

# Pharmaceutical Ukraine

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Implemented by



Kingdom of the Netherlands

## Market Macro-Overview

- Macroeconomic overview of the country
- Political, economic and legal risks associated with the market
- Trade agreements with Jordan

## Industry/Sector Demand Overview

- Current demand dynamics
- Future forecast for the sector

## Product Overview/Demand Analysis

- Product description and application
- Demand 2013-2023 (volume and value)
- Key demand drivers
- Emerging trends and potential changes

## Supply Analysis

- Supply 2013-2023 (production and imports)
- Supplier profiles/Market share of imports
- Market share of key suppliers
- Note on methodology

## Route to Market Analysis

- Key channels
- Typical buyers
- Customer requirements
- Marketing activities
- Product pricing
- List of exhibitions and trade fairs

## Competitive Landscape

- Key market suppliers (companies or countries)
- Breakdown by company supplying
- Existing value proposition offered by competitors

## Import Procedure

- Tariff and non-tariff barriers
- Required documents
- Packaging requirements for shipment
- Labelling requirements
- Key transportation and logistics requirements, such as recommended port of entry and key distribution hubs
- Applied tariffs for the product in the country

## Import Supply Chain

- Structure of the import supply chain (including planning, logistics and distribution)
- Recommendations on how to overcome challenges related to the import supply chain

## Recommendations

- Market access strategy
- Key success factors for winning in the market
- Marketing mix





# Market Overview

Macro-economic Overview

# Ukraine poses trading risks due to unstable macro-economic condition

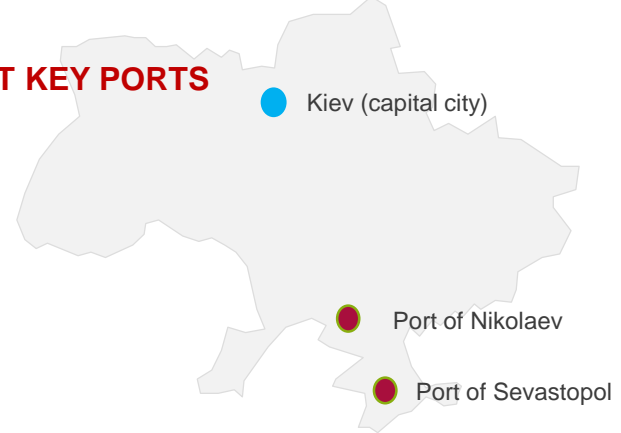
## MARKET RISKS

<b>Economic</b>	The cessation of IMF cooperation with Ukraine Growth slowdown in Ukraine's economy Decline in foreign investment
<b>Political</b>	Unstable political situation at the end of 2013 which led to the annexation of AR Crimea and occupation by the eastern part of Ukraine. Political and social instability against a backdrop of widespread poverty, corruption and oligarchy
<b>Legal</b>	Unbalanced regulation in different areas: strong for the product registration and weak in promotion Lack of online-trade regulation
<b>Trade</b>	Improvements in trade competitiveness are threatened as a result of rising labour costs Trade blockade with rebel-held areas in the east leads to higher share of imports in foreign trade
<b>Banking restrictions and currency challenges</b>	High external debt payments can affect national currency Restrictions on capital movements limit convertibility Default possibility

## TRADE AGREEMENTS

- Ukraine does not hold any free trade agreement with Jordan. However, this does not impact the applied tariffs for exports of pharmaceutical products from Jordan to Ukraine.
- Ukraine has free trade agreements with Canada, European Union, Common Wealth Independent States, Iceland, Liechtenstein, Norway, and Switzerland.

## MARKET KEY PORTS



## ECONOMY

**Total GDP 2018:** US\$131 billion  
**Real GDP Growth: 2013-2018 (CAGR):** 28.7%  
**Forecast GDP Growth: 2018-2023 (CAGR):** 2.3%

## DEMOGRAPHICS

**Total Population 2018:** 42.2 million  
**Population Growth: 2013-2018 (CAGR):** 7%  
**Forecast Pop. Growth: 2018-2023:** 2.8%

## PER HOUSEHOLD SPENDING

**Average Spending 2018: (per household):** US\$1,917  
**Avg. Spending Growth: 2013-2018 (real terms):** 39.5%  
**Forecast Spending Growth: 2018-2023 (real terms):** 4.5%





# Industry Overview

Overview of The Sector

# Increase in domestic consumption of dietary supplements drives the sector

## PHARMACEUTICALS OVERVIEW

- Given the strong reliance on imports, the pharmaceuticals market faced a decline in value and volume in 2016 at 14.6% and 1.6% negative CAGRs respectively. This was mainly due to the currency depreciation which impacted the purchasing power.
- There are two main regulatory bodies that operate under the Ministry of Health: the State Expert Centre and the State Administration of Ukraine on Medicinal Products (SAUMP).
  - The State Expert Centre is responsible for registration and quality control of pharmaceuticals, research and monitoring of drug reactions, listing OTC drugs which are then submitted for approval by MOH and authorizing the imports use of unregistered pharmaceuticals. It also advises on the content of the National Drug Formulary.
  - The SAUMP is responsible monitoring quality of drugs in the market through its network of 27 laboratories in the country, all comply with ISO 17025
- In 2018, only 5% of the population have an health insurance policy that cover the cost of all/part needed drugs. In April 1, 2017, reimbursement policy was introduced as a result of the state policy for the treatment of certain cardiovascular diseases, bronchial asthma and type II diabetes mellitus. This is expected to increase consumption patterns of all drugs included in the reimbursement system to create incentives for the patient to move from self-treatment to regular follow-up by a doctor and to increase the availability of drugs that are an integral and permanent part of this treatment.
- Share of generics sold in public hospitals is 70% and 98% in value and volume respectively.

## PHARMACEUTICALS SIZE

The size of the sector in  
**2018**  
was estimated at

**US\$1,853 million**

and by  
**2023**  
it is expected to reach a total of

**US\$3,050 million**

## KEY TRENDS AFFECTING PHARMACEUTICALS

- Following the political instability in 2014, some pharmaceutical production plants ended up in the occupied territory.
- There is a growing trend for consumption of dietary supplements such as fructose, lecithin, fiber, omega3. This is pushing market value given the higher price points of the supplements.
- Prescription drugs witnessed a growing trend in the past 10 years.
- In 2018, high-value drugs' share increased both in volume and value due to rising prices and consumption shift to more expensive drugs.
- Drugs, such as antibiotics, that lack credibility or efficiency is expected to decline in sales by volume.



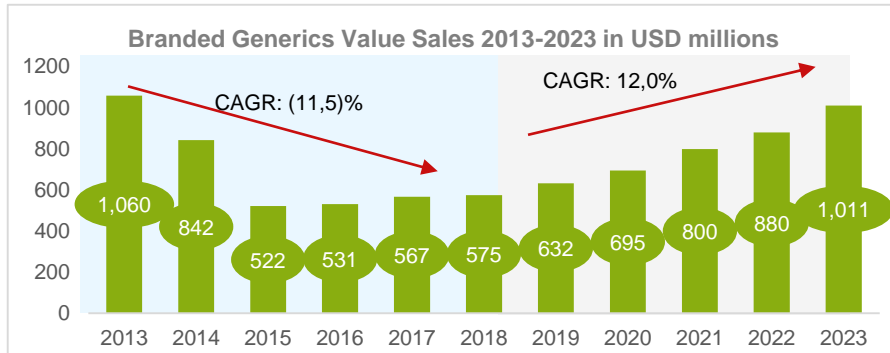


# Demand

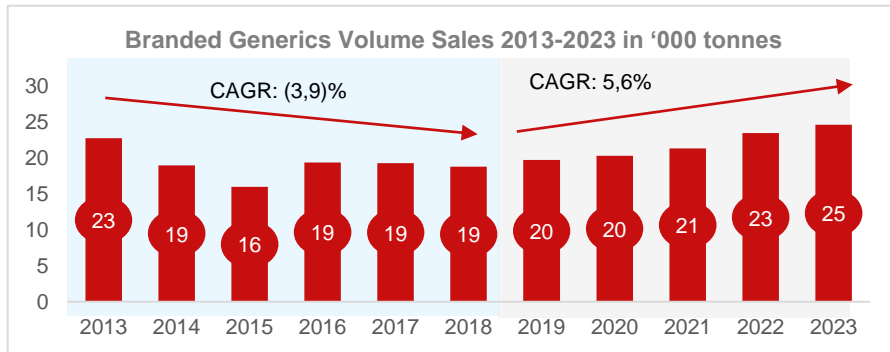
Product Overview and Demand Analysis

# Government's efforts to improve healthcare is likely to drive sales in the coming future

## DEMAND FOR THE PRODUCT (HISTORIC AND FORECAST)



Source: Euromonitor International from Trade Analysis, 2019



Source: Euromonitor International from Trade Analysis, 2019

## BRANDED GENERICS' DESCRIPTION AND APPLICATIONS

A generic drug is a medication created to be the same as an already marketed brand-name drug in dosage form, safety, strength, route of administration, quality, performance characteristics, and intended use. These similarities help to demonstrate bioequivalence, which means that a generic medicine works in the same way and provides the same clinical benefit as its brand-name version. When generic drugs are sold under a brand name, it is known as branded-generics. Branded generic drugs are used in therapeutic or prophylactic applications for treating or preventing diseases such as cardiovascular, central nervous system, dermatology, oncology, respiratory, and other diseases.

## KEY DRIVERS BEHIND MARKET GROWTH

- Pharmaceuticals in Ukraine, is driven largely by generics sold either based on pharmacist's advice or based on doctor's prescriptions
- The continued economic recovery in 2018 after the 2014-15 dip has also bolstered the sector with increased consumer spending in the past few years
- Value sales grew better than volume sales in the past few years with consumers preferring high-quality international brands instead of the locally made brands

## EMERGING TRENDS AND POTENTIAL CHANGES

- Implementation of medical reforms including the introduction of medical expense reimbursement system is likely to drive sales
- The internet is playing a major role in not only educating the consumers with the appropriate medicines but also in drug trade and electronic prescriptions
- Modernisation of healthcare industry is likely to open consumers' access to a wider product portfolio and increased availability



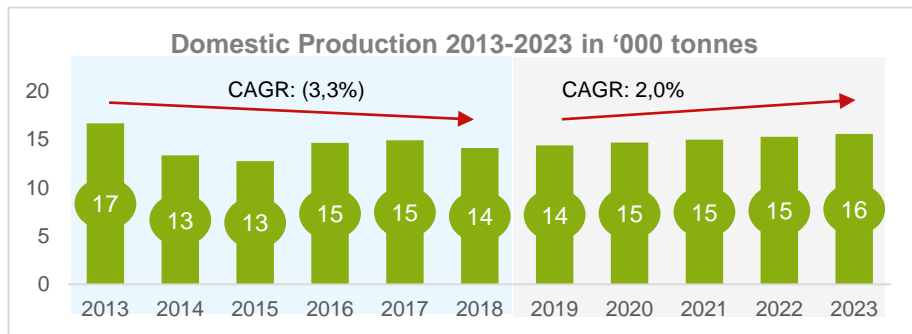


# Supply

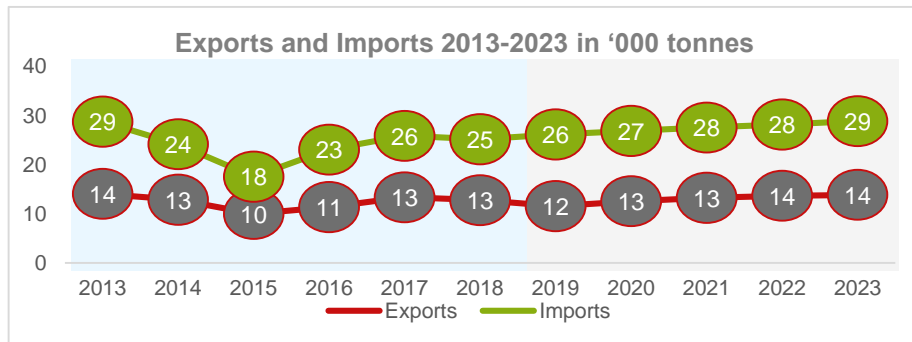
Supply Analysis

# International brands drive imports into the region with aggressive marketing campaigns

## SUPPLY OF PESTICIDES (HISTORIC AND FORECAST)



Source: Euromonitor International from Trade Analysis, 2019



Source: Euromonitor International from Trade Analysis, 2019

## PROFILES OF TOP SUPPLYING COUNTRIES

#	Country	% Share of Imports	Competitive Advantages
1	Germany	16.4%	<ul style="list-style-type: none"> <li>Access to high-grade technology resulting in high quality products</li> <li>Constantly innovating developing new formulae or methodologies</li> <li>High Credibility to Germany's products</li> </ul>
2	India	12.0%	<ul style="list-style-type: none"> <li>Products perceived to be 'Cheap' or 'Value for money' resulting in the right price-quality ratio</li> <li>Significant access to raw materials</li> <li>Indian drugs have been long established with high credibility for its markets</li> </ul>
3	France	10.5%	<ul style="list-style-type: none"> <li>Access to high-grade technology resulting in high quality products</li> <li>Wide product portfolio offered</li> </ul>
4	Italy	3.9%	<ul style="list-style-type: none"> <li>Known for innovative high-quality product offerings at an affordable price</li> </ul>
5	Slovenia	2.7%	<ul style="list-style-type: none"> <li>Relatively recent market player with access to new technology. Country's products are known to be the safest among other supplies into Ukraine.</li> </ul>

## FORECASTING METHODOLOGY

- Historical data has been obtained from local and international statistics and validated through trade interviews with multiple supply chain segments (such as manufacturers, distributors and retailers)
- These inputs have been used alongside relevant exogenous variables in order to develop a forecast based on the analysis of variance approach, while also taking into account the expected effect of market, regulatory and policy developments on forecast variables





# Route To Market

Bringing The Product To The Market



# Chemists and Pharmacies dominate retail channels as regulations curb online retailing of drugs

## PRODUCT PLACEMENT (TOP CHANNELS)

CHANNEL	TYPICAL BUYER	BUYER EXPECTATIONS/ REQUIREMENTS	MARKETING ACTIVITIES
<b>Importers</b>	<ul style="list-style-type: none"> <li>Buyers in this category typically include importers dealing with one or more medical products.</li> <li>Importers operate special warehouses facilities to support its medical service</li> <li>Key tasks include ensuring documentation compliance, quality verification</li> </ul>	<ul style="list-style-type: none"> <li>Availability of all required approvals and product certifications to be able to expedite customs clearance</li> <li>Supporting Government authorities in ensuring no imports of counterfeit products</li> <li>Reduced credit period from distributors / retailers (if applicable)</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate product promotion among pharmaceutical specialists and doctors,</li> <li>Participation in certain exhibition and seminars</li> <li>Advertising campaign for end consumers</li> </ul>
<b>Distributors</b>	<ul style="list-style-type: none"> <li>Buyers in this category are typically intermediaries operating warehouses to store drugs and well-connected with retailers</li> <li>Some distributors are vertically integrated and also import directly</li> <li>Besides imports, distributors also provide medical services and products as additional offerings and have independent logistics</li> </ul>	<ul style="list-style-type: none"> <li>Supporting Government authorities in ensuring no imports of counterfeit products</li> <li>Reduced credit period from distributors (if applicable)</li> <li>Financial support to participate in tenders</li> </ul>	<ul style="list-style-type: none"> <li>Facilitate product promotion among pharmaceutical specialists and doctors,</li> <li>Participation in certain exhibition and seminars</li> <li>Advertising campaign for end consumers</li> <li>Market research to understand region-specific requirements</li> </ul>
<b>Pharmacies</b>	<ul style="list-style-type: none"> <li>Major retail buyer providing medicines and other pharmaceutical products</li> <li>Key tasks is to provide appropriate storage space compliant to store temperature sensitive products</li> </ul>	<ul style="list-style-type: none"> <li>Best prices to meet end consumer price requirements</li> </ul>	<ul style="list-style-type: none"> <li>Point-of-sale materials, brand advertising and discount programs</li> </ul>

## PRODUCT PRICING

- The maximum wholesale mark-up for the sale of medicines is 10%, including all taxes and fees, the maximum retail trade allowance is 25%, including all taxes and fees.
- Price growth for medicines in Ukraine was significantly lower than in other industries in 2018

Product price range in US\$/Pack	Min	Avg.	Max
Distributor buying prices	0.50	24.06	47.61
Selling price to retailers/end customer prices	0.53	26.10	51.67

## PRODUCT PROMOTION (TRADE SHOWS)

- Ukrainian Pharmaceutical Forum:** a trade show that discusses the regulatory changes in the pharmaceutical market and trends in the development of the pharmaceutical sector globally and their adaptation in Ukraine.
- TV advertisements are most popular form of promotions among local players. Self-treatment is very popular among Ukrainians and a key factor impacting the pharmaceutical market
- It is forbidden to sell pharmaceuticals outside of pharmacies, yet in some rural areas drugs are sold in healthcare institutions.



# Competitive Landscape

# Innovation, price, and volume discounts are the key competitive advantages of suppliers

## TOP MARKET SUPPLIERS

**Farmak (Ukraine)**  
manufacturer

### Value Proposition

Operating for almost a century, Farmak is one of the oldest and most established players in the pharmaceutical market. The company operates GMP certified 20 production lines of which 14 are EU compliant. The company is known to have the best manufacturing practices besides investing in R&D to develop innovative drugs. The company diversifies working with multiple distributors to explore newer channels

**Arterium (Ukraine)**  
manufacturer

### Value Proposition

Arterium was formed in 2005 as a result of the amalgamation of two companies with over 150 years of experience in the pharmaceutical sector. The company is known to be aggressive in its marketing approaches and relationship management offering a special system of bonuses and discounts. The company which is also GMP certified also invests in R&D.

**Teva (Israel)**  
importer

### Value Proposition

Since founded in 1901, Ukraine has been one of the early markets penetrated by Teva. The company is known to invest continuously in developing specialized and high-quality drugs for complex issues

**Darnitsa (Ukraine)**  
manufacturer

### Value Proposition

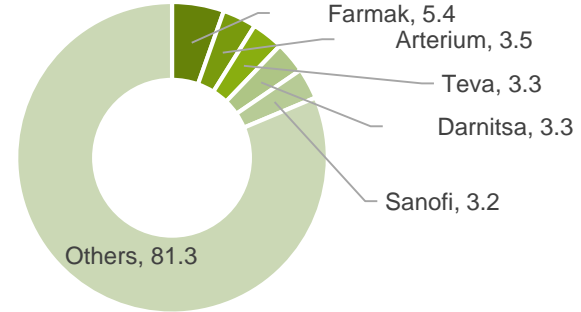
A company founded in Ukraine in 1930 initially as university division, later was spun off as a separate entity. The company which is GMP certified specializes in offering drugs for cardiology, neurology and pain problems. Since the product is manufactured locally, it adds price pressure to the other products as well.

**Sanofi-Aventis Ukraina (France)**  
importer

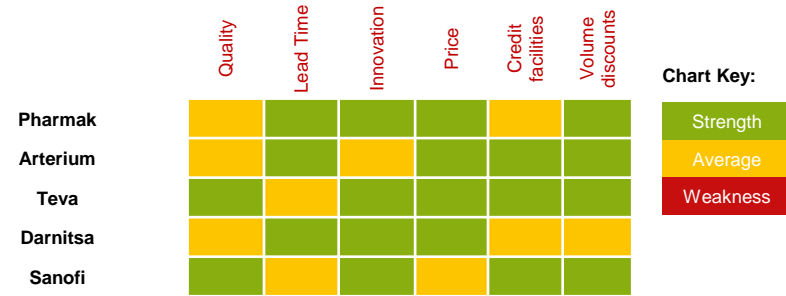
### Value Proposition

Sanofi, a global leader in vaccines and animal health, has been present in Ukraine for over 2 decades. The company covers 7 major areas including cardiovascular, neurology, diabetes, internal medicine, oncology, thrombosis and vaccines. The company is known for offering high-quality and innovative products. Given the brand's premium positioning, the company also provides volume discounts for bulk purchases.

## MARKET SHARE OF KEY SUPPLIERS, BY VALUE 2018



## COMPETITIVE POSITIONING







# Imports

Import Process

# Despite increasing tightening of the regulations, Kenya still lacks stringent laws to ban consumption of counterfeit products

## IMPORT REQUIREMENTS

<p><b>PACKAGING REQUIREMENTS</b></p>	<ul style="list-style-type: none"> <li>▪ Packaging material must be environmentally friendly, without the presence of hazardous, toxic substances. It must protect from moisture, sunlight and any damage.</li> </ul>
<p><b>LABELLING REQUIREMENTS</b></p>	<ul style="list-style-type: none"> <li>▪ The text for marking the packaging is undergoing examination during the state registration and is approved by the application to the registration certificate.</li> <li>▪ The packaging of the medicinal product is checked at the import stage of the series (obtaining a conclusion on the quality of the imported series), and the slightest inconsistency may lead to comments, suspension of the issuance of a conclusion on the quality and the need for corrective action.</li> <li>▪ Information is put on the packaging in Ukrainian, other languages (eg Russian, English) are allowed, in case to the identity of the Ukrainian text.</li> <li>▪ Braille information in the Ukrainian language is necessarily applied to the secondary packaging (or, in the absence thereof, to the original) of the medicinal product, except for products that are used only by the relevant specialists. For these groups of preparations, the labeling of Braille is left to the discretion of the manufacturer.</li> </ul>
<p><b>TRANSPORTATION REQUIREMENTS AND LEAD TIME</b></p>	<ul style="list-style-type: none"> <li>▪ Drugs should be accompanied by existing certificates for the quality of the medicinal product (series) issued by the manufacturer;</li> <li>▪ The expiration date of drugs imported into Ukraine should be: not less than half the period specified by the manufacturer on the package as the shelf life, if the period is less than 1 year; not less than 6 months, if the term is more than 1 year.</li> <li>▪ Import of low-quality drugs, which, among other things, include products whose expiration date is about to end or has expired or that have been exposed to mechanical, physical, chemical, biological nature, etc. . and which makes it impossible to use them is forbidden.</li> </ul>
<p><b>DOCUMENT REQUIREMENTS / CUSTOMS' PROCESSES</b></p>	<ul style="list-style-type: none"> <li>▪ Drugs registration certificate in Ukraine;</li> <li>▪ GMP quality certificate;</li> <li>▪ State customer declaration;</li> <li>▪ Invoice, consignment and other standard documents;</li> <li>▪ Import license issued by the State Service of Ukraine (only the list of drugs specified in the annex to the main license);</li> <li>▪ In the case of operations with narcotic drugs or precursors, an appropriate license is required;</li> </ul>

## TRADE BARRIERS

- Product licensing, registration and documentation are long bureaucratic processes
- Large amount of documents that the licensee must obtain before market entry
- The term for reviewing the import license application takes up to 90 days
- The quality control system of drugs in Ukraine is modern, but not completely free from the corruption

## APPLIED TARIFFS

HS CODE	PRODUCT DESCRIPTION	APPLIED TARIFFS
3003	Medicaments consisting of two or more constituents mixed together for therapeutic or prophylactic uses not in measured doses or put up for retail sale.	0%
3004	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses "incl. those in the form of transdermal administration" or in forms or packings for retail sale.	0%





# Imports

Registration Process



## Ukraine being part of PIC/S will facilitate registration of foreign manufactured drugs

### The documentation for the standard new registration procedure consists of the following parts:

- Application for registration completed according to the national application form;
- Registration form (legal and administrative documentation that accompanies the Application)
- Registration dossier in Common Technical Document format, consisting of 5 Modules
- Translation of registration dossier parts into Ukrainian or Russian
- All official correspondence with competent authorities has to be performed using the state language only.

### Stages of new registration:

- Preliminary stage - 1. Preliminary consultation 2. Submitting the Power of Attorney to the SEC and signing the Agreement for expert evaluation
- Submission of the application and payment
- Primary expert evaluation
- Specialized expert evaluation
- Issuing the original of the registration of the certification
- Manufacturers having PIC/S GMP certificate undergo "simplified" procedure of the Certificate recognition based on specialized expert evaluation of documents. For all other manufacturers the inspection of the production site is required.

### Timelines of new registration

Medicinal immunobiological products; biosimilars;	210 working days to evaluate registration dossier
Applications for generics	90 working days
For orphan products, such as to treat diseases such as viral hepatitis, tuberculosis, and oncological diseases)	45 working days
For medicinal products registered in United States of America, Switzerland, Japan, Australia, Canada	10 working days
For medicinal products, which are supposed to be purchased by specialized international organizations	5 working days

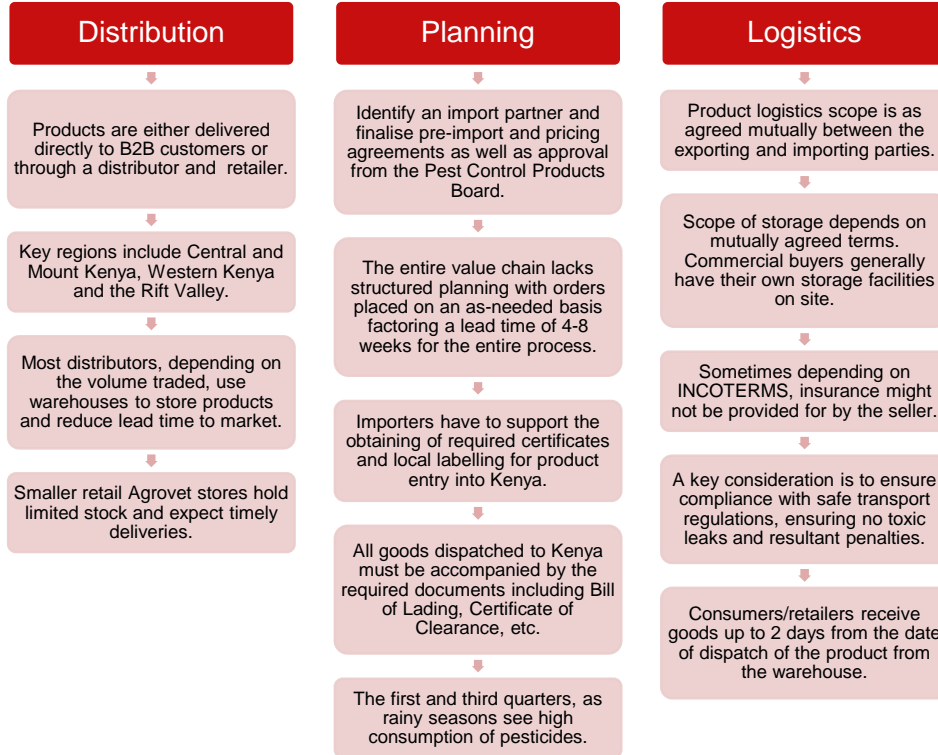


# Supply Chain

Imports Supply Chain

# Identifying the right importer is key to expediting market entry and achieving faster market penetration

## SUPPLY CHAIN OUTLINE



## RECOMMENDATIONS TO INCREASE MARKET ACCESS EFFICIENCY

- Kenyan manufacturers offer 'managed services' as a separate offering for import and distribution services. After obtaining product approvals, it is recommended to partner with these companies to expedite product clearance and ensure deeper market penetration. However, these companies are likely to charge a high margin (20-25%) to position the imported products higher than their offerings.
- Once the brand is established, companies could alternatively explore establishing a central storage point from which distributors could collect products.

## LOGISTICS COSTS VS KEY COMPETITORS

Costs of shipping to destination market	Land	Air	Sea
Jordan to Kenya	n/a	\$3,592	\$2,855
China to Kenya	n/a	\$3,844	\$1,240
India to Kenya	n/a	\$4,263	\$1,615

Note: Shipping costs are calculated based on a standard 40 ft container.





# Recommendations

# Balancing wide regional access with achieving the right market price is critical to penetrating the market

## WHO TO TARGET FOR SALES



- Importers, distributors, pharmacists, and hospitals should be the key target for sales.
- Importers and distributors need competitive pricing and volume discounts to address the market.
- Shorter lead times to address supply for critical needs with appropriate drugs for importers/distributors.

## RECOMMENDED TRADE ROUTE



- Shipping via air rather than sea will eliminate higher costs involved in trade.
- Importers with strong financial background is recommended for partnership to cover market risks, on-time payments.
- Market entry via specialized consulting company will aid to simplify and optimize the process for Jordanian exporters.

## KEY CHALLENGES RELATED TO THE COMPETITION



- Pricing pressure from India is likely as active pharmaceutical ingredients are available at cheaper prices and hence the drug prices in Ukraine.
- Proximity and trade agreements with Germany, France, and Italy will continue to facilitate exports at cheaper shipping costs.
- Safety perception on Slovenian drugs may hinder market entry.

## SUCCESSFUL MARKETING MIX



- **Place:** Chemists and pharmacies are the most suited to reach the end consumers to maximize brand visibility.
- **Price:** Focus on volume-sales at pricing closer to competition is expected to foster business in the initial market entry stage.
- **Promotion:** A combination of in-person marketing via medical representatives and remote marketing via digital channels will promote Jordanian products to healthcare professionals and end consumers

# APPENDIX I

## DATA SOURCES USED IN THIS REPORT

### DATA SOURCES

#### Slide 3 / Market Macro-Overview

Euromonitor International's analysis based on data from Passport (internal database)  
Euromonitor International's analysis based on data from secondary sources

#### Slide 4 / Industry/Sector Demand Overview

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 5 / Product Overview/Demand Analysis

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 6 / Supply Analysis

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 7 / Route to Market Analysis

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 8 / Competitive Landscape

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 9 / Import Procedure

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 10 / Import Supply Chain

Euromonitor International research and analysis from trade interviews  
Euromonitor International's analysis based on data from secondary sources

#### Slide 11 / Recommendations

Euromonitor International analysis

#### List of Interviews Conducted:

- MOH Ukraine (Government institution)
- Optima Pharm (Distributor)
- Apteka Magnolia (Retailer)
- Venta-LTD (Distributor)
- EBA (NGO)
- Pharm-documents (Other)

#### Important secondary sources referred

- <http://www.apteka.ua>
  - <http://moz.gov.ua/>
  - <https://pharmexcil.com>
  - <https://pharma.net.ua>
  - <https://interfax.com.ua>
- Registration: <https://my.gov.ua/info/service/3229/documents?languageId=0>  
Import: <https://my.gov.ua/info/service/3229/documents?languageId=0>



## APPENDIX II

### COMPETITORS' PRODUCT MARKET PRICES

#### Antibacterial drugs for treating infections – Third and fourth generation Cephalosporins

Market Prices	Drug (Generic Name of the product)	Branded generics (Names) available in Russia	Brand/Company	Prices at Distributor Level (USD/unit)			Prices at Retail Level (USD/unit)		
				Min	Max	Avg	Min	Max	Avg
	CEFIXIME	CEFIX	Pharma international company	4.0	5.9	7.9	9.0	9.4	9.8
	CEFIXIME	SUPRAX D	Astellas Pharma Europe	13.3	13.4	13.4	13.8	14.8	15.8
	CEFIXIME	CEFIX	Pharma international company	6.3	6.3	6.4	7.1	7.3	7.5
	CEFIXIME	CEFIX	Pharma international company	8.0	8.1	8.1	9.5	9.7	9.8
	CEFTAZIDIME	CEFTUM	Arterium	13.3	19.9	26.5	29.0	30.1	31.2
	CEFTAZIDIME	FORTUM	GlaxoSmithKline	3.5	3.6	3.6	3.9	4.1	4.4
	CEFTAZIDIME	FORTUM	GlaxoSmithKline	4.9	7.3	9.8	10.6	10.6	10.6
	CEFTRIAXONE SODIUM	MEDAXONUM	Medochemie ltd	5.2	7.7	10.3	10.5	11.2	11.9

## APPENDIX II

### COMPETITORS' PRODUCT MARKET PRICES

#### Lipid regulating drugs for cardio-vascular system – Statins Group

Market Prices	Drug (Generic Name of the product)	Branded generics (Names) available in Russia	Brand/Company	Prices at Distributor Level (USD/unit)			Prices at Retail Level (USD/unit)		
				Min	Max	Avg	Min	Max	Avg
				ROSUVASTATIN	CRESTOR	Astra zeneca	7.7	11.6	15.4
ROSUVASTATIN	CRESTOR	Astra zeneca	11.6	17.3	23.1	24.1	25.5	26.9	
SIMVASTATIN	ZOCOR	Merck sharp & dohme	5.0	7.5	10.0	10.4	11.0	11.6	
SIMVASTATIN	ZOCOR	Merck sharp & dohme	9.3	14.0	18.6	20.4	21.0	21.5	

## APPENDIX II

### COMPETITORS' PRODUCT MARKET PRICES

#### Drugs for Osteoarthritis for musculoskeletal system – COX-1 and COX-2 Inhibitors

Market Prices	Drug (Generic Name of the product)	Branded generics (Names) available in Russia	Brand/Company	Prices at Distributor Level (USD/unit)			Prices at Retail Level (USD/unit)		
				Min	Max	Avg	Min	Max	Avg
	DICLOFENAC	VOLTAREN	Novartis consumer health	7.9	8.1	8.2	8.2	8.5	8.7
	DICLOFENAC	VOLTAREN	Novartis consumer health	1.8	2.7	3.6	3.9	4.1	4.4
	DICLOFENAC	VOLTAREN	Novartis consumer health	1.5	2.3	3.1	3.6	4.0	4.5
	DICLOFENAC	VOLTAREN	Novartis consumer health	2.3	3.4	4.6	4.4	4.6	4.8
	DICLOFENAC	OLFEN	Teva	4.2	6.2	8.3	8.5	9.0	9.4
	DICLOFENAC	VOLTAREN	Novartis consumer health	2.4	3.6	4.8	4.7	5.1	5.4
	DICLOFENAC	OLFEN	Teva	3.5	5.2	6.9	7.1	7.5	7.8
	IBUPROFEN	BRUFEN	Abbott healthcare	3.8	5.8	7.7	8.0	9.0	10.0



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