

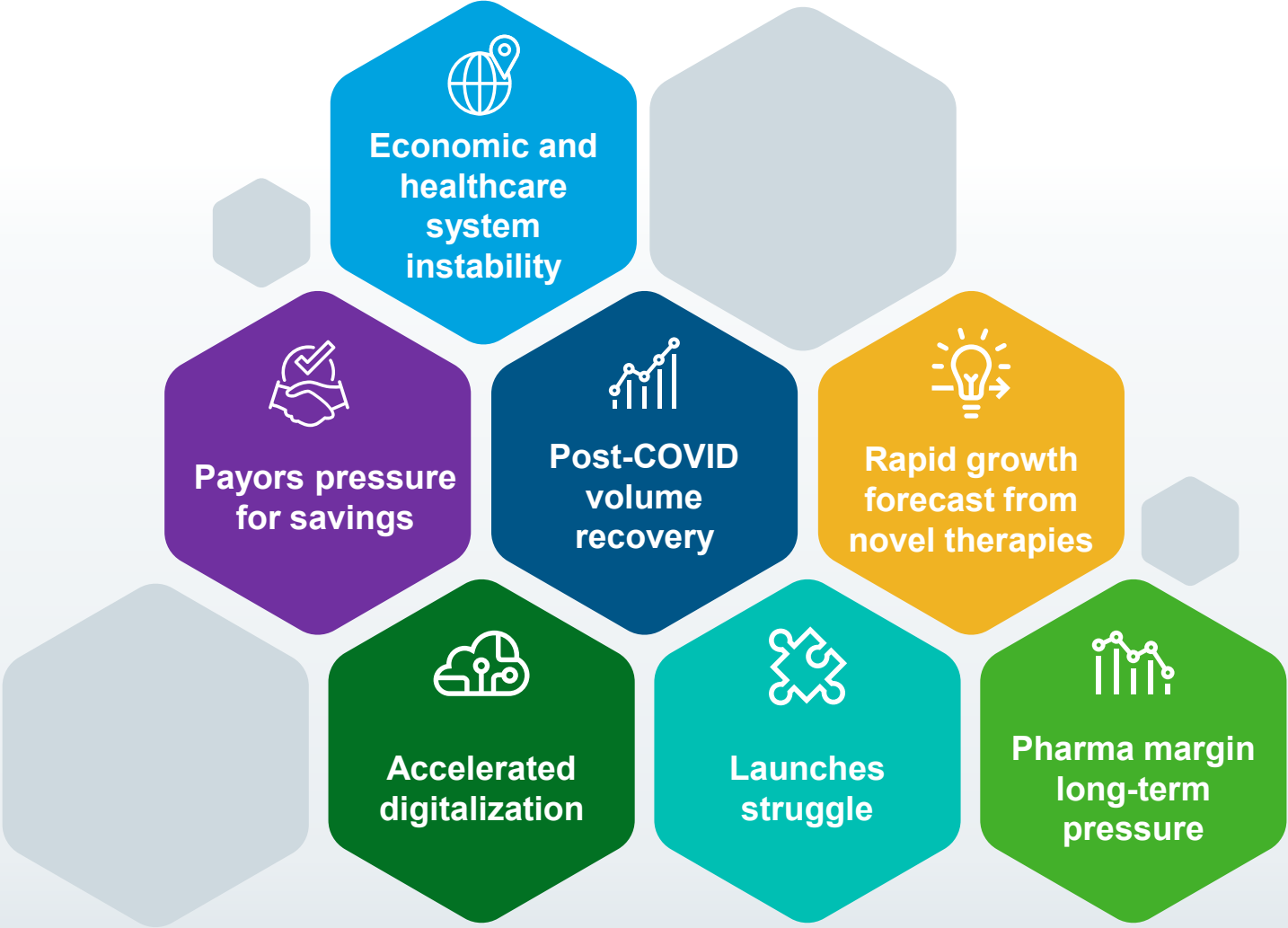


Global pharmaceutical market trends and the impact on the Kazakhstan market

*Astana, Kazakhstan
October 26, 2022*

Alexey Savin | Managing Principal, Consulting UKI
Olga Makarova | Principal Consulting CIS

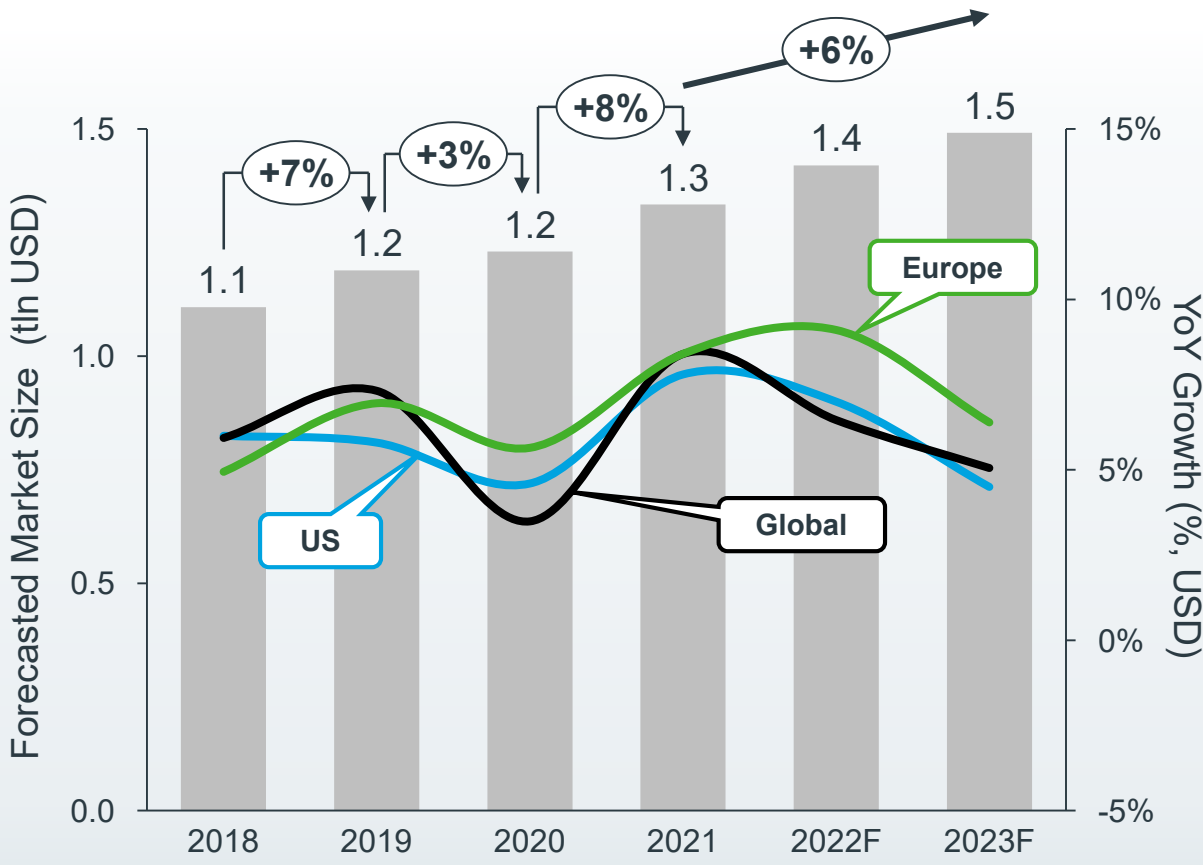
Global pharma is impacted by economic instability, margins pressure and struggles of launches. Accelerated digitalization and novel therapies growth remain post-COVID market recovery drivers



In 2021-2023 the global pharmaceutical market growth is expected to be 6%

Global market dynamics

Global market size (tln USD)*



Comments

Deceleration

- Tempo of growth **slow down in the next 5 years** for both value and volumes

Divergence

- **Volume driver:** primary care on emerging markets
- **Value driver:** specialty care on developed markets

Ex-manufacturer price levels, not including rebates and discounts. Contains Audited + Unaudited data; Source: IQVIA European Thought Leadership; Market Prognosis October 2022

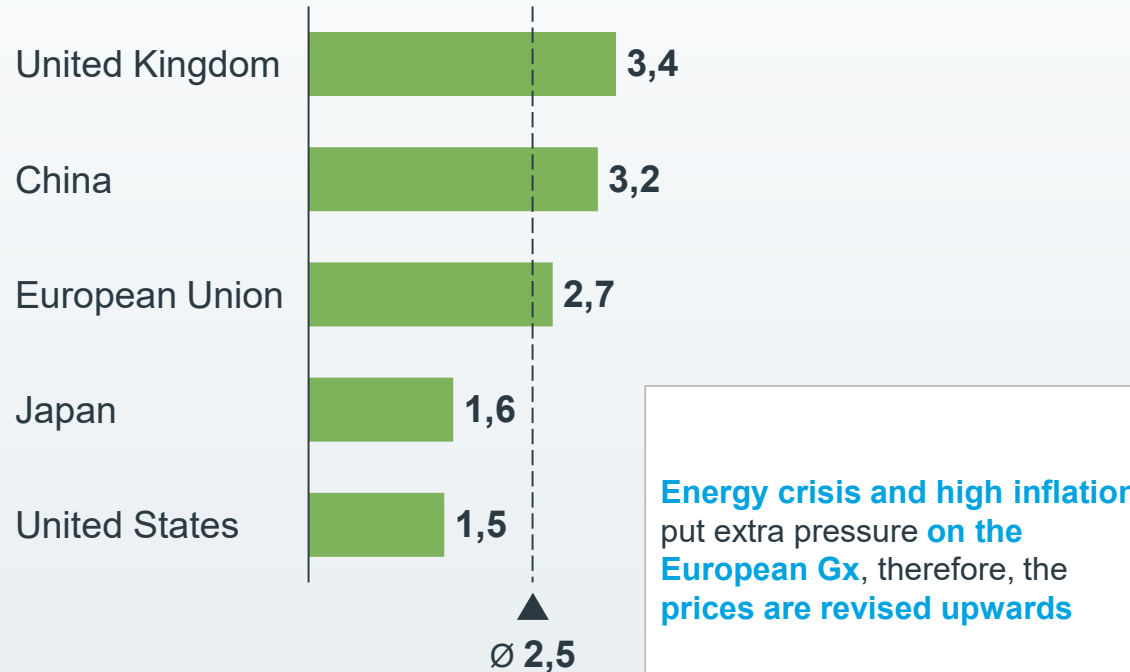
Current global market is characterized by uneven post-pandemic recovery and rising geopolitical instability

Economic and healthcare system instability (1/2)

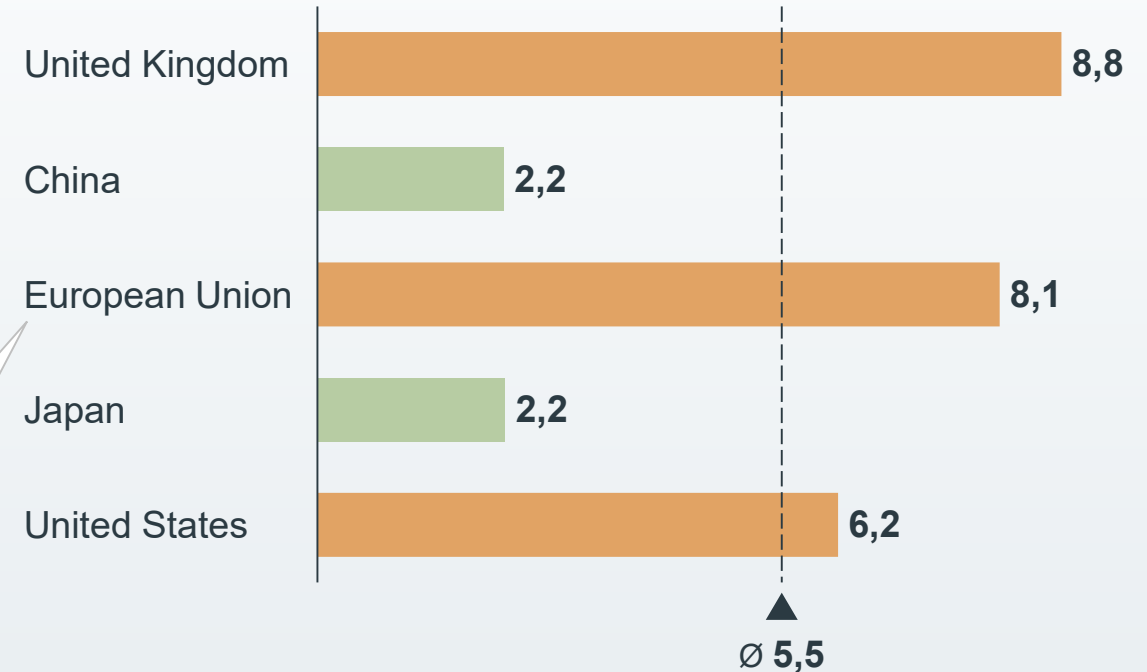
1 Economic and healthcare system instability

Global situation

Real GDP growth, 2022, %



Inflation rate, 2022, %



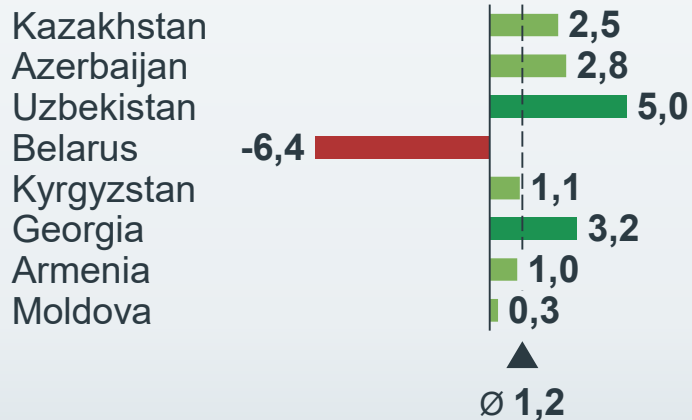
CIS+ countries' GDP growth rate for 2022 is comparable to those of the developed countries, such as USA and EU region

Economic and healthcare system instability (2/2)

1 Economic and healthcare system instability

CIS countries

Real GDP growth, 2022, %



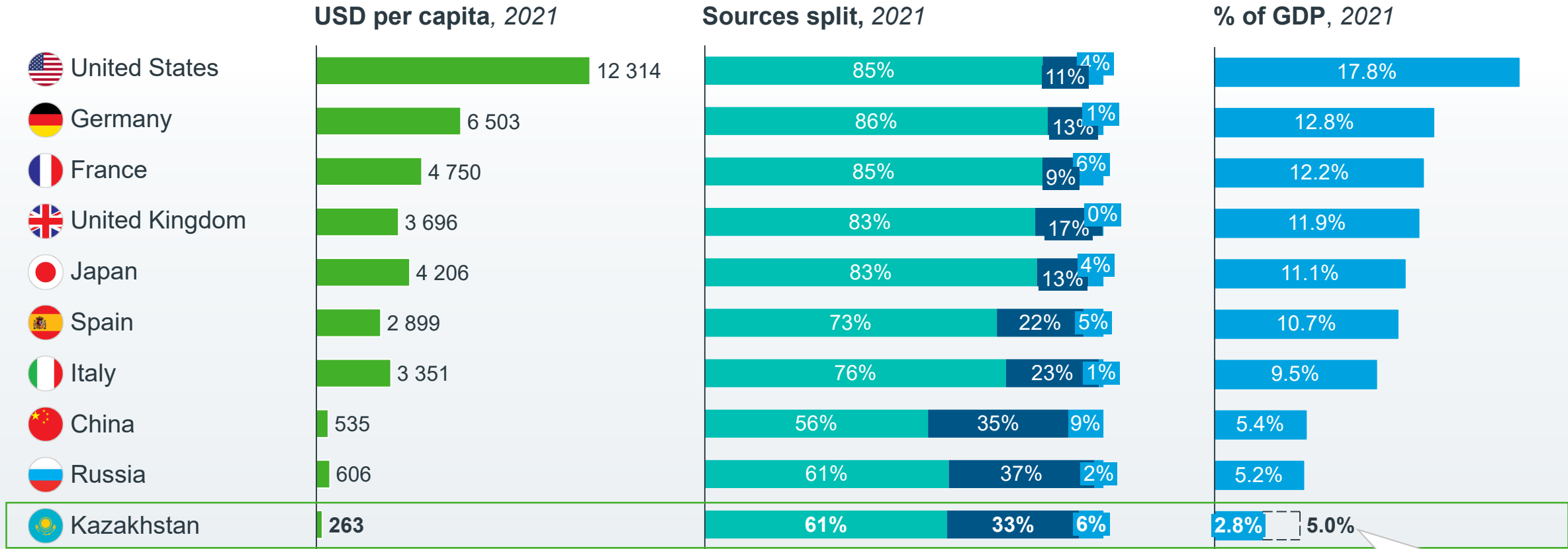
Inflation rate, 2022, %



Source: OECD Economic Outlook, Interim Report September 2022
 (1) Countries in scope are US, EU, UK, Japan & China

Kazakhstan healthcare expenditure as a share of GDP is currently lower than in the developed countries and Russia

Global healthcare expenditure



The current goal is to reach **5% by 2025**

Government Private Other¹

(1) Other sources of healthcare expenditure include social health insurance contributions, voluntary health insurance contributions, external aid, etc.; Sources: WHO, Global Healthcare Expenditure Database, IQVIA assessment

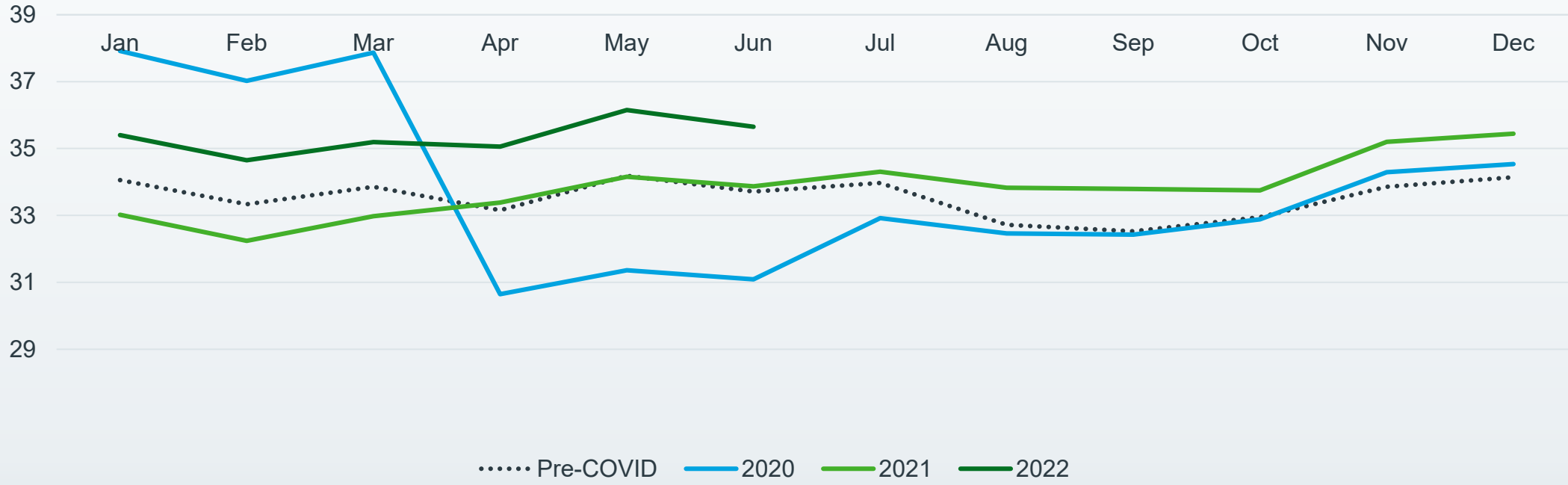
In post-pandemic 2021-22 the volume of Rx market recovered in Europe, driven by Gx

Post-COVID volume recovery (1/2)

2 Post-COVID volume recovery

Global situation

European¹ Rx Volume (Bn SU)*



*Pre-COVID dates are an average of 2018-2019 (1) Countries in scope are EU + UK
Source: IQVIA EMEA Thought Leadership

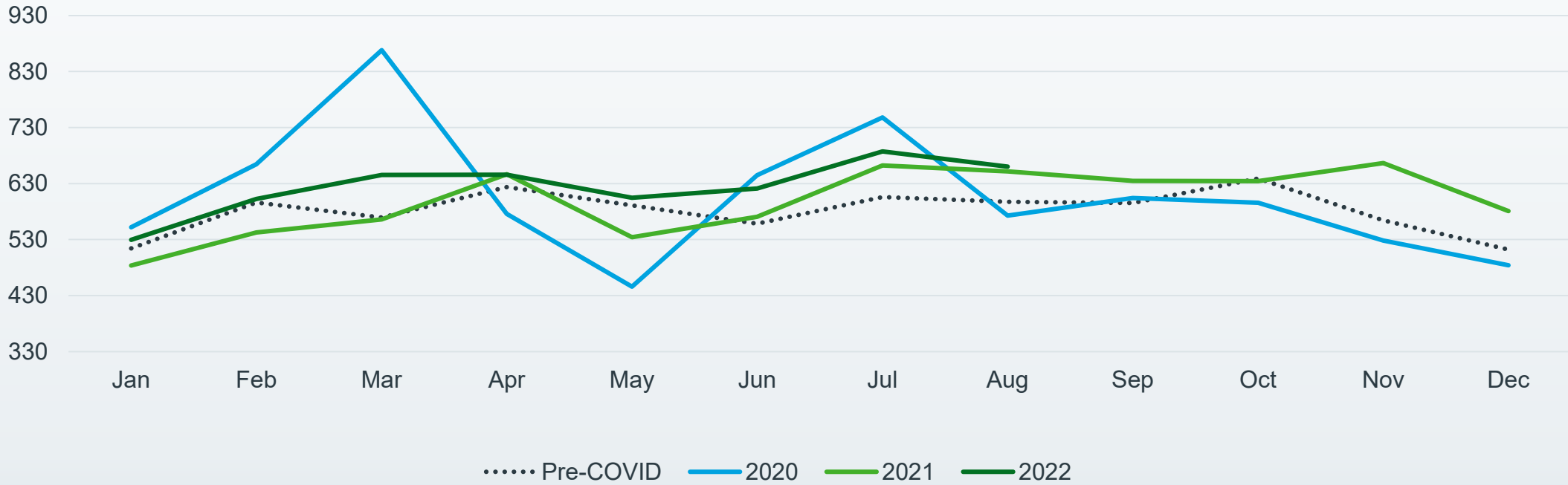
In 2021-YTD/22 the monthly volumes of the Kazakhstan Rx market were comparable the pre-pandemic figures

Post-COVID volume recovery (2/2)

2 Post-COVID volume recovery

Kazakhstan

Kazakhstan Rx Volume (MIn SU)*



Source: IQVIA EMEA Thought Leadership
*Pre-COVID dates are an average of 2018-2019

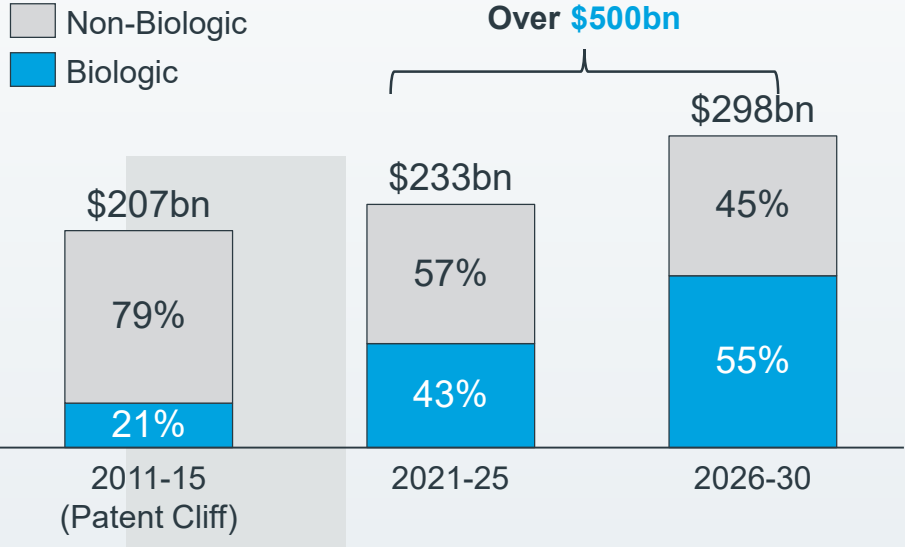
Payors push for LoE savings up until 2030s. Policymakers act to secure a sustainable industry

Accelerated digitalization (1/4)

3 Payors pressure for savings

Global situation

Global Loss of Exclusivity Potential (USD)



A Pharmaceutical strategy for Europe (2022) 4 pillars

- Access** to affordable medicines and addressing unmet needs
- Supporting competitiveness, **innovation** and **sustainability**
- Enhancing crisis **preparedness** and a **diversified** supply chain
- Promoting quality, efficacy and safety

- LOE potential saving does not balance medicines spend growth (incl. COVID vaccines/treatments) projected at ~ \$600m to 2025
- Launch and inline protected will be squeezed; US not immune (Inflation Reduction Act)

Global pharmaceutical markets are characterized by the long-term rising margin pressure

Pharma margin long term pressure (1/2)

4 Pharma margin long-term pressure

Global situation

2017-2021 change in key operating margin components

For 15 Large Pharma aggregated



Implications

- Margin improvement in 2021 - a blip in the face of **long term downward pressure**
- COGs** will continue to **rise sharply**
- R&D costs %** will **rise again**

Long-term margin pressure results in:

- Fewer drugs** entering the market
- Fewer innovations** entering the market

Source: Company Financial Reports

Notes: Based on total corporate performance (not limited to pharmaceutical division) for 15 largest companies based on MIDAS-reported pharma sales; Operating Margin defined as Net product sales less Cost of Goods Sold, Selling General & Administration costs, and Research & Development

Kazakhstan pharma market is also experiencing long-term rising margin pressure due to external and internal factors

Pharma margin long term pressure (1/2)

4 Pharma margin long-term pressure

Kazakhstan

Key marginality trends

The key trend for CIS+ markets is the **rising margin pressure** attributed to **two main factors**:

External pressure

- **MNCs** in the market
- **Globally rising COGS** mean **COGS rising within separate regions**, including the CIS+ region

Internal pressure

- **Logistics** complications
- **Customs service** complications
- **Pricing regulation**, etc.

Recent changes in Kazakhstan

• Easing of the price regulation¹:



- **Only Rx drugs and drugs for wholesale and retail sales**, included in the list* approved by the Ministry of Health of the Republic of Kazakhstan, **are now subject to price regulation**
- **Before that, all drugs** were **subject to price regulation** (3742 TNs are no more subject to price regulation)

(1) According to amendments and to the order of the Minister of Health of the Republic of Kazakhstan dated December 11, 2020 No. KR DSM-247/2020 effected on July 9, 2022); *The list includes Rx drugs, and OTC drugs: 1) purchased from a single distributor and (or) for free and (or) preferential outpatient provision of certain categories of citizens with certain diseases; 2) having less than 3 TNs of drugs within one INN; 3) having less than 3 manufacturers of TNs within one INN

Digitalization implies partnerships, new ways of working with data and mixed models of stakeholder engagement

Accelerated digitalization (1/4)

Global situation












Digital transforms healthcare

Initiatives	Infrastructure	Implementation
Targeted policies	EHR	Telehealth
Specific funding	Common Standards	Big data + AI/ML
Data governance	Interoperability	Information use
Dedicated institutions	Genomics	DCTs

Partnerships to remain competitive

1. Focus on core activities
2. Build capabilities
3. Scale rapidly
4. Engage new stakeholders

Partnerships shape digital future

<p>Pharma, Emerging Biopharma</p>  <p>Insilico Medicine</p>  <p>Exscientia</p> <p><i>AI-powered R&D</i></p>  <p>BERG</p>		
<p>Payers, Providers, Governments</p>  <p>IQVIA</p>  <p>illumina</p> <p><i>Data and RWE platforms</i></p>		
<p>Emerging Distributors/providers</p>  <p>DOORDASH</p>  <p>Uber</p> <p><i>Last-mile delivery</i></p>  <p>zipline</p>  <p>one medical amazon</p>  <p>signifyhealth</p> <p><i>Health provision</i></p>  <p>kry</p>		

The EU is increasing its long-term budget to help rebuild a post-COVID-19 EU, allocating significant funds to healthcare

Accelerated digitalization (2/4)

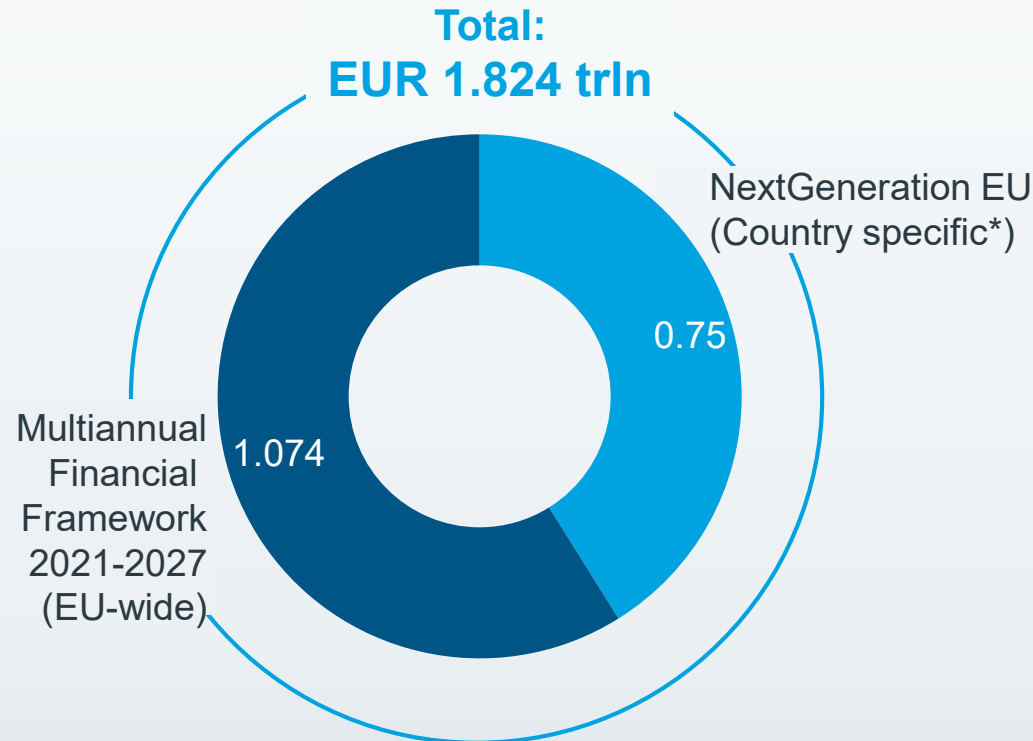
Global situation

Recovery plan and EU budget for 2021-27

Example

EU-wide programs

- Mainly based on innovation and research
- Aim for EU-wide impact (>1 country)
- Priorities are set by the EU Commission
- Notable programs for IQVIA include:
 - **EU4Health (10.4bn)**
 - **Horizon Europe (100bn)**
 - **Digital Europe (8.2bn)**



Country-specific funding

- Focused on building local infrastructure & competitiveness
- Includes EU structural funds & Recovery resilience facility package
- Recovery & resilience package: EUR 390bn in grants + EUR 360bn in loans
- Managed by national authorities
- National payors can apply for funding

Three programs in Kazakhstan aimed at improving the quality and accessibility of medical care and medicines

5 Accelerated digitalization

Accelerated digitalization (3/4)

Kazakhstan

Kazakhstan 2022 Initiatives / Priorities

- **Innovation treatment access:** budget expansion / special programs, ease of access
- **Localization:** local production clusters, preferences, foreign investments
- **Clinical trials development**
- **Digital HC transformation**

Key active programs

There are **currently 3 active special programs in Kazakhstan** aimed at improving the quality and accessibility of medical care and medicines:

1) Strategic Plan of the Ministry of Health of the Republic of Kazakhstan for 2020-2024	4.7 trln KZT for 2020-22 + TBD for 2023-25
2) National project " Quality and affordable healthcare for every citizen "Healthy Nation" " for 2021-2025	3.6 trln KZT
3) Comprehensive plan for the development of the pharmaceutical and medical industry for 2020 – 2025	TBD during implementation

There are multiple digital healthcare initiatives in Kazakhstan; unified digitalization strategy is to be developed

Accelerated digitalization (4/4)

5 Accelerated digitalization

Kazakhstan

Digitalization landscape

- There are **separate digital initiatives in Kazakhstan** and across the CIS+ region
- **No unified digitalization strategy** (no clear goals, KPIs, the initiatives are not consistent with each other, etc.)

Digital initiatives examples¹

- **EMR (Electronic Medical Records)** as part of “Smart Astana” initiative (*first developed in 2017*). EMR are partially realized, but not fully scaled yet. The initiative also includes: **information system, self-service terminal, online booking** through *smart.astana.kz*
- **Automation of the medicines purchases²**, incl. the **integration** of private pharmacy organizations (incl. regional) **with ISLO (Information System “Drugs supply“)** for dispensing drugs according **to electronic prescriptions**, incl. within the Guaranteed Amount of Free Medical Care / MSHI and co-payments
- Creation of **electronic platform E-Healthy Lifestyle²** to promote new healthy lifestyle principles
- Creation of an **electronic database of accreditation areas of testing laboratories³** to determine the list of tests types for drugs and medical devices in the accredited laboratories

(1) The list of initiatives is not exhaustive, but only provides key examples (2) As part of National project “Quality and affordable healthcare for every citizen “Healthy Nation” for 2021-2025 (3) As part of Comprehensive plan for the development of the pharmaceutical and medical industry for 2020 – 2025; Source: IQVIA EMEA Thought Leadership, IQVIA research

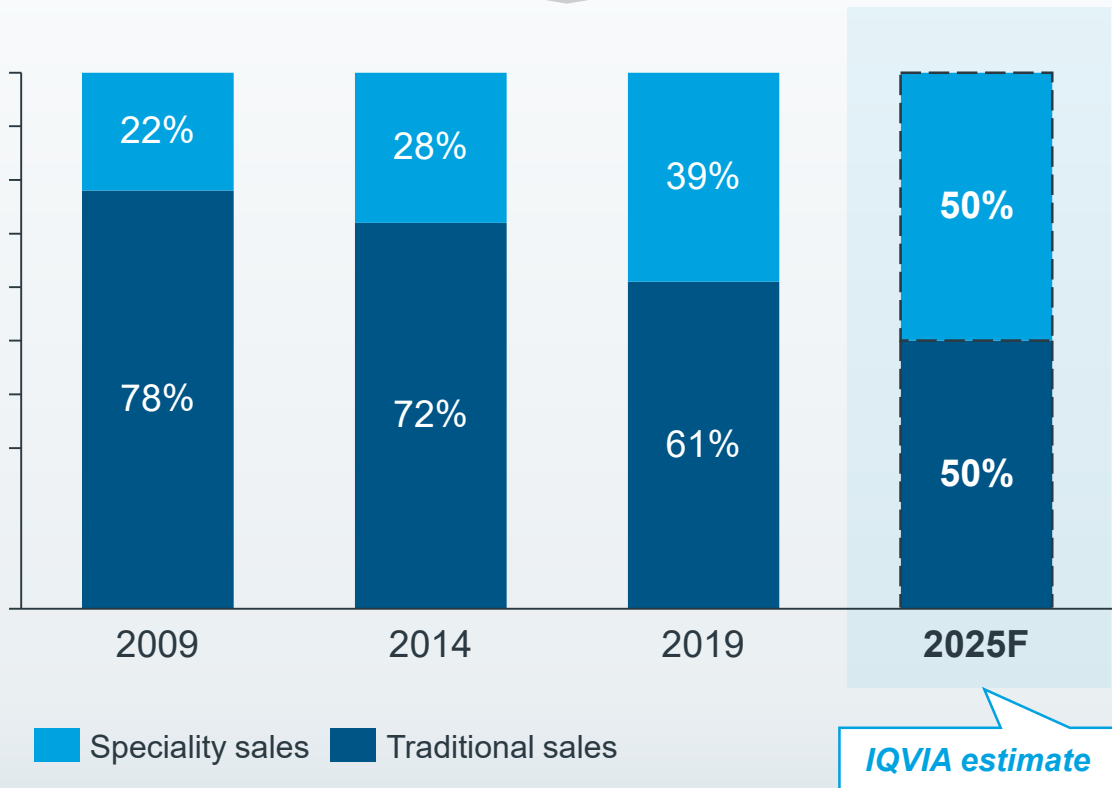
Specialty care segment market share is steadily growing globally; Kazakhstan shows similar tendency

Rapid growth forecast from novel therapies (2/2)

6 Rapid growth forecast from novel therapies

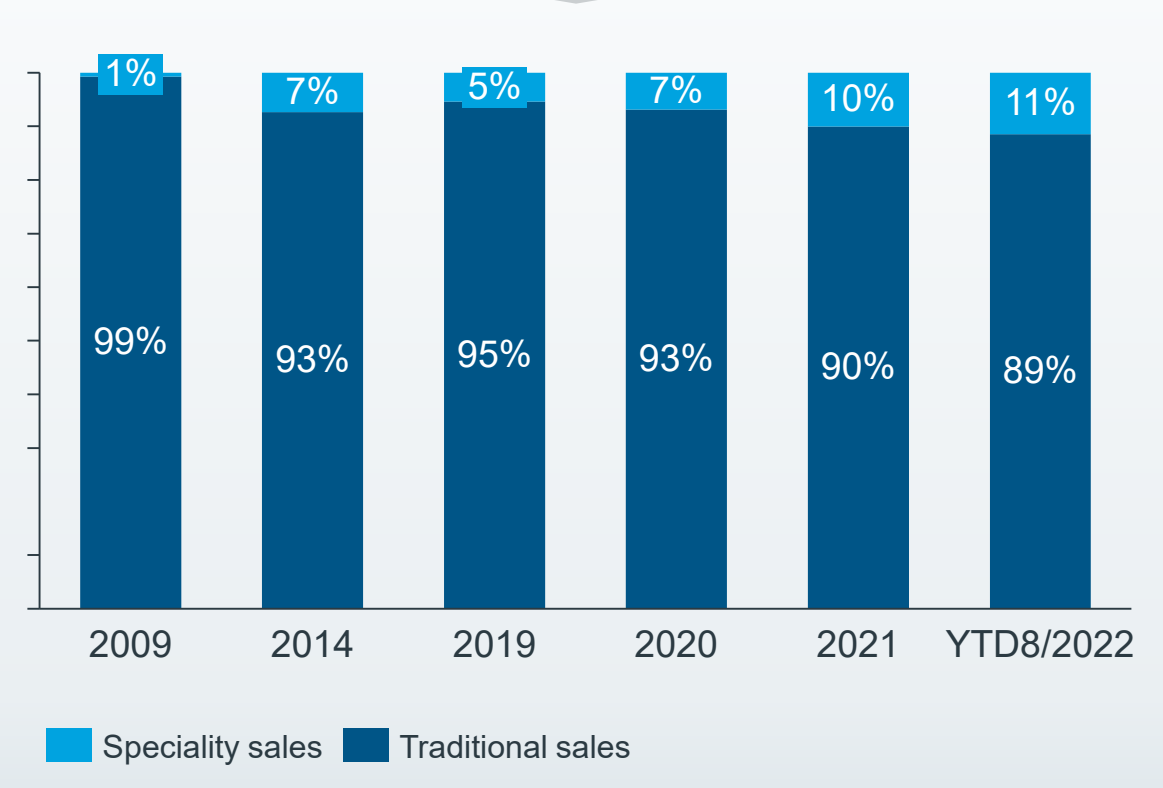
Global situation

Global specialty care / primary care split, USD



Kazakhstan

Kazakhstan specialty care / primary care split¹, USD



(1) Specialty sales for Kazakhstan include the sales of drugs with the price higher than 1000 USD per pack
Source: IQVIA databases, IQVIA EMEA Thought Leadership

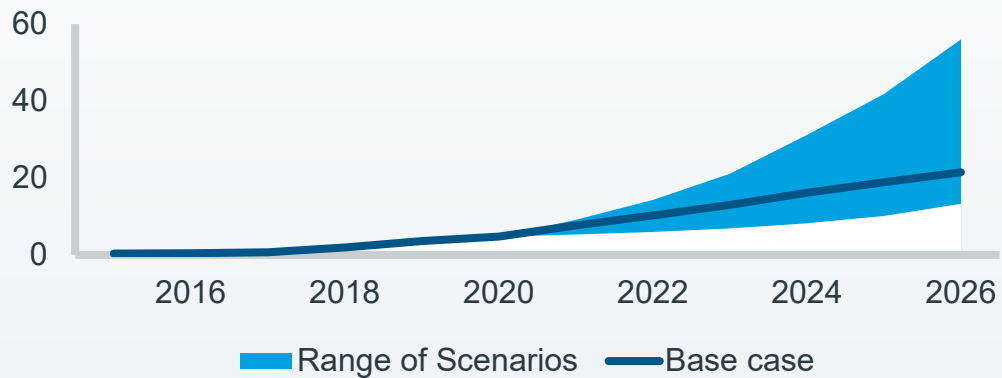
New therapeutic platforms currently getting momentum include cell and gene, digital therapeutics, microbiome, RNA

Rapid growth forecast from novel therapies (1/2)

6 Rapid growth forecast from novel therapies

Global situation

Advanced Therapies growth¹ (bn USD)



Orphan markets across the globe

Europe

- Diseases with an incidence of no more than 5 cases per 10,000 people (<5:10 000)
- ~6000 orphan diseases
- From 25 to 30 million people suffer

the USA

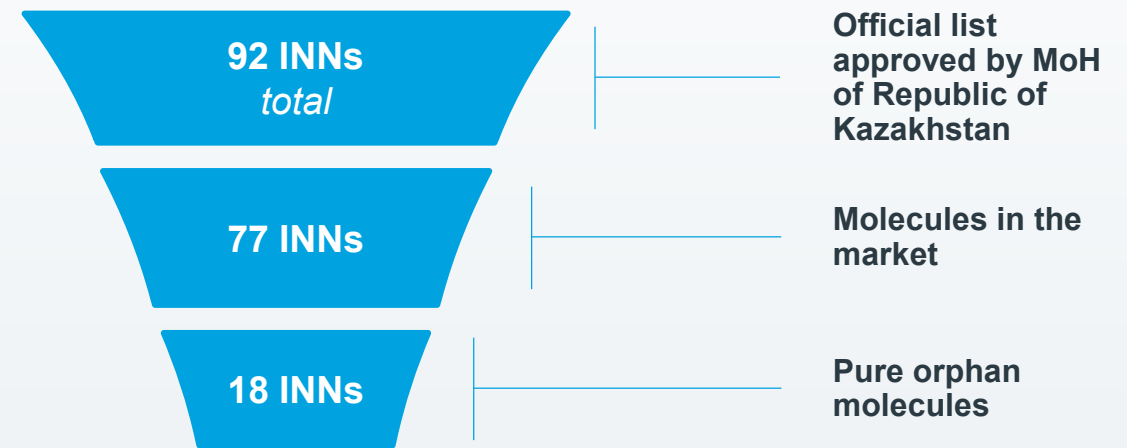
- Diseases with an incidence of no more than 6.1 cases per 10,000 people (<6.1:10 000)
- ~7000 orphan diseases
- 30 million people suffer

640 INNs*

Orphan status is given to the drugs for the treatment of orphan diseases

Kazakhstan

Kazakhstan's orphan market



Kazakhstan

- No. 142 "On approval of the list of orphan diseases and drugs for their treatment", Oct 20, 2020
- 11 main groups of orphan diseases in Kazakhstan approved by Ministry of Health
- 62 orphan diseases - Official list of orphan diseases
- 30 orphan diseases in the market

(1) Countries in scope are US, EU4+UK, Japan & China ; *As of 2020
Source: IQVIA EMEA Thought Leadership

The monthly sales after the launches during COVID pandemic were lower compared to the pre-COVID period

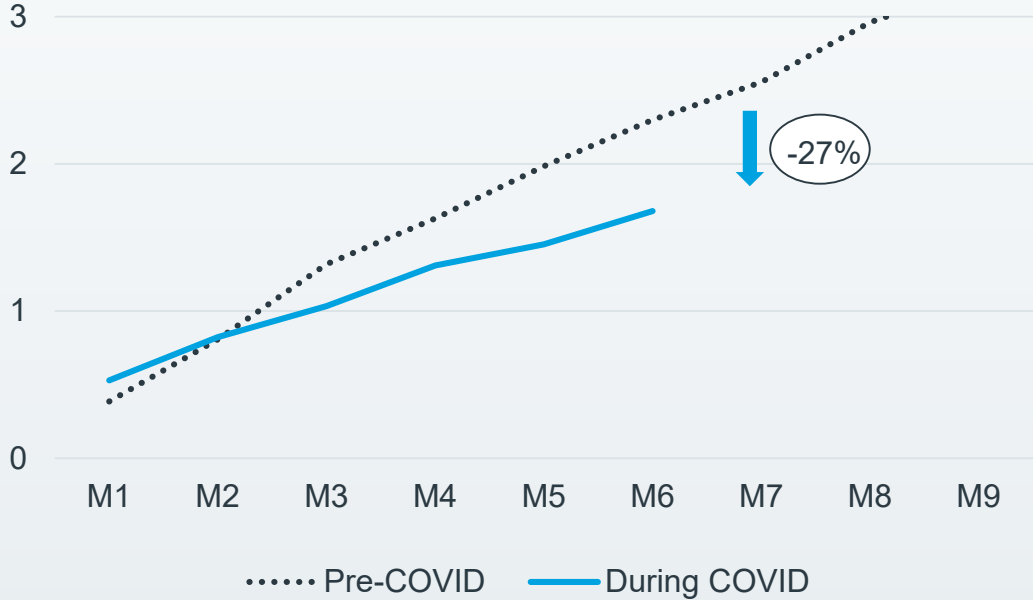
7 Launches struggles

Launches struggle (1/2)

Global situation¹

Avg. Monthly sales of innovative launches

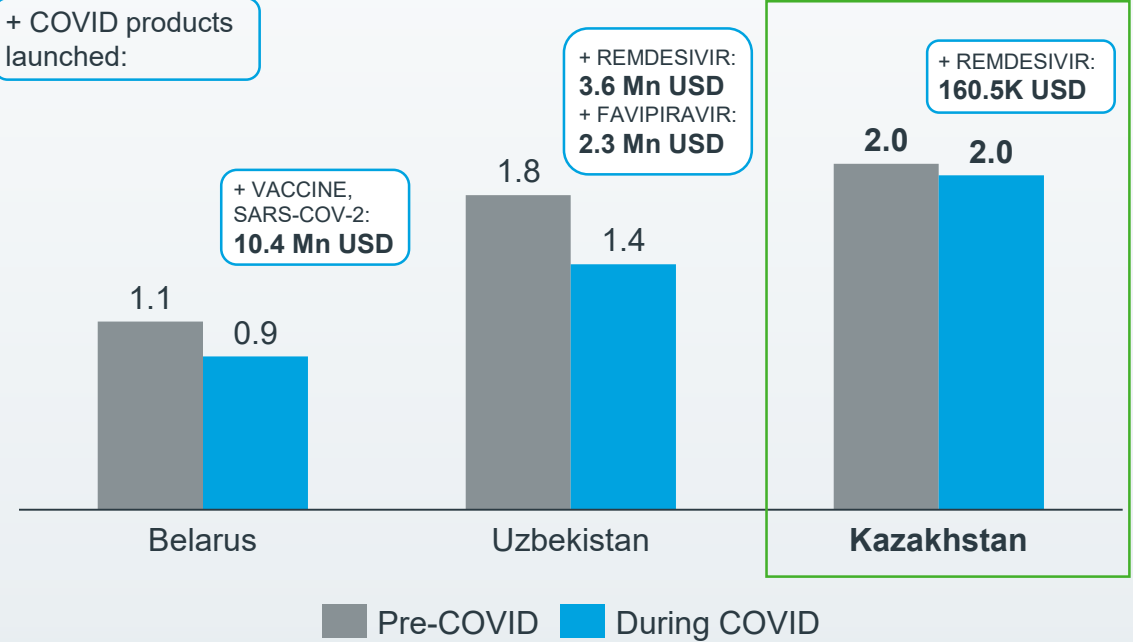
(Mn USD, Top 8 Countries)*



Kazakhstan

Sales of the launched INNs in M6 after launch

(Mn USD)**



*Pre-COVID launches: Jan-15 to Sep-19, During COVID launches from 2020 and H1 2021 Excludes Hep C products (1) Countries in scope are US,EU4+UK, Japan & China

**Pre-COVID launches: H2 2018 and 2019, During COVID launches from 2020 and H1 2021 Excludes COVID products; Source: IQVIA EMEA Thought Leadership, IQVIA databases

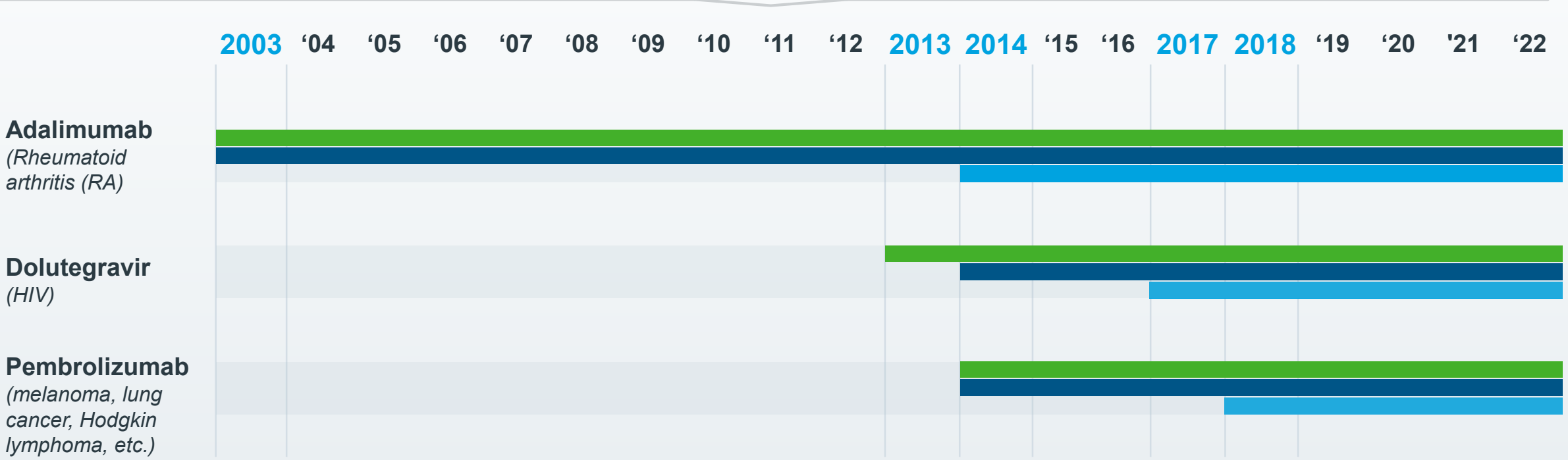
Innovative launches in Kazakhstan are usually performed several years after the same launches in USA and Europe

7 Launches struggles

Launches struggle (2/2)

Global situation and Kazakhstan

INNs launch dates in USA, Europe and Kazakhstan










Example

Source: IQVIA EMEA Thought Leadership, IQVIA databases

Key trends disrupt all player strategies. New equilibrium is yet to be found

Summary

#	Global trend	Summary	Impact on Kazakhstan
1	Economic and healthcare system instability	Uneven post-pandemic recovery and rising geopolitical instability brings extra uncertainty for pharma markets	
2	Post-COVID volume recovery	Sales volume is recovering after the decrease amid the COVID-19 pandemic	
3	Payors pressure for savings	Payors push for LoE savings up until 2030s. Policymakers act to secure a sustainable industry	
4	Pharma margin long-term pressure	After short margin improvement in 2021, marginality faces long-term downward pressure with rising COGS and R&D costs	
5	Accelerated digitalization	Digital transforms healthcare supporting competitiveness, innovation and sustainability. Partnerships are on the rise	
6	Rapid growth forecast from novel therapies	New therapeutic platforms, such as cell and gene, digital therapeutics, microbiome, RNA, are currently getting momentum	
7	Launches struggles	Upcoming launches would face fierce competition bringing lower returns	

Contact us

Alexey Savin

Managing Principal, Consulting UKI

Alexey.Savin@iqvia.com

LinkedIn: savinalex

Olga Makarova

Principal Consulting CIS

Olga.Makarova@iqvia.com

+7 916 993 05 50

LinkedIn: makarovao