps.
- The current national institutional system of food product safety in the Republic of Uzbekistan comprises: (i) authorized state structures (Ministry of the Economy, Ministry of Agriculture and Reclamation, Ministry of Health, State Quarantine Inspection for Veterinary and Phytosanitary Safety, Uzstandart Agency); (ii) operators of the food industry (chemicals, drugs for animals, feeds and feed additives, primary production entities, finished products, trade, public nutrition, etc.); (iii) suppliers of services (conformity assessment structures, including laboratories and suppliers of services for production quality control, private veterinary services, etc.)
- As for state authorities, there are some systemic problems, such as (i) lack of clear allocation and differentiation of functions between them; (ii) lack of coordination and connection between them; (iii) insufficient financing; (iv) incorrect personnel recruitment system and low qualification of personnel; (v) low-performing technical equipment, including laboratory infrastructure; (vi) low performance discipline; (vii) corruption.

Environment

Food security

Strategic options

Proposals are concentrated in six areas

1

Impact of climate change

The purpose of adaptation to climate change should be a more sustainable agricultural sector. To accomplish that purpose, it is proposed to apply a Climate Proofing Tool and subsequent adjustments of production and processing in individual value chains.

2

Production safety and undernourishment

Lack of production safety in the Republic of Uzbekistan has a seasonal nature and is connected to a growing demography. One-third of the population of about 33 million people suffer from a shortage of food. The proposed measures comprise analysis of factors causing undernourishment and development of preventive measures, focusing on the potential of existing production and supply chains

3

Food product safety system

Comprehensive institutional reform in the area of food product safety: Three groups of measures are proposed: establishment of agricultural aggregating companies, strengthening the analytical and technical potential to ensure the safety and quality of food products at the national level, and the creation of the Food Alliance as the unified legal entity of a state and private partnership.

4

Agricultural insurance

Insurance of agricultural microlending and the index-based insurance system can play a critical role in ensuring food safety and better tolerance of national agricultural production to risks related to climate change. It was proposed to analyze the most vulnerable chains and develop an appropriate scheme.

5

Agrochemical import and transit management

6

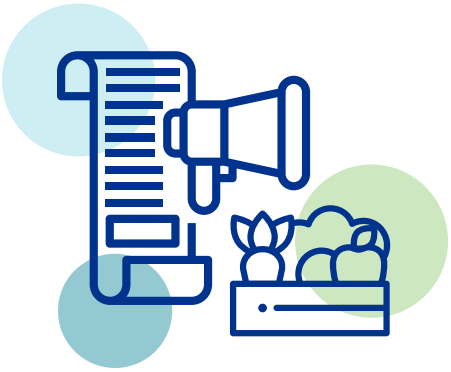
Additional agricultural production and supply chains.

Production of biogas and biodiesel, production of forage, grasslands for cattle breeding and strengthening organic production were defined as the main additional activity types for development of the value chain

Target vision 2035

State strategies, policy, programs

- Agricultural production and food product safety: the accession of the Republic of Uzbekistan to the World Trade Organization (WTO) in 2019 calls for far-reaching reforms of technical regulation (standardization, conformity assessment) and metrology. The Law of the Republic of Uzbekistan "On the Fundamentals of Technical Regulation in Uzbekistan" and a new version of the Law of the Republic of Uzbekistan "On Ensuring Unity of Measurements," being a kind of a "technical constitution of the country," define the legal framework National Infrastructure of Quality of the Republic of Uzbekistan. The National Infrastructure of Quality (NIQ) shall mean a uniform system of interrelated activities for the development of technical requirements, compulsory and voluntary, for production and/or associated processes of design (including research), production, construction, assembly, set-up, storage, transportation, sale, operation, and utilization (the "technical regulation facilities") pursuant to the requirements and for metrology.
- One of the main reasons for lagging in the development of technical regulations is a lack of the appropriate institutions in the Republic of Uzbekistan capable of developing technical regulations on the basis of international standards.
- Due to the requirements of the Customs Union, it is necessary to revise the Programs of Development of Technical Regulations subject to application of the technical regulations of the Eurasian Customs Union on the territory of the Republic of Uzbekistan.
- The Commission of the Customs Union has approved a series of decisions setting compulsory requirements for products entering the markets of countries of the Customs Union. These are Uniform veterinary (veterinary-sanitary) requirements for products that are subject to veterinary control when imported to the territory of the Customs Union; Uniform sanitary-epidemiological and hygienic requirements for products that are subject to sanitary-epidemiological oversight (control); and standards of different categories setting compulsory requirements for products that are subject to compulsory assessment (confirmation) of conformity.
- Requirements for their compulsory tracing by manufacturers are formalized in legislation of the countries of the Customs Union with respect to staple foods and food products. Pursuant to the requirements of the Commission of the Customs Union, the import of livestock products to the territory of the Customs Union shall be permitted only from farms or entities of third parties included in the Register of organizations and individuals carrying out their production, processing, and/or storage.



Target vision 2035

Analysis of current problems with primary production of raw materials for particular value chains

- In the nutrition area, the government must cooperate with various international organizations to take measures that would entail a significant improvement in the state of nutrition of the population.
- Climate change has a negative impact on water availability for the agricultural sector, where high costs of source materials for primary production also put the relative stability of food production and supply at a high risk. The success of agricultural production varies from region to region and depends to a large extent on an increase in the number of extreme climate conditions, such as extended drought periods. Consequently, sustainable production and provision of food resources cannot be so far supported without proper management of all risks and implementation of the principles of a sustainable agricultural sector.

Brief description of main problems

- Processing has not yet become a driving force of the agricultural sector. The priority of development of the processing industry is indisputable as that sector, being an integral part of the agricultural sector, forms real domestic demand for the production of particular types of agricultural products.
- The following factors hinder the development of value chains in the agricultural sector: (1) limited access to "cheap" loans; (2) "weak" marketing and lack of profitable markets for agricultural products and processed goods that resulted in low purchase prices, low labor productivity, and low crop yield.
- Combination of semidesert and desert areas, dependence of the agricultural sector on irrigation and progressing climate changes mean that bad harvests can affect whole regions, posing a risk to the feeding of the population.
- Another risk is caused by a lack of safety of food products: Since the Soviet times, the region was notorious for an extremely high use of agrochemicals, but after its fall, use sharply decreased. The agrochemicals that were used in those days were so-called persistent pollutants—that is, metabolites remain in the soil for many years and poison future crops. Moreover, in recent years, use of agrochemicals has again sharply grown, and the origin (mainly imported from China), composition, and use are not subject to control.
- There is a lack of full-fledged laboratories certified pursuant to international standards for the control of quality and safety of food products and their conformity with technical requirements in the country. Consequently, research on food products in terms of background radiation, residual antibiotics, etc. are not conducted, and the number of genetically modified and counterfeit goods, including dubious agricultural chemicals, is growing.
- Nevertheless, there are still serious gaps and problems in the area of food product safety. "Safe" food is defined as food that creates no more than the acceptable level of risk for consumer health. The current food product safety system in Uzbekistan, which is guided by standards inherited from the Soviet Union, is complicated as different institutions share partly coinciding obligations, and the abilities of monitoring institutions are weak and insufficient for conformity with international standards.
- Safety of food products is of the essence for Uzbekistan. Valuable food products, such as fruits and vegetables, are important export goods—that is, the lack of an effective system of food product safety prevents Uzbekistan from maximizing its involvement in international trade. Moreover, food product safety rules provide means for human protection from health risks connected with unsafe food.

Environment

Food security

Target vision 2035

Brief description of main problems

Many associated problems in the area of food product safety were investigated within the framework of the FAO program/projects (such as the Program of Food Safety and Balanced Nutrition in SA (2014–2017); Strengthening the National system of monitoring of agricultural crops, forecasting crop yield, and consultancy service for farmers that will be integrated in the Information System of Food Safety (GCP/EC). Increased risks at the primary production level are observed at the following stages: application of pesticides, use of animal-derived drugs, and the use of feed additives affect the health of animals. At the stage of production, storage, transportation of food products, the increased risk for safety of food products is connected with potential microbiological contamination from all sources; production of finished food products; import of food safety facilities; and the public nutrition system.

Alternative solutions

Safety of alimentary and food products

Resilience to climate change

Development of the most vulnerable part of value chains.

What should be done? Key aspects

Possible measures:

- Analysis of the food safety level of households at the national and delegated levels using
- Multiple indicators (a set of indicators of food safety offered by FAO/WFP/IFAD 2013)
- Assessment of changes in the food safety of households by comparing trends with previous
- HFSA shall be made using the same indicators
- Assessment of potential cause-and-effect relations between factors determining production safety
- Suggest and implement appropriate measures to counteract

These measures correspond to the National Strategy of Sustainable Development (2021–2035), UN Framework Program for Providing Aid for Development Purposes (2017–2020), while the GDP is a Strategic Plan (2020–2050) and facilitates the accomplishment of Millennium Development Goals 1, 3.

Target vision 2035

Infrastructure development

Alimentary and food safety system:

(challenge and possibility to improve economic development in Uzbekistan)

Four bodies for control of the safety of food products:

- State Sanitary and Epidemiological Service (SES) at the Ministry of Health
- State Veterinary Service at the Ministry of Agriculture and Amelioration
- State Inspection for Plant Quarantine at the Ministry of Health and Amelioration
- State Agency for Standardization and Metrology, KG Standard Center at the Ministry of the Economy

Current events connected with the expected accession of the Republic of Uzbekistan to the WTO will affect the decision about the creation of an integrated system of control over food products to have only one agency for control over food products in the nearest future. That agency will be in charge of regulation of the food product safety system and will promote improvement of safety of food products, strengthening protection of consumer health in the Republic of Uzbekistan. In that case, food products may be produced and sold on the country's territory without a special permit if they do not damage consumer health and meet general standards set by the legislation on HACCP/ISO 220003. However, manufacturers, carriers, importers, and retail sellers shall bear the liability for products that they transfer for circulation. They shall ensure and document the safety and quality of their services using internal control mechanisms.

Target vision 2035

Suggested measures

1. Agricultural company that is aggregator

commercial entity responsible for ensuring the five-level system of food product safety along the whole value chain supported by the safety program. The five-level system of food product safety is based on specifications, inspections, and information at five key checkpoints: fields, production/processing/facilities, transport, distribution warehouses, and kitchen/consumer.

1.1. The aggregator approach will ensure the following:

- As distinct from other wholesale markets, farmers may sell large or small quantities of products through that sales channel.
- Farm products may preserve farm identity and be sold at the local or regional level.
- The aggregator will work with farmers for provision of technical support at farms, harvest planning, and preproduction planning pursuant to market forecasts.
- The aggregator will serve as a marketing expert and distributor that will enable a farmer to contribute more time to agriculture and may decrease marketing and distribution costs of an individual farmer.
- Aggregators and marketing cooperatives may be useful for the purchase of packaging materials, labels, and marketing materials through group-wide purchases that may decrease the costs of materials for an individual manufacturer.

1.2. Strengthening the analytical and technical potential for safety and quality of food products (Complex Laboratory) at the national level. A laboratory is the most important part of a chain that assumes the liability for analysis of quality and safety of food products. Due to numerous problems of consumers and the scope and problems of the quality and safety of food products, technical aid is often needed. Food-borne diseases usually arise due to incorrect handling, cooking, or storage of food products. The proper hygienic practice before, during, and after cooking may decrease the chances of becoming ill. Food product monitoring to ensure that they will not lead to food-borne diseases is called food product safety. Food-borne illnesses may also be caused by a great number of toxins that affect the environment. Preserving agents or drugs in food may also cause food-borne illnesses.

Sources: World Bank, State Statistics Committee, analysis of the working group

Target vision 2035

Suggested measures

1.3. Human resources: training of the personnel of laboratories and inspectors on food product safety in the area of international safety standards of food products shall be performed under the program subject to development of the required methodology of training, timetable, program, materials, practical guidance, and standard operating procedures starting from school and provide for increase in the number of certified specialists in safe agriculture

1.4. A centralized information management monitoring center, laboratory, and group of auditors/inspectors for food product safety should be established that will become the basis for implementation of the five-level system of food product safety in the country.

1.5. Establishment of the Food Alliance, a unified legal entity of a state and private partnership

Sustainability for food production and farming

Food Alliance certification is designed for agricultural entities, food industry entities, and distributors that engage in:

- Protection, preservation, and improvement of soil, water, the habitat of wild animals, and biodiversity.
- Savings of power, reduction and processing of waste
- Reduction of the use of pesticides and other toxic or dangerous materials.
- Support for transparent and traceable supply chains
- Support for safe and fair labor conditions
- Guarantee of integrity of food products without the use of genetically engineered or artificial ingredients.
- Ensuring the healthy, humane treatment of animals.
- Ensuring the ongoing improvement of practices

Suggested measures

2. International Certification Standard Center

The original Food Alliance sustainability standard for farms.

- The crop farming operator covers fruit, vegetable and cereal crops, and seed farming.
- The livestock breeding operator covers beef, cattle and bison, sheep and goats, herbivorous animals, pigs, domestic fowl, eggs, and dairy products.
- The aquaculture operator covers fish, trout, carps and related fish, oysters, prawns, crayfish, and seafood.
- The forestry and greenhouse operator covers woody ornamental plants, annual plants, perennial plants, leaves of plants, flowering plants in pots and cut flowers.
- The food product processing operator covers packaging, processing, and distribution of facilities and resources.

3. Global climate change: agriculture more resilient to climate change

Insufficient attention has been paid to aspects of climate change and its effect on agricultural production in the country at the level of national policy or by farmers. The first objective will be increasing awareness amongst the respective partnership organizations about the expected effect of climate change on water use in agriculture and advising them on appropriate adaptive measures. A very good basis for that may be cooperation with the project for monitoring of agricultural crops and harvest forecasting offered by EU/FAO (Annex 5), whose purpose is the creation of an Early Warning System (EWS) for timely provision of information about hazards and the impact of weather on cattle breeding and grasslands.

Possible measures:

- Implementation of the EWS and training in its use to check the climate in individual value chains in order to implement proper adaptive measures
- Improvement of production technologies with the focus on the efficient use of irrigation water and rain water.
- Assisting in approaches to drainage basins and practices for the protection, preservation, and management of land and water resources (water sources, protection of soil in upper catchment areas, recovery of grasslands, etc.)
- Preparing instructors (specialists for dissemination of knowledge, suppliers of services for adaptation to climate change and the practice of ensuring sustainability)
- Providing consultancy services to political subjects to improve the political and institutional environment and develop the potential to adapt to climate change.
- Assisting in the exchange of knowledge about climate change and agriculture between practitioners and politicians.

Infrastructure of global climate change: a special center may be established for coordination of services for isolated projects to mitigate risks associated with the threats of climate change, the establishment of partnership relations and the use of the synergy of fragmented actions of all interested donors in the country. The center also may manage the work of the digital system online.

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Suggested measures

4. Weather index Insurance schemes for agriculture

Insurance of agricultural microlending to adapt to climate change

It should be noted that insurance is a high-cost service more appropriate for extreme risks; therefore, it is advisable to combine such products as traditional insurance with index-linked insurance or a combination of insurance and incidental loans. Prior to that, it is important to promote a culture of credit and savings that would support the purchase of insurance. The World Bank has elaborated Guidelines for Insurance of Weather Indicators for Agriculture for development practitioners that is recommended for application. Subject to adaptation to the country concept, the following set of measures may be implemented:

- Assessment of potential risks falling within the insurance scheme (insurance of harvest, prices, etc.)
- Analyzing and determining testable and independent measurement of a variable that affects crop development
- Ensuring the availability and reliability of data on weather and climate necessary for indexation (potential cooperation with the Climatic Program of the World Bank, project for monitoring of harvest and crop yield forecasting offered by the EU/FAO (Annex 5)
- Comparing harvest growth models with climate/weather models
- Development of an appropriate scheme (private, private/public, cooperative) for distribution of costs and the role of the state to be carefully analyzed. On the one hand, index-linked insurance policies are expensive, which makes the involvement of the state compulsory; on the other hand, deficiencies in the state budget can make a new insurance scheme unreliable.
- Creating and testing a pilot scheme (for a particular crop or subject to regional characteristics)
- Adjustment of legal and institutional frameworks to prepare for scheme inclusion

Suggested measures

5. Customs control over import and transit of agrochemicals

Years of unstable and slow growth demonstrate that the country cannot use economic integration to improve the well-being of the population: 34% of the country's population still live below the poverty line, and the unemployment level, especially amongst women, is high. Moreover, unstable export of goods and dependence on the import of energy resources have resulted in an ongoing increase in the foreign trade deficit.

Reasons for slow progress: permanent dependence of the country on agricultural and raw material resources and on cash remittances and external aid. Economic development is also prevented by the low "survival" ability of export relations, which disrupts the ability of the country to unleash its growth potential. A decrease in the share of trade of components and details results in a decrease in participation in the international added value chain, and a low technological level of exported goods prevents the formation of production ties and cooperative effects that increase social and economic well-being.

However, the only access of exporters to trade information about international standards and rules and permanent changes in the tariff and nontariff policies of countries that are trade partners is insufficient. Nevertheless, despite ongoing difficulties, the country's population, which currently numbers 33 million people, may develop some sectors of the economy that are competitive at the international level. Agriculture, due to high-quality agricultural crops, processing and livestock, consumer goods industry and tourism, has significant potential, especially subject to implementation of the best-advanced methods and technologies

Suggested measures

6. Added value chains: review of the possibilities for expanding the Program of Economic Development of Uzbekistan

Organic agriculture – "Ecological Farm"

Ecological agriculture represents a high-quality solution amongst areas of sustainable agriculture. Ecological farming is not the same as organic farming, although they have much in common, and they are not necessarily compatible. Ecological farming comprises all methods, including, but not limited to, organic ones, that restore ecosystem services, such as: prevention of soil erosion, intrusion and retention of water, capture of carbon in the form of humus, increase in biological diversity, etc. Many methods (full-cycle, atypical, cover crops, strip drilling, terrace growing, shelter belts, clipping grasslands, etc.) and technologies enabling the preservation and restoration of the ecosystem of ground, water, and environment are used.

Academic Institute of Microbiology: innovative project of production of biofertilizers for agriculture. JV Green Bio Tech LLC was established, and production of biofertilizers that are optimal for the climatic zone of the country was launched. The program contemplates organizing a site for an ecological farm and providing technologies with characteristics ensuring higher crop yield and sustainable production within that project.

Production of feeds for cattle breeding

At present, the demand for feeds for livestock and fishery, such as prescribed balanced organic compound feeds based on local resources, is significantly higher than for existing feeds of inferior quality available at local markets.

Biodiesel production

Biodiesel is the most wide-spread biofuel in Europe. It is produced from oils or fats by transesterification and is a liquid whose composition is similar to that of fossil/mineral diesel fuel. In terms of the chemical composition, it consists of methyl (or ethyl) ethers of fatty acids (FAMEs). Raw materials for biodiesel production are animal fat, vegetable oil, soy, rape, jatropha, makhua, mustard, flax, sunflower, palm oil, hemp, field pennicress, pongamia pinnata, and algae. At present, clear biodiesel (B100) reduces emissions up to 60% as compared to second-generation B100 diesel fuel

Biogas production

Biogas is produced as landfill gas (LFG) or digested gas. Anaerobic reactors that process agricultural waste or energy crops are often called biogas plants. It can be produced using anaerobic boiling pots. These plants can be fed with energy crops, such as corn silage or biodegradable waste, including sewage sludge and food waste. During the process, the sealed reservoir transforms biomass waste into methane, producing renewable energy that may be used for heating, electricity, and other operations where a conventional engine is used, for example, GE Jenbacher or Caterpillar gas engines. Other combustion engines, such as gas turbines, are suitable for transforming biogas into electricity and heat

Amongst organizations in charge are the Ministry of the Economy, the Ministry of Agriculture, and the Ministry of Health; the Council for Business Development and Investments, which provides a platform for state-private dialog; the Chamber of Trade and Industry; business associations in advanced supply chains, especially in the agriculture and food industry; suppliers of services in supply chains; consultancy bodies, R&D institutes; municipal and regional/district authorities; relevant organizations of civil society having competence in national and local economic development and green economy (economic club, ecological, consumer, and nongovernment organizations), and cooperatives. Private entities and service suppliers have already received some support from preceding programs, while state entities have weak capabilities, especially at the municipal and regional levels.

Target vision 2035

Expected effect of a new component

Measures for adaptation to climate change for farmers will become for manufacturers an integral part of program support for sustainable agriculture. Sustainable agriculture principles will be implemented for saving water resources and preventing soil erosion. This will result in preservation of soil fertility. Microinsurance schemes will also be used that are provided to farmers for insurance of harvest losses in case of climate change. The food product safety and quality program will definitely become an important part of broader measures in the area of food safety and development of rural districts designed to assist in the integration of climate change aspects with the national economy development policy.

- Below are the expected results from implementation of the program for food product safety and food security in the Republic
- Annual increase in the gross quantity of processed goods by a million UZS
- Annual actual growth in the processing industry and agriculture
- Growth of a number of small and medium entities for processing of agricultural products
- Growth of private investments in the industry
- Open marketing and consultancy centers in each district
- Creation of jobs in the processing industry
- Annual increase in tax revenues from the processing industry

Risk assessment

- Continuous large potential for political instability, including instability caused by the rapid progress of Islamization,
- Fragility of governmental structures and an associated lack of continuity in the work and policy of the government.
- Threat of renewal of political and ethnic disturbances in the regions

The success of work in the supply chain and export promotion will be affected by external global and regional economic factors, in particular, the expected accession to the WTO, for which business and industry of the county have not yet been properly prepared and which may have a significant effect on their competitiveness.

Ecologically sustainable development and record keeping of climatic risks are new challenges for Uzbekistan. The current incentive system does not promote any preventive measures. Great ecological sensitization and profound work are required to convince political stakeholders that preventive measures are necessary and more effective for resolution of ecological problems than subsequent elimination of actual damage.

Measures related to the strengthening of monitoring and control of food product safety have a positive side effect, promoting the strengthening of fragile state institutes. Promotion of state-private and civil communication in bodies and organizations supported by the program is of the essence.

Environment

Strategic options

1

Focus on reducing emissions and creating resource-saving production

Introduction of restrictions (limits) at the state level in the form of permits for the emission and pollution level for a certain enterprise, for a city as a whole, for a river basin, etc. (the standard is determined by industry-specific ministries and departments)

Examples of countries:

Japan China million

- ⊕ Control over the activity of each individual enterprise
- ⊖ The norms established by the state may significantly exceed the regenerative capability of natural resources

Environmental control of individual enterprises within the industry

2

Target development option

Focus on the maximum permissible level of annual use of natural resources

Introduction of restrictions at the state level, according to which natural resources are used only within their regenerative capability

Examples of countries:

France Germany Switzerland The Netherlands

- ⊕ Taking into account the natural resource reserves and their regenerative capability reduces the risk of destroying the environment of a region of the country
- ⊖ There is no incentive for a complete transition to resource-saving or environmentally clean production

Environmental control over all industries as a whole

Sources: analysis of the working group

Environment

Target vision 2035

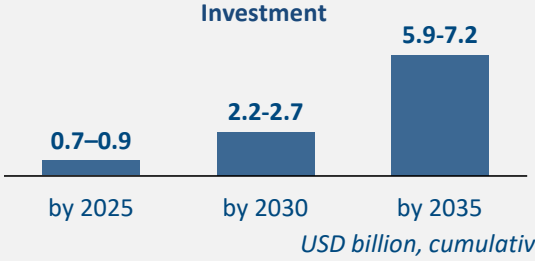
Uzbekistan is harmoniously improving each of the elements of the Sustainable Development Goals, keeping a focus on the implementation of measures to control climate change, improve the water supply, develop the SHW management system, expand the forest area, resolve the Aral Sea crisis and transition to renewable energy

- "Water of Uzbekistan" national project (introduction of modern technologies in water supply and irrigation systems, including concreting of water channels, which allows water losses to be reduced by 30–40%)
- "Waste" national project (introduction of SHW processing complexes to recover heat or electricity with its subsequent export; introduction of "green" tariffs: at the moment the technical potential of Uzbekistan in the field of RES is underutilized by 40%)
- Taking comprehensive measures to ensure the localization, restoration, and improvement of the environmental condition in areas with a high level of environmental damage (the Aral Sea region, central Fergana region, Khorezm region) and taking restrictive state measures to eliminate the accumulated damage
- Elaboration and implementation of complex measures for the fixation of moving sands on the drained bottom of the Aral Sea and in the Aral Sea region, ensuring landscape gardening of cities and settlements in the Aral Sea region.
- Involvement of state environmental agencies in the development of large projects with potential environmental consequences and risks
- "Greening" of the population's consciousness from preschool age
- Development of domestic and industrial waste recycling system

Figures

	2017	2035	CAGR
Environmental Performance Index (rating position)	136	Top 60	2%
Population with access to drinking water:			
Urban	98%	100%	0.1%
Rural	81%	100%	1.2%
Sustainable Development Goals Index	71.2	80	0.6%
Water resources yield capacity (GDP/m^3)	0.53	14.9	20.4%
Annual water intake for agricultural needs	90%	70%	-1.4%

Investment



USD billion, cumulative

Sources: World Bank, State Statistics Committee, analysis of the working group

Environment

Key strategic initiatives

- Formation of the budget to control climate change according to UN recommendations
- Approval of the environmental training programs for educational institutions and fostering environmentally responsible attitudes among the population
- Development and implementation of a set of measures to restore the Aral sea
- Development of antidesertification and antidrought measures

- Taking measures to reduce waste and consumption of environmentally harmful materials
- Analysis and implementation of leading practices in drip irrigation, including aeroponics, based on the successful experience of drip irrigation in Morocco, Israel, Turkey, and other countries.

- Changing the approach to urban planning (creation of infrastructure for riding bicycles, creation of places for parking/charging electric vehicles, improvement of air quality)
- Changing the approach to building design (use of geothermal heat pumps to heat and cool buildings; design of buildings with regard for solar radiation and minimization of building heating with the sun)
- Development and implementation of a geoinformation system that provides data collection, storage, analysis, and graphic visualization
- Implementation of modern water supply and irrigation systems applicable in the conditions of the Republic of Uzbekistan
- Planning and construction of waste processing facilities to recover heat or electricity
- Taking measures to ensure involvement of state environmental agencies in the development of large projects with potential environmental consequences and risks
- Development of environmentally advantageous industry sectors
- Development of water desalinization technology
- Development and implementation of systems for monitoring the quantity and quality of water consumed as well as quality of soils
- Development and implementation of comprehensive measures to ensure the localization, restoration, and improvement of the environment in the Aral Sea area

personnel finance technologies legislation and state regulation infrastructure

Sources: analysis of the working group

Environment

Key strategic initiatives

- Modernization of services for control and protection of the Republic of Uzbekistan from cross-border environmental pollution
- Taking measures to strengthen cooperation with the global community for the purpose of solving environmental problems
- Development and implementation of environmentally clean and resource-efficient technologies (alternative energy sources)
- Introduction of innovative technologies and approaches to the creation of forest plantings, the cultivation of planting material, improvement of pastures, adaptation to climate change, etc.

personnel finance technologies legislation and state regulation infrastructure

Sources: analysis of the working group

4. Development of technology and innovations

Concept of the Development Strategy of the Republic of Uzbekistan until 2035

BUYUK KELAJAK

4.1

Science, technology, and innovations:

Development of technology and innovations

BUYUK KELAJAK

Science, technology, and innovations:

Current level of development

Key challenges

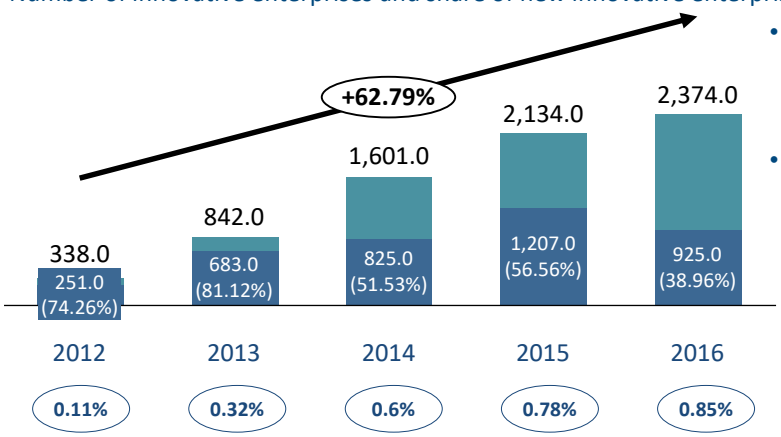
- Problems with the availability of highly educated personnel in the labor market, in particular, in the IT field
- Ineffective research financing system as well as reduced financing
- Problems with commercialization of inventions
- Low level of development of innovative infrastructure (in particular, free economic zones [FEZs], business incubators)
- Interference of the state in business affairs
- Underdeveloped telecommunications infrastructure
- Problems with statistical data
- Basic science is fragmented and isolated from the global research community

Key findings

- **Innovative development of the Republic of Uzbekistan is at the initial stage;** according to most indicators of innovative development, Uzbekistan **lags far behind the leading countries**
- **Small share** of innovative enterprises[1] in the total number of companies (0.85% of the total number)
- **Uzbekistan is a net importer** of high-tech and science-intensive products, but **their share in total imports is only 6.2%**
- The current state of government regulation does **not help the development of innovation** – Uzbekistan **holds low positions in international ratings** such as the Doing Business Index, Economic Freedom Index, and Corruption Perceptions Index
- Poor development **of basic science:** Uzbekistan performs **0.02% of world research with low citation rates**
- Research scientists make up **a small portion of the employed population (0.12%)**, and their **absolute number is also small** – 16,700 people
- Problems **with intellectual property protection**

Number of innovative companies

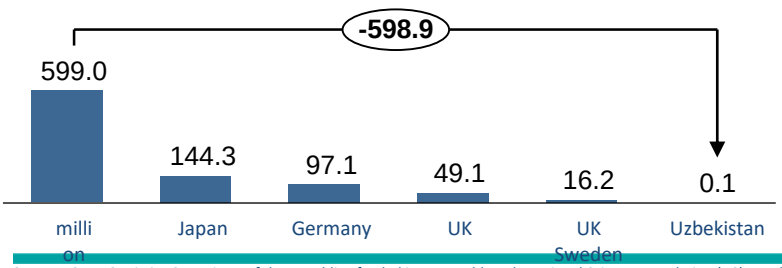
Number of innovative enterprises and share of new innovative enterprises, number and %



- In the last 5 years, there has been a significant increase in the number of companies providing innovative products and services (with an annual growth rate of 63%)
- The share of innovative enterprises in the total number of enterprises is increasing, but in 2016, it did not exceed 0.85% of the total number of companies (in Russia for the same period, about 9%)

Financing of innovations in the Republic of Uzbekistan

R&D expenditures, USD billion, 2015

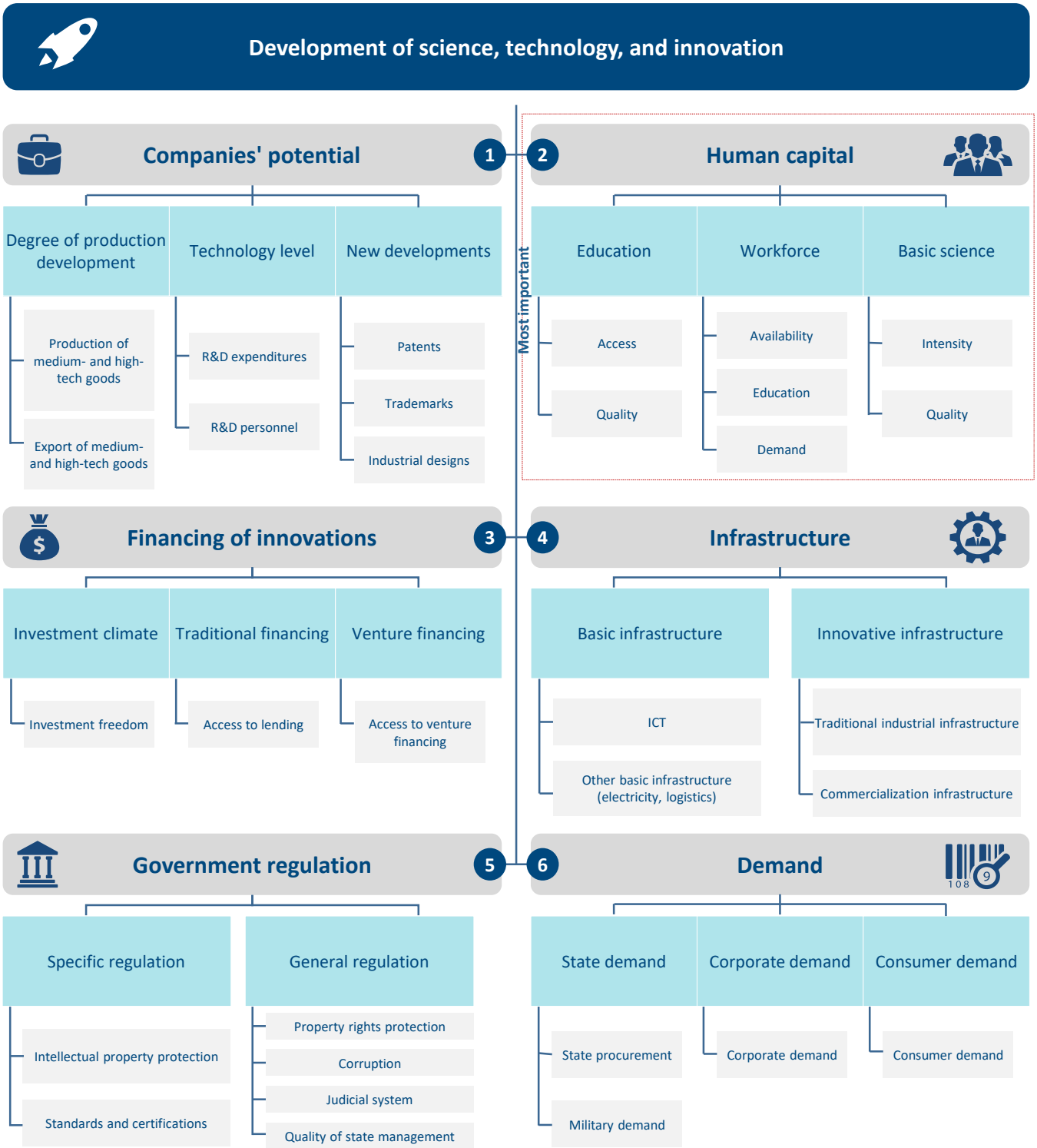


- R&D financing in Uzbekistan amounted to USD 133 million in 2015
- In developed countries, R&D funding is ten times greater: from USD 16,2 billion in Sweden to USD 599 billion in the United States

Sources: State Statistics Committee of the Republic of Uzbekistan, World Bank, National Science Foundation (US), World and National Economy journal, analysis of the working group
Note: 1 = innovative enterprise - a subject of innovation activity (infrastructure) founded for the purpose of development and implementation of new or improved products or services, technology, or production methods, and other kinds of innovation activity (Law of the Republic of Uzbekistan "On Innovation Activity")

Science, technology, and innovations:

Methodology for assessing the state of science, technology, and innovation

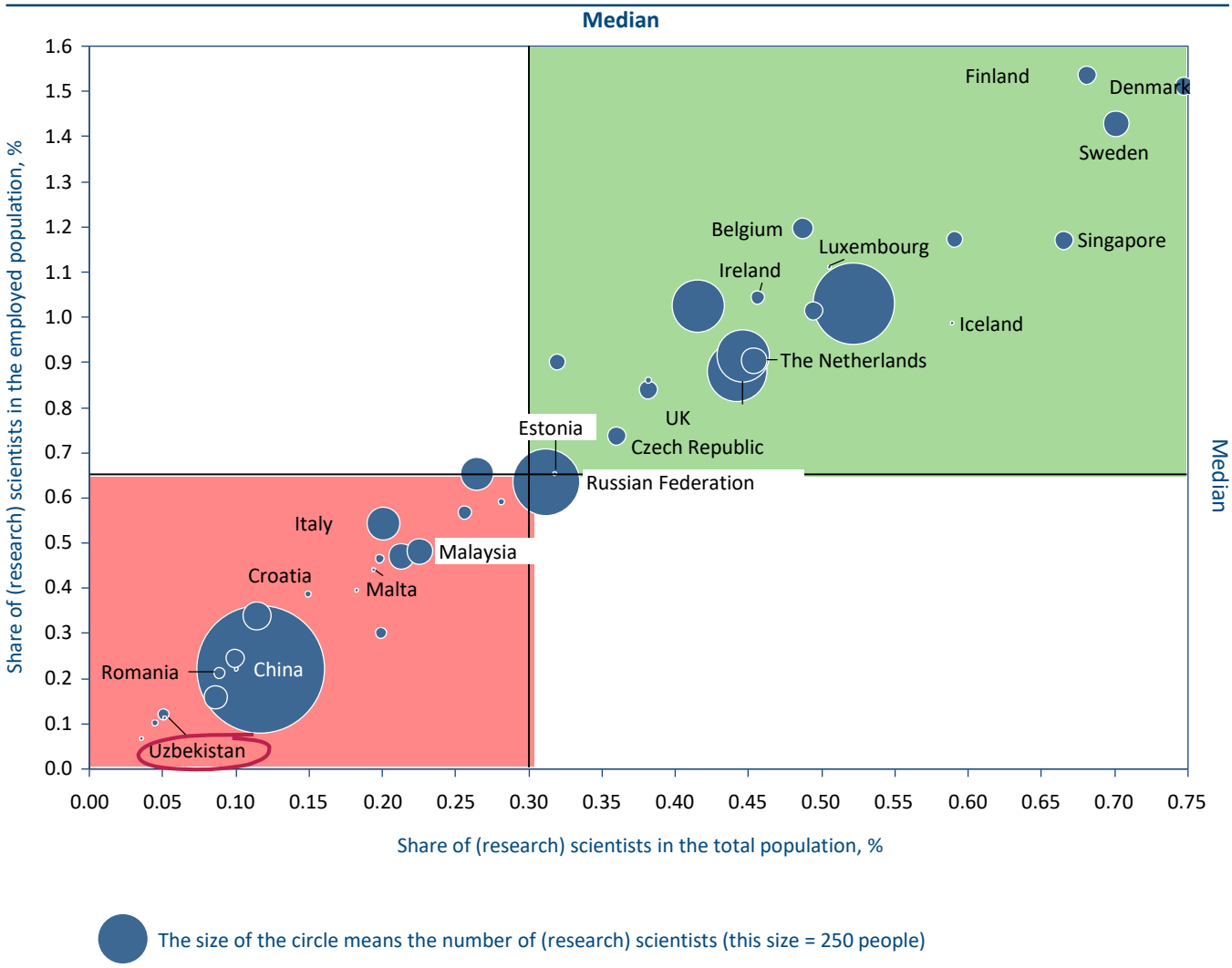


Sources: international benchmarking, analysis of the working group

Science, technology, and innovations:

Share of research scientists in the economy, 2016*

Research scientists make up a small portion of the employed population, and their absolute number is also small – 16,7 people



The size of the circle means the number of (research) scientists (this size = 250 people)

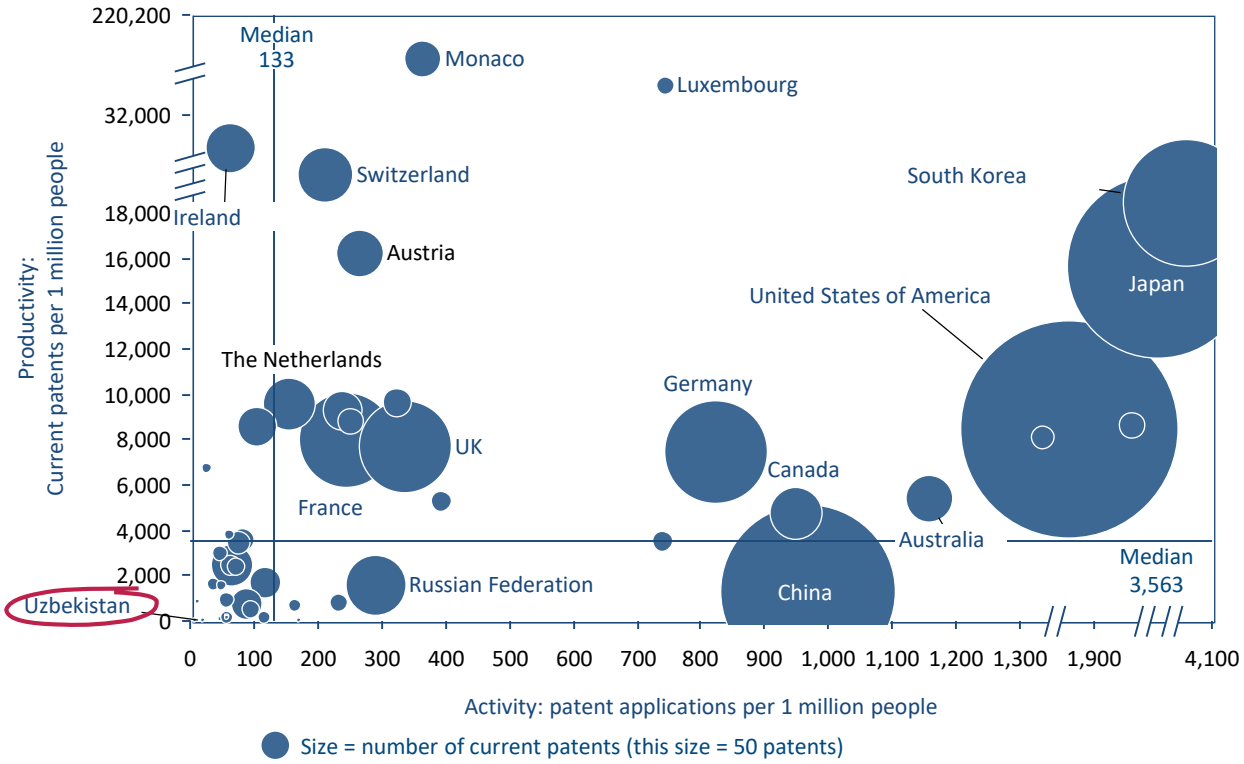
By the absolute indicator of the **total number of research scientists**, Uzbekistan is at a comparable level with **Ireland** (22,000) and **Hungary** (25,000) with its 1**6,700 people** Yet, by the relative rate of the share in the employed population, Uzbekistan (at 0.12%) **lags behind the comparable countries:** in Ireland, the share is 1.04%, and in Hungary it is 0.56%

Note: * or last available year (until 2014)
Source: World Bank, Ministry of Innovation Development of the Republic of Uzbekistan, analysis of the working group

Science, technology, and innovations:

Share of research scientists in the economy, 2016*

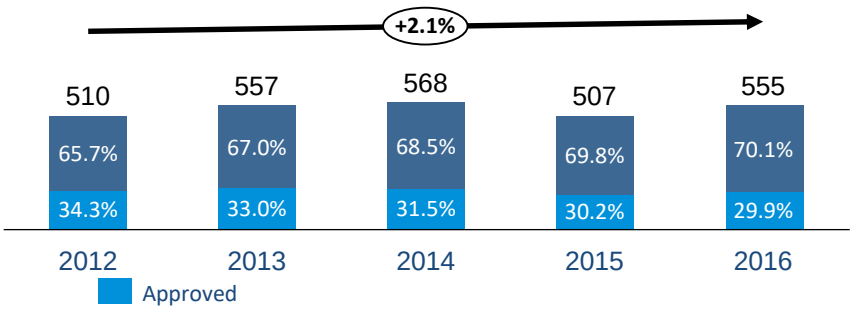
Uzbekistan lags far behind the leading countries both in terms of share and patent activity, while the number of active patents is decreasing



- In the Republic of Uzbekistan, there are 17.1 patent applications per 1 million people and 30.2 current patents per 1 million people

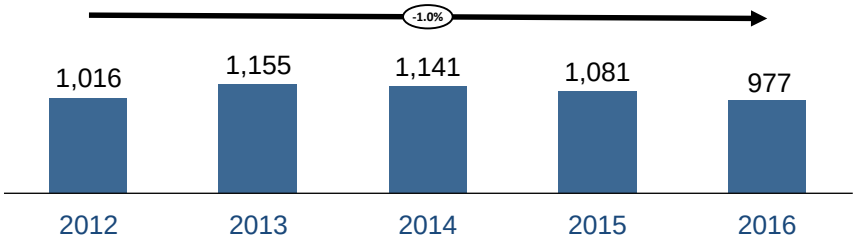
Indicators of patent activity in the Republic of Uzbekistan, 2012–2016

Number of patent applications and share of approved patents



- With a slight increase in the number of patent applications (2.1% per year), the share of approved patents decreased from 34.3 to 29.9%

Number of current patents

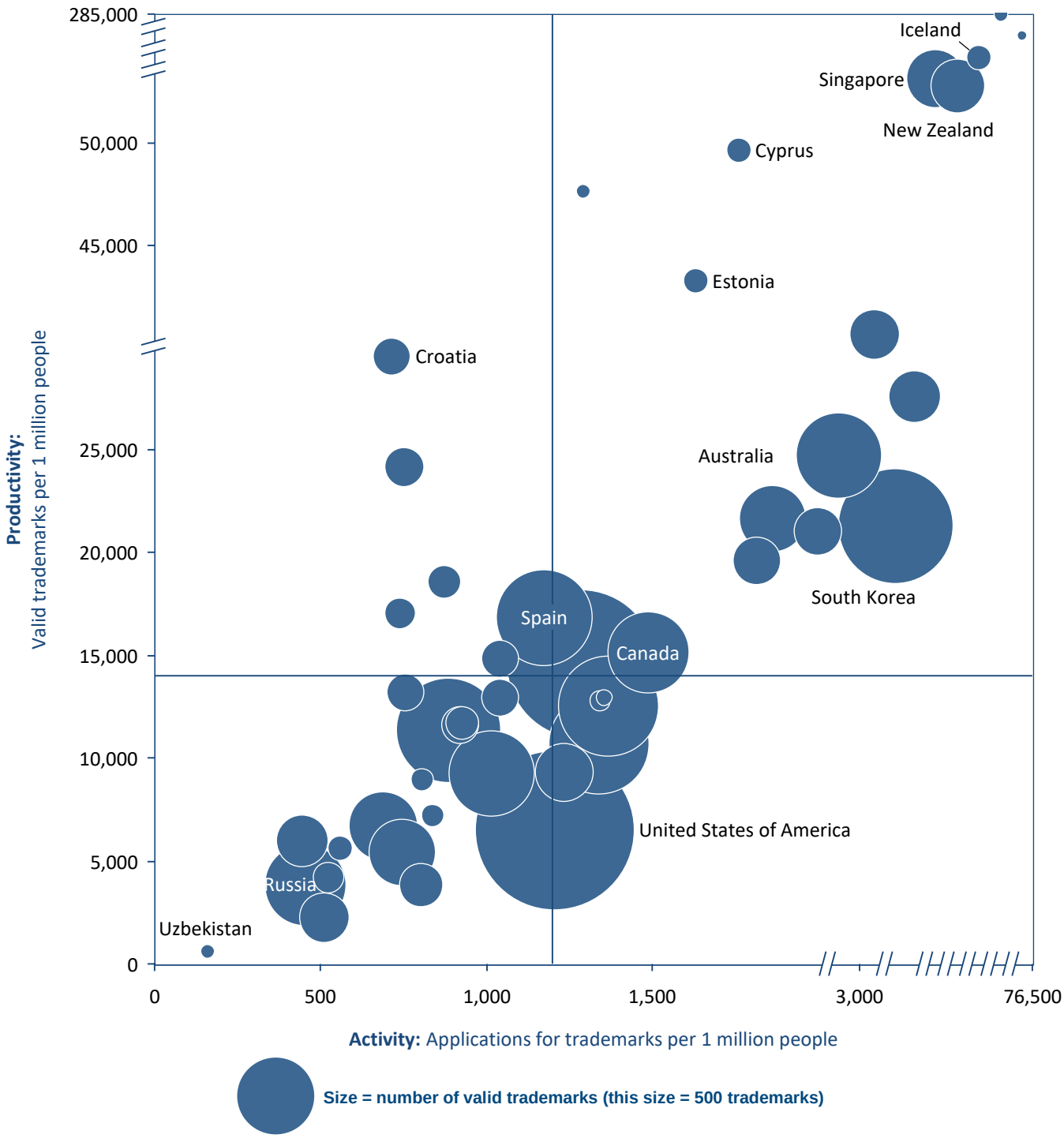


- The number of current patents dropped to 977 patents in 2016

Source: WIPO, World Bank, analysis of the working group

Indicators of trademark (TM) registration activity, 2016

Despite a positive trend in the number of applications and valid trademarks, Uzbekistan lags behind competitor countries



- In the Republic of Uzbekistan, there are 160.3 applications for trademark registration per 1 million people and 615.4 current trademarks per 1 million people

Note: * or last available year (until 2014)
Source: World Bank, Ministry of Innovation Development of the Republic of Uzbekistan, analysis of the project team

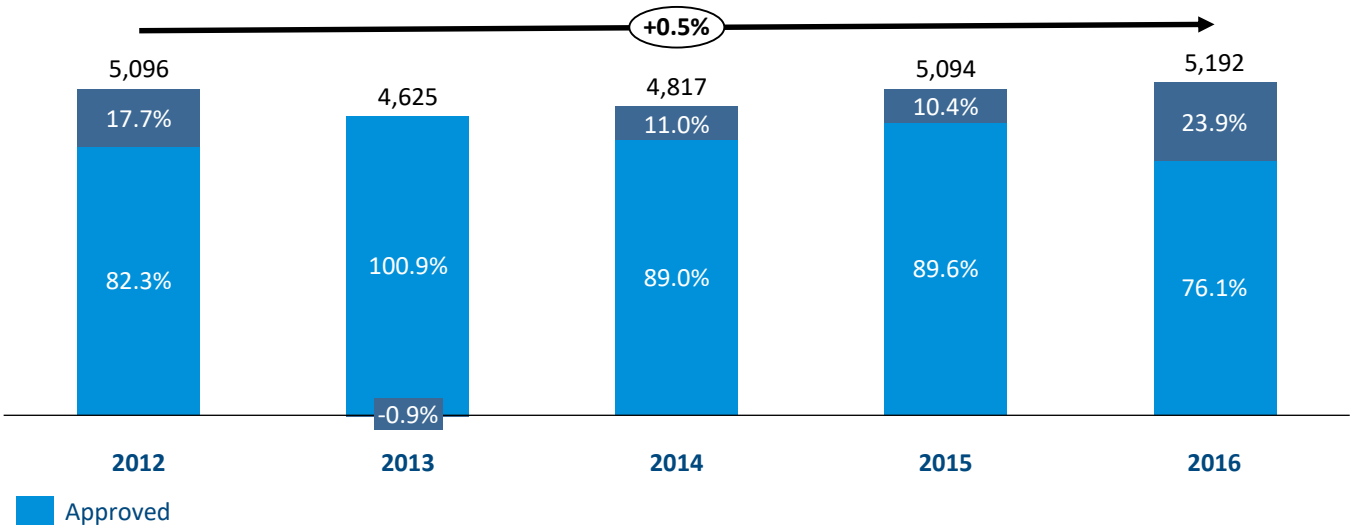
Science, technology, and innovations:

Indicators of trademark (TM) registration activity in the Republic of Uzbekistan, 2012–2016

Despite a positive trend in the number of applications and valid trademarks, Uzbekistan lags behind competitor countries

Number of applications for TM registration and share of approved applications

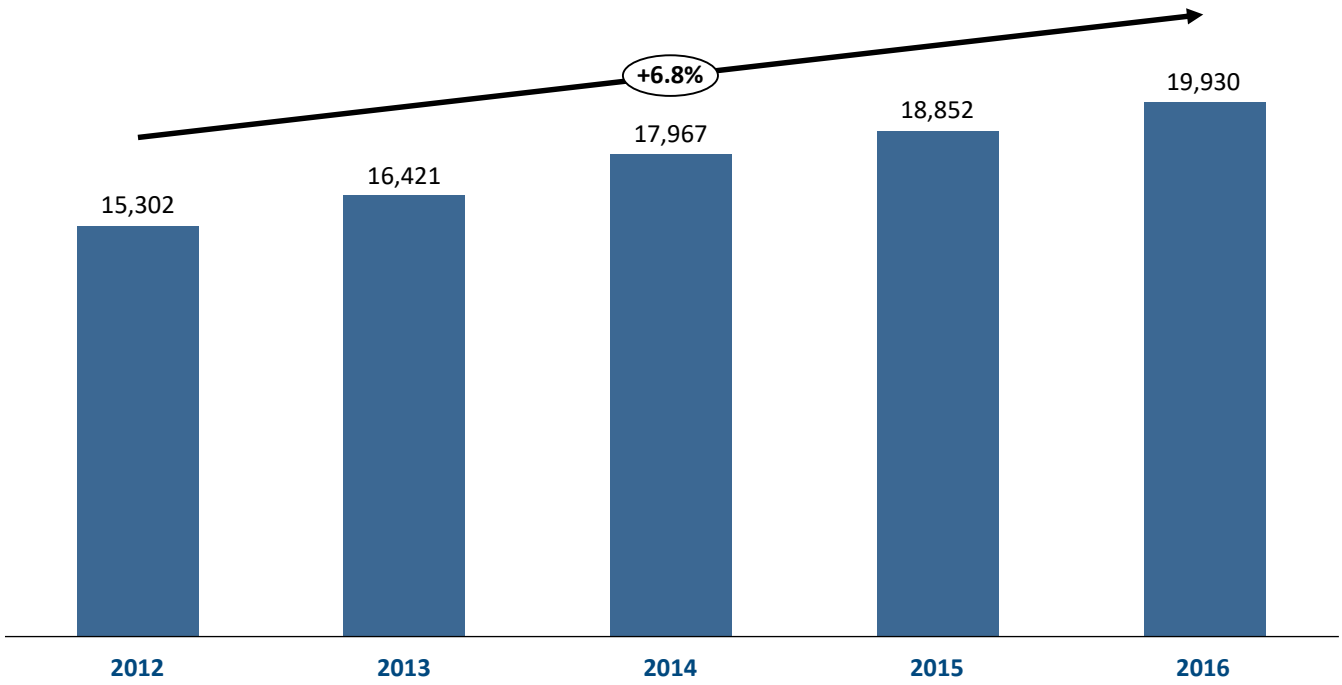
number



- With a slight increase in the number of applications (0.5% per year), the share of approved applications decreased to 76.1%

Number of existing TM

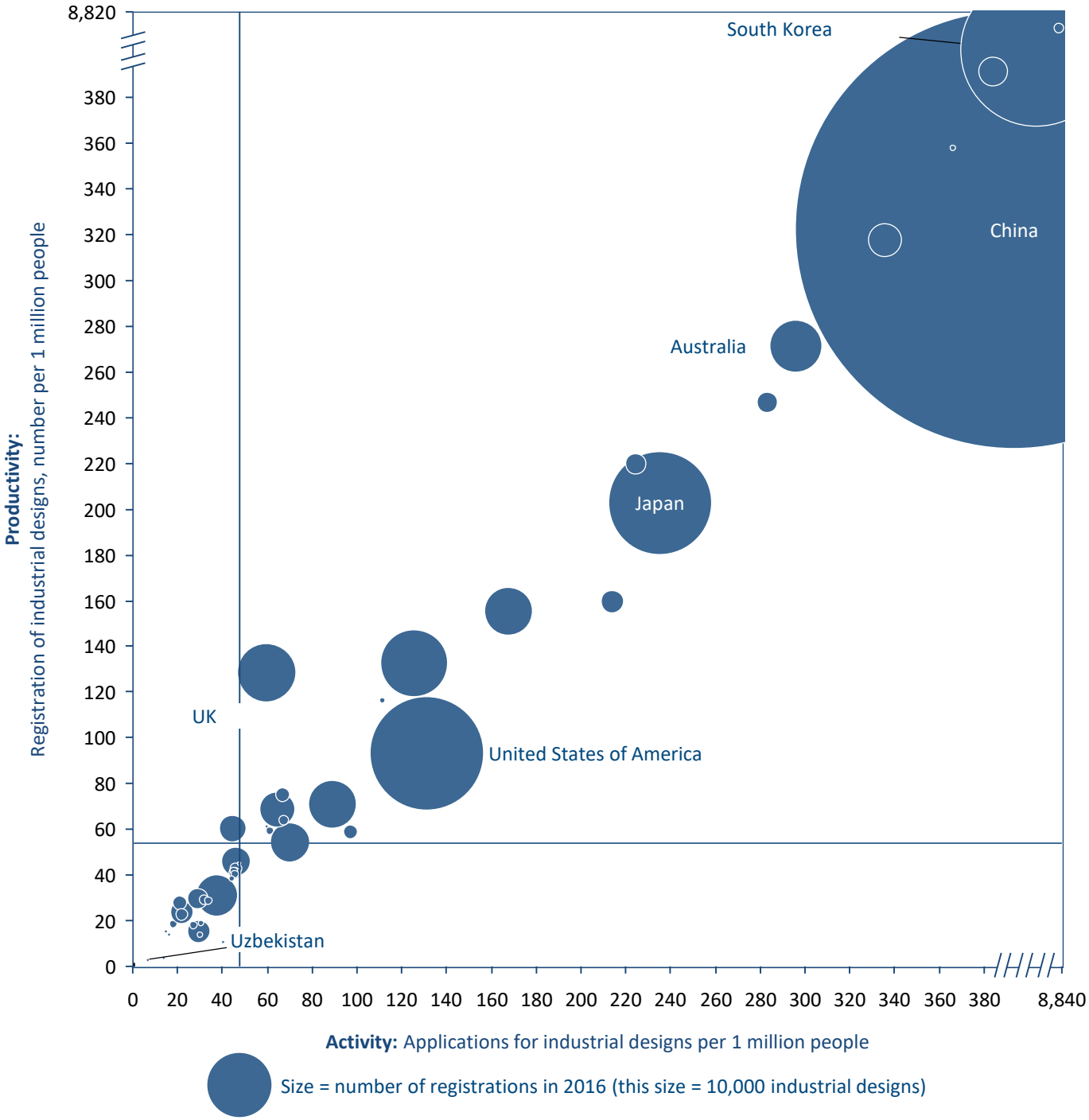
number



- The number of valid trademarks is increasing by 6.8% per year

Indicators of industrial design registration activity, 2016

The number of applications for registration of industrial designs is growing, but the number of registrations is unstable



In the Republic of Uzbekistan, there are 7.1 applications for registration of industrial designs per 1 million people and 2.8 registered industrial designs per 1 million people

Source: WIPO, World Bank, analysis of the project team

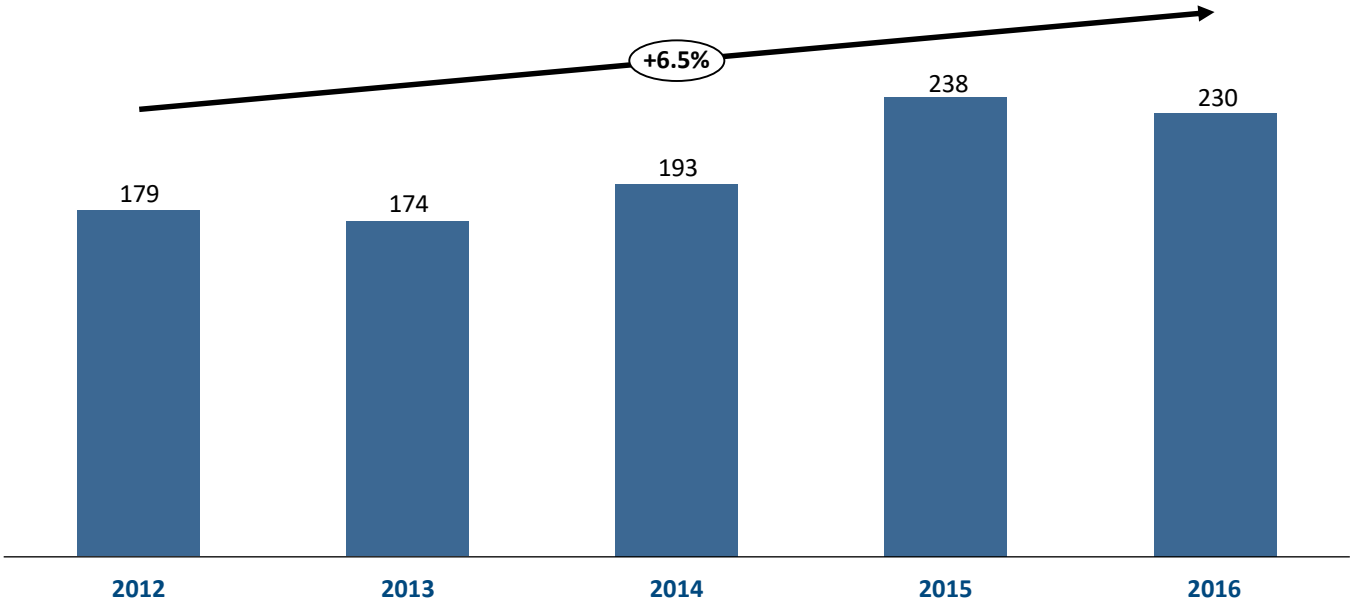
Science, technology, and innovations:

Indicators of industrial design registration activity in the Republic of Uzbekistan, 2012–2016

The number of applications for registration of industrial designs is growing, but the number of registrations is unstable

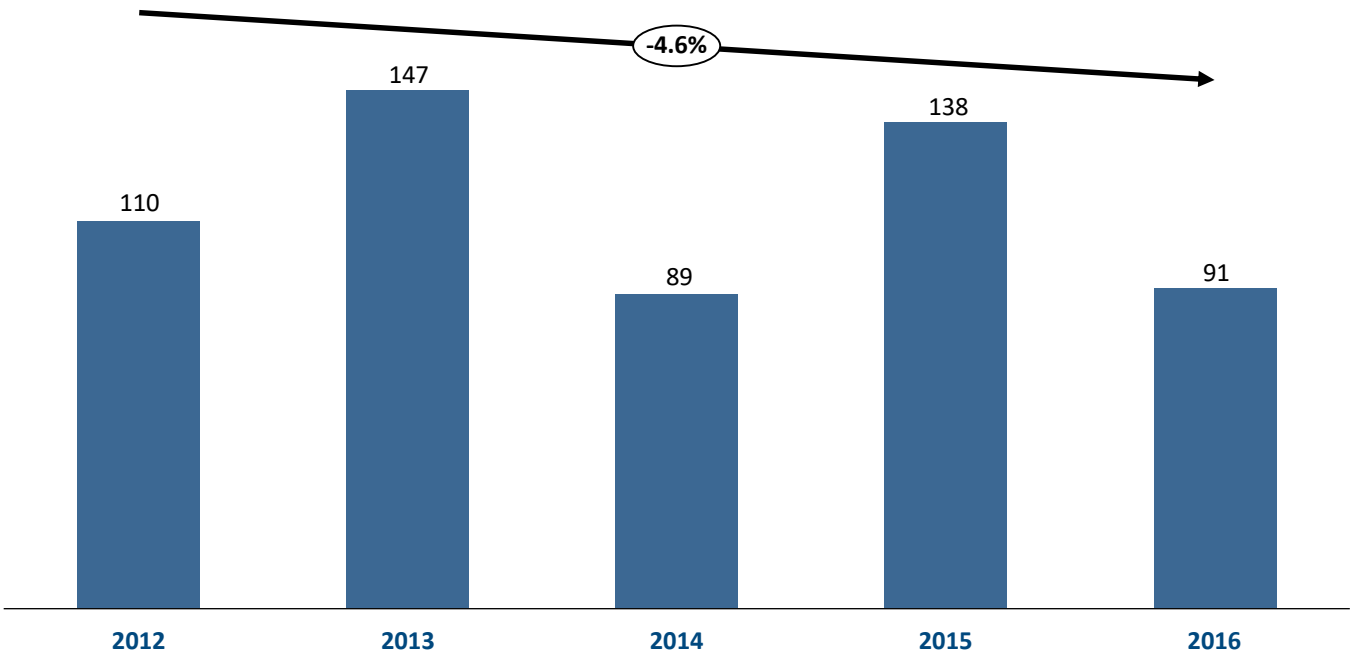
Number of applications for registration of industrial designs

number



Number of registrations of industrial designs

number



The number of registrations of industrial designs is unstable and varies from 90 to 150

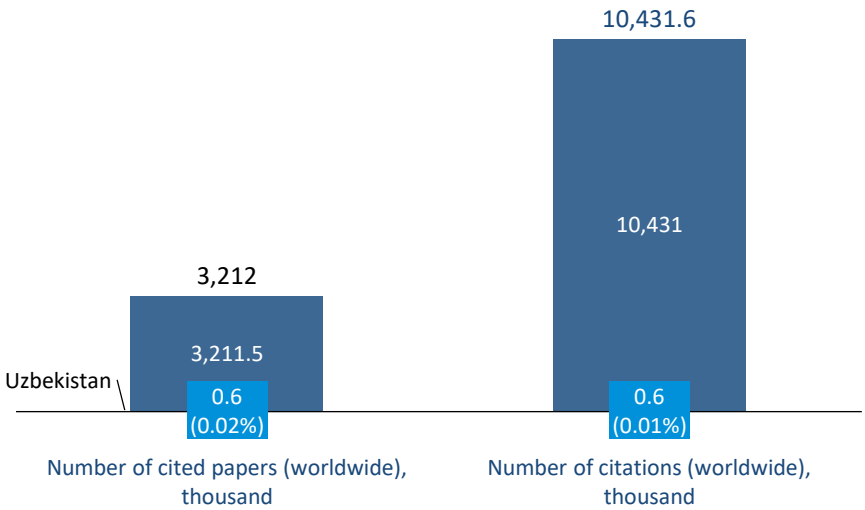
Source: WIPO, World Bank, analysis of the project team

Science, technology, and innovations:

Development of basic science

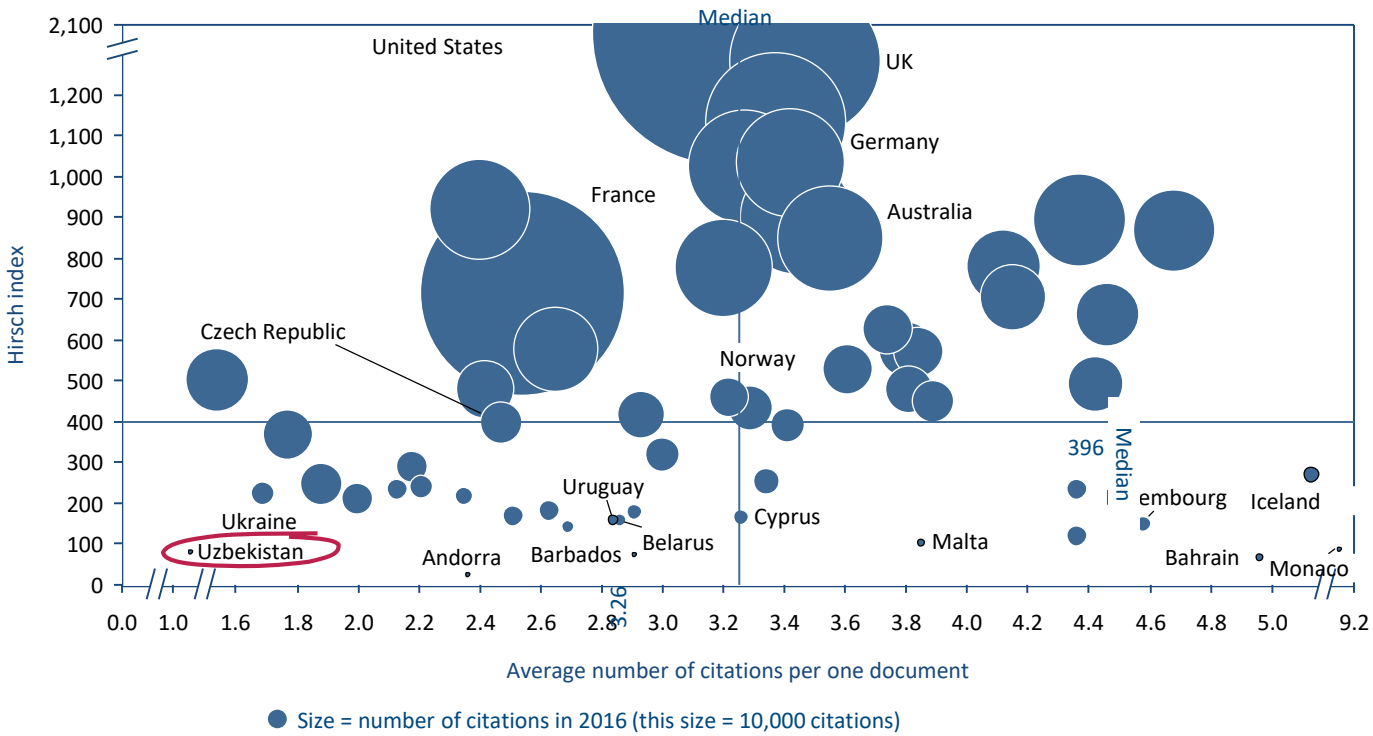
Poor development of basic science: Uzbekistan performs 0.02% of world research with low citation rates

Uzbekistan's share in the number of publications and citations of scientific papers, 2016



- Uzbekistan performs 0.02% of the world's scientific research
- The number of citations of Uzbek research is even lower – 0.01% of world citations

Scientific paper citation indices, 2016



Citation indices of Uzbekistan: 1.06 citations per 1 paper, when the median for the reference group is 3.26 citations; Hirsch index* is 83, when the median is 396

Note: * Hirsch index is a quantitative measure of a country's productivity based on the number of publications and the number of citations of those publications (a higher value means higher productivity)

Source: Scimago Journal & Country Rank, Scopus, analysis of the working group

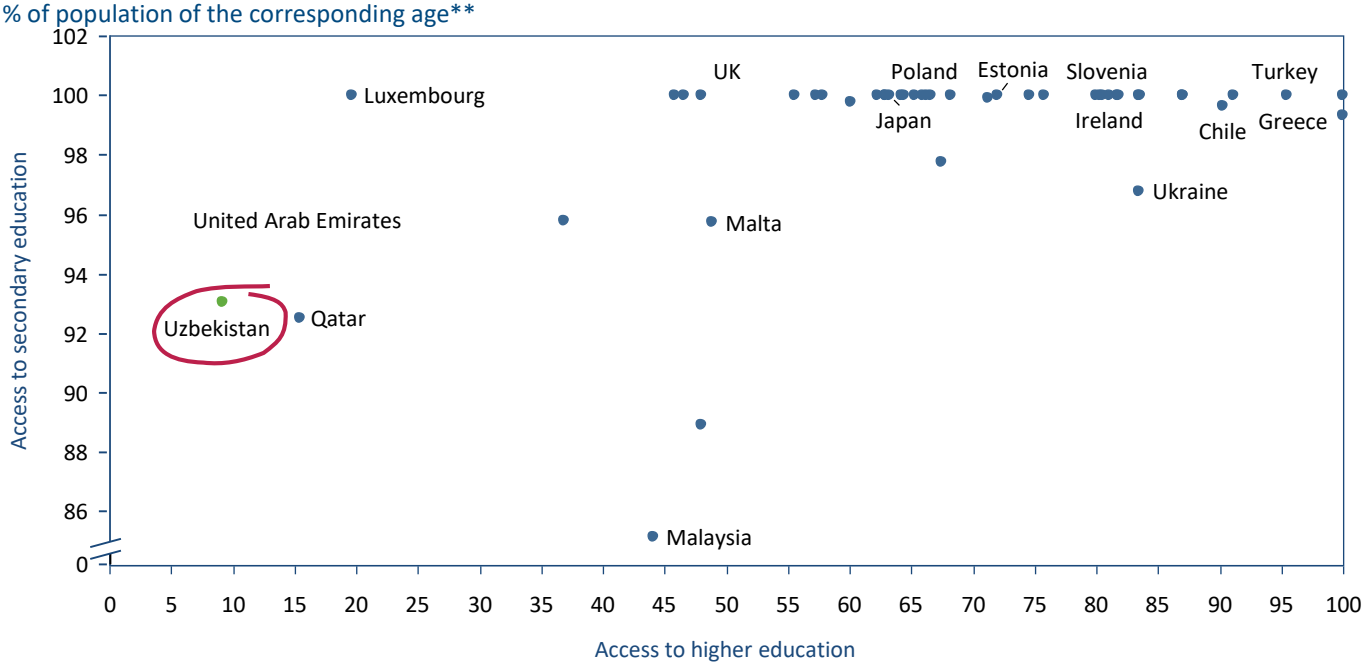
Science, technology, and innovations:

Access to education

Access to education, especially higher education, is hindered. This leads to a lack of people with higher education and, as a result, to a lack of highly qualified personnel

Access to higher and secondary education*

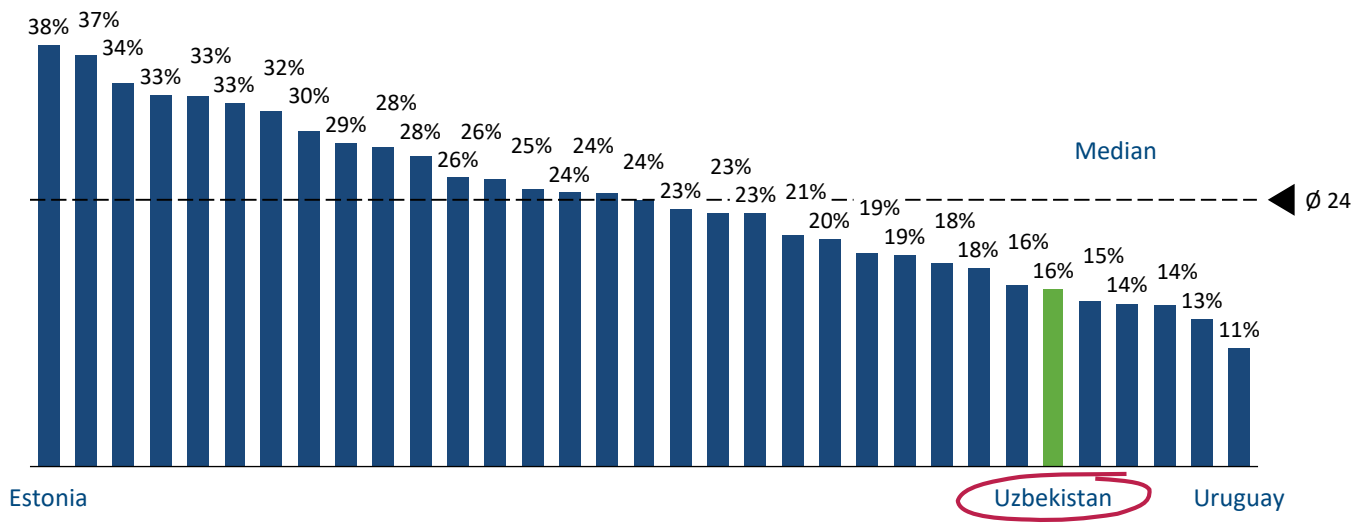
% of population of the corresponding age**



- In most countries, the level of access to secondary education reaches 100% and above, while in Uzbekistan it is 9.3%
- The level of access to higher education in Uzbekistan is the lowest in the reference group: 9.2%

Share of the population over age 25 with higher education* in the group of reference countries

%



- In Uzbekistan, 15.8% of the population over 25 years old have higher education (bachelor's, master's, doctoral degree, or similar)
- According to this indicator, Uzbekistan is in the 4th quartile of the countries of the reference group

Note: * data for 2016; in the absence of data, data for previous years was used (up to 2014 inclusive) ** If the indicator value is above 100%, it is shown as 100% on the graph

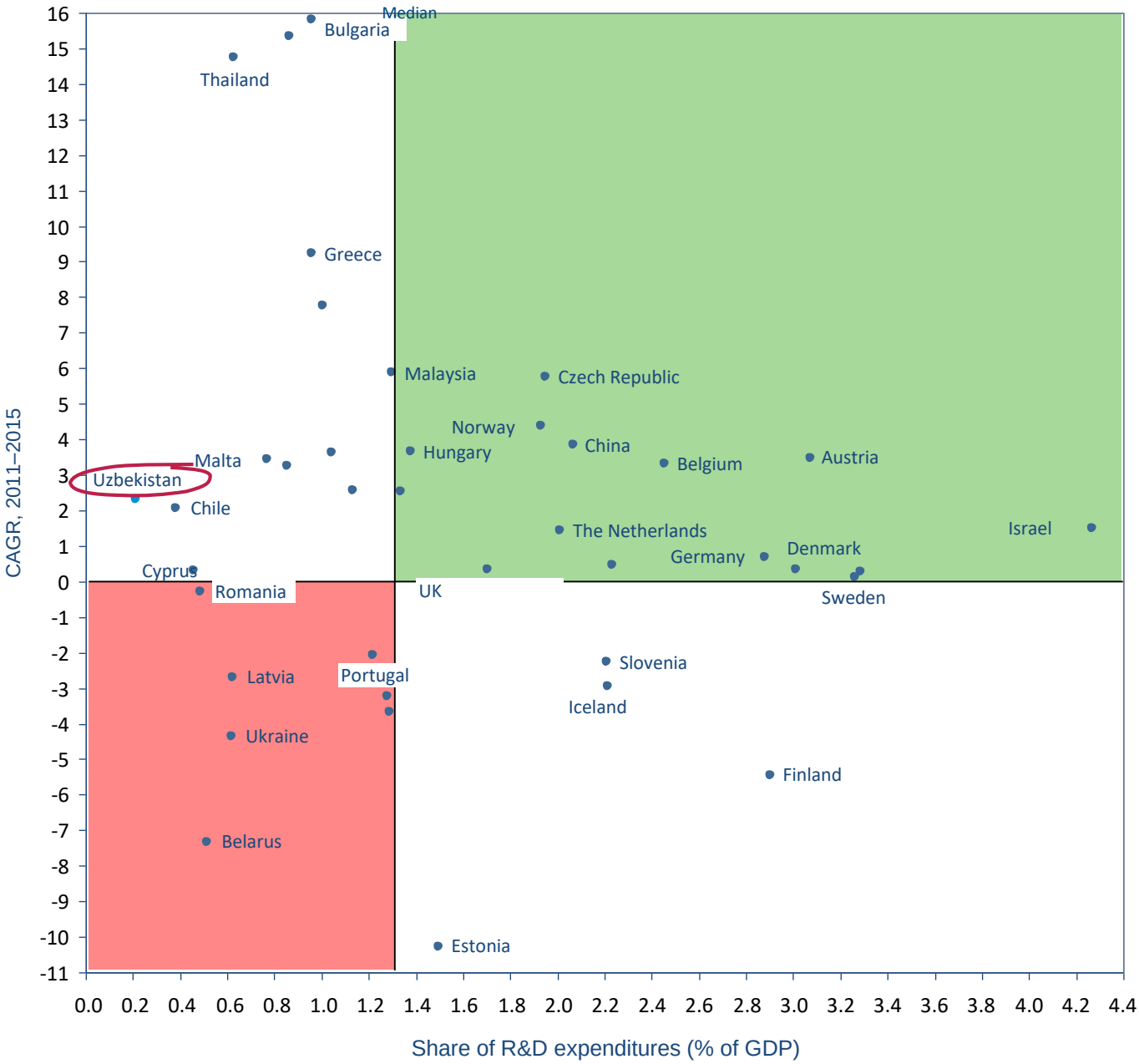
Source: UNESCO, World Bank, analysis of the working group

Science, technology, and innovations:

R&D financing

In 2015, Uzbekistan had the lowest share of R&D expenditures among the leading countries in innovative development, though the dynamics were positive

Level of innovative development according to the share of R&D expenditures in GDP in 2015 and the average annual growth rate (2011–2015)



- The share of R&D expenditures in GDP in Uzbekistan was 0.2%; the annual growth rate was 2.3%
- The latest available data on the share of R&D expenditures in GDP is for 2015, number of countries with available data is 39

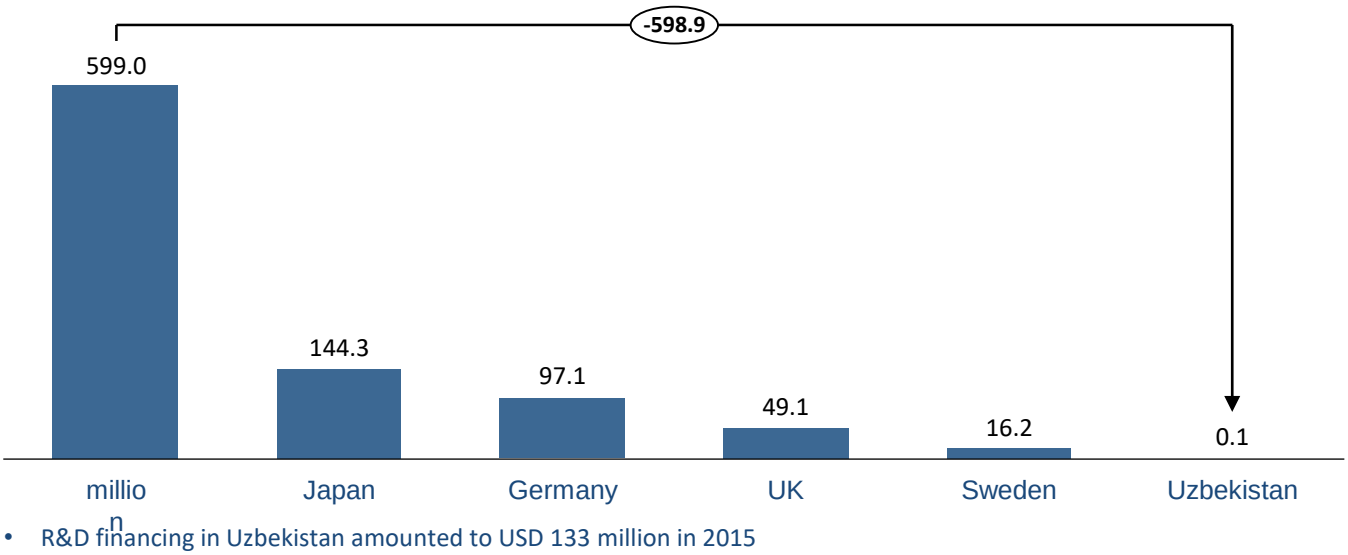
Source: World Bank, analysis of the working group

Science, technology, and innovations:

R&D financing

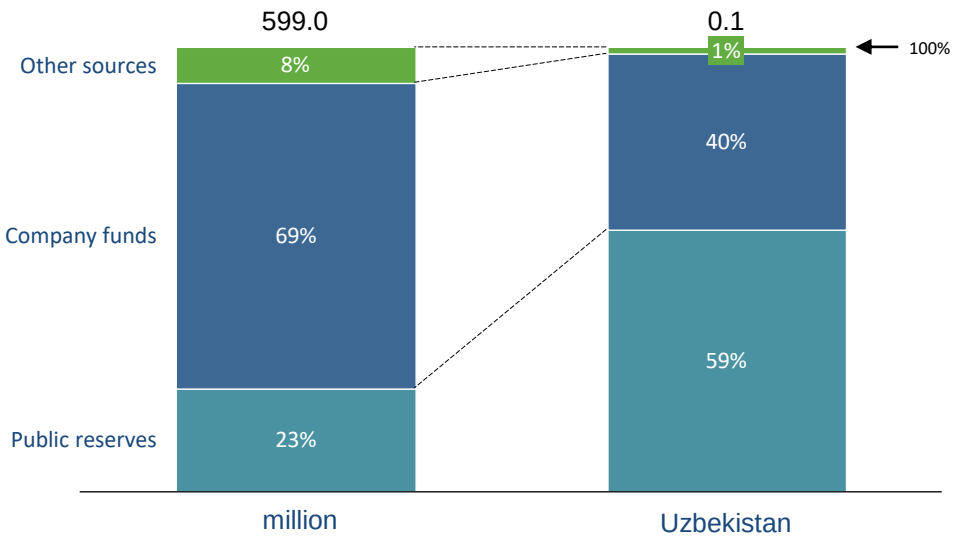
The volume and structure of R&D expenditures from traditional sources (government and business) differ significantly from developed countries

R&D expenditures, USD billion, 2015



- R&D financing in Uzbekistan amounted to USD 133 million in 2015
- In developed countries, R&D funding is ten times greater: from USD 16,2 billion in Sweden to USD 599 billion in the United States

Structure of R&D expenditures, USD million, 2015–2013*



- In the USA, companies are the main source of R&D financing, and government funds make up only 23%
- At the initial stage of innovative development, R&D is stimulated through state funds – like in the Republic of Uzbekistan (59%)

Note: * Data on the Republic of Uzbekistan for 2013, on the USA for 2015

Source: World Bank, National Science Foundation (US), World and National Economy journal, analysis of the working group

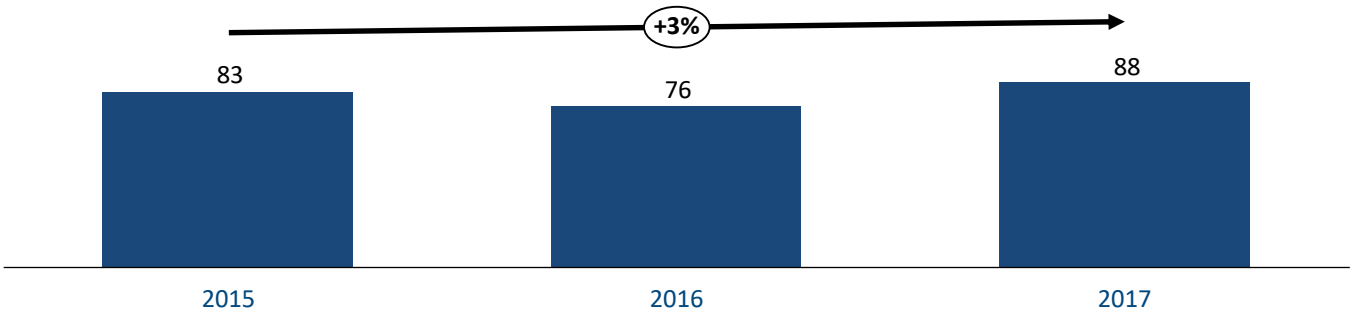
Science, technology, and innovations:

Venture financing in international practice (2017)

There is no venture financing in Uzbekistan, but the Fund for Support of Innovative Development and Ideas was established, and tax incentives were introduced for venture funds

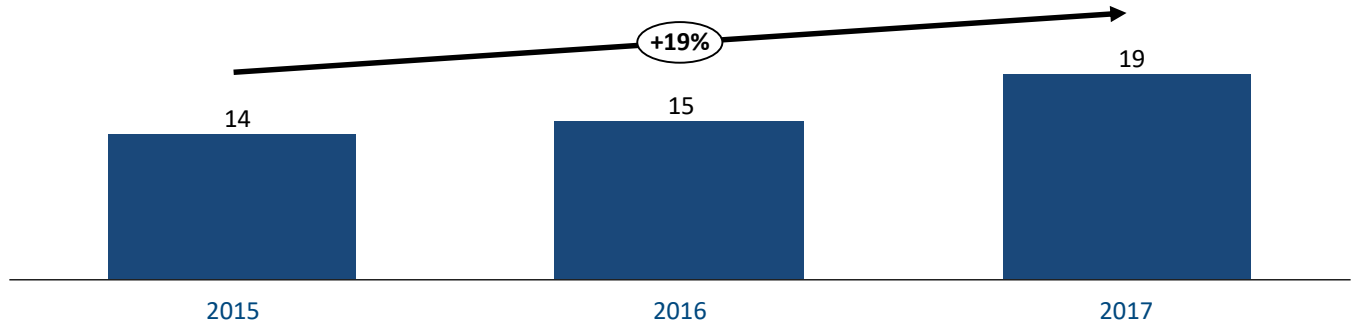
Volume of venture financing in North and South America

USD billion



Volume of venture financing in Europe

EUR billion



Venture financing in Uzbekistan

- There is no data on the presence of venture funds or venture investments in Uzbekistan
- According to the Ministry of Innovative Development, Uzbekistan ranks 92nd in the Global Innovation Index in terms of venture capital transactions
- In 2018, the Fund for Support of Innovative Development and Ideas was established under the auspices of the Ministry of Innovative Development of the Republic of Uzbekistan
- Information on the initial results of the fund's activities as well as the volume of planned investments is not available
- Measures are taken to stimulate venture activity: in Uzbekistan, venture funds created to cofinance high-tech entrepreneurial startups are exempt from all types of taxes and mandatory payments until January 1, 2023
- The investment climate is characterized as difficult, in particular, Uzbekistan has 0 points and occupies last place in the "Investment Freedom" section according to the Economic Freedom rating

Venture financing is at the initial stage of development in the Republic of Uzbekistan

Source: Statista, data from open sources, analysis of the project team

Science, technology, and innovations:

Infrastructure development

Infrastructure is characterized by a low degree of development

Infrastructure for innovative development

Basic infrastructure		Innovative infrastructure	
ICT	Other basic infrastructure	Traditional industrial infrastructure	Commercialization infrastructure

Components:

- Access to information and communication technologies (119th place in GII*)
- Use of ICT (90th place in GII*)

Components:

- Electricity generation (79th place in GII*)
- Logistics performance (116th place in GII*)

Components:

- Traditional industrial clusters
- Research institutes, research technological institutes, etc.

Components:

- Free economic zones (18 FEZs in 11 regions)
- Technology parks (1 active = Yashnabad technology park)
- Special small industrial zones (in 8 regions of Uzbekistan, 306 ha)
- Business incubators, etc.

Problems:

- Insufficient broadband internet coverage
- Low mobile internet geographic coverage

Problems:

- Shortage of electricity in some regions
- Low maneuvering capacity (approx. 6%) based on thermal energy
- High level of losses in the old distribution networks
- High cost of logistics

Problems:

- High degree of depreciation of fixed assets
- Outdated equipment
- Staff shortage

Problems:

- Small number of residents and, as a result, low rates of job creation
- Low interest from foreign investors

Level of development: Low

Level of development: Below average

Level of development: Medium

Level of development: Low

Sources: GII, Ministry of Innovation Development data, data from open sources, analysis of the working group
Note: * Positions in GII are given according to the data of the Ministry of Innovation Development presented at Uzbekistan 2035 Forum

Science, technology, and innovations:

Uzbekistan in international ratings

Current government regulation does not contribute to innovative development

Index of Economic Freedom

2017

The Heritage Foundation

152 out of 180

Corruption Perceptions Index

2017

157 out of 180

Doing Business

2018

WORLD BANK GROUP
DOING BUSINESS
MEASURING BUSINESS REGULATIONS

74 out of 180

Indigo Index

2018

global perspectives
POWERED BY LETTERONE

128 out of 180

The Republic of Uzbekistan is not represented in important ratings: International Property Rights Index, ICT Development Index, Global Innovation Index, Ease of Doing Business Index, Bloomberg Innovation Index, Global Competitiveness Report

Intellectual property protection and copyright

- Main regulatory documents: the Law on Trademarks, Service Marks and Appellations of Origin; the Law on Copyright and Related Rights; and the Law on Inventions, Utility Models, and Industrial Designs
- The Intellectual Property Agency is a member of WIPO
- The number of cases related to intellectual property is increasing (22 cases related to intellectual property items, and their rights were considered in 2011, and more than 80 cases in 2017)
- Open sources provide information that there is unfair competition in intellectual property in the country, in particular, foreign companies cannot enter the Uzbek market due to the illegal takeover of brands by national companies (for example, Turkish company Kalekim)

- The Ministry of Innovation Development of the Republic of Uzbekistan was established in 2017 to establish state work in the field of innovation support
- Active work on the introduction of E-Government is performed

Source: data of the relevant indices, data from open sources, analysis of the project team

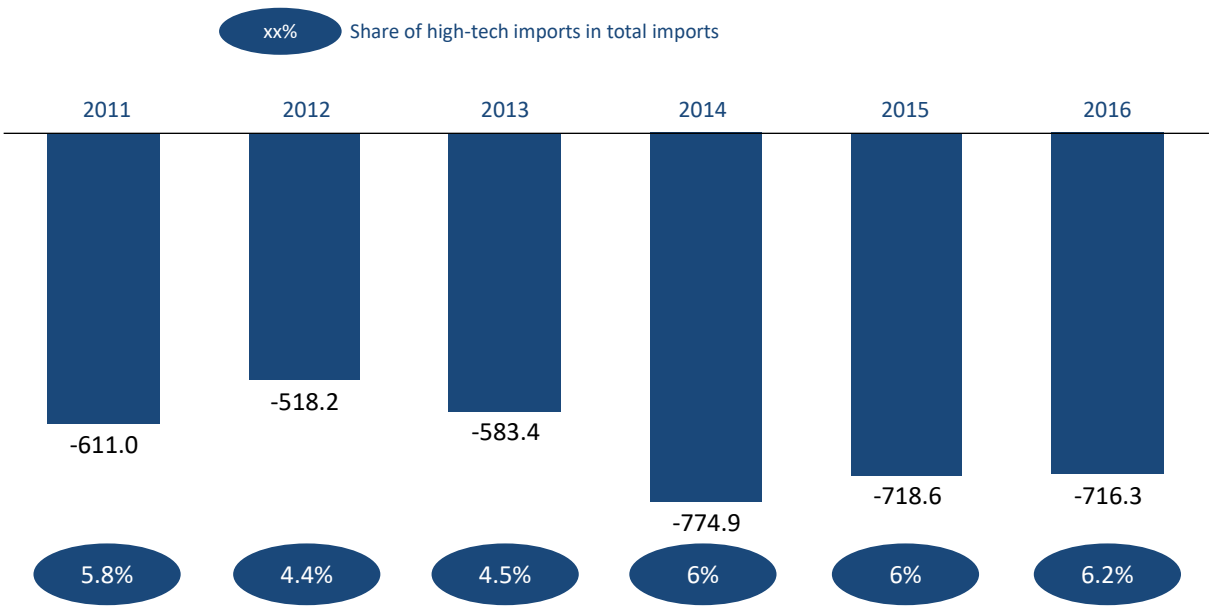
Science, technology, and innovations:

Export and import of high-tech and science-based products

Uzbekistan is a net importer of high-tech and science-intensive products, but their share in total imports is only 6.2%

Trade balance* for high-tech and science-based products**

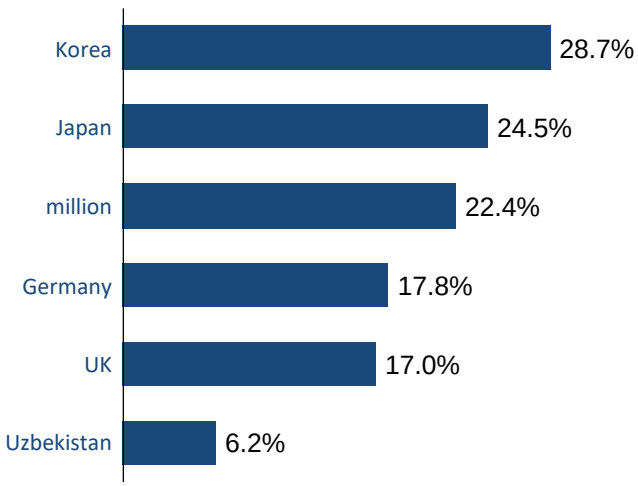
billion dollars million



- Uzbekistan shows a **negative trade balance** for high-tech and science-intensive products, while the share of high-tech imports **increased slightly**

Share of high-tech and science-based products in imports**

%



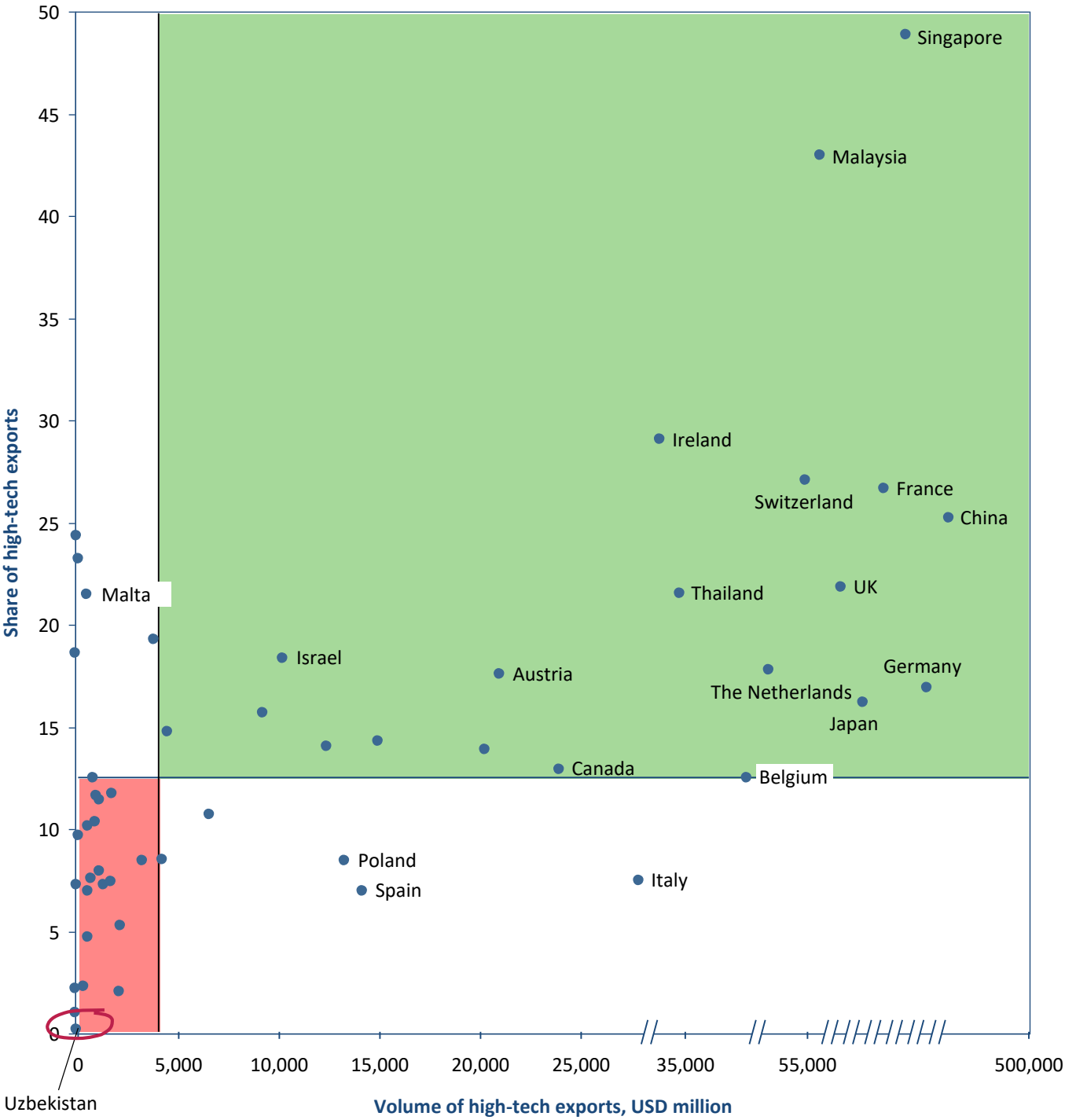
- The share of high-tech and science-intensive products in developed countries is about 20% of imports

Source: UN Comtrade, State Statistics Committee of the Republic of Uzbekistan, analysis of the working group
Note: * with the exception of natural uranium (code 525.11 according to SITC Rev. 4) ** According to Eurostat classification

Science, technology, and innovations:

Volume and share of high-tech exports, 2017*

Companies of the Republic of Uzbekistan are not high-tech exporters: the volume and share of high-tech exports remain low

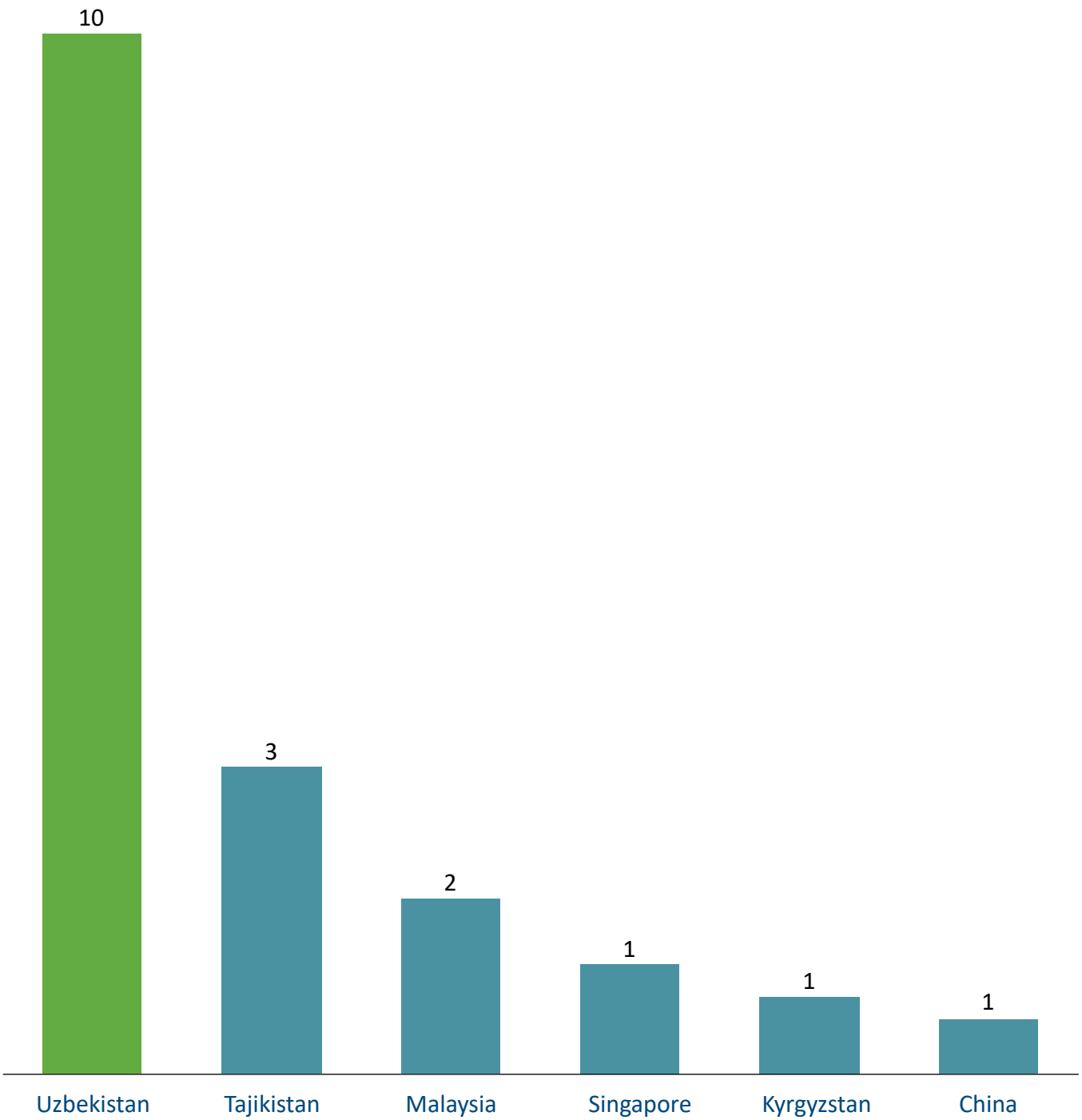


- The share of Uzbekistan's high-tech exports amounted to 0.2%, or USD 27 million

Science, technology, and innovations:

Proportion of the population living in extreme poverty(a)

Consumer demand for high-tech products is limited by low incomes of the population



- Uzbekistan ranks 125th in terms of GDP based on PPP per capita (of 185 countries) at the end of 2017

Note: (a) = extreme poverty is defined as income of less than $1.90 per person per day
Sources: World Poverty Clock, Food Security Index, Gazeta.uz

Science, technology, and innovations:

International experience: technology transfer model in Singapore

Singapore is one of the global leaders in the development of innovations and ranks 5th place in the Global Innovation Index 2018. A successful technology transfer model is one of the factors that made Singapore a leader in innovations

Technology Transfer Network offices

Description:

- Founded in 2008 as an initiative of 8 Singapore universities
- The key goals are:
  - support for filing and updating patents
  - training of professionals in the field of technology transfer
  - joint marketing
  - development of leading practices in technology transfer

Performance results:

- As of 2015, membership extended to 25 organizations, including those from other Asian countries, USA, Canada, Europe, and New Zealand

Online catalog in technology universities (technology offer database)

Description:

- Maintains accounting of technology developed in the universities
- The technology is sent selectively for assessment to different companies
- Then companies may request a business plan based on the technology they are interested in and may purchase a license

Performance results:

- The instrument allows annual provision of a number of exclusive licenses to companies that will be able to use the development in the best possible way

Corp Lab@University Scheme

Description:

- The program allows foreign and local companies to request university research studies
- Through the program, companies may also open their own laboratories in Singapore's higher educational institutions

Performance results:

- The first collaboration was the Rolls-Royce laboratory on the campus of Nanyang Technological University
- Plans are to finish 32 joint research projects within 5 years

Sources: data from open sources, analysis of the working group

Science, technology, and innovations:

Prerequisites for ICT development

In both developed and developing economies, the role of modern, affordable, high-speed information channels of digital communication plays a significant role in the development of the economy as a whole. In this regard, there are a number of circumstances that affect the development of the industry in the future

- In Central Asia, there are no technically serious and large data centers of TIR3+ category. Existing data centers and communication channels are low-power and unreasonably expensive and do not meet the real needs of the state, industry, and private consumers
- Uzbekistan is equidistant from the largest active communication nodes of the Internet (China (Shanghai), Europe (Frankfurt, Amsterdam), Middle East)
- Uzbekistan occupies a strategically advantageous geographical position in Central Asia, is a key regional player
- In Uzbekistan (as well as in other countries of the region) there is an urgent need to gain access to high-speed communication channels

Creating a large data center in the Republic of Uzbekistan will allow the state to occupy a temporarily vacant niche of the largest regional information hub. The availability of high-tech means of processing and storing data, modern high-speed communications will ensure effective modernization, digitization of the economy and government as well as allow the export of ICT services to surrounding countries

The possibility of accelerated development of the ICT sphere is being solved by serious administrative and organizational decisions on reorganizing the management of the industry and the means of monitoring the economy as a whole, simultaneously attracting large investors (including in the form of PPPs) and requires a special preferential status of the main investors in the industry, specialized enterprises, a dedicated group of highly qualified specialists in the next 10-15 years. The task of creating the largest regional information "hub" should be solved in stages; only in this case can we eliminate the accumulated technological gaps in a relatively short time

Science, technology, and innovations:

The vision of ICT development

Establishment of the legal and regulatory framework

- Development and adoption of a complex of regulatory and by-laws to ensure the development of the ICT sector as a whole, protection of investment in the industry, strict legal regulation of interaction between providers and users
- During the development of legal norms, it is necessary to limit the functionality of state bodies to strictly regulatory and control functions, making it impossible for them to use modern information technologies and cyber-security to restrict the introduction and development of modern high technologies with licenses and other permits
- During the development of legal norms, it is necessary to limit the functionality of state bodies to strictly regulatory and control functions, making it impossible for them to use modern information technologies and cyber-security to restrict the introduction and development of modern high technologies with licenses and other permits

The development of basic infrastructure

- Laying of new trunk fiber-optic communication lines (international and domestic) with at least triple redundancy in the respective three largest traffic nodes: European (Frankfurt-Amsterdam), Asian (Shanghai), Middle East
- Channel-forming equipment on communication lines implies using in the first stage of the project potential throughput capacity in the amount of 60-70% of the laid design capacity with a gradual expansion of throughput through reengineering, taking into account the latest technological developments
- Simultaneous construction in the territory of the Republic of Uzbekistan of three equally powerful data centers insuring each other's work, each of which must meet at least the TIR3+ standard
- The planned capacity of the channels for traffic and the data center for the storage and processing of information is measured, respectively, in hundreds of terabytes and petabytes, which is orders of magnitude higher than the current figures, but meets modern technological requirements of the market and government

R & D and ICT human resources policy

- Active personnel training of specialists, necessary for the implementation of modern technological solutions and their technical support later, including the organization of special departments in specialized universities with the promising creation of their own scientific and practical school
- Realization of close connection of specialized departments of universities and operating enterprises at the stage of assessment of theoretical and practical knowledge, conducting internships for students, subsequent competitive and objective selection of talented and hardworking students with guaranteed provision of highly paid jobs in Uzbekistan for graduates with the highest level of competence

Information and cyber security as part of the state security strategy

- Translation of all republic-wide digital communications to IPv6 addressing with mandatory full-fledged implementation at basic data centers and with the largest providers of SORM2-3, LAVINA, etc.
- Development and implementation of a classification system of strategic importance and degree of protection of objects, a system of requirements for public and private objects according to the degree of their strategic importance in the structure of the economy in order to ensure their information security and resistance to cyber attacks
- Creation and implementation of a proprietary system platform (OS) in all government structures with the goal of guaranteed protection against leaks of state, scientific, technological, and particularly important commercial information

Science, technology, and innovations:

Strategic options

1

Uzbekistan is an importer of new technologies

Uzbekistan increases its GDP at the expense of traditional industries. Implementation and development of technologies are carried out by foreign experts, which has no impact on the development of science and R&D in the country

Examples of countries:


Kyrgyzstan


Tajikistan

+

- Possibility of using advanced technologies

–

- Lack of motivation to develop science
- Lack of long-term incentives for advanced training of staff
- Lack of incentives for innovative development

The current situation is maintained

2

Target development option

Uzbekistan is a part of global innovation development

Most technologies are imported. Uzbekistan actively invests and creates new technologies in some industries (for example, traditional ones)

Examples of countries:


Brazil


Thailand

+

- Increased labor productivity in key industries
- Uzbek companies join the global supply chains
- Possibility to apply technology spin-off models for the development of adjacent industries
- Investments of private companies in applied technology

–

- The current profile of industries will not fully match global growth trends
- Multiple sectors of the economy (services) will need imported technologies

Innovative leadership in expert areas

3

Uzbekistan is the world's innovation center

Innovation development in all sectors of the economy. Investments in the development of skills and search for specialists. Global R&D center

Examples of countries:


million


Japan

+

- Ability to launch SMEs quickly, with long-term effect of support

–

- Need for significant investment in innovative development
- Lack of qualified personnel for rapid development of advanced technologies
- Lack of developed high-tech production facilities for testing innovations

Investments in the development of skills, including nonpriority ones

Sources: data from open sources, analysis of the working group

Science, technology, and innovations:

Target vision 2035

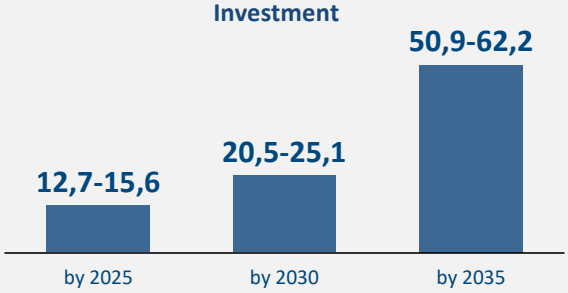
Uzbekistan is an innovation hub in industries that are locomotives of economic growth Most technologies are imported. In certain industries (e.g., traditional) Uzbekistan actively invests in the creation and development of new technologies

- Renovation and construction of telecommunications infrastructure, including Broadband
- Creation of a system of development and support of basic research and reformation of the higher education system
- Stimulation of private financing of the educational institutions' funds, in particular targeted scholarship programs and endowment funds
- Increased R&D financing, including development of venture financing of startups with participation of international investment funds
- Involvement of foreign companies (South Korean, Japanese, German, etc.) in the creation of R&D centers to develop internal skills
- Development of private education (focus on universities) as well as recruitment of world renowned experts, in particular to develop technical higher education
- Protection of intellectual property rights: combating piracy and plagiarism, and copying of international trademarks
- Renovation and creation of innovative infrastructure for commercialization in each region of Uzbekistan (technology parks, business incubators, FEZs)
- Tax and customs benefits for innovation centers (10+ years for long-term investment)
- Creation of a technology transfer system
- Popularization of science, as well as promoting the study of the sciences in English

Figures

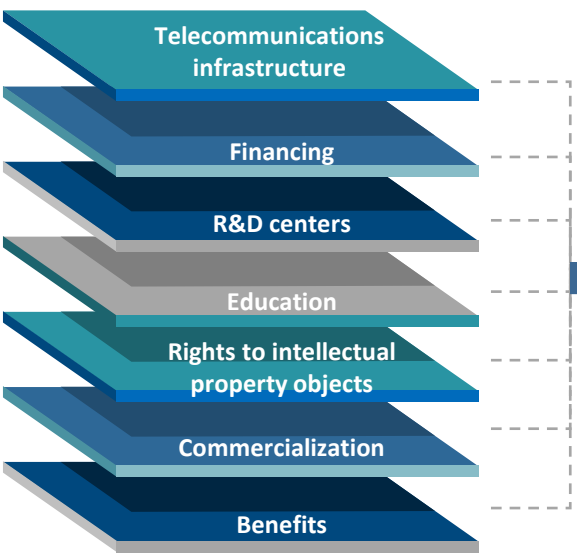
	2017	2035
Global Innovation index (rating position)	-	Top 50
R&D expenditures	0.2%	1%

Investment

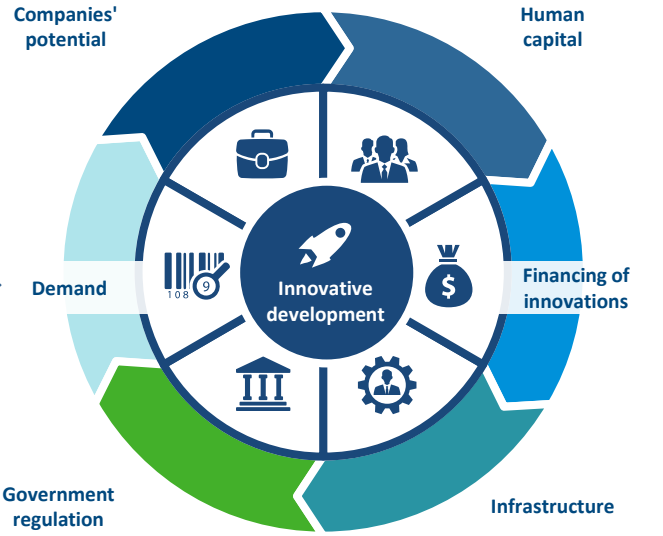


USD billion , cumulative

Main areas of development



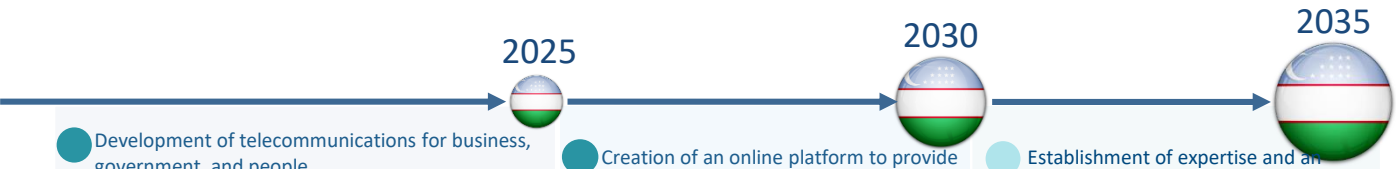
Main areas that underwent changes



Sources: State Statistics Committee of the Republic of Uzbekistan, World Bank, National Science Foundation (US), World and National Economy journal, analysis of the project team

Science, technology, and innovations:

Target vision 2035



- Development of telecommunications for business, government, and people
- Elaboration of legislation on intellectual property rights
- Upgrading of the telecom infrastructure with the priority on broadband networks
- Creation of state information systems
- Increasing the attractiveness of the IT industry
- Formation of the rating of innovative companies in Uzbekistan
- Expansion of state grant programs to support science (in particular, basic science)
- Involvement of foreign companies in creating R&D centers
- Creation of private education and formation of new universities, as well as recruitment of world renowned experts, in particular to develop technical higher education
- Creation and reformation of innovation infrastructure in each region of Uzbekistan (FEZs, innopolises, innovation centers, business incubators, etc.)
- Introduction of additional measures to provide tax and customs benefits to innovation centers
- Creation of experience expansion services: direct collaboration of scientists and students with farmers
- Creation of a system for accelerated training of personnel
- Implementation of an ethical foundation of education
- Update of the system of research institutes and research technological institutes
- Replacement of outdated national standards with international ones
- Development of the Fund for Support of Innovative Development and Ideas: increased financing and consulting work
- Protection of intellectual property rights: combating copying another and plagiarism, piracy, and copying of international trademarks

- Creation of an online platform to provide grants in support of science
- Creation of technology transfer offices
- Creation of an integrated educational system to establish links between fundamental science represented by integrated universities and research institutes/technical institutes and applied technologies represented by R&D Departments of the companies.
- PPP development
- Creation of a state management system taking into account all IT technologies
- Creation of educational centers of large companies in Uzbekistan
- Creation of one's own data centers in Uzbekistan
- Development of venture financing
- Development of high-tech and science-intensive export
- Use of blockchain technology in government administration
- Expansion of methods for financing R&D and startups
- Creation of regional innovation hubs
- Development and implementation of measures for state stimulation of demand for local innovative products, including through a government order to promote development of high-tech enterprises
- Comprehensive development of the National Information and Communication System of the Republic of Uzbekistan

- Establishment of expertise and an innovation hub in Central Asia
- Green and resource-saving technologies
- Attraction of high-tech production (with no world analogs) is planned
- Creation of energy efficient and green infrastructure
- Development of technologies in industries that are locomotives of economic growth
- Creation and maintenance of the register of branch tasks on the basis of the priorities approved by the government

personnel | finance | technologies | legislation and state regulation | infrastructure

Sources: analysis of the working group

Science, technology, and innovations:

Key strategic initiatives

- Launch of the technology transfer system
- Expansion of sources of scholarships for gifted youth, provision of benefits and donations to young specialists
- Creation of a system of local and foreign practical trainings
- Increasing the prestige of higher educational institutions of the country (enter the global ratings), including through participation in international educational exhibitions and competitions Attraction of students from near and far abroad for study
- Unification of the higher education system with global standards, in particular a prohibition on improper use of student labor
- Increase in the internet speed by 8 times, development of mobile internet (enter Top 90 of Telecommunication Infrastructure Index)
- Creation of conditions for the development of private educational institutions providing short- and medium-term specialized IT courses, including with foreign faculty

- Development of online platform for the provision of grants, financing for start-up projects, receipt of online local and foreign commissions in support of the IT industry

personnel finance technologies legislation and state regulation infrastructure

Sources: analysis of the working group

Appendix to the Breakdown

Concept of the Development Strategy of
the Republic of Uzbekistan until 2035

BUYUK KELAJAK

Tax system

Appendix to the Breakdown

BUYUK KELAJAK

Tax system

Current level of development

Key challenges

- High tax burden
- Frequent changes in tax rates
- Complexity and instability of the tax legislation (The Tax Code is not a directly applicable law.)
- Significant difference in the level of tax burden between the simplified tax system and the common tax system
- Wide use of "tax schemes" to evade taxation
- Widespread practice of supporting business entities through tax and customs benefits
- Lack of taxation concepts recognized at the international level
- Imperfection of tax control and administration

Key findings

- Indirect taxes provide 54% of the budget. Their share in the tax revenue increases, and the share of direct taxes decreases. (VAT provides more than one-third of the budget.)
- The main taxpayer is industry that provides 65.7% of tax payments among large entities. In industry, more than 52% of taxes are provided by the food and fuel industries.
- Frequent changes in tax rates negatively affect the investment climate.
- The Tax Code is not a directly applicable law, which leads to a significant number of bylaws. Tax rates are annually established by decisions of the president of the Republic of Uzbekistan.
- The Republic of Uzbekistan has a high tax burden that hinders the development of the economy, in particular, the marginal rate on investments is 49% (23% in Georgia).
- The high tax rate on the wages fund leads to concealing the real number of employees and the wages fund by taxpayers (about 50% of the nominal salary level).
- The practice of supporting business entities through tax and customs benefits, including individual ones, which negatively affects fair competition due to the absence of an effective system of monitoring and control of the efficacy of such benefits (the total amount of targeted fiscal benefits in 2017 is more than UZS 48 trillion).
- Significant difference in the tax burden level between the business entities that pay taxes under the simplified and common tax systems
- Extensive use of “tax schemes” for tax evasion, expressed primarily in the artificial fragmentation of business into small companies that can apply a more profitable simplified taxation system (confirmed by the ratio of the number of entities applying the "simplified tax system" to the number of entities applying the standard regime, 1 to 10)
- Significant share of the shadow economy as well as developed corrupt practices
- Uzbekistan ranks 64th among 190 countries in the Tax System Efficiency section of the Doing Business rating.
- Imperfect information exchange mechanisms between the government bodies and organizations, forms and methods of electronic tax administration and tax control

Tax system

Main taxes

Taxes and other mandatory payments	
National	Local

– Corporate income tax
– personal income tax
– Value-added tax
– Excise tax
– Taxes and special payments for subsoil users
  ▪ Extraction tax
  ▪ Excess profits tax
  ▪ Signature bonus
  ▪ Commercial discovery bonus
– Tax on use of water resources
– unified social tax
– Insurance contributions of citizens to the nonbudgetary Pension Fund
– mandatory contributions to state special-purpose funds
– Contributions to the Republican Road Fund
– State fee
– Customs payments
– unified tax payment
– Unified land tax
	– property tax
	– Land tax
	– Tax on gasoline, diesel, and gas consumption
	– Fee for the right to the retail sale of certain types of goods and provide certain types of services
	– Fixed tax on certain types of business activities

Tax rates

- Tax rates are annually established by decisions of the president of the Republic of Uzbekistan.
- Frequent changes in tax rates negatively affect the investment climate, as they make it impossible to calculate the investment attractiveness of projects due to the uncertainty of tax rates.

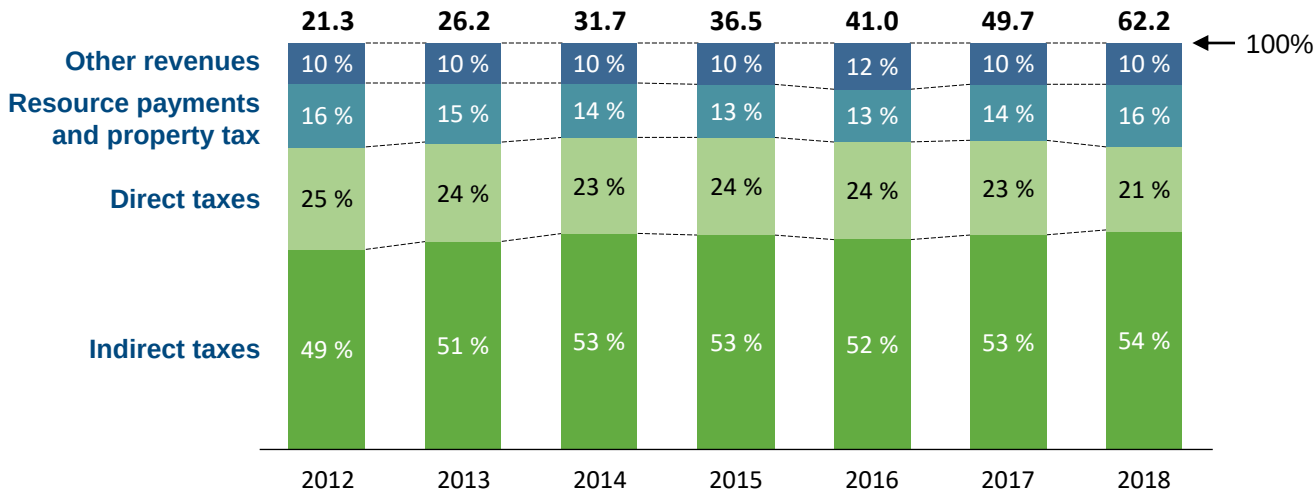
Indicators	2012	2013	2014	2015	2016	2017	2018	2019
Corporate income tax	9	9	8	7.5	7.5	7.5	14	12
Dividend tax	10	10	10	10	10	10	10	10
Personal income tax (maximum)	22	22	22	23	23	23	22.5	12
Value-added tax	20	20	20	20	20	20	20	20
Unified social tax	25	25	25	25**	25**	25**	25**	12
Unified tax payment for small and private businesses	6*	6*	6*	6*	5*	5*	5*	canceled
Turnover tax (turnover up to UZS 1 billion)	0	0	0	0	0	0	0	4
Corporate income tax	3.5	3.5	4	4	5	5	5	2
Tax on improvement and development of social infrastructure	8	8	8	8	8	8	canceled	0

* Since 2012, 5% for industry; since 2015, 5% for construction
** Since 2015, 15% for small and private businesses

Sources: Tax Code of Uzbekistan, Center for Economic Research, analysis of the working group

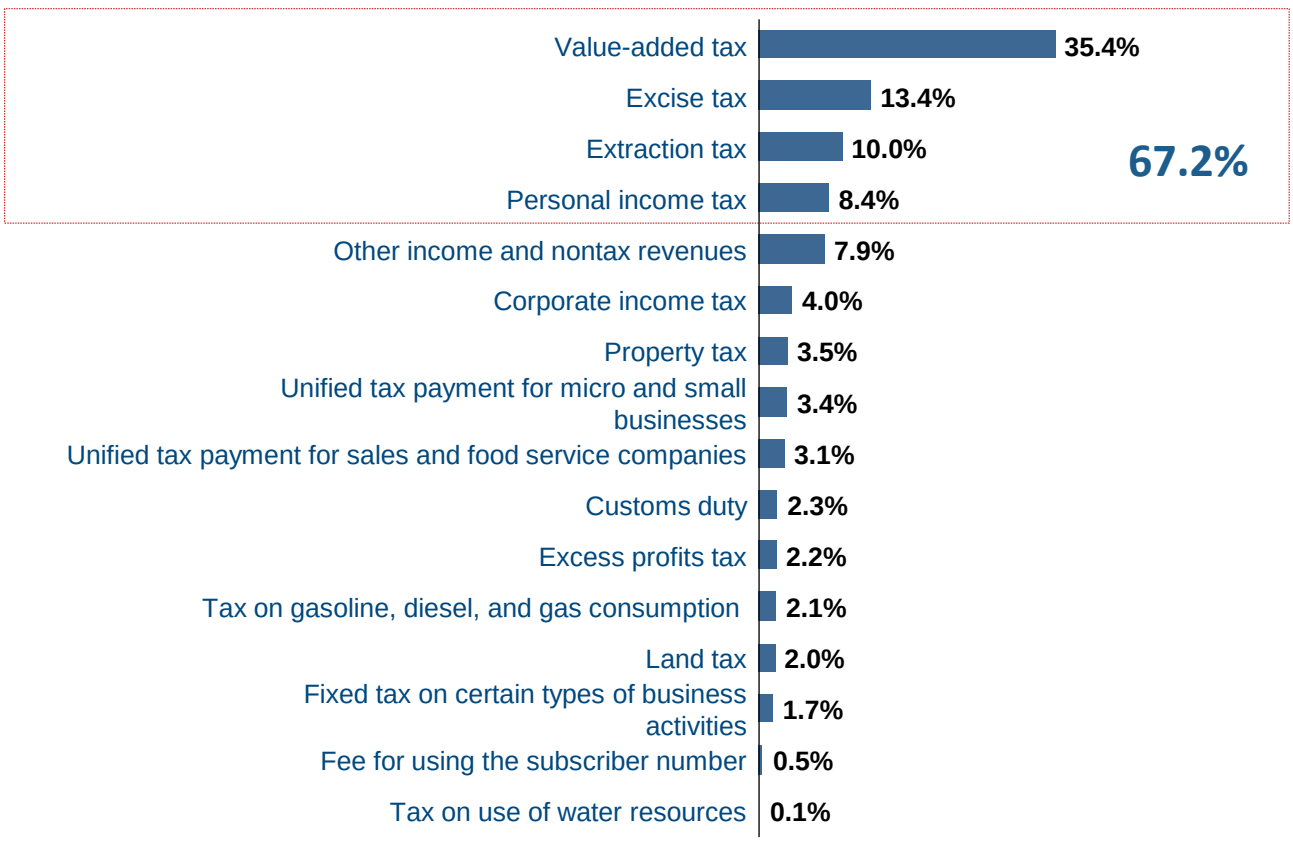
Tax system

Structure of tax revenues by type of taxes, UZS trillion



- Indirect taxes provide 54% of the budget. Their share in the tax revenue increases, and the share of direct taxes decreases.

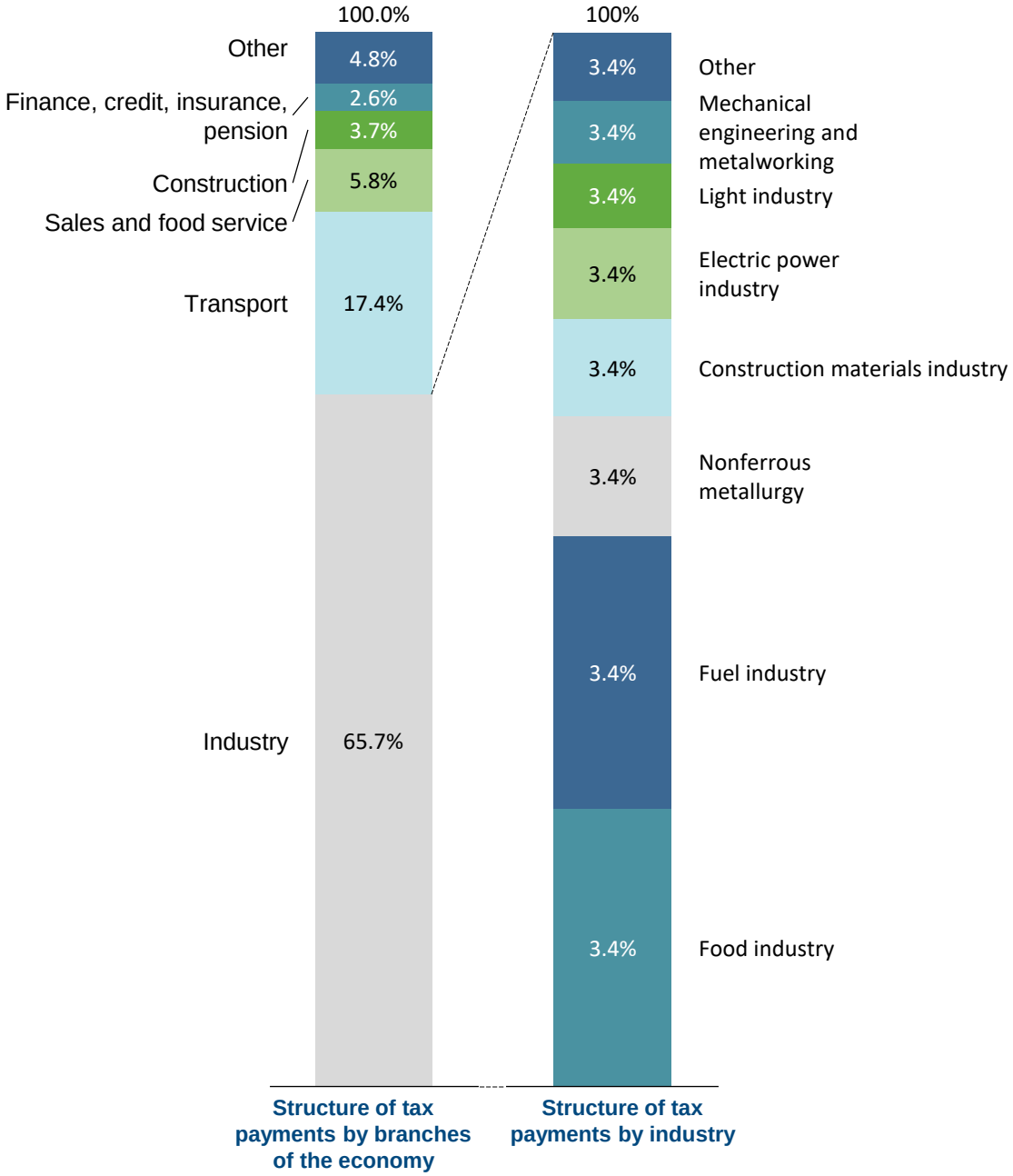
Structure of tax revenues to the budget by specific taxes, 2018



- VAT provides more than 1/3 of the budget revenues
- VAT, excise tax, subsoil use tax and personal income tax provide 67.2% of the budget.

Sources: Ministry of Finance, Center for Economic Research, analysis of the working group

Structure of tax payments by branches of the economy (large entities) in %, 2016



- The main taxpayer is industry that provides 65.7% of tax payments.
- The food and fuel industries provide more than 52% of tax payments.

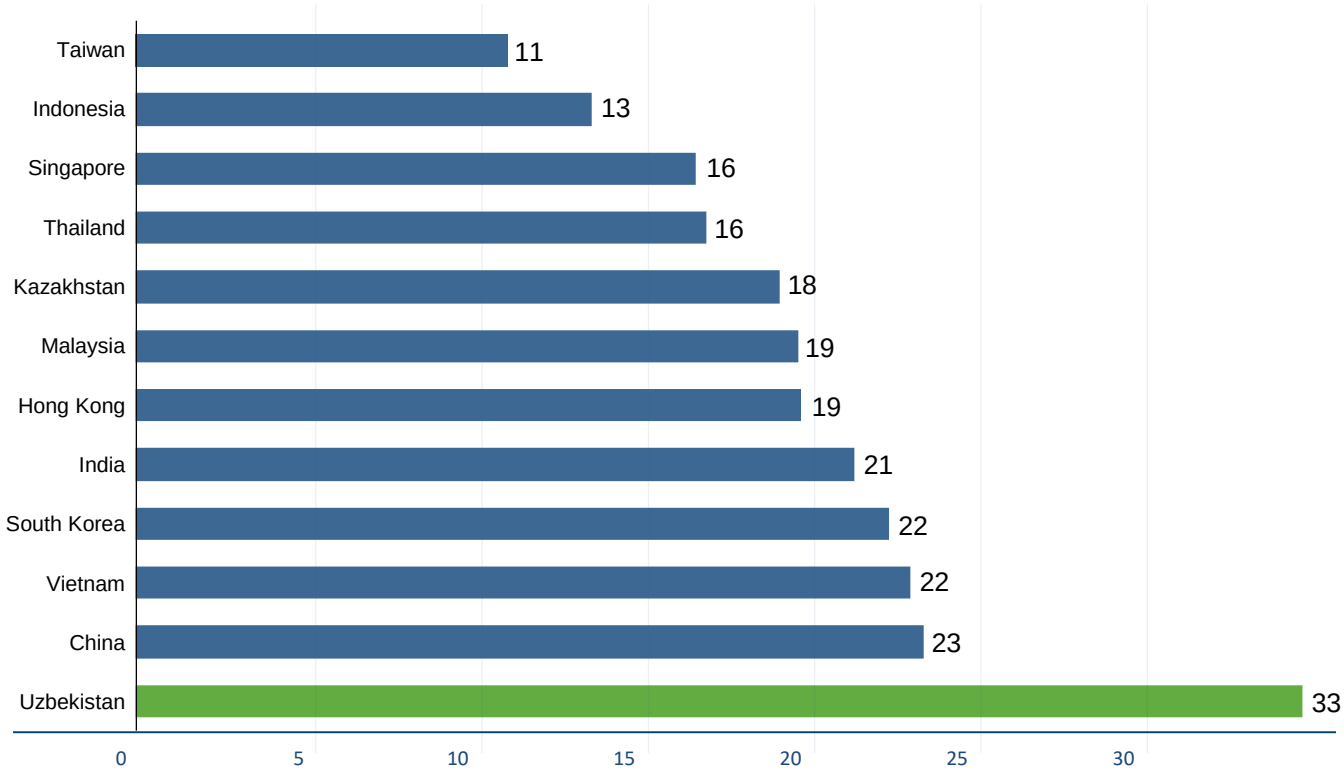
Sources: Center for Economic Research, analysis of the working group

Tax system

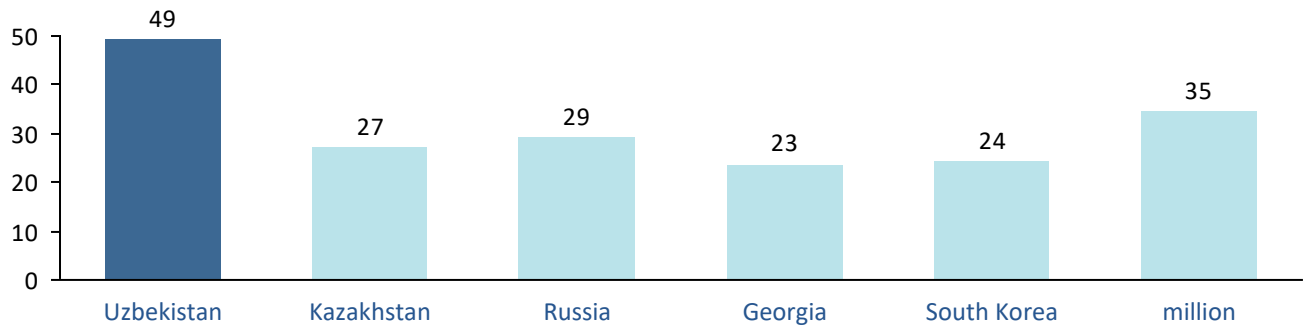
Tax burden

The Republic of Uzbekistan has a high tax burden that hinders the development of the economy.

Ratio of revenues of the state budget and extra-budgetary funds to GDP of individual Asian countries in 2015 (in %), data of the Asian Development Bank



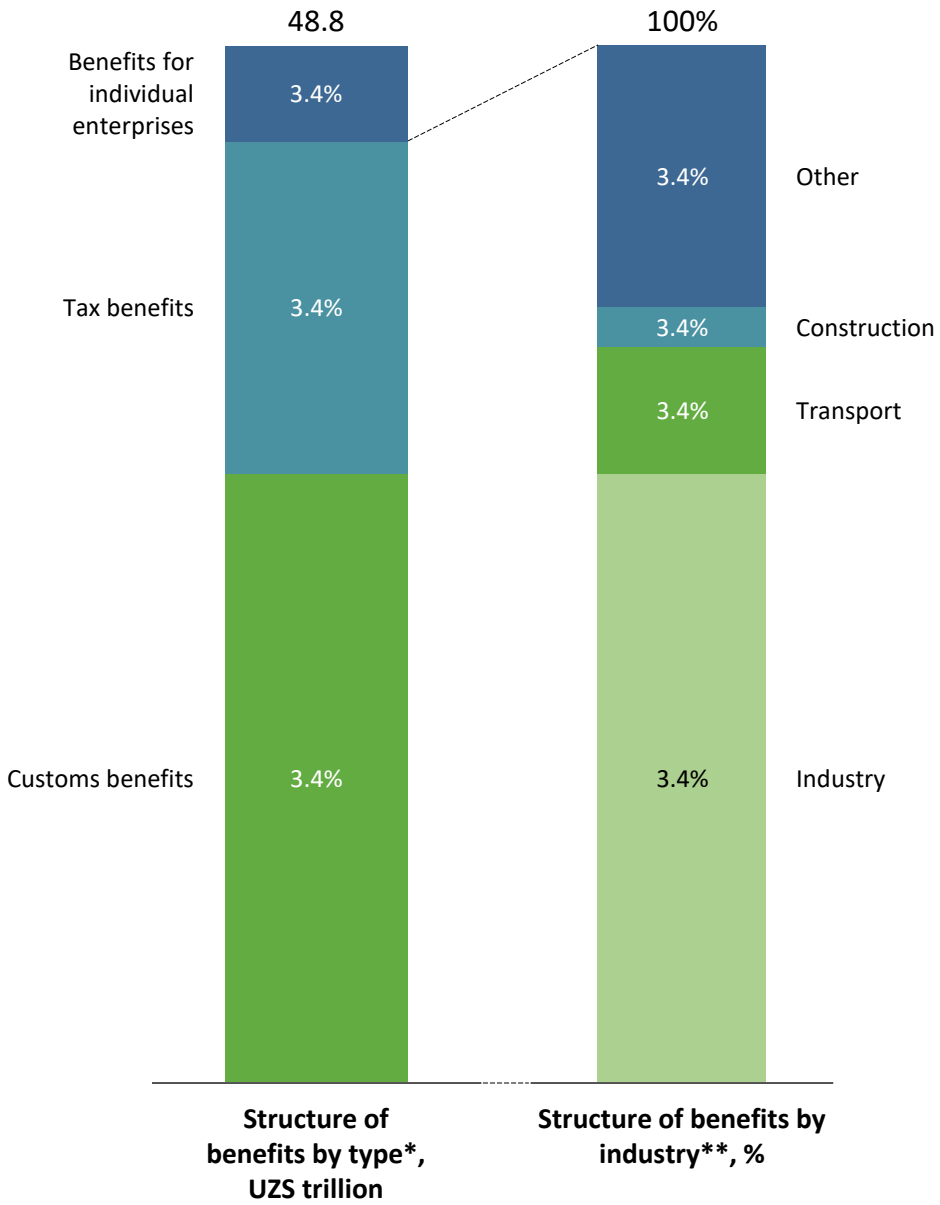
Comparison of marginal effective tax rates*



** Shows the level of tax burden on investments*

Sources: National Agency of Project Management (NAPM), Asian Development Bank, analysis of the working group

Tax and customs benefits



- The amount of benefits provided in 2017 amounted to UZS 48.8 trillion, while the main part of the benefits relates to customs benefits.
- Benefits on the main taxes and other obligatory payments are established by the Tax Code of the Republic of Uzbekistan and, in particular, by decisions of the president with respect to individual taxpayers or investment projects (according to the inventory of benefits, more than 230 such decisions).
- This situation leads to instability and unpredictability of the tax system, which can adversely affect both the investment climate and the economy as a whole.

Sources: Center for Economic Research, analysis of the working group

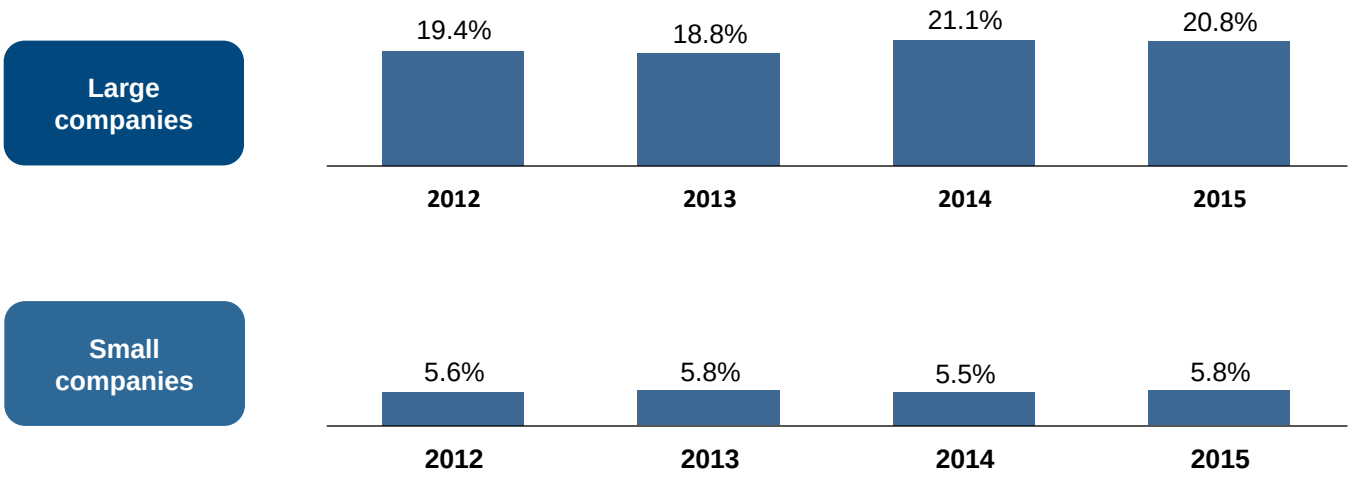
Tax regimes in the Republic of Uzbekistan

Standard tax regime	Simplified tax regime
Brief description	
The standard tax regime provides for the payment of a wide range of taxes and other obligatory payments, which is expressed in a significant tax burden on taxpayers.	The simplified tax regime provides for the replacement of some generally established taxes with the following taxes: • Unified tax payment • Unified land tax • Fixed tax on certain types of business activities The unified tax payment is made instead of the following taxes and payments: • Corporate income tax • Property tax • Mandatory contributions to state special-purpose funds Legal entities that are payers of the unified tax payment may pay value-added tax on a voluntary basis.
Criteria for application	
• Large taxpayers • Manufacturers of excisable products • Entities that are engaged in the extraction of minerals and are payers of the extraction tax • Parties to production sharing agreements • Other taxpayers that do not meet the established criteria for small businesses	Small business entities (micro and small entities) Application of the simplified tax regime is mandatory for certain categories of taxpayers (sales and food service companies, lotteries, etc.).

Sources: Tax Code, analysis of the working group

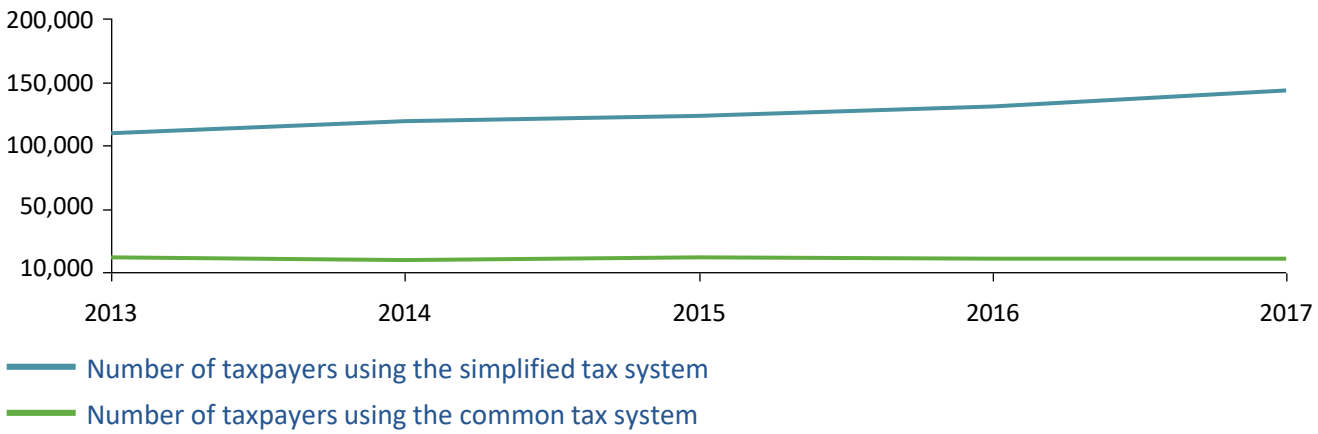
Tax system

Comparison of tax burden on large and small companies



- The tax burden is distributed unevenly: the tax burden on large companies applying the common tax regime is 3,6 times higher than the tax burden on small companies that can apply the simplified tax regime.

Number of taxpayers using simplified and common tax systems

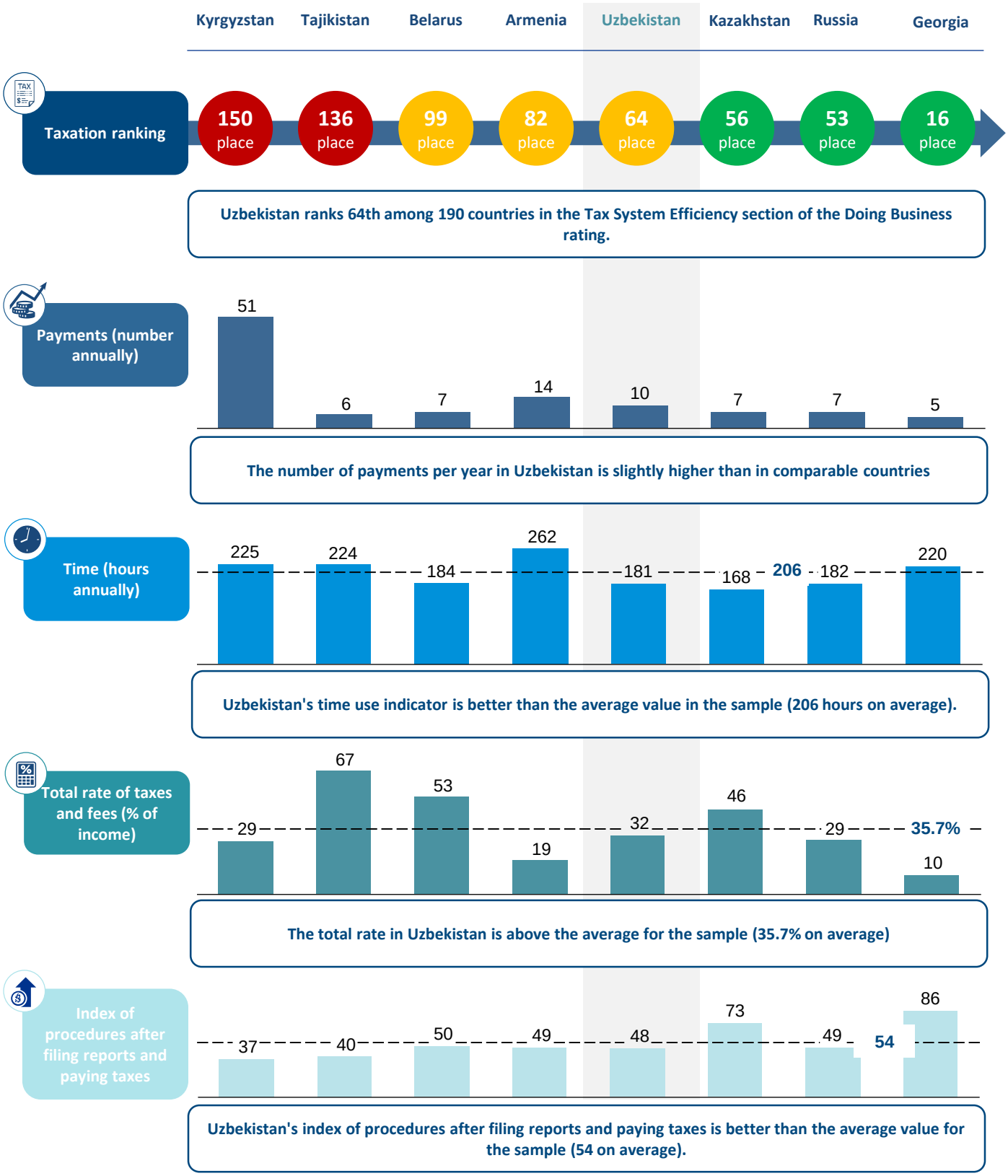


- Over the last five years, the total number of taxpayers has grown by 26% to 153,000 tax paying companies
- In 2017, the number of taxpayers using the common tax system decreased by 15% compared to 2013, to 10,000 companies.
- The number of taxpayers using the simplified tax system increased by 34,000 to 153,000 companies in 2017.
- There is the problem of artificially splitting companies to apply the simplified tax regime to reduce the tax burden.

Sources: Center for Economic Research, analysis of the working group

Tax system

Tax system efficiency indicators, 2017



Tax system

Tax policy reform concept

On June 29, 2018, the president of the Republic of Uzbekistan with his Decree No. UP-5468 approved the Tax Policy Reformation Concept of the Republic of Uzbekistan.

According to the President's Decree, from January 1, 2019:

- Reduction of the tax burden on the labor remuneration fund through
- Improved taxation of the payers of common and simplified taxes with the optimization of turnover (revenue) taxes and improved criteria for starting application of the simplified tax system
- Implementation of measures to mitigate the adverse impact of tax policy improvement on the taxpayers of the simplified tax system
- Improvement of the calculation and payment procedure of value added tax and excise tax

The main areas of tax policy improvement according to the President's Decree are:

- Reduction of the tax burden on the economy
- Elimination of disproportions in the tax burden level between the business entities that pay taxes under the simplified and common tax systems
- Optimization of the number of taxes through their unification and consolidation
- Assurance of macroeconomic stability
- Simplification of tax laws, elimination of discrepancies and collisions
- Assurance of tax legislation stability and direct application of the Tax Code
- Retention of a favorable regime for foreign investors
- Improvement of tax control forms and mechanisms

- The concept does not affirm the principles of long-term tax administration. (Further changes in tax rates are possible.)
- There are no specific time frames and volumes for reduction of tax and customs benefits.
- The predominance of indirect taxes in the structure of tax revenues of the budget remains.
- There is no source of financing the off-budget funds after cancellation of payments to them.

Comparison of the current and suggested tax rates and other mandatory payments

Tax/mandatory payment	Current rates	Proposed rates	Difference
Income tax	14%	12%	-2%
Tax on income in the form of dividends and interest	10%	5%	-5%
Unified tax payment	5%	4%	-1%
Mandatory contributions to state special-purpose funds	3.2%	0%	-3.2%
VAT	20%	20%	0%
Property tax	5%	2%	-3%
Personal income tax	7.5%–22.5%	12%	
Unified social tax	25% / 15%	12%	-3%
Insurance contributions of citizens	8%	0%	-8%

Sources: data from open sources, analysis of the working group.

Impact on the budget (1/2)

Provisions of the Tax Policy Reformation Concept of the Republic of Uzbekistan	Expected impact on the budget
Cancellation of a large number of targeted fiscal benefits	Increase in budget revenues due to cumulative tax receipts
Expansion of the circle of VAT payers (20%)	Increase in budget revenues due to the increase in VAT receipts (a group of indirect taxes)
Introduction of a single personal income tax rate of 12% for all citizens	Increase in the proceeds from income tax by expanding the database of taxpayers through their "unshadowing" (a group of direct taxes)
Cancellation of mandatory deductions to the state special-purpose funds, which are charged on the turnover (revenue) of legal entities (3.2% of net revenue of the payers of standard taxes)	The absence of direct receipt of funds to the nonbudgetary funds (Pension, Road, School Funds). Therefore, if the activity (demand for financing) of these funds remains unchanged, the burden on the budget increases
Cancellation of insurance fees of citizens to the nonbudgetary Pension Fund that are withheld from personal income in the form of labor remuneration (8% of wages)	The absence of direct receipt of funds to the nonbudgetary Pension Fund. Therefore, if the activity (demand for financing) of the fund remains unchanged, the burden on the budget increases
Reduction of the unified social tax rate for business entities from 25% (15%) to 12%	The absence of direct receipt of funds mostly to the nonbudgetary Pension Fund. Therefore, if the activity (demand for financing) of the fund remains unchanged, the burden on the budget increases
Reduction of the income tax rate for business entities from 14% to 12%, for commercial banks, from 22% to 20% Introduction of a 20% income tax for communications service providers and cancellation of the excess profit tax assessment for them, depending on their profitability	Reduction in budget revenues in the form of proceeds from income tax (a group of direct taxes) if income of business entities remains at the current level
Reduction of the corporate property tax rate from 5% to 2%	Reduction of budget revenues in the form of proceeds from property tax (a group of direct taxes) if the cumulative value of property remains at the current level
Reformation of the simplified tax system Establishment of the turnover (revenue) tax assessment and payment procedure with a basic rate of 4% for taxpayers with annual turnover (revenue) up to UZS 1 billion	Taking into account the above clauses and the fact that most taxpayers in Uzbekistan apply the simplified tax system, and that its cancellation will increase the number of taxpayers of national taxes, it is impossible to unequivocally measure the impact on the budget.

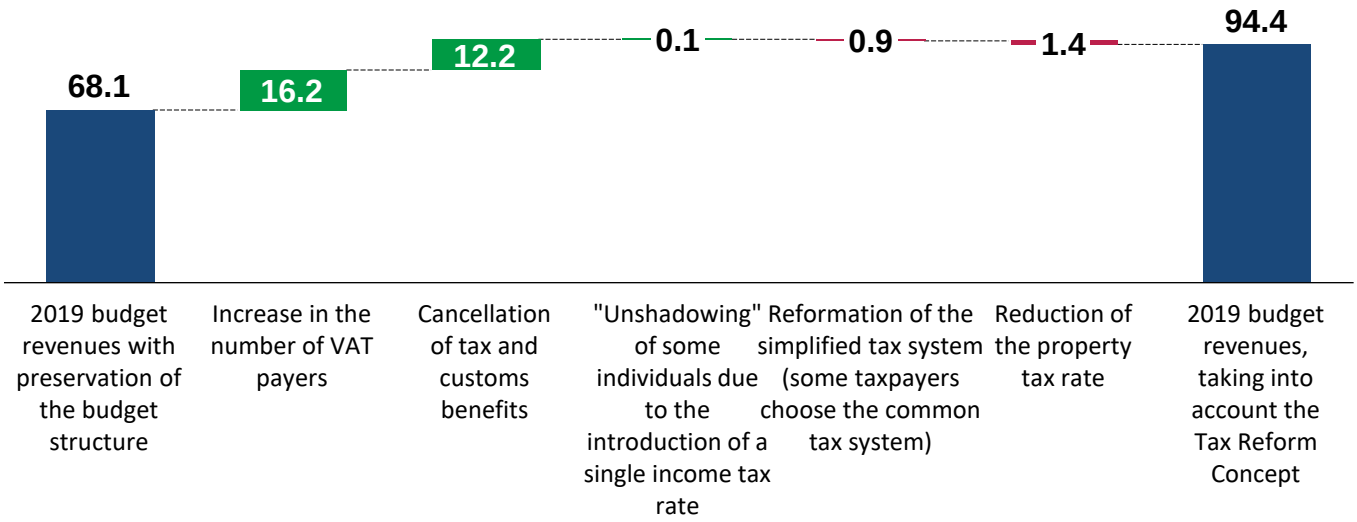
Sources: data from open sources, analysis of the working group.

Tax system

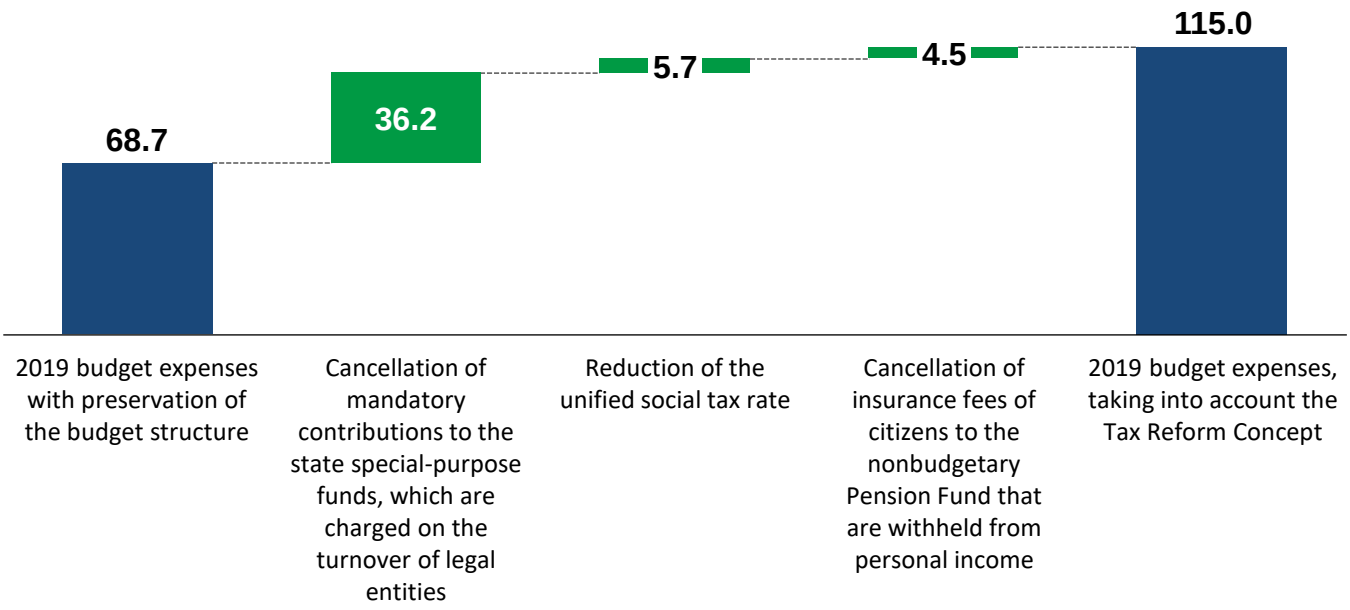
Impact on the budget (2/2)

Implementation of the Tax Reform Concept will increase budget revenues by UZS 26.3 trillion in 2019. However, it will require expenses to be increased by UZS 46.3 trillion in the same period.

Revenues of the state budget of the Republic of Uzbekistan, excluding targeted funds, UZS trillion



Expenses of the state budget of the Republic of Uzbekistan, excluding targeted funds, UZS trillion



Sources: data from open sources, analysis of the working group.

Tax system

Strategic options

1

Anglo-Saxon option

Characteristics: Prevalence of direct taxes

Examples of countries:


million


UK

- Relative stability and predictability

- Tax burden imposed on citizens

2

Target development option

Mixed option

Characteristics:

- Combines the features of various models
- Diversification of the revenue structure of the state budget

Examples of countries:


South Korea


Japan

- Independence of the budget revenues from specific taxes or group of taxes and, as a result, flexible tax and budget policy

- Possible frequent amendments to the regulatory framework
- Potentially high expenditures on tax administration

- **The mixed model is optimal for economies in which budget revenues are highly dependent on the situation in foreign markets.**
- **The mixed model allows rapid adaptation to changes in external factors by manipulating interest rates, expanding the base of taxpayers, granting/canceling benefits, etc.**

3

Continental option

Characteristics:

- Priority of indirect taxes
- High contributions to social insurance

Examples of countries:


Germany


The Netherlands

- Relative stability and predictability
- High level of social protection of the population

- High tax burden

4

Latin American option

Characteristics:

- Typical of inflation economies
- High share of indirect taxes

Examples of countries:


Chile


Peru

- Protection from inflation phenomena

- Due to the specifics of indirect tax collection, savings on tax administration

Tax system

Target vision of the tax system in 2035

Goal:

Creation of the modern soft tax system stimulating growth of investments and revenues of the budget of the Republic of Uzbekistan

Objectives:

- Further optimization of the tax burden by reducing the share of indirect taxes to 35%
- Compliance with a tax regime that ensures growth in tax revenues to the budget and allows competing in capital markets to attract foreign investments
- Transition to the principles of long-term tax administration
- Development of a special mechanism for investors with freezing of tax rates
- Development of an effective mechanism for granting benefits to taxpayers engaged in priority sectors of Uzbekistan's economy
- Further optimization and simplification of the tax legislation to ensure its stability and predictability for taxpayers

Figures

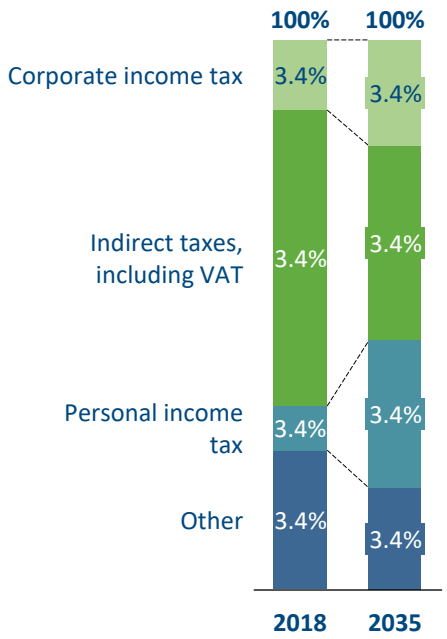
	2017/2018	2035
Doing Business rating	74	Top 20
Taxation rating (Doing Business, DB)	64	Top 20
Index of procedures after filing reports and paying taxes (0 = the lowest, 100 = the highest)	48,17 points	> 80 points
Share of indirect taxes in tax revenues of the budget	54%	<35%

Areas of tax system reformation:

- **General tax system structure:** transition to long-term tax administration; improvement of taxation principles and the legal regulation of the tax system
- **Tax structure:** reduction in the share of indirect taxes; increase in the share of personal income tax in the long term
- **System of taxes and fees:** identification of conceptual problems broken down by individual taxes, implementation of the best global practices and trends in the field of taxation (BEPS, automatic tax information exchange, MLI, CbCr, CFC, TP, etc.)*
- **Tax and customs benefits:** cancellation of targeted benefits; introduction of industry benefits to stimulate certain industries
- **Special mechanisms for investors:** development of special mechanisms (similar to SPIC)** with freezing of tax rates for investors to attract long-term investments
- **Tax control and administration:** improvement of tax control procedures and settlement of tax disputes through the introduction of ICT and automation tools as well as advanced training of employees of tax authorities
- **System of legal liability:** improvement in the system of legal liability for the violation of tax legislation

Tax structure,

% of tax revenues of the budget



Changes in the tax structure:

- The target state is calculated based on the benchmark of Japan and South Korea
- Increased personal income tax is associated with a 1.4-fold increase in the number of employed people by 2035, the legalization of incomes, and the increased level of wages. (An increase in personal income tax is the practice of developed countries.)

Note: *BEPS = Base erosion and profit shifting (transfer of revenues and profits to jurisdictions with low taxes); MLI = multilateral convention to implement tax treaty-related measures to prevent BEPS; CbCr = country-by-country reports on BEPS; CFC = controlled foreign company; TP = transfer pricing; **SPIC = special investment contract.
Sources: data from open sources, analysis of the working group.

Appendices

Concept of the Development Strategy of the Republic of Uzbekistan until 2035

BUYUK KELAJAK

Appendix 1
Glossary

Concept of the Development Strategy of
the Republic of Uzbekistan until 2035

BUYUK KELAJAK

Glossary (1/11)

Term	Definition
AISP (Account Information Service Providers)	Companies providing information on financial service accounts
ANZSOG (The Australia and New Zealand School of Government)	An educational institution located in Carlton, Australia, which specializes in strategic management and policy
API (Application Programming Interface)	A set of procedures, protocols, and functions used to create software applications with the help of which various software components may interact with each other
ASPSP (Account Servicing Payment Service Provider)	A special service provider used to maintain a payer's account in the context of the banking ecosystem, which allows payments initiated by other parties to the transaction subject to its approval by the client
B2B ("Business to Business")	Informational and economic interaction between corporate entities
Basel 2/3	Documents of the Basel Committee on Banking Supervision on the requirements for capital adequacy ratio of banks
BASF (Badische Anilin & Soda-Fabrik)	A German company operating in the agricultural industry, which is the world's largest chemical producer. The company has implemented a number of training programs for farmers
Big Data	A term used to denote operations related to processing of big arrays (over 2,5 PB) of structured and unstructured data
Broadband	Broadband transfer: data transfer technology via network, where data are transferred in the form of modulated radio frequency signals
CAGR	Compound annual growth rate
CapEx	Company expenses used to purchase, upgrade, and maintain various assets, e.g., such as equipment, property, and industrial capacities
CIR (Cost-to-income Ratio)	Financial indicator that shows the ratio of company expenses to its revenue for a certain period
Civil Service College (CSC), Singapore	A state institution (college) in Singapore that specializes in staff training for civil service and in providing consultancy services to government agencies
Corruption Perceptions Index	An index calculated on the methodology of the international non-governmental organization Transparency International to evaluate the prevalence of corruption in the public sector of a certain country
D/E (Debt-to-Equity)	Financial indicator that shows the ratio of interest holders' (shareholders') equity and borrowed funds used to finance current assets of the company
Elder Shield	An insurance program for the citizens of Singapore older than 40 years old

Glossary (2/11)

Term	Definition
EPC SDD (European payments council sepa direct debit)	A direct debiting system introduced by the European Payments Council (EPC), which enables secure and efficient payments by clients for goods and services in SEPA nations (EU, Norway, Iceland, Lichtenstein, and Switzerland)
ETF (Exchange Traded Funds)	Index funds whose shares are traded on the exchange market
FATF (Financial Action Task Force)	An intergovernmental organization founded in 1989 to develop financial measures to counter money laundering
Federal Employee Education and Assistance Fund Scholarship Program	A program launched by the noncommercial public organization in the US, which provides financial support in the form of educational grants and subsidies to low-income citizens
FinCEN	The bureau for countering financial crimes in the US, which collects and analyzes information on financial operations in order to counter money laundering and financing of terrorism in the country and abroad, as well as other financial crimes
GCP	Good clinical practice. The term means an international standard of ethical rules and research quality, which sets out the principles of development, conduct, documentation, and reporting of the research that requires human involvement in clinical studies
GDPR	The General Data Protection Regulation in European Union member states
GII (Global Innovation index)	An index that evaluates the innovation development level in a country. It is prepared annually by the consortium of Cornell University (USA), INSEAD School of Business (France), and the World Intellectual Property Organization
IIOC (Industrial Internet of Customers)	The system automating the purchase/sale process based on new technology
IIOM (Industrial Internet of Machines)	The system of machine interaction based on special sensors and controllers in the industrial sphere
Indigo Index	An index that evaluates the economy's ability to adapt and develop when transitioning from the use of raw materials and natural resources to the use of innovations and technologies. The index is prepared by the international organization Global Perspectives
IPO (Initial Public Offering)	The initial (first) public offering of company shares in the market
Just-in-time	A logical concept based on the idea of making deliveries just in time. It is one of the main principles of lean production in a company
KYC (Know your Client)	A term on banking regulation for financial institutions and for other companies working with private individuals' money, which means that they should identify and establish the identity of the counterparty before performing a financial transaction
Mayor's Graduate Scholarship Program (New York City)	A program of post-graduate studies for full-time employees of local government agencies in New York
Medifund	State-funded medical support for the citizens of Singapore who cannot afford treatment and cannot use the Medisave and MediShield programs

Glossary (3/11)

Term	Definition
MediSave	The system of compulsory healthcare deductions in Singapore, under which an employee makes contributions from their salary (since 2016, 8 to 10.5% depending on age) to a personal account, and the employer makes contributions in an equal amount
MediShield	Health insurance system for the citizens of Singapore in cases where the limit of the available amount under MediSave is exceeded (usually used in case of serious illness). Citizens predisposed to illness make larger deductions from their income for 10 years under MediShield Life
Middle Office / Back Office	Groups of business units or processes responsible for verification and actual processing of a client's operations / an operational and accounting business unit supporting operation of the business units engaged in management of assets and liabilities of the company carrying out the core activity of a financial institution
MIFID (Markets in Financial Investment Derivatives)	A trade market for derivative financial instruments
National Health Insurance Program	A special program in South Korea that offers health insurance to working citizens and their relatives, provides health care services to pensioners, and covers medical expenses of poor and low-income families
OpEx	Operational expenditures, i.e. expenses borne by a company in the course of its daily activities (e.g., net cost of products, rent, etc.)
P2P	A type of financial relationship between individuals, which involves money transfer without a financial intermediary, where the parties involved do not use third-party services
PISP (Payment Initiation Service Providers)	Companies that allow users to pay directly from their bank account, without using their debit or credit card, via a third-party company like Visa or MasterCard
PR (Public Relations)	Technology for creating and implementing an object image under the socioeconomic and political systems of competition to the value-based range of a social group in order to establish this image as important in life
PSD2 (Payment Services Directives)	The European Union Directive that controls competition and legislation in the payment services market
Public Service Agreement (UK Program)	The document describing strategic goals and tasks of the UK governmental departments for a three-year period. PSA were abolished in June 2010 by the Coalition government.
Regulatory Impact Analysis (RIA)	The document reflecting socioeconomic consequences of a certain state regulation. RIA are conducted in many countries, though their scope, contents, role, and impact on policy formation differ
ROA (Return on Assets)	The indicator that shows a company's business profitability against the company assets. It is calculated as the ratio of the company's net profit to total assets
ROE (Return on Equity)	The indicator of equity profitability, which shows the ratio of net profit to equity of a company

Glossary (4/11)

Term	Definition
SCA	Strong Customer Authentication (SCA) is a new compulsory method of online payment authentication (or customer verification before accepting an online payment), which will be introduced in Europe in 2019 and will ensure greater data safety compared to the previous methods
Solvency 2	The European Union regulatory act that establishes requirements for the processes of regulating the activities of insurance business representatives. The directive outlines the key structural components of regulation and supervision of insurance companies' activity
Study Leave Program for Abu Dhabi Government Employees	A program of incentives for UAE citizens working in the government of Abu Dhabi in certain areas of priority significance for the country. It provides them with the possibility to complete their undergraduate studies or postgraduate studies in the leading universities of the UAE and abroad
SDG Index (Sustainable Development Goals Index)	A UN index that evaluates the progress of a certain country in terms of international cooperation based on a set of goals in the field of social, legal, economic, and environmental development
Technology Transfer Network	Technology transfer using any information channels from one individual or collective carrier to another
Technology transfer office	A hub in the technology transfer structure
TEU (Twenty-foot equivalent unit)	A twenty-foot equivalent is a reference unit of measure of truck capacity. It is widely used in the carriage of containers
EPI (Environmental Performance Index)	A composite indicator for a certain country, which is determined by the Yale Center for Environmental Law and Policy, and shows the country's progress in the field of natural resource management and the environment
TPP (Third-Party Providers)	External providers offering payment solutions and services for clients
WPFI (World Press Freedom Index)	The index that shows the state of the freedom of media in a certain country, which is determined by the international nongovernmental organization Reporters Without Borders.
Equity Value and its Components	A financial term that indicates the minimum one-year level of return that a company should ensure for its ordinary shareholders for profit expectations and risk. ERP is equity risk premium Ke is cost of equity CRP is country risk premium RfR is risk-free rate
APA (Architectural Planning Assignments)	A set of requirements for the intended use, main parameters, and location of an architectural object on a certain territory, and binding environmental, technical, organizational, and other conditions of design engineering and construction of an object, as provided for by government legislation
AIC (Agro-Industrial Complex)	An assemblage of economic sectors engaged in the production and processing of raw agricultural materials and in making products to be sold out of them
ATS (Automatic Telephone Station)	A system of mechanisms that enables automatic connection and maintenance of telephone communications between subscribers using special devices

Glossary (5/11)

Term	Definition
Business Incubator	A company supporting small business. The purpose of a business incubator is to create favorable conditions for the appearance and development of start-ups and young innovative enterprises in order to strengthen and enhance their competitiveness and adjust to the external economic environment
Blockchain	Distributed data storage technology
UAV (Unmanned Aerial Vehicle)	An aircraft without a crew on board
GDP (Gross Domestic Product)	A macroeconomic indicator that shows the market value of all final goods and services manufactured within a certain period of time in a particular country
GAV (Gross Added Value)	The indicator that shows the difference between the value of goods and services produced (output) and the value of goods and services fully consumed in the production process
WHO (World Health Organization)	A special institution of the United Nations (UN) whose main task is to solve international health care problems of the world's population
Renewable Energy Sources (RES)	Energy generated from inexhaustible sources
GRP (Gross Regional Product)	The economic indicator that shows the market value of all goods manufactured within a certain period of time in a particular region (particular open economic system)
WTO (World Trade Organization)	An international trade organization whose main tasks are to carry out trade negotiations between the member states, carry out consultations between the stakeholders, and settle trade disputes
FEA (Foreign Economic Activity)	An area of economic activity of the state and business, which is associated with the system of economic, production, and commercial relations of enterprises with a focus on the global market
HEI (Higher Educational Institution)	An educational institution of higher professional education
SC (State Committee)	A federal executive authority in charge of intersectoral coordination on the issues falling within its competence, and functional regulation in a certain area of activity
Guarantee Fund	The institutions founded by governmental authorities to support small and medium businesses; they are usually funded from the state budget and provide sureties in the country
Global Indicators of Regulatory Governance (World Bank, Scores)	The indicators reflect the quality of the legislative process, the quality and accessibility of the legislative framework for the population in the country. A corresponding rating is prepared based on this indicator
MMP (Mining and Metallurgical Plant)	An industrial enterprise specializing in fabrication of metallurgical products

Glossary (6/11)

Term	Definition
MMI (Mining and Metallurgical Industry)	The assemblage of mining and metallurgical industry sectors in a certain country
Public-Private Partnership (PPP)	A system of relations between private business representatives, on the one part, and the public sector, on the other part, maintained on the basis of a cooperation agreement in order to attract investments and consolidate resources
GPP (Gas Processing Plant)	An industrial enterprise processing natural and associated gas
HPP (Hydropower Plant)	A power plant using the force of water flows as the energy source
CCP (Cash and Credit Policy)	Actions of specialized government institutions in the monetary and currency market intended to control the exchange rate, inflation rate, employment, and economic growth stability. As a rule, central banks are responsible for the implementation of a cash and credit policy
HUS (Housing and Utility Services)	The assemblage of economic sectors aimed at supporting the functioning of residential buildings
AI (Artificial Intelligence)	The term used to denote the intelligence of machines and computers and their ability to perform creative and technologically sophisticated tasks
IIA (Individual Investment Account)	A trust management account of an individual, which has certain tax benefits established by the state. Such account involves an investment diversification method
Immigration	The population of one country (state) entering another country for temporary or permanent residence, considered in relation to the country where the migrants enter.
ICT (Information and Communications Technology)	Methods, software, and hardware, the main task of which consists of receiving, processing, and transferring information
The World Justice Project: Rule of Law Index	An indicator that shows the adequacy of the legal framework that is based on universal principles of the rule of law in a certain country. The rating is prepared by the international organization World Justice Project
Food Security Index	An index that shows the accessibility and quality of food resources in a country in terms of affordability and availability of healthy food. The index is prepared by the analytical agency Economist Intelligence Unit
Democracy Index (The Economist)	An indicator that shows the level democracy in a country, determined using the methodology of the research organization The Economist Intelligence Unit
Web Index	An indicator characterizing the level of influence of the Internet on society in a certain country. The index is determined by the World Wide Web Foundation
E-Government Development Index (EGDI), 2018	A composite indicator characterizing the preparedness and opportunities of national government agencies to use information and communications technology for interaction with citizens. The rating is compiled by the UN
Index of Economic Freedom	An index that shows the lack of government intervention or obstruction in the production, distribution, and consumption of goods and services, except for the protection required for citizens and the support of freedom. It is calculated by Wall Street Journal and the Heritage Foundation research center
IE (Individual Entrepreneur)	A person conducting business activity without founding an organization

Glossary (7/11)

Term	Definition
DI (Development Institutes)	Organizations stimulating innovative processes and infrastructure development, mainly through the use of public-private partnership mechanisms
Gini Index	An economic term reflecting the degree of inequality in income distribution within different groups of the population
KPI (Key Performance Indicators)	The metrics of success achieved by a business, the government, and representatives of other sectors in a certain area
CSR (Corporate Social Responsibility)	The concept according to which business representatives must carry out an array of social activities according to the laws of a certain country
Small and Medium Enterprises (SME)	The economic sector that includes medium, small, and micro enterprises
Mbps	Mbit per second. The transfer speed of a certain volume of data
SB&PE (Small Business and Private Entrepreneurship)	The economic sector that includes small and micro companies and private entrepreneurs
MHSSE (Ministry of Higher and Specialized Secondary Education)	The government body in charge of control and development of a certain educational level in the country
IPCC (Intergovernmental Panel on Climate Change)	An organization whose purpose is to evaluate the risks of global climate change caused by man-made factors
MPrE (Ministry of Preschool Education)	The government body in charge of control and development of a certain (preschool) educational level in the country
Doing Business Index	The indicator that shows the level of ease of doing business in a certain country. The higher the country position in this rating, the more favorable the business environment for opening and running a business. The rating is compiled by the World Bank
Migration	Displacement, resettlement, eg. population within the country or from one country to another, animals from one area to another, etc.
MPE (Ministry of Public Education)	The government body in charge of control and development of a certain educational level in the country
Top-Down (Model based on top-down implementation of initiatives)	An approach according to which analysis should be started from the top levels of a certain hierarchy
Bottom-Up (Model based on bottom-up implementation of initiatives)	An approach according to which analysis should be started from the bottom levels of a certain hierarchy
SMB (Small and Medium Business)	The economic sector that includes small and medium businesses and micro enterprises. This term is identical to the term SME, and is mostly used in the banking sector

Glossary (8/11)

Term	Definition
IFRS (International Financial Reporting Standards)	A set of documents (principles, explanations, standards) that establish the rules for generating the financial reports of a company. This accounting system is used in more than 100 countries
IFAS (International Fund for Saving the Aral Sea)	The fund established to overcome the environmental crisis and improve the socioeconomic position in the Aral Sea basin. The fund was established in 1993 according to the decision of the heads of the Central Asian countries
RDI (Research and Development Institute)	A state institution established to conduct research and development work
R & D (Research and Development, R&D)	The scope of works aimed at obtaining new knowledge and its practical application in creating a new thing or technology
RDTI (Research and Development Technical Institute)	A state institution established to conduct research work and comprehensive testing
RLA (Regulatory Legal Act)	An official document published and approved in a certain form by the legal body within its competence and aimed at establishing, amending, and/or abolishing certain rules in the state or an association
ORP (Oil Refinery Plant)	An industrial enterprise established to process crude oil into fuel and other oil products
CHI (Compulsory Health Insurance)	The form of compulsory insurance of human health established by the state, which covers part of the cost of treatment
UN (United Nations)	An international organization founded in 1945 to support and build international peace and security and to develop partnership between countries
CCPU (Combined-Cycle Power Unit)	A power generating plant running on two engines: steam-power and gas-turbine
ID (Industrial Designs)	An object of intellectual rights related to the outward appearance of a product of industrial production
CML	Measures to prevent illegal receipt of money (money laundering)
One-In-One-Out Principle	An approach according to which a newly adopted legislative act will supersede the previous legislative act controlling the same subject
Regulatory Guillotine	An approach that involves the process of counting, verification, analysis, and exclusion from the legislative framework of laws that are no longer mandatory
Sunset Clause	A principle in the governmental policy according to which a certain law will become null and void after a certain date, unless further legislative measures are taken to extend its validity period

Glossary (9/11)

Term	Definition
Government transformation program (GTP)	The program implemented by the Government of Malaysia in seven key areas to improve the lives of the population. The program was launched in 2010 and is part of the country's vision, "Vision 2020"
DFI (derivative financial instrument)	An agreement whose terms require one party to deliver to the other party to the transaction the underlying assets at a fixed price and within the agreed-upon time frame
Ecological Footprint rating	Indicator showing the measure of human impact on the habitat in a particular country. The rating is compiled by the World Wildlife Fund (WWF)
LPI rating (Logistics Performance Index)	An indicator that demonstrates the relative efficiency of logistics and the development of the transport complex in a country. A rating of countries is compiled based on this indicator by the World Bank
Rating of the population's hospitality	Ranking of countries based on an indicator that measures the citizens of how many countries a particular country can allow to enter without a visa, issue them a visa upon arrival, or issue an electronic entry permit. The rating is compiled by the World Economic Forum nongovernmental organization
Rating of banking assets to GDP	Ranking of countries by volume of banking assets from larger to smaller. The rating is compiled by the International Monetary Fund
Rating of telecommunications infrastructure development by the United Nations (Telecommunication Infrastructure Index, TII)	Ranking of countries based on a composite index that includes the following parts: the number of internet users per 100 residents; the number of landline phone users per 100 residents; the number of mobile subscribers per 100 residents; the number of wireless broadband access users per 100 residents; the number of fixed broadband access users per 100 residents. The rating is compiled by the UN
Rating of countries by the International Monetary Fund (IMF Rating)	Ranking of countries in terms of GDP, the calculation methodology of which is determined by the International Monetary Fund (IMF)
Country rating by contribution of tourism to GDP	Rating based on an indicator showing the dependence of the national economy of a particular country on the tourism sector. The rating is compiled by experts of the World Travel and Tourism Council (WTTC)
Country rating by competitiveness of the tourism industry	Ranking of countries in accordance with a complex indicator that assesses the quality of tourist reception in a particular country (components of the indicator are estimates for the country's historical and cultural heritage, development of the economy, transport, mobile communications, health care, people's openness, etc.)
Country rating by tourist export	Ranking of countries in order from larger to smaller according to the number of visits by foreign tourists. The rating is compiled by the World Tourism Organization (UNWTO)
Country rating by level of investment in the tourism industry	Ranking of countries in order from larger to smaller according to the amount of money invested by the state in the development of the tourism sector. The rating is prepared by the World Travel and Tourism Council (WTTC)
Cultural Influence Ranking	Ranking of countries in accordance with a comprehensive indicator assessing the government's influence in art, fashion, and other cultural attributes calculated by Y&R's BAV Group and The Wharton School of the University of Pennsylvania
World Bank Worldwide Governance Indicators (Government Performance Index)	Rating of countries in terms of quality and efficiency of government management. It is calculated according to the methodology and global research of the World Bank

Glossary (10/11)

Term	Definition
Republic of Karakalpakstan	Republic of Karakalpakstan
Republic of Uzbekistan	Republic of Uzbekistan
“Up-or-out” system for civil servants	A system of employee development in organizations, according to which employees within an organization have only one choice: professional growth or leave the organization.
CIS (Commonwealth of Independent States)	An international organization regulating cooperation relations between countries formerly part of the USSR
JV (joint venture)	A form of joint activity that involves the use of resources by both parties to the transaction, sharing of risks, the granting of rights to the parties to the project to the net assets of the joint activity
FEZ (Free economic zone)	A limited part of the country's territory within which a special business scheme is established, granted to commercial organizations and representative offices of foreign companies registered in this zone
T.O.E. (Tonne of oil equivalent)	An energy unit used in the international energy industry
MSW (Municipal solid waste)	Products that have lost consumer properties
IIOT Technologies (Industrial Internet of Things)	A multilevel system of interaction of various objects, including sensors and controllers installed on the nodes and aggregates of an industrial facility, means of transmitting the collected data and their visualization, powerful analytical tools to interpret the information received
Technopark	An organization managed by specialists whose main goal is to increase the well-being of the local community by promoting an innovative culture, competitiveness of innovative business and scientific organizations
TM (Trademark)	A term used to refer to the individualization of products of a particular legal entity or individual entrepreneur
Fuel and energy complex (FEC)	A sector of the economy that refers to the totality of production, processes, and material devices for the extraction of fuel and energy resources, their transformation, transportation, distribution, and consumption of both primary and transformed types of energy carriers
CCI	Chamber of Commerce and Industry
TRACECA	A program of international cooperation between the European Union and the partner countries on the organization of the transport corridor "Europe – Caucasus – Asia"
TSE	Trade and service enterprises
CHPP	Thermal power plant
UzCHHM	Uzbek Combine of High-Melting and Heat-Resistant Metals
Urbanization	The process of increasing the role of cities, urban culture, and "urban relations" in the development of society, an increase in the urban population compared to rural
STS	Simplified tax system

Glossary (11/11)

Term	Definition
FI	Financial institution
FT	Financial terrorism
CA (Central Asia)	Central Asia Region
CAREC	Central Asian Regional Economic Cooperation
FIS	Fixed income securities
BSC	Business support center
ESC (Export support center)	An organization usually representing a state institution that serves to develop a country's exports and provides various support measures to exporting companies
Extreme poverty	Acute shortage of food, drinking water, access to health services, and lack of housing and access to education
Emigration	Resettlement from one country to another for economic, political, and personal reasons. Specified in relation to the country which is left behind
LE (Legal entity)	An officially registered company conducting operational and economic activities
UNESCO	Specialized institute of the United Nations Educational, Scientific and Cultural Organization.
Argentina Top Wines	An organization uniting more than a dozen wine cellars focused on the export of products
“Design-to-cost”	Design in accordance with a given cost
“Golden share”	Conditional name of a corporate law belonging to a state or municipality that is a shareholder of a certain company. Serves as a measure of state control over the enterprise being privatized
Camelina	A dual-purpose product: - For production of aviation biofuel and biodiesel - for feeding cattle
5G	The fifth generation of mobile communication operating on the standards of telecommunications, following the existing 4G standards

2. Forecast of the Target Development Indicators of Uzbekistan until 2035

Concept of the Development Strategy of the Republic of Uzbekistan until 2035

BUYUK KELAJAK

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Note: 1 - the third parties mean any physical persons or legal entities

2.1. Purpose of the forecast model

The purpose of the forecast model is to determine the values of the target macroeconomic indicators of development of the Republic of Uzbekistan by 2035.

The calculation is based on both quantitative data obtained from open sources of Uzbekistan and databases of international organizations as well as qualitative assessments and scenarios formed as a result of interviews of the working group with industry experts.

Goals	Forecast model	Input data
1 Calculate the main macroeconomic indicators characterizing the level of economic development		Statistical data Forecasts Scenarios Main parameters Expert evaluations Global trends
2 Determine the economy's structure, the main sources of income and expenditures		
3 Determine the structure of GDP components and their target values		

Source: analysis of the working group

2.2. Principles of building the forecasting model

International benchmarks of the fastest developing countries in Asia were used for the forecast of key indicators of Uzbekistan for 2035.

Calculations are based on international data on 34 indicators characterizing the current situation of the Republic of Uzbekistan using the following approaches:

Benchmarking

Selection of target indicator values based on indicators of countries that are used as development benchmarks

Selection of benchmarks for forecasting based on comparison of the previous dynamics of the selected economic systems and the country itself

Evaluation based on trends

Evaluation of growth rates based on internal and external dynamics having a direct impact on an indicator

Evaluation of growth rates based on historical trends for comparable countries over a long period of time

Evaluation based on drivers

Key factors and their current values are determined for key forecast indicators.

Based on analysis of a set of factors, a conclusion is made about the growth rate of a calculated indicator.

Advantages and limitations:

- ⊕ Provides a target vision
- ⊖ Possible error in the choice of benchmarks
- ⊖ Does not take into account differences in external conditions (e.g., world market conditions)

- ⊕ The forecast is simple.
- ⊖ Does not take into account factors influencing the achievement of certain results
- ⊖ Does not take into account changes in external conditions (e.g., world market conditions)

- ⊕ Reflects cause-and-effect relationships
- ⊖ There may be an error in determining the nature of the relationship between a factor and a calculated indicator.
- ⊖ There may be an error in determining the dynamics of factors.

34 key indicators:

GDP (nominal)	Employed population
GDP per capita	Employment in AIC
GAV (gross added value)	Industrial employment
Tax revenues	Employment in service sector
Contribution of AIC to GAV	Registered unemployment rate
Contribution of industry to GAV	Level of real wages
Contribution of service sector to GAV	Public debt amount
Share of AIC in GAV	Inflation
Share of industry in GAV	Number of SME
Share of service sector in GAV	Added value per 1 SME
AIC output	Annual volume of investments in Uzbekistan
Industrial output	Volume of export of goods and services
Service sector output	Volume of import of goods and services
Population	Weighted average exchange rate of UZS/USD
Working-age population	Amount of VAT

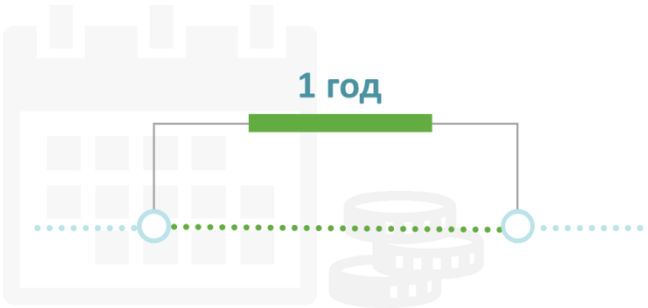
Source: analysis of the working group

2.3. Main parameters of the forecasting model

Indicators were calculated for the period from 2017 to 2035 with a step of 1 year. The US dollar was chosen as the calculation currency to smooth the effect of volatility.

Horizon for calculations is 18 years (2017–2035) and includes the vision until 2035.

Minimum calculation step is equal to one year.



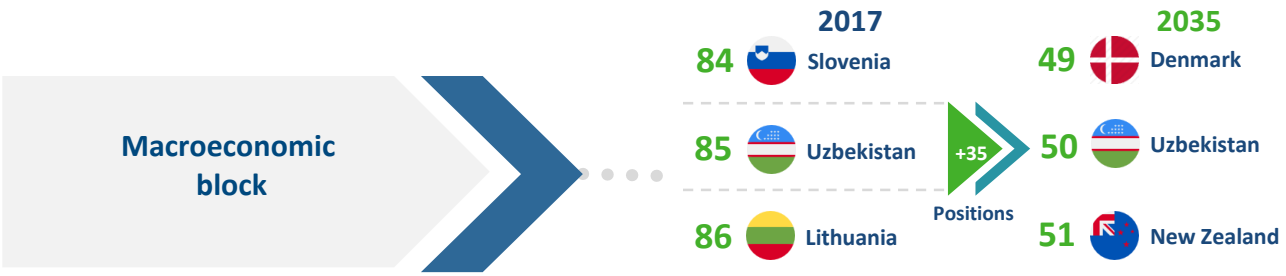
Payment currency: US dollars

Calculations were made using Microsoft Excel.

Source: analysis of the working group

2.4. Main blocks of the forecasting model

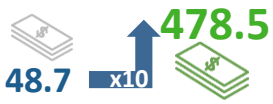
The main block of the forecast model is the calculation of macroeconomic indicators on the basis of benchmarks of the fastest growing countries in Asia.



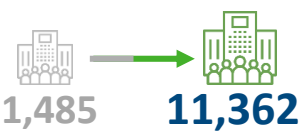
Key prerequisites

- Starting point of the calculation: values of the key macroeconomic indicators of the Republic of Uzbekistan for 2017
- The dynamics of growth of gross indicators corresponds to the GDP growth.
- The structure of the economy—the ratio of AIC, industry, and services—is gradually changing on the way to the values of the benchmarks: Malaysia, Turkey, South Korea.
- The dynamics of certain industry indicators are based on historical dynamics of the countries taken as a role model of development laid down in the Concept of Development Strategy of Uzbekistan.

Nominal GDP, billion USD million



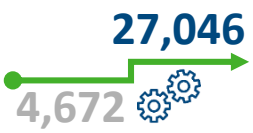
GDP per capita, USD **Per capita**



Rank in the Doing Business international rating

Agroindustrial complex output, USD thousand per employed person

Industrial output, USD thousand per employed person



Service sector output, USD thousand per employed person

Registered unemployment, % of able-bodied population

Share of the population below the poverty line ($1.95/day), %

Life expectancy at birth, years

Limitations of the model include:

- The impact of inflation and purchasing power of the national currency was not calculated.
- Different scenarios of population growth were not calculated.

Source: analysis of the working group

2.5. Results of the calculation. Macroeconomic block: scenarios of key indicators

Evolutionary scenario

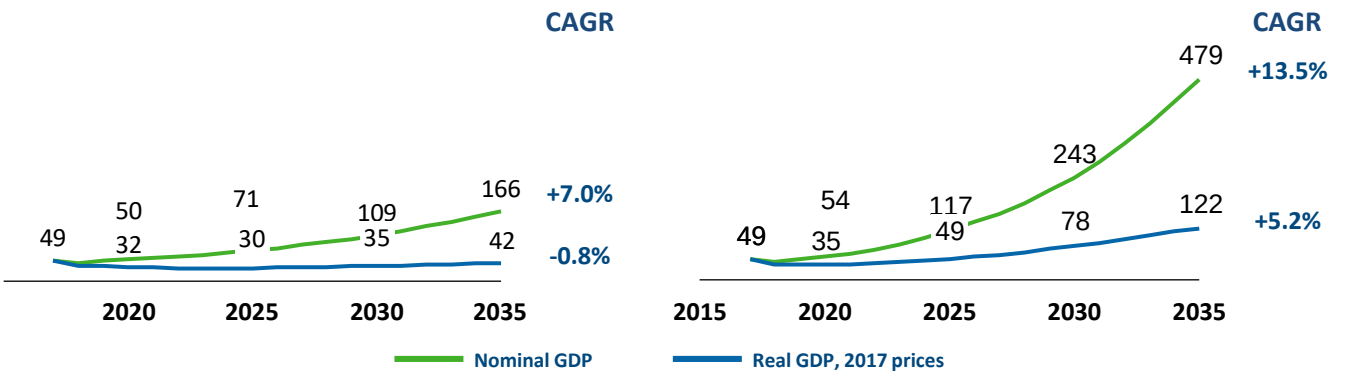
- Continuation of the current course of development of the country with minimal institutional changes
- The initial period of interest from global public and transnational investors (2019–2025) is followed by a gradual decline in investments as interest in the Eastern region and emerging markets declines.
- The target GDP level will not be reached by 2035 due to the lack of sufficient investments.

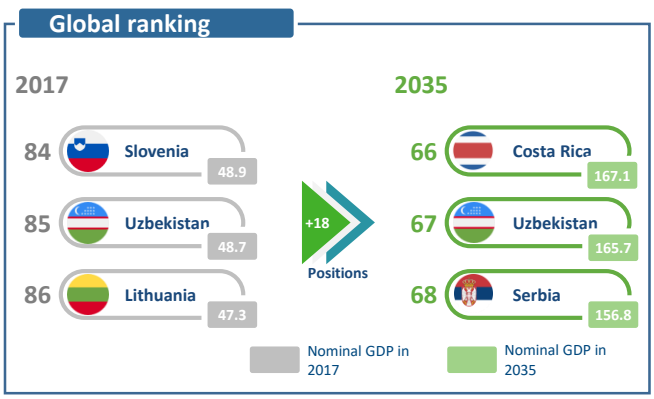
Dynamic scenario

- Gradual transition to the market system
- Private funds are the main source of investment, including public-private partnership programs in infrastructure projects, private investments in the fuel and energy complex, as well as projects of international corporations in Uzbekistan, which will bring investments into industry and agriculture.
- The target GDP level will be reached by 2035 thanks to the faster growth of investments, both public and private, in the amount of USD 993 billion–USD 1,213 billion. million

Dynamics of the nominal and real GDP

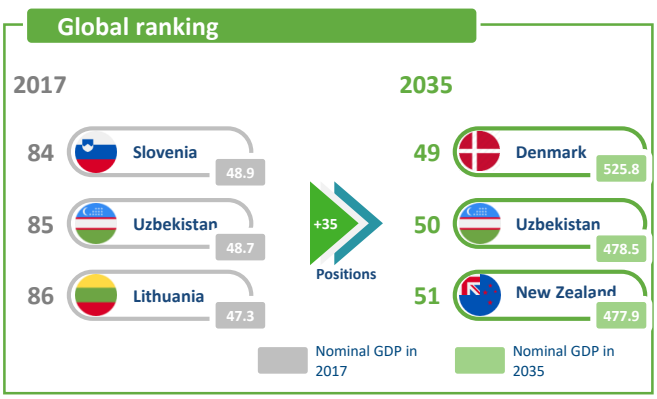
USD billion million





The forecast under the evolutionary scenario is based on the consensus:

- Forecast of the Ministry of Economy of the Republic of Uzbekistan
- Euromonitor forecast
- IMF forecast
- Forecast of historical growth rates of countries of the "Early-demographic dividend" category according to the World Bank, including India, Mexico, Argentina, Turkey, etc.



Nominal GDP:

- The forecast under the dynamic scenario takes into account the goal of achieving a Top 50 rank.
- The EIU and Euromonitor forecasts are used as a foundation.
- Growth rates are correlated with similar historical cases (including Brazil, China, Indonesia, South Korea, Malaysia, Singapore, Thailand, China, Kazakhstan).

Real GDP:

- Calculated using the same assumptions as the evolutionary scenario: reduction of inflation from 14% to 5%, a slight strengthening of the Uzbek som from UZS 8,130 per 1 dollar in 2017 to UZS 7,000 per 1 dollar in 2035.

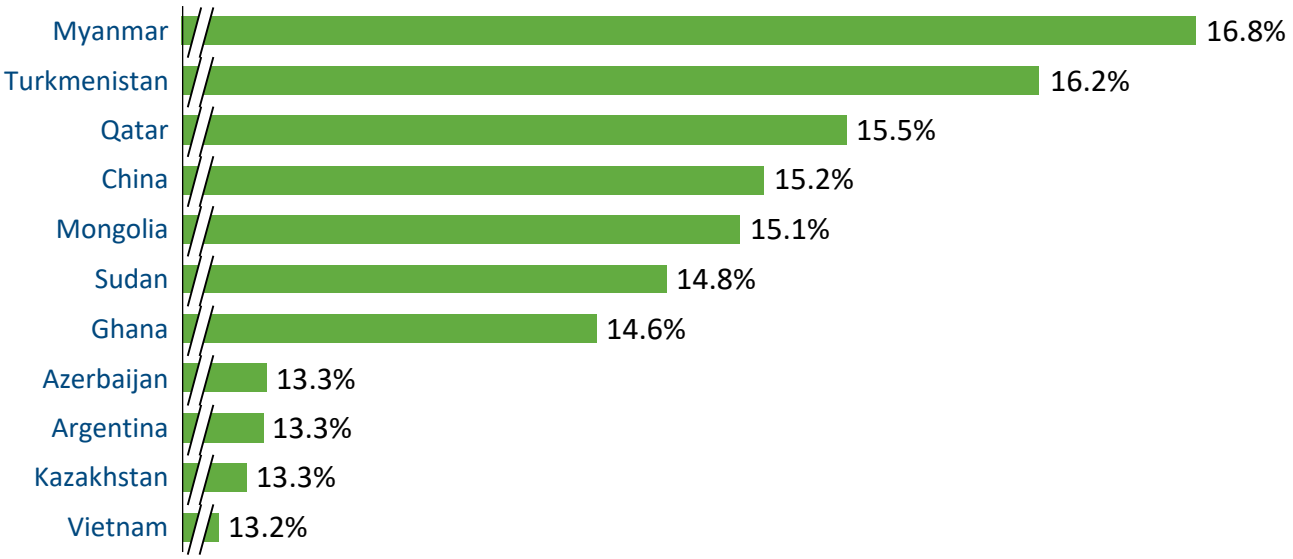
Source: International Monetary Fund, World Bank, Ministry of Economy of the Republic of Uzbekistan, Euromonitor, EIU, USDA, analysis of the working group

2.5. Results of the calculation. Macroeconomic block: scenarios of key indicators

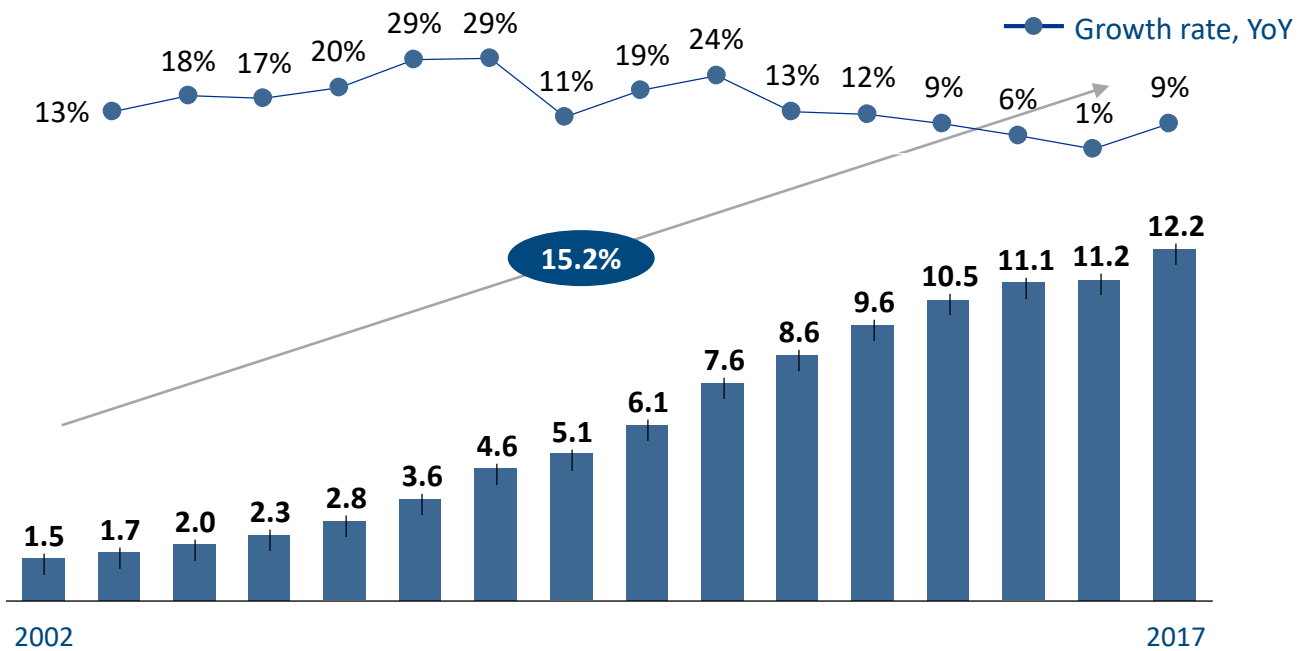
International experience

Historical analysis shows the possibility of growth inherent in the dynamic scenario

Average CAGR of nominal GDP growth by country, 2002–2017



Nominal GDP of China, USD trillion, 2002–2017



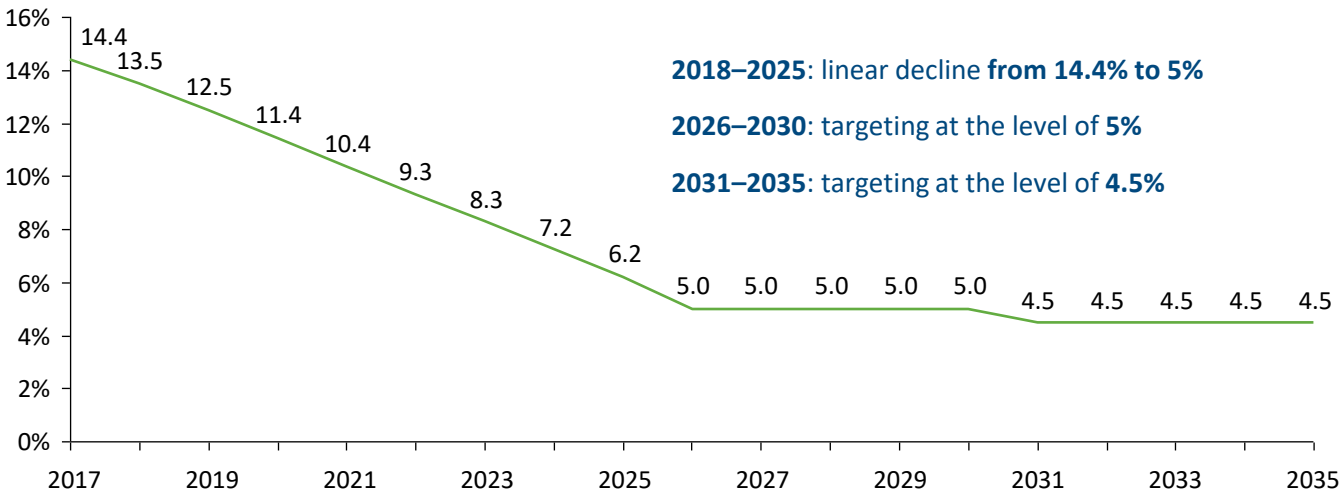
Source: International Monetary Fund, World Bank, Ministry of Economy of the Republic of Uzbekistan, Euromonitor, EIU, USDA, analysis of the working group

2.5. Results of the calculation. Macroeconomic block: scenarios of key indicators

Target inflation levels under the targeting policy (dynamic scenario)

Target inflation levels in Uzbekistan

per calendar year, %

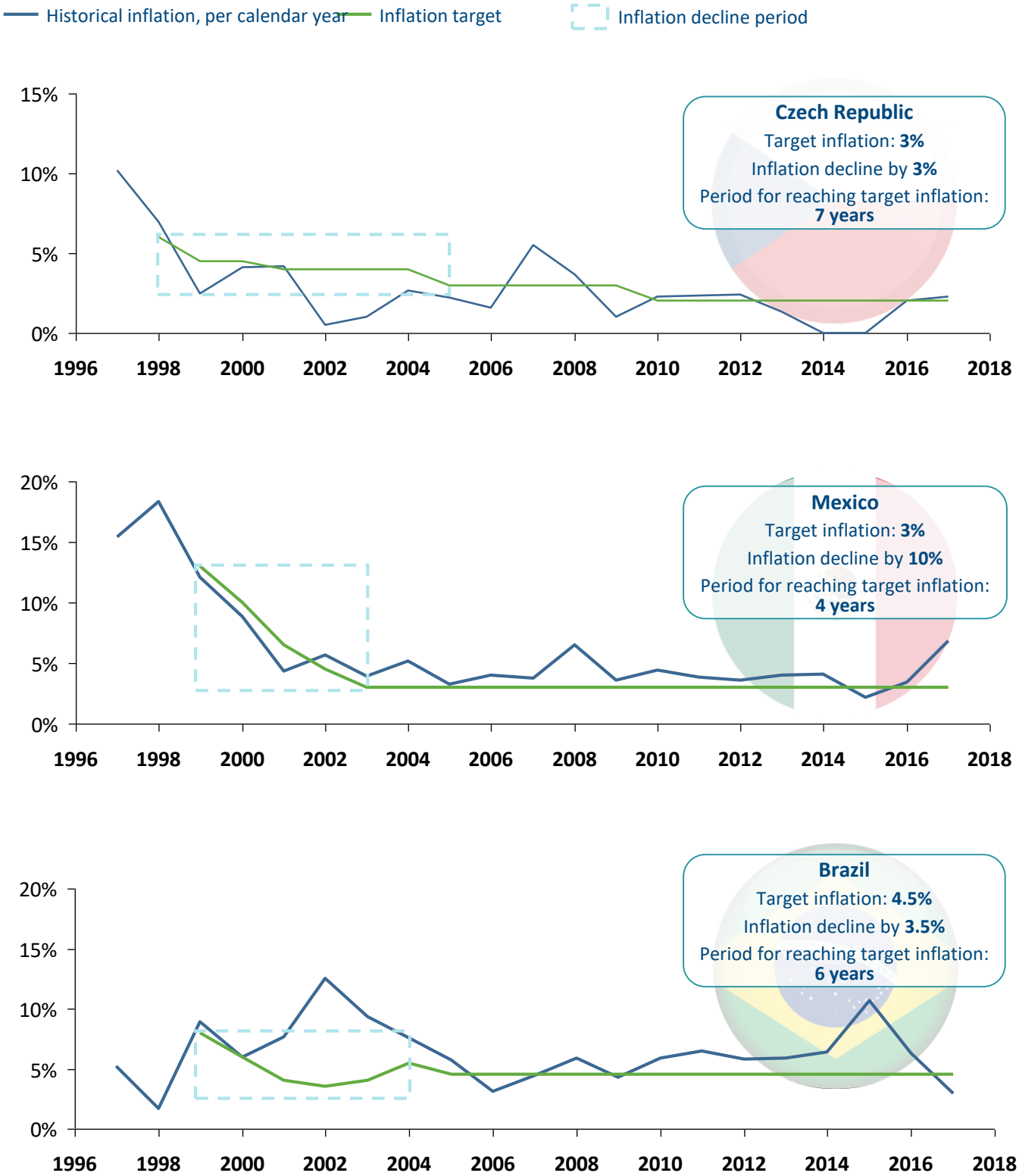


- Target inflation will be 4.5% by 2035. This indicator was calculated based on international benchmarks, including Singapore and Brazil
- In the longer term, the target inflation indicator may be 2%–3%, which is an optimal value amid a stable economy.
- The period for reaching the target inflation rate in the Republic of Uzbekistan will be about seven years after the start of the targeting policy. A similar period of inflation decline was observed in the Czech Republic and in Brazil.
- The suggested scenario for reaching the target inflation is more conservative compared to Mexico where target inflation was reached within three years.
- The interest rate of the central bank on short-term loans remains the main tool of inflation targeting. The increase in this rate will reduce lending to the real sector of the economy. As a result, the population and business reduce their expenses, and the demand for goods and services declines, which contributes to the slowdown of price growth.
- The preservation of a high interest rate may have an adverse effect on the national economy. Based on the example of Brazil, inflation targeting by the high key rate instruments caused a decline in economic growth and the deterioration of a number of macroeconomic indicators, including the state debt.
- Additional inflation targeting instruments facilitating the reduction in lending to the real sector may include an increase in required reserves and withdrawal of funds from the financial market through the sale of government securities.
- Successful inflation targeting requires taking into account several external factors that effect inflation:
  - Rising prices for key imported goods
  - Rise of the prices for agricultural goods caused by a bad harvest
  - State price controls for certain goods
  - Increase in government expenditures
  - Existence of monopolies in some industries

Sources: EIU, data of central banks, analysis of the working group

2.5. Results of the calculation. Macroeconomic block: scenarios of key indicators

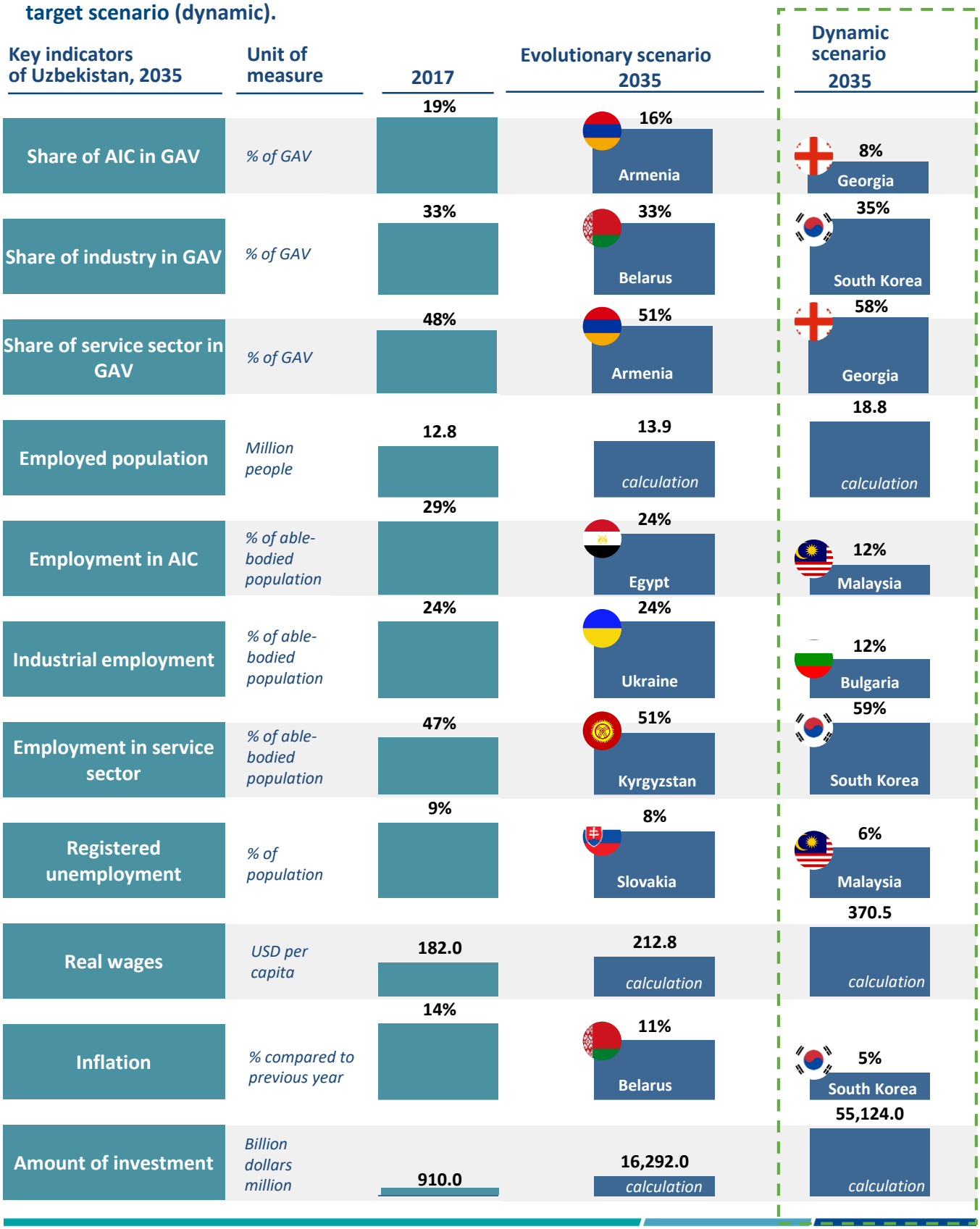
International examples of inflation targeting



Sources: EIU, data of central banks, analysis of the working group

2.5. Results of the calculation. Macroeconomic block: scenarios of key indicators

There are different growth scenarios for macroeconomic indicators. The model is based on the target scenario (dynamic).



Sources: World Bank Data

2.5. Description of results of the calculation. Macroeconomic block: scenarios of key indicators

By 2035, the nominal GDP of Uzbekistan will grow from USD 48.7 to 479 billion, An annual increase of 13.5% on the horizon 2017 – 2035 due to economic restructuring and a three-fold boost in productivity

The presented values are the result of calculations based on the dynamic development scenario, as it is the target scenario within the Concept of the Development Strategy of Uzbekistan until 2035.

Agroindustrial complex:	2017	2035	Comments
Share of AIC in GAV, % of total GAV	19.2	8.4	Benchmark: Turkey, Malaysia
Contribution of AIC to GAV, USD billion million	8.3	35.7	Benchmark: Turkey, Malaysia
Share of employed in agriculture, % of total number of employed	29	12.2	Benchmark: Turkey, Malaysia
AIC output, USD thousand per 1 person employed in AIC	2.2	15.6	Calculation by the working group
Industry:			
Share of industry in GAV, % **of** total GAV	32.9	34.7	Benchmark: South Korea, Malaysia
Contribution of industry to GAV in real terms, USD billion million	14.2	147.9	Benchmark: South Korea, Malaysia
Share of employed people in industry, % of total number of employed people	23.9	29.1	Benchmark: Turkey, Malaysia
Industrial output, USD thousand per 1 person employed in industry	4.6	27.0	Calculation by the working group
Service sector:			
Share of service sector in GAV, % of total **GAV**	47.9	56.9	Benchmark: South Korea, Malaysia
Contribution of service sector to GAV, USD billion million	20.7	242.3	Benchmark: South Korea, Malaysia
Share of employed people in service sector, % of total number of employed people	47.1	58.7	Benchmark: Turkey, Malaysia
Output of service sector, USD thousand per 1 person employed in service sector	3.4	22.0	Calculation by the working group
General indicators			
Population size, million people	32.8	42.1	Forecast: World Bank Data
GDP per capita, USD thousand million	1.5	11.4	Calculation by the working group
Registered unemployment rate, % of working-age population	8.9	6.2	Benchmark: South Korea, Malaysia, Singapore
Value added per 1 SME, USD thousand million	113	272.7	Benchmark: Median level of developed countries
Annual volume of investments, USD billion million	0.9	129.2	Calculation by the working group
Debt burden of the state budget, % of GDP	16	38.7	Benchmark: Taiwan
Inflation rate, change in consumer prices, % compared to the previous year	14.4	4.5	Benchmark: Singapore

Source: analysis of the working group

Additional calculations

Forecast of the Target Development Indicators of Uzbekistan until 2035

BUYUK KELAJAK

State budget of the Republic of Uzbekistan in 2018–2035

Additional calculations

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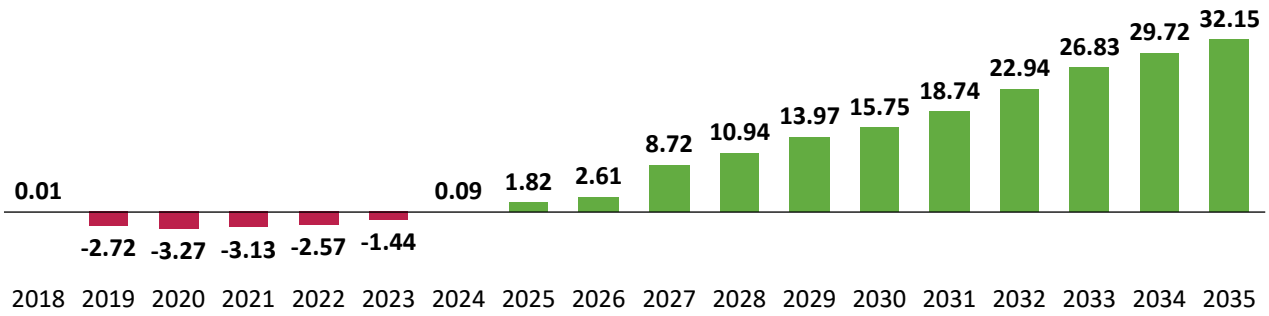
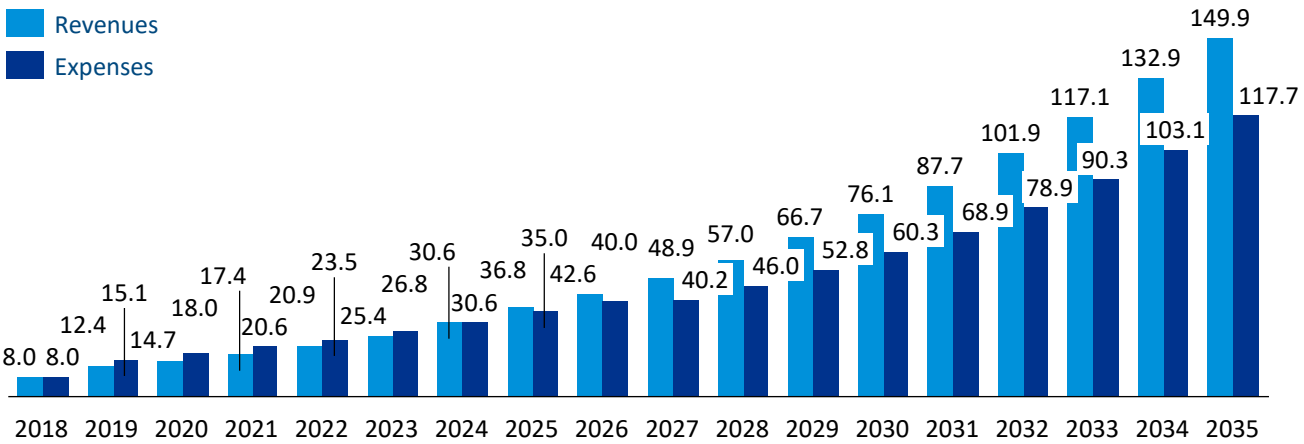
State budget of the Republic of Uzbekistan in 2018–2035

Forecast of the state budget of the Republic of Uzbekistan

Forecast of the surplus/shortage of the state budget with retention of the budget structure* and with due regard for the tax reform concept, billion US million



Forecast of the surplus/shortage of the state budget with retention of the budget structure* and with due regard for the tax reform concept, billion US million



- A **budget shortage** will be observed until 2024
- Implementation of tax reform leads to a **significant increase in budget expenditures** in 2019
- To reach a budget surplus within 6 years, starting from 2025, it will be necessary **to limit the growth rate of budget expenditures** to 13.5% annually.
- The tax reform concept provides for a **significant increase in the burden on the state budget**, in particular, due to the cancellation of mandatory contributions to state special-purpose funds, which are charged on the turnover (revenue) of legal entities; cancellation of insurance fees of citizens to the nonbudgetary Pension Fund; reduction of the unified social tax rate for business entities from 25% (15%) to 12%, which will require UZS 46.3 trillion (USD 6 billion) to be allocated from the budget to cover the expenses that were previously covered from nonbudgetary funds.
- The **main increase in budget revenues** is provided through the expansion of the circle of VAT payers (UZS +16.2 trillion in 2019, or USD 2.1 billion) and cancellation of targeted fiscal benefits. (Upon cancellation of 25% benefits, the cumulative increase in budget revenues will make UZS +12.2 trillion or USD +1.6 billion.)

Note: * Not including special-purpose funds and the Reconstruction and Development Fund
Sources: data of the Ministry of Finance, analysis of the working group

State budget of the Republic of Uzbekistan in 2018–2035

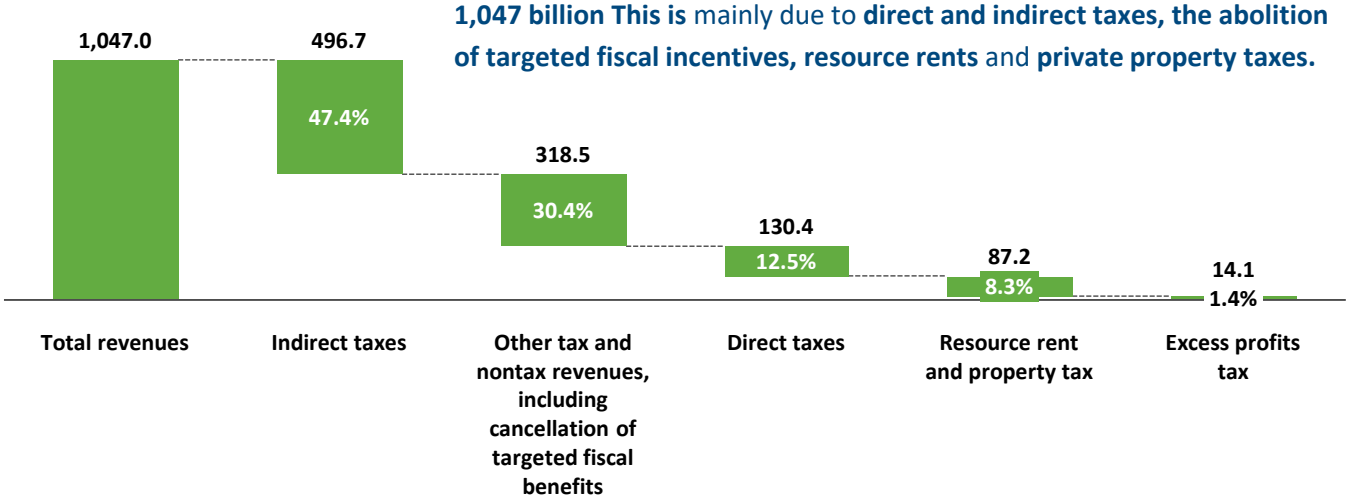
The forecasting model of the state budget is based on the growth of income and expense items in proportion to the growth of Uzbekistan's economy and maintains a conservative structure.

Key prerequisites

- The starting point of the calculation is the current structure and size of Uzbekistan's budget
- The structure of the budget is held conditionally constant due to the conservatism of incoming assumptions.
- In 2019, the budget was adjusted according to the Tax Reform Concept.
- Growth of income items is calculated in proportion to the GDP growth rate. The key prerequisites are growth of the tax base due to development of the economy.
- Growth of public expenses is limited to 13.5% per year—the average rate of economic growth due to growth of the population and inflation and rising living standards in Uzbekistan.

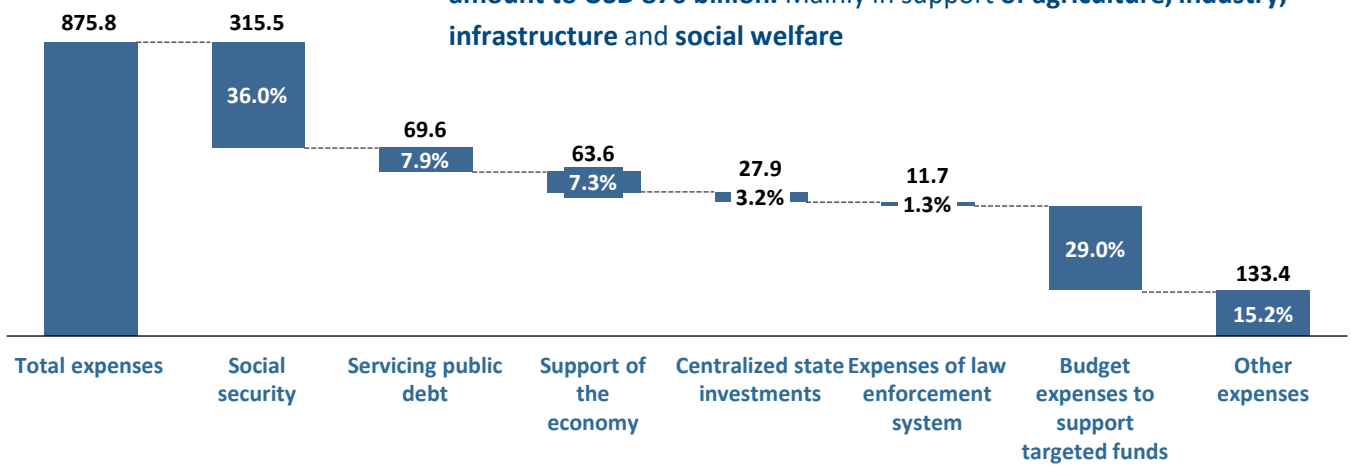
Revenues

From 2018 to 2035 revenues to the state budget will amount to USD 1,047 billion This is mainly due to **direct and indirect taxes, the abolition of targeted fiscal incentives, resource rents** and **private property taxes.**



Expenses

In the period from 2018 to 2035, the state budget expenditures will amount to USD 876 billion. Mainly in support **of agriculture, industry, infrastructure** and **social welfare**



Source: analysis of the working group

State budget of the Republic of Uzbekistan in 2018–2035

Strategic initiatives will be implemented mainly at the expense of nontax revenues and the state budget surplus.

STATE BUDGET

Revenues

Tax

- Income tax
- Profit tax
- Value-added tax
- Excise taxes
- Taxes on land and resources
- Duties, fines, and penalties

Nontax

- **Income from privatization**
- **Foreign Direct Investment**
- **Government borrowings**
- Income from state property
- International grants

Disposals

Current

- Assistance in development of economic sectors
- Social protection measures (salaries, pensions, scholarships, etc.)
- Servicing of public debt

Long-term

- Financing of infrastructure and innovative development
- Human capital development
- Rebalancing of the economy's structure

Part of social problems can be solved with the help of targeted international programs and grants. The released funds can be directed to the development of priority areas of the economy.

Tax system

Tax policy reform concept

On June 29, 2018, the president of the Republic of Uzbekistan with his Decree No. UP-5468 approved the Tax Policy Reformation Concept of the Republic of Uzbekistan.

According to the President's Decree, from January 1, 2019:

- Reduction of the tax burden on the labor remuneration fund through
- Improved taxation of the payers of common and simplified taxes with the optimization of turnover (revenue) taxes and improved criteria for starting application of the simplified tax system
- Implementation of measures to mitigate the adverse impact of tax policy improvement on the taxpayers of the simplified tax system
- Improvement of the calculation and payment procedure of value added tax and excise tax

The main areas of tax policy improvement according to the President's Decree are:

- Reduction of the tax burden on the economy
- Elimination of disproportions in the tax burden level between the business entities that pay taxes under the simplified and common tax systems
- Optimization of the number of taxes through their unification and consolidation
- Assurance of macroeconomic stability
- Simplification of tax laws, elimination of discrepancies and collisions
- Assurance of tax legislation stability and direct application of the Tax Code
- Retention of a favorable regime for foreign investors
- Improvement of tax control forms and mechanisms

- The concept does not affirm the principles of long-term tax administration. (Further changes in tax rates are possible.)
- There are no specific time frames and volumes for reduction of tax and customs benefits.
- The predominance of indirect taxes in the structure of tax revenues of the budget remains.
- There is no source of financing the off-budget funds after cancellation of payments to them.

Comparison of the current and suggested tax rates and other mandatory payments

Tax/mandatory payment	Current rates	Proposed rates	Difference
Income tax	14%	12%	-2%
Tax on income in the form of dividends and interest	10%	5%	-5%
Unified tax payment	5%	4%	-1%
Mandatory contributions to state special-purpose funds	3.2%	0%	-3.2%
VAT	20%	20%	0%
Property tax	5%	2%	-3%
Personal income tax	7.5%–22.5%	12%	
Unified social tax	25% / 15%	12%	-3%
Insurance contributions of citizens	8%	0%	-8%

Sources: data from open sources, analysis of the working group.

Impact on the budget (1/2)

Provisions of the Tax Policy Reformation Concept of the Republic of Uzbekistan	Expected impact on the budget
Cancellation of a large number of targeted fiscal benefits	Increase in budget revenues due to cumulative tax receipts
Expansion of the circle of VAT payers (20%)	Increase in budget revenues due to the increase in VAT receipts (a group of indirect taxes)
Introduction of a single personal income tax rate of 12% for all citizens	Increase in the proceeds from income tax by expanding the database of taxpayers through their "unshadowing" (a group of direct taxes)
Cancellation of mandatory deductions to the state special-purpose funds, which are charged on the turnover (revenue) of legal entities (3.2% of net revenue of the payers of standard taxes)	The absence of direct receipt of funds to the nonbudgetary funds (Pension, Road, School Funds). Therefore, if the activity (demand for financing) of these funds remains unchanged, the burden on the budget increases
Cancellation of insurance fees of citizens to the nonbudgetary Pension Fund that are withheld from personal income in the form of labor remuneration (8% of wages)	The absence of direct receipt of funds to the nonbudgetary Pension Fund. Therefore, if the activity (demand for financing) of the fund remains unchanged, the burden on the budget increases
Reduction of the unified social tax rate for business entities from 25% (15%) to 12%	The absence of direct receipt of funds mostly to the nonbudgetary Pension Fund. Therefore, if the activity (demand for financing) of the fund remains unchanged, the burden on the budget increases
Reduction of the income tax rate for business entities from 14% to 12%, for commercial banks, from 22% to 20%	Reduction in budget revenues in the form of proceeds from income tax (a group of direct taxes) if income of business entities remains at the current level
Reduction of the corporate property tax rate from 5% to 2%	Reduction of budget revenues in the form of proceeds from property tax (a group of direct taxes) if the cumulative value of property remains at the current level
Reformation of the simplified tax system Establishment of the turnover (revenue) tax assessment and payment procedure with a basic rate of 4% for taxpayers with annual turnover (revenue) up to UZS 1 billion	Taking into account the above clauses and the fact that most taxpayers in Uzbekistan apply the simplified tax system, and that its cancellation will increase the number of taxpayers of national taxes, it is impossible to unequivocally measure the impact on the budget.

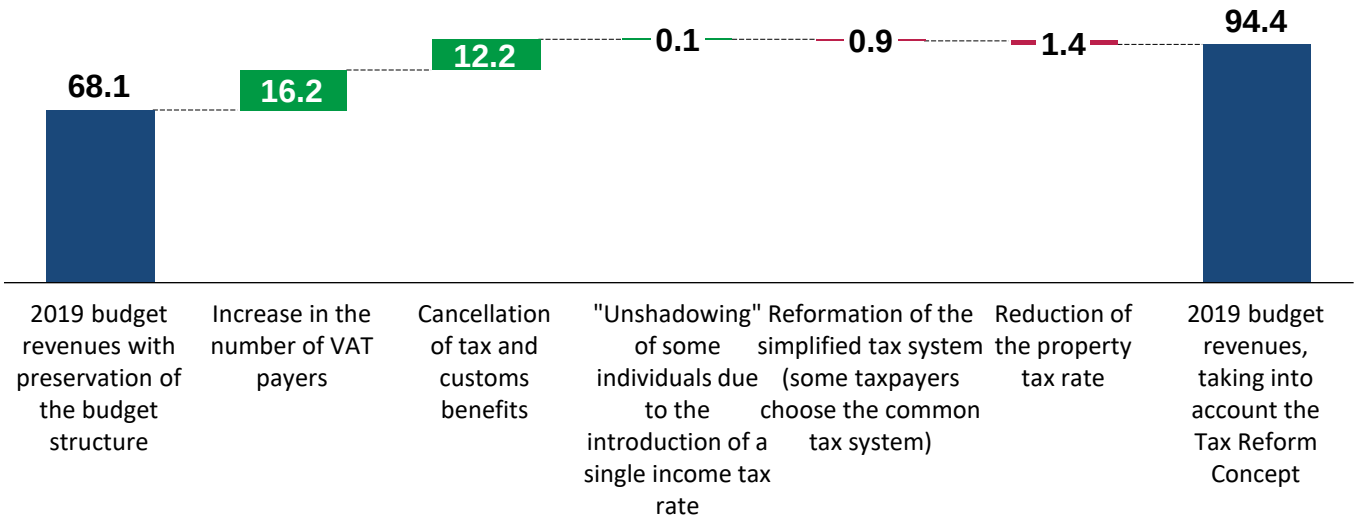
Sources: data from open sources, analysis of the working group.

Tax system

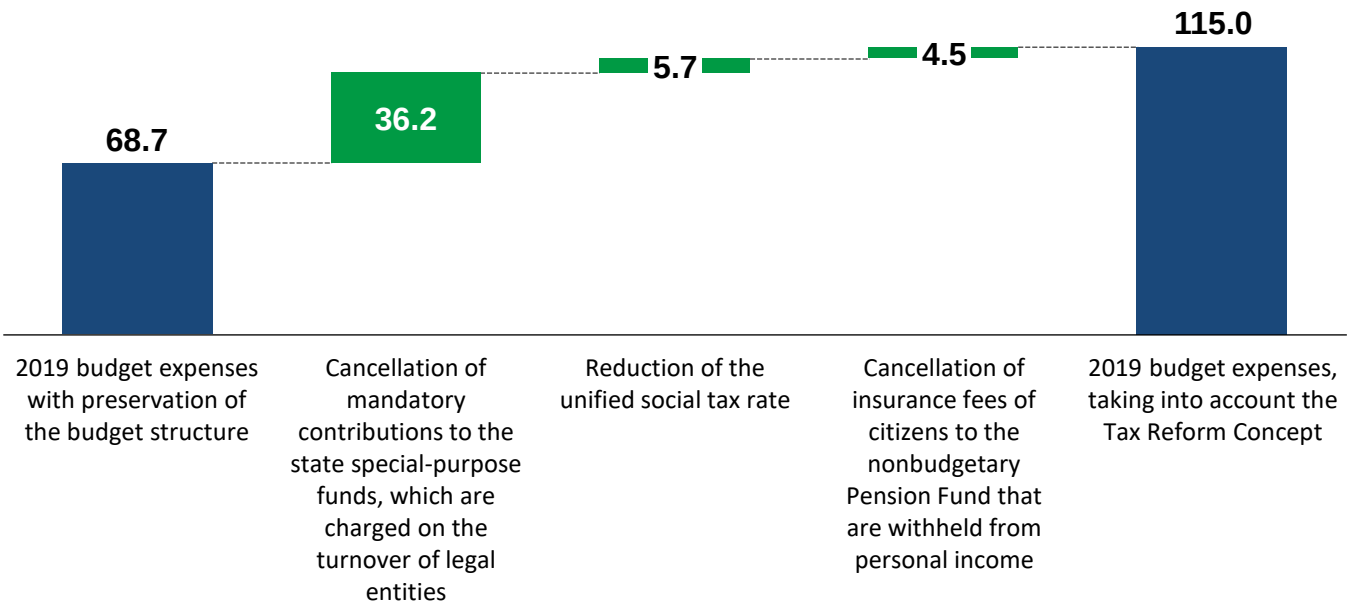
Impact on the budget (2/2)

Implementation of the Tax Reform Concept will increase budget revenues by UZS 26.3 trillion in 2019. However, it will require expenses to be increased by UZS 46.3 trillion in the same period.

Revenues of the state budget of the Republic of Uzbekistan, excluding targeted funds, UZS trillion



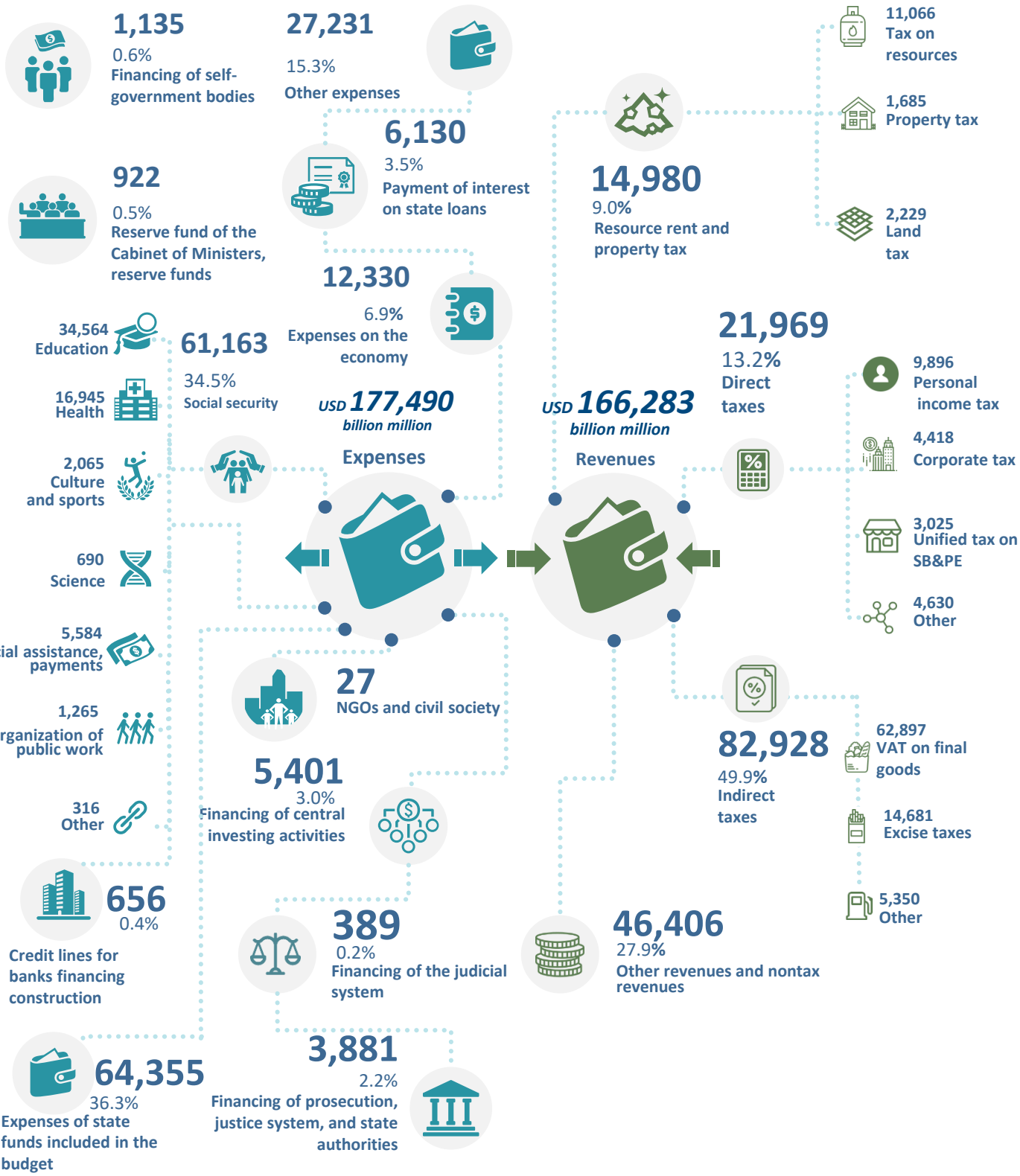
Expenses of the state budget of the Republic of Uzbekistan, excluding targeted funds, UZS trillion



Sources: data from open sources, analysis of the working group.

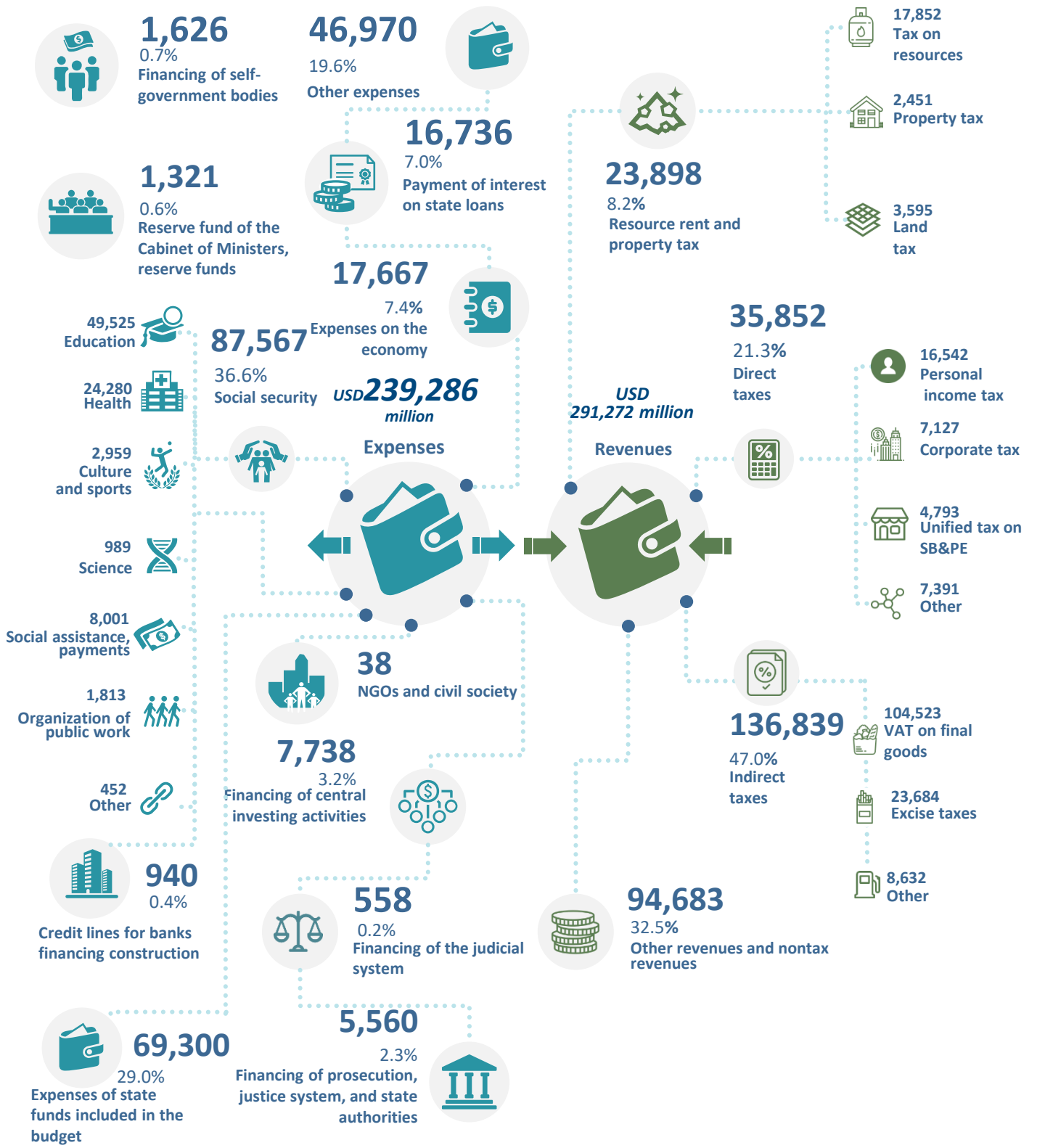
State budget of the Republic of Uzbekistan in 2018–2035

Total expenses and revenues of the state budget of the Republic of Uzbekistan for 2018–2025 by sources of income and main items of expenses



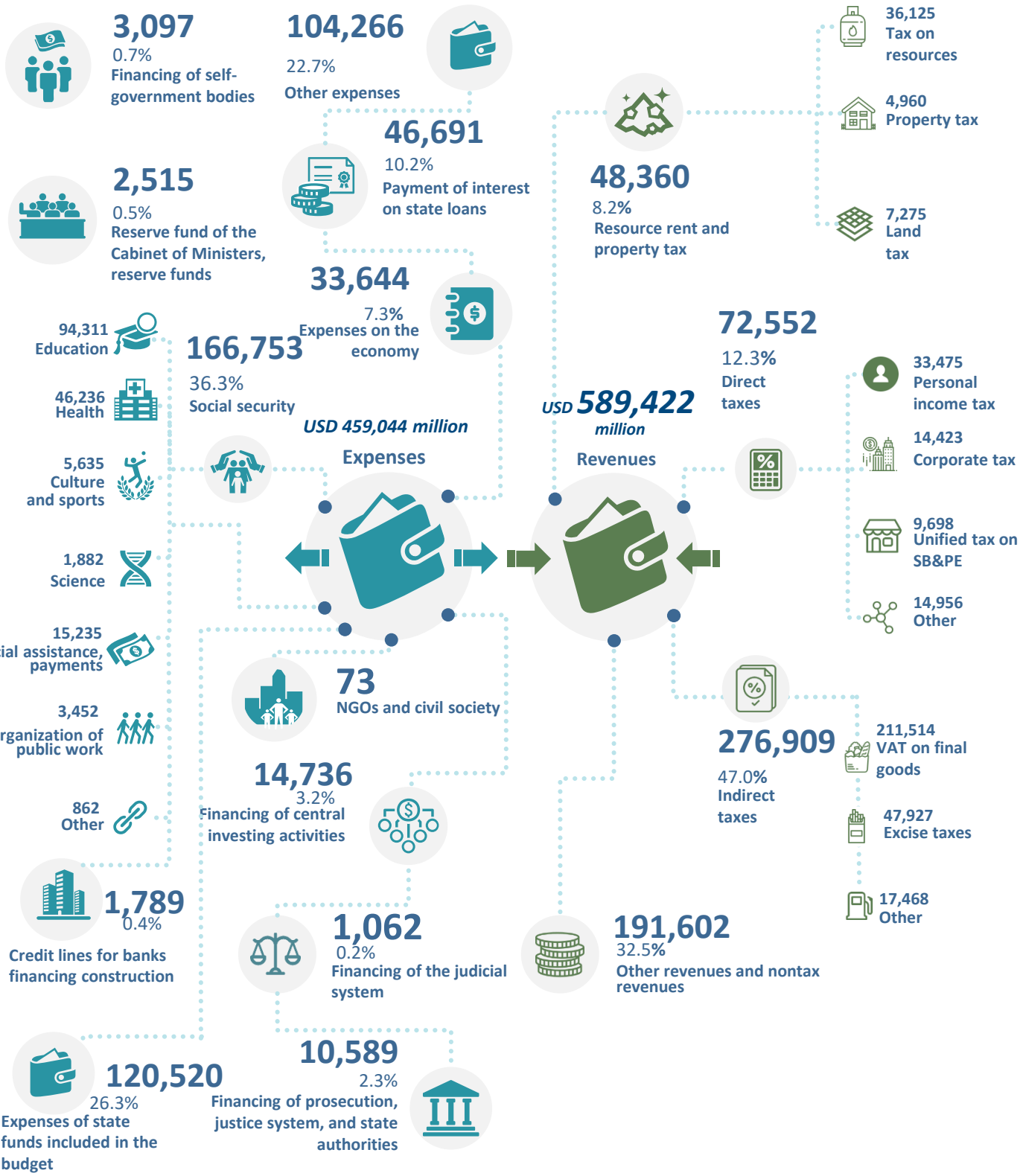
State budget of the Republic of Uzbekistan in 2018–2035

Total expenses and revenues of the state budget of the Republic of Uzbekistan for 2026–2030 by sources of income and main items of expenses



State budget of the Republic of Uzbekistan in 2018–2035

Total expenses and revenues of the state budget of the Republic of Uzbekistan 2031–2035 by sources of income and main items of expenses



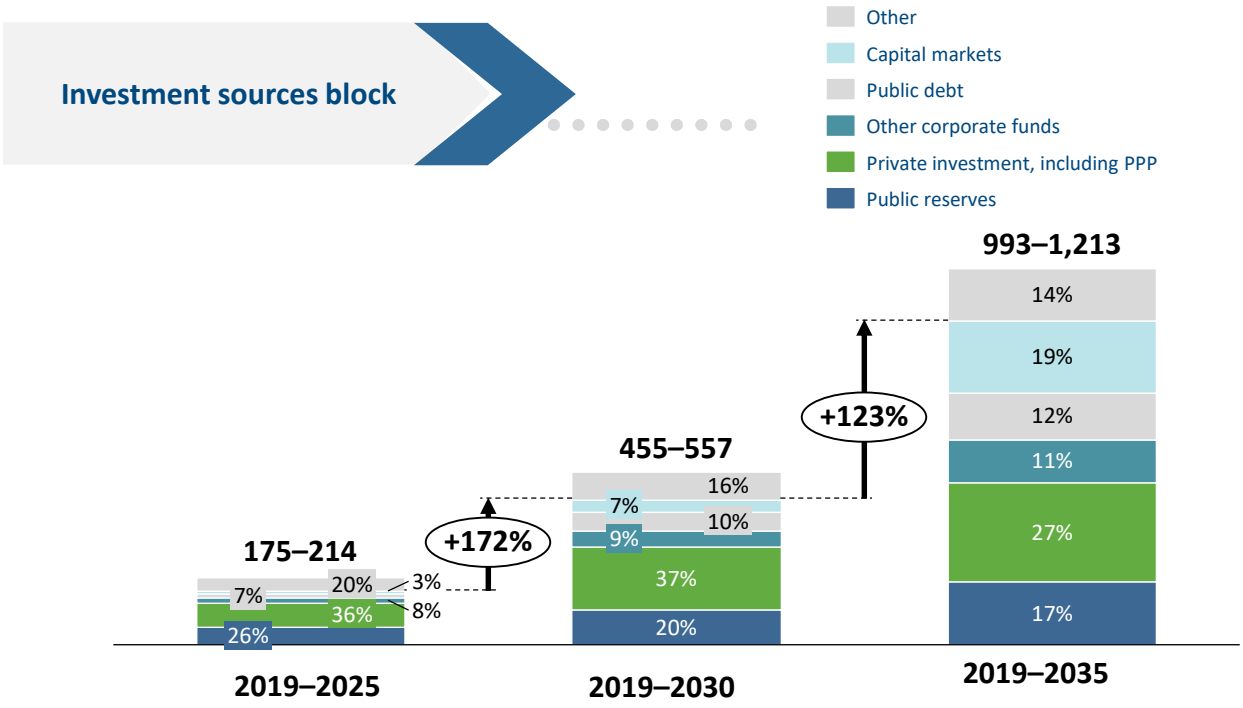
Investment: Areas and sources

Additional calculations

BUYUK KELAJAK

Investment: Forecasting approach

The forecasting model for calculating the volume of investments allows determining the most important sources and reflects the most critical prerequisites for maximizing revenues.



Key prerequisites

- Investments are shown in the context of the most important sources of investments for developing economies using the example of the historical dynamics of such countries as Malaysia, South Korea, Turkey, and, to a lesser extent, Georgia, Azerbaijan, and Kazakhstan to adjust to regional specifics.
- The starting point of the calculation is the current structure and size of funds, sources of investments, and the volume of liabilities of the banking system of the Republic of Uzbekistan.
- For each source of investment, a unique set of parameters is collected depending on its specifics, and different growth rates are used on the basis of qualitative assessments and development scenarios.

2019–2025

- Significant flow of investments, both under the public-private partnership scheme and due to international companies entering the market
- Main areas of investment are industry, energy, and agriculture.
- High economic growth (8.3%) makes it possible to carry out public borrowings at a relatively low cost and increase their volume.

2025–2030

- The dynamics of the first five years will continue, but thanks to the active development of market mechanisms and the formation of the banking system a more important role is played by bank project financing.

2030–2035

- The state maintains a significant role—more than 20% of investments.
- Private direct investment, investment through capital markets and private banks are coming to the fore.

Limitations of the model include:

- The impact of inflation and purchasing power of the national currency was not calculated.
- The effect of the introduction of additional taxes, the cancellation of existing taxes, or changes in the tax rate was not calculated.
- Different scenarios of population growth were not calculated.

Source: analysis of the working group

Investment: Main areas

	Sources of expenditures	2019–2035 *USD billion*
1	Executive authority	0,5 – 0,6
2	Legislative authority	0,4 – 0,5
3	Judicial authority	-
4	Agriculture	67,9 – 83,0
5	Textile industry	21,0 – 25,6
6	Fuel and energy complex	70,2 – 85,8
7	Mining and metallurgical industry	43,2 – 52,8
8	Automotive industry	41,6 – 50,9
9	Chemical industry	40,6 – 49,6
10	Transport	28,7 – 35,0
11	Construction industry and infrastructure	129,9 – 158,7
12	Tourism	39,6 – 48,4
13	Small business and private entrepreneurs	30,0 – 36,8
14	Banks and compliance	17,4 – 21,2
15	Insurance system	4,8 – 5,8
16	Pension system	0,6 – 0,8
17	Capital markets	10,8 – 13,1
18	Health care	132,2 – 161,5
19	Social policy	44,7 – 54,6
20	Human capital	145,6 – 178,0
21	Culture	10,3 – 12,6
22	Environment	5,9 – 7,2
23	Science, technology, and innovations	50,9 – 62,2
	Total expenses: (USD billion)	**940 – 1 149**

Sources: World Bank data, open data of the UN, the Central Bank of Uzbekistan, analysis of the working group

Investment: main sources

	Sources of financing	2019 *USD billion million*	Dynamic scenario 2019–2035 *USD billion million*
1	**Private investment, including public-private partnership** (direct foreign, corporate and private investment, investment of public-private partnerships)	4.0 Including PPP	263–322 157–191
2	**Public reserves**	4.8	166–202
3	**Capital markets** (investment in corporate securities)	0.082	192–234
4	**Other corporate funds** (investment of insurance funds and deposits of legal entities)	1.1	112–137
5	**Other funds of individuals** (deposits of individuals and international money transfers)	1.7	113–138
6	**Public debt** (borrowings in the foreign market)	0.9	122–149
7	**Funds from privatization** (proceeds from the sale of state property)	5.4	25–31
8	**Funds under the programs of international organizations** (transfers and grants under the programs of international organizations)	0.004	0.05–0.06

Average GDP growth rate: *13.5%*

Total investment received: ***993–1,213***

Sources: World Bank data, open data of the UN, the Central Bank of Uzbekistan, analysis of the working group

Sources of investment: detailing (1/4)

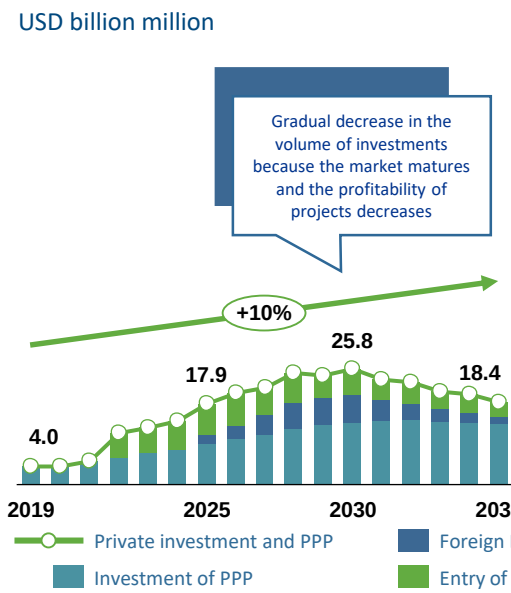
1 Private investment, including public-private partnership
(direct foreign, corporate and private investment, investment of public-private partnerships)

The maximum volume of private investment in Uzbekistan is achieved while maintaining public-private partnership mechanisms even after private investors enter the market.

USD 263–322 billion (1)

Investments are carried out both under the public-private partnership scheme and without state participation. Thanks to an improved investment climate, the rate of investment growth is high. The investment volume will begin to decline after 2030 as the economy becomes saturated with investments.

Revenues from private direct and corporate investments, investments of individuals under the public-private partnership scheme



- Investment under PPP scheme, private direct investments, as well as through the entry of foreign corporations
- Investment areas: Fuel and energy, water supply and utilities, infrastructure, telecommunications, industry, agriculture, electricity
- The government maintains active growth of PPP projects, even with the arrival of private investors
- Decrease in investment growth rates because the market matures and profitability of projects decreases

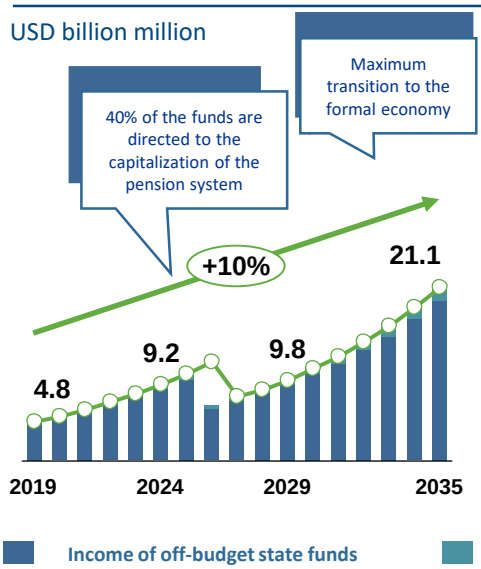
2 Public reserves

The main driver of investments is the growth of business activity in the country and the increased tax base.

USD 166–202 billion (1)

Investments are made at the expense of off-budget state targeted funds (or directly from the budget in case of termination of financing of targeted funds). There is a significant increase in the tax base due to the maximum possible transition to the formal economy, transparent taxation, and the cashless payment system.

Receipt of public funds



- High growth rate of the tax base—13.1%
- The tax base grows faster than GDP due to the growth of tax collection and the reduction of the informal economy to 0%.
- Starting in 2026, 40% of the collected funds will be directed to the capitalization of the private pension system.
- An amount not exceeding the income of funds of the previous year is spent annually.
- Interest is charged on the difference between income and expenses.

Note: (1) Total amount of funds received from the source for the period from 2019 to 2035
Sources: World Bank data, UN Open data, Central Bank of the Republic of Uzbekistan, Ministry of Finance of the Republic of Uzbekistan

Sources of investment: detailing (2/4)

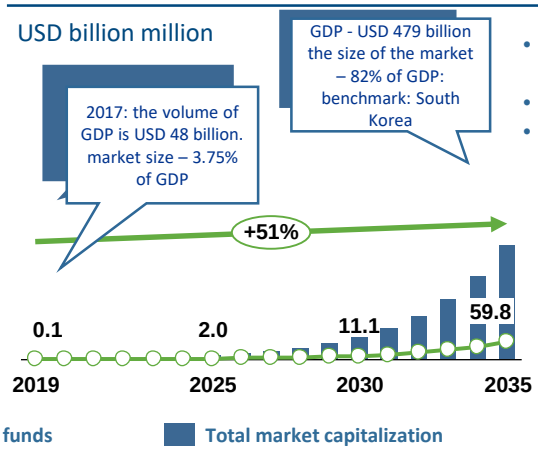
3 Capital markets
(investment in corporate securities)

The maximum amount of funds received through capital markets is achieved with a high rate of economic growth and a high share of foreign investors.

USD 192–234 billion (1)

Complete reformation of capital markets, ensuring transparency and stability of the system, together with a significant inflow of private investment and high GDP growth will ensure high growth of market capitalization, 70% of which are secured by foreign investment.

Revenues



- Target market size to GDP is 82% (South Korea).
- GDP growth rate is 8.3%.
- Share of foreign investors is 70% (now, 43%, benchmark, South Korea).

The revenues through capital markets depend on the GDP growth rate, the relative size of capital markets to GDP, and the share of foreign investors. The relative size of the capital market depends on the level of development of the system, including exchanges, information and analytical services, the share of public companies, the quality of reporting and communication of companies. The share of foreign investors depends on the GDP growth rate, as it directly affects the ROE of companies, and on investment opportunities that also depend on the rate of economic development.

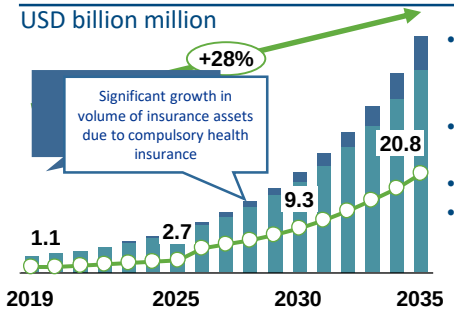
4 Other corporate funds
(investment of insurance funds and deposits of legal entities)

The maximum growth of funds of legal entities requires increased confidence from local and international companies toward the banking system.

USD 112–137 billion (1)

The volume of liabilities of legal entities doubles on average every five years thanks to increased confidence of local and international companies and active business growth. Significant growth in the volume of insurance assets due to the introduction of compulsory health insurance

Revenues



- The banking sector is actively developed by the government and by private players.
- The volume of liabilities of legal entities grows by 20% per year.
- GDP growth on average is 8.3%.
- Significant growth of the insurance system to 2.8% of GDP (2017: 0.4%). Growth rate is over 20%, including due to compulsory health insurance (benchmark: Brazil).

Attracting liabilities of legal entities mainly depends on two factors: the rates of economic development and business activity as well as the level of development of the banking system. Therefore, the scenarios of revenue growth depend on the GDP growth rate, the reduction of the state's share in the banking system, and the growth of business entities' confidence in the banking system.
Growth of insurance system revenues depends on an increase in the number of compulsory insurance types, which will ensure the growth of insurance premiums and, as a result, the amount of funds placed in securities of the state and corporations of Uzbekistan. The significant inflow of funds is due to compulsory health insurance introduced only in the dynamic scenario.

Note: (1) Total amount of funds received from the source for the period from 2019 to 2035
Sources: World Bank data, UN Open data, Central Bank of the Republic of Uzbekistan, Ministry of Finance of the Republic of Uzbekistan

Sources of investment: detailing (3/4)

5 Other funds of individuals
(deposits of individuals and international money transfers)

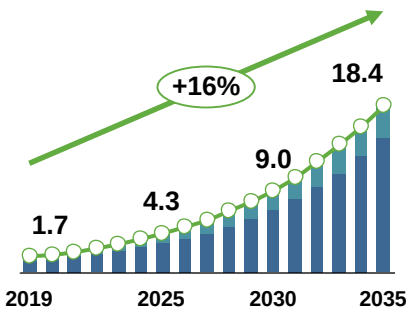
The growth of revenues from individuals depends on the development of the banking sector, financial literacy of the population, and the social security level.

USD 113–138 billion (1)

The banking system is becoming reliable and transparent. Banks offer a wide range of savings products. Penetration of banking services reaches 100%. Due to the development of social security, 30% of money transfers from abroad will be directed into savings.

Revenues

USD billion million



- The volume of deposits of individuals USD 3 billion as of 2019
- International transfers to Uzbekistan amount to USD 2.2 billion as of 2019
- Savings from transfers: 30%

Total funds of individuals
Receipt of liabilities through funds of individuals
Savings from international transfers

Attracting liabilities of legal entities depends mainly on the growth of real disposable income of the population and increased confidence of the population in the banking system. Penetration of banking services also plays an important role: the target level for 2035 is 100% (60% in 2017). As the penetration of banking products grows, the volume of liabilities of individuals will increase.

Savings from international transfers depend on the quality of life of the population. The higher the volume of services provided by the state, the higher the amount of savings. As of 2018, the volume of transfers from abroad amounted to USD 5 billion. Dollars. Due to the low standard of living, less than 10% is directed into savings.

6 Public debt
(borrowings in the foreign market)

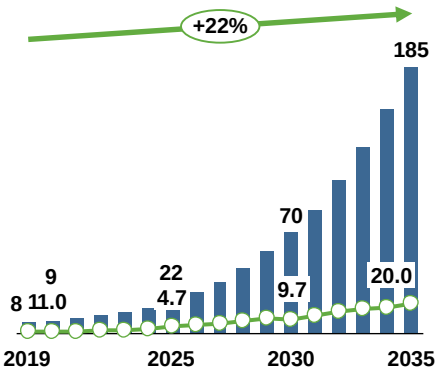
The increase in public debt should be coordinated with GDP growth to avoid exceeding the debt burden and increasing the risk of default.

USD 122–149 billion (1)

The increased growth rate of public debt in 2025 is associated with increased GDP and greater potential for growth of the debt burden without reducing the sovereign credit rating. Significant increase in debt burden after 2025

Revenues

USD billion million



- Growth of the debt burden from 16.1% to 17% by 2025 followed by a gradual increase in the debt burden by 2% annually (up to 38.7%)
- GDP growth is 8.3%.
- The body of debt is repaid starting in 2030.
- The target level of public debt is at Taiwan's level.

Public debt issue
Public debt balance

The debt amount for a particular year is calculated as a percentage of the debt burden in GDP. The proceeds are calculated as the difference between the debt amount of the current year and the debt amount of the previous year minus the repayment of the debt body, if repayment occurs in that year.

Note: (1) Total amount of funds received from the source for the period from 2019 to 2035
Sources: World Bank data, UN Open data, Central Bank of the Republic of Uzbekistan, Ministry of Finance of the Republic of Uzbekistan

Sources of investment: detailing (4/4)

7 Funds from privatization
(proceeds from the sale of state property)

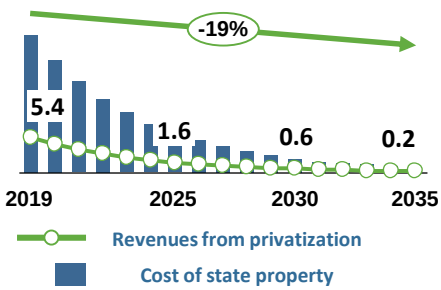
The maximum effect of privatization is achieved through the gradual entry of private investors into the capital of state-owned companies.

USD 25–31 billion (1)

The state's share in the economy gradually declines. The state sells shares of strategic assets to active investors. Also, inefficient assets are gradually sold.

Revenues

USD billion million



- The initial cost of property for sale is USD 21.7 billion. million
- Increase in revenues by 30% is achieved through sale at auction.
- Up to 25% of a company's assets and shares are sold annually.
- Unsold property increases in price by 8% per year.

The scenario of "slow" privatization when no more than 10% of state assets are sold annually **as the unsold part grows** in value is the most effective in terms of revenues. However, **one of the essential problems of Uzbekistan's** economy **is the high share of the state**, which can **prevent investors** from entering the local market. Insufficiently active privatization can send the signal to investors that the state is not ready to distance itself from management of the economy. Also, **due to the low liquidity** of the market, **some investors may not be ready** to enter into **capital by less than 25%**

8 Funds under the programs of international organizations
(transfers and grants under the programs of international organizations)

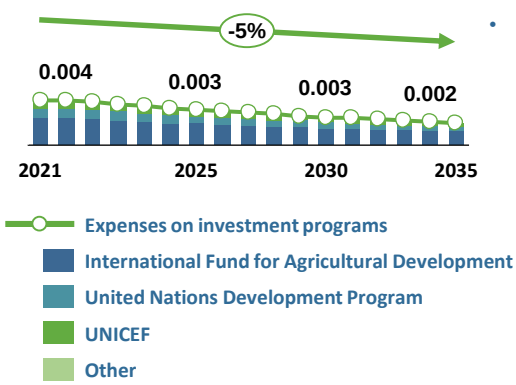
Nonrepayable transfers from international organizations decrease with the growth of the country's economy and the reduction in the number of social projects that require investment.

($88–$108) billion (1)

International organizations will contribute a smaller amount to the budget each year due to a significant increase in the quality of life. Also, the Republic of Uzbekistan will have its own resources to solve social problems.

Revenues

USD billion million



- A small number of domestic projects fall within the scope of transfers.
- Reduction of transfers due to the sufficiency of one's own funds
- Rapid economic growth
- Ability to independently control external cash receipts

Note: (1) Total amount of funds received from the source for the period from 2019 to 2035
Sources: World Bank data, UN Open data, Central Bank of the Republic of Uzbekistan, Ministry of Finance of the Republic of Uzbekistan

Analytical summary on privatization of state assets

Additional calculations

BUYUK KELAJAK

Privatization scenarios

Only stage-by-stage privatization will make it possible to achieve a growth rate of 8.3% per year, as it will send the "right" signal to the market: Uzbekistan is ready for liberalization, but only with strategic investors.

+13.5%

Average annual growth of GDP in the dynamic scenario

"Wholesale privatization"

- Wholesale privatization will not provide for the maximum cost of assets being sold.
- Will allow property transfer to potentially undesirable investors.
- Will lead to shock phenomena in the key economic areas.

Retention of state property

- Will hinder access to additional sources of investment at the beginning of development.
- Impedes private international investment.
- Requires additional financing for ineffective entities.

Phased complete privatization

- Sends investors a signal about economic "denationalization."
- Allows one to obtain a "fair" value for the block of shares of the asset being sold.
- Allows one to get rid of inefficient assets without shock phenomena.
- Restricts access by potentially unwanted investors to the market.
- Will increase the efficiency and market value of strategic assets.

"25% + 1" → **"50%–1"** → **"Golden share"**

"25% + 1"	"50%–1"	"Golden share"
Investor enters the capital of the asset and facilitates its enhanced performance. Investor has no veto power.	Investor will increase the ownership share and will facilitate the increase in market potential and value. The state reserves the right to a final decision.	Investor will buy back the property from the state. The state reserves the "golden share", that is, veto power and dividends, but disengages itself from operational control.

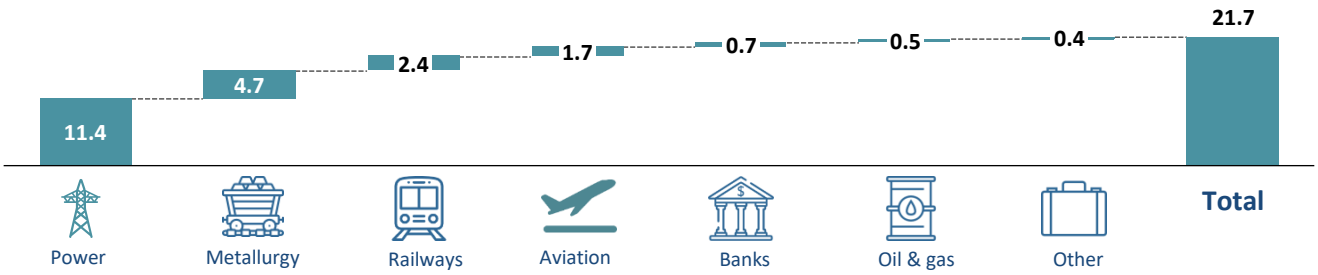
Source: analysis of the working group

Privatization: results of calculations

At the moment, more than 200 state-owned objects with a total value of USD 733 million are subject to privatization, 61 objects are not subject to privatization.

Property not subject to privatization according to the decree of the President [1]

Property value by category, in USD billion USA (3 quartiles)



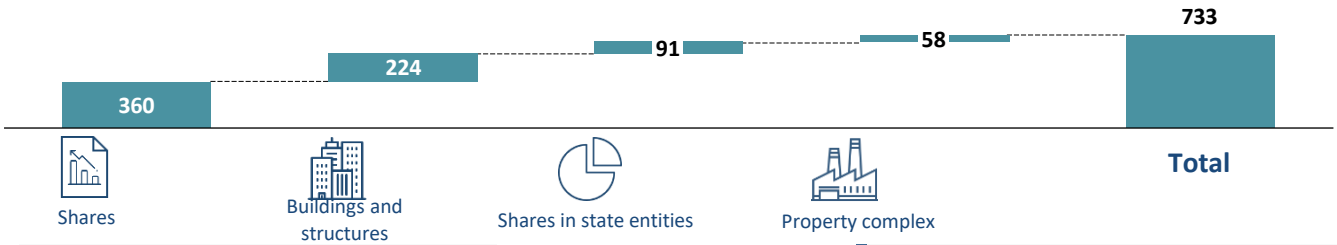
Examples of business entities not subject to privatization

Navoi Mining and Metallurgical Combinat	Uzbekneftegaz
Vostok	AK "uzneftegazkazibchikarish"
Uzbekistan Cotton Certification Center Sifat	Uznefteprodukt JSC
Uzmakhsusimpex	Uztransgaz JSC
Uzbektelecom JSC	Xalq Bank
Center of Radio Communication, Broadcasting, and Television	National Bank for Foreign Economic Activity of Uzbekistan
Uzimpexaloka LLC	Chirchik Aviation Repair Plant
Uzgeoburguneftgaz JSC	Uzbek Metallurgical Complex
Uzbekgeofizika JSC	Almalyk Mining and Metallurgical Complex

…total **of 61** organizations

Property subject to privatization according to the decree of the President [2]

Property value by category, in USD million



More than 200 objects of state property are subject to sale.

733 USD billion — Assessment according to the Goskomkonkurentsiya

87 USD billion

30%

Property is sold through auction, which will make it possible to receive additional funds from privatization, which according to market practices will allow an additional 30% of the initial maximum price to be received.

In addition, sales will be made on property with a value of USD 87 million **with "zero cost"** with a commitment to create jobs

953 USD billion — The total value may be up to USD 953 million.

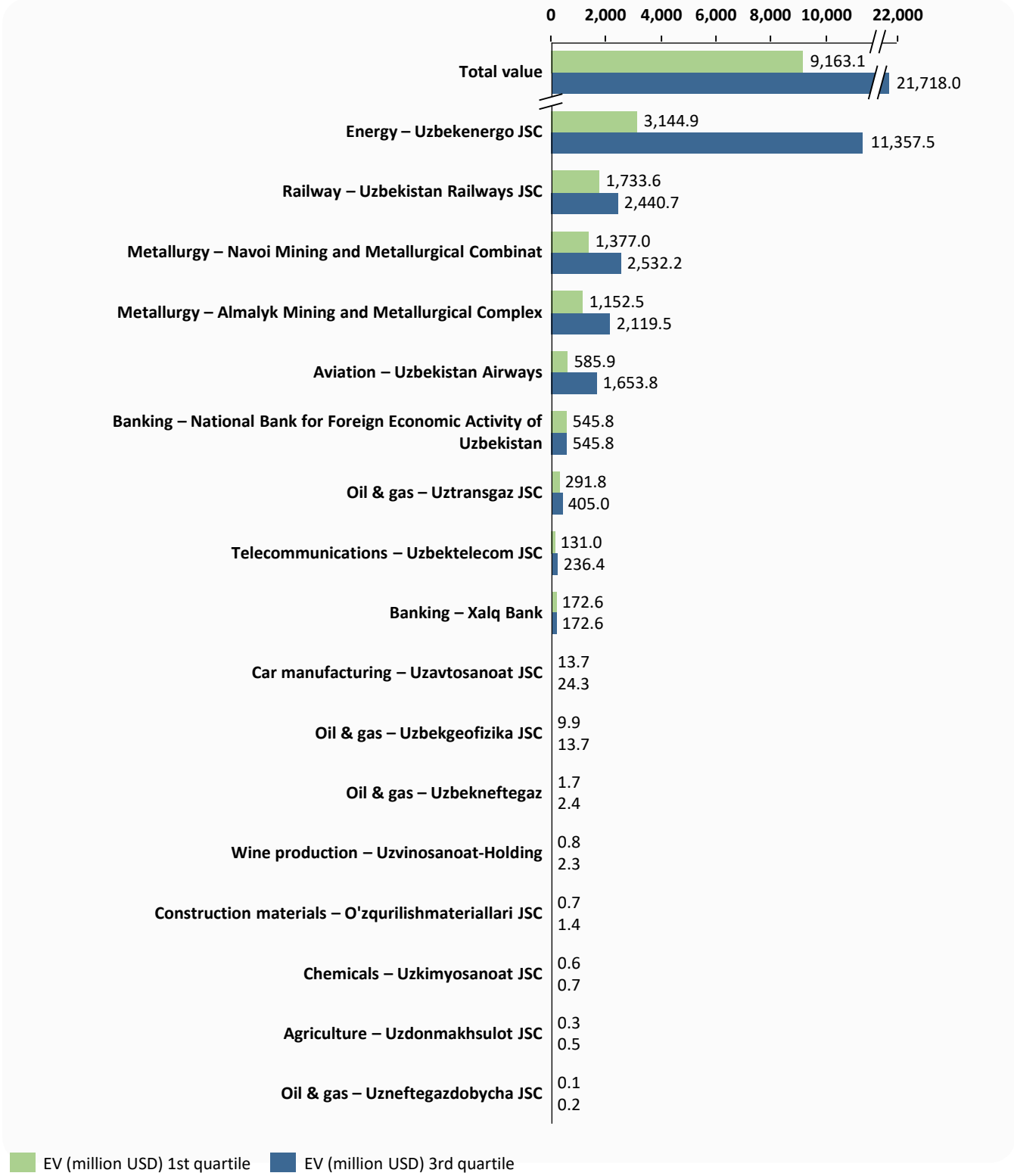
Note: 1 = based on the assessment of comparative analysis of a range of selected assets by comparative multipliers. Information on 17 of 61 companies was found.
Source: 2 = State Committee of the Republic of Uzbekistan for Assistance to Privatized Enterprises and Competition Development (Goskomkonkurentsiya).

Privatization: detailing

A selective calculation of the value of state property from the list of property not subject for sale by comparative indicators shows that the value may be from USD 9 billion to USD 22 million

Range of values of state-owned companies

Billion dollars million



Note: Comparison is made as of August 31, 2018. EV (enterprise value) is the valuation of the company taking into account all sources of its financing: debt, preferred shares, minority interest, and ordinary shares of the company.
Sources: reports of companies, open data.

The concept has been developed with the support and assistance of

Administration of the President of the Republic of Uzbekistan

- Administration of the President of the Republic of Uzbekistan

Executive authority

- General Prosecutor's office of the Republic of Uzbekistan
- Investments State Committee
- State Committee of the Republic of Uzbekistan for Roads
- State Committee of the Republic of Uzbekistan for Geology and Mineral Resources
- State Committee of the Republic of Uzbekistan for Land Resources, Geodesy, Cartography, and State Cadastre
- State Committee of the Republic of Uzbekistan for Tourism Development
- State Statistics Committee of the Republic of Uzbekistan
- State Committee of the Republic of Uzbekistan for Environmental Protection
- State Inspectorate for Control and Supervision over the Technical Condition and Safety of Large and Especially Important Water Management Facilities under the Ministry of Emergency Situations of the Republic of Uzbekistan
- State Committee for International Relations and Friendly Ties of the Republic of Uzbekistan with Foreign Countries
- State Forestry Committee of the Republic of Uzbekistan
- State Committee of the Republic of Uzbekistan for Assistance to Privatized Enterprises and Competition Development
- Ministry of Foreign Trade of the Republic of Uzbekistan
- Ministry of Water Resources of the Republic of Uzbekistan
- Ministry of Higher and Specialized Secondary Education of the Republic of Uzbekistan
- Ministry of Preschool Education of the Republic of Uzbekistan
- Ministry of Housing and Communal Services of the Republic of Uzbekistan
- Ministry of Employment and Labor Relations of the Republic of Uzbekistan
- Ministry of Health of the Republic of Uzbekistan
- Ministry of Innovation Development of the Republic of Uzbekistan
- Ministry of Foreign Affairs of the Republic of Uzbekistan
- Ministry of Culture of the Republic of Uzbekistan
- Ministry of Public Education of the Republic of Uzbekistan
- Ministry for Development of Information and Communication Technologies of the Republic of Uzbekistan
- Ministry of Agriculture of the Republic of Uzbekistan
- Ministry of Construction of the Republic of Uzbekistan
- Ministry of Finance of the Republic of Uzbekistan
- Ministry of Economy of the Republic of Uzbekistan
- Ministry of Justice of the Republic of Uzbekistan
- Uzbek Agency of Automobile Transport
- Central Bank of the Republic of Uzbekistan

Legislative authority

- Office of the Legislative Chamber of the Oliy Majlis
- Senate of the Oliy Majlis of the Republic of Uzbekistan

Judicial authority

- Supreme Court of the Republic of Uzbekistan

Nongovernmental organizations, support institutions, companies

- Uzavtosanoat JSC
- Uzbekistan Airways (Ўзбекистон Ҳаво Йўллари)
- JSC "Toshshahartranshizmat"
- Uzbekistan Railway JSC
- Uzpakhtasanoat JSC
- Uzbekneftegaz JSC
- Uzbekenergo JSC
- Uzdonmakhsulot JSC
- Uzsharobsanoat JSC
- JSC "Uzkimyosanoat"
- Uztekstilprom Association
- Uzcharmsanoat Association
- Forecasting and Macroeconomic Research Institute
- Regional Producers of the Republic of Uzbekistan
- Fund for Support of Export of Small Businesses and Private Enterprises
- Uzbekozikovkatholding Holding Company