UKRAINE / Pharmaceuticals



INITIATING COVERAGE

Vladimir Nesterenko vn@concorde.com.ua +380 44 391 5577

# **Darnitsa**

A Growth Formula



# **Contents**

Investment case	
Executive summary4	
Valuation summary5	
Ukrainian pharmaceutical market  Underpenetrated, double growth by 2010  Product mix: Generics and OTC prevail  Competition  Market drivers  Legal environment and regulations  6  Market drivers  13	0
The company         17           Market position         18           Product mix         19           Production facilities         22           Cost structure         23           Distribution         24           CapEx program         26           Management strategy         27           Risks         31           Legal structure         32           Management team         33	8 9 2 3 4 6 7 1 2
Valuation34Peer comparison35DCF Valuation37Comparable deals40	5 7
Financial summary41	1
Glossary42	2
Disclaimer43	3

# Nord Star Pharmashare / Darnitsa

#### Pharmaceuticals / Ukraine

http://www.darnitsa.ua

# **BUY**

12M Target EUR 7.40 USD 10.50

#### **INVESTMENT CASE**

Earlier this month Darnitsa, the largest and only internationally-listed Ukrainian pharmaceutical producer, placed a 10% stake of its parent company, Nord Star Pharmashare. The book was closed at 15.4x Darnitsa's EBITDA '07, implying a MCap of USD 560 mln. The bids from strategic investors immediately following placement for another 10% stake reinforce our view that the company is an attractive acquisition target, making us comfortable with our DCF-based target. Nord Star's share price has risen 8.6% since the placement, and it still provides an 11% upside. We initiate coverage with a target of USD 10.5 per share and BUY recommendation.

#### Acquisition is the major catalyst in the mid-term

We believe Darnitsa will either be acquired by a global player in the short-term, or become a consolidator in the highly fragmented Ukrainian market – to be taken over later on, at even higher valuations. Prior to the placement of a 10% stake, the company's owner had received an offer at ~15x EBITDA '07E, but rejected it, betting on further value creation through organic growth and takeovers. Immediately after the placement, the company received bids from strategic investors for another 10% stake.

#### Most dynamic market in CEE/CIS; wide margins

The Ukrainian pharmaceutical market has been growing at 32% CAGR over 2004-2006. We expect it to double by 2010 to USD 75 per capita, moving toward the Eastern European average of USD 140. Still, operating margins in the Ukrainian pharmaceutical sector remain ~10-15% above the European average due to cheaper raw materials and lower labor costs.

## Largest domestic producer

Its market share of 3.5%, after internationally-based competitors Berlin-Chemie/Menarini (5.5%) and Sanofi-Aventis (4.2%), makes Darnitsa the only example in Eastern Europe and the CIS of a local company holding a top-3 position in its respective domestic market. We believe Darnitsa will support its market share through the introduction of new products and local acquisitions.

#### Investor mix will keep the stock hot

With a strategic acquisition of at least a 10% stake in the short-term and more than two dozen portfolio shareholders, Darnitsa's investor mix is certain to support stock liquidity.

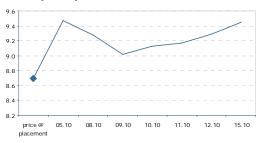
#### **BUSINESS PROFILE**

Darnitsa is the leading Ukrainian producer of pharmaceuticals, with a focus on generics. It employs about 900 workers and is the most diversified pharmaceutical producer in Ukraine, with a product portfolio of about 200 products in various forms, including tablets, capsules, ampoules, ointments, etc. The company's production site and headquarters are located in the outskirts of Kyiv, on an 11.5 hectare area. In contrast to its two closest local rivals, Darnitsa has plenty of room for new production shops on its existing site and adjacent areas. By 2012 the company plans to invest about USD 47 mln in existing workshops and infrastructure, and ~USD 275 mln in new products. Darnitsa is a family business, run by the owner who has extensive experience in the pharmaceutical industry.

#### MARKET INFORMATION

4SI1 GR
6.65
9.45
8.6%
55.5
1:1
525.1
608.8
10.0%
52.5

#### Share price performance, USD



Source: Bloomberg

#### STOCK OWNERSHIP

Zagorii family	90%
Portfolio shareholders	10%

#### **KEY FINANCIALS\***

	2006	2007E	2008E
Net revenue	70.4	91.4	108.6
EBITDA	27.5	36.2	43.3
Net income	24.6	26.2	31.5
Net Debt	(20.4)	(11.5)	(28.9)
* Non-audited, based on the management's accounting data			

#### **KEY RATIOS\*\***

	2006	2007E	2008E	
Revenue growth, yoy	8.8%	29.7%	18.9%	
EBITDA margin	39.1%	39.7%	39.9%	
Net margin	35.0%	28.7%	29.0%	
ROE	33.3%	24.4%	23.0%	
Net Debt/Equity	-21.6%	-9.5%	-18.8%	
** Non-audited, based on the management's accounting data				

#### Top 10 players in the Ukrainian pharma market





# **Executive summary**

### Booming, underpenetrated market

The Ukrainian pharmaceutical market has been growing at 32% CAGR over 2004-2006, and we expect it to double by 2010 to approach the level of per-capita drug consumption in other Eastern European countries. We conservatively assume the Ukrainian market will increase from the current USD 36 per capita to USD 75 by 2010. Given that per-capita consumption of pharmaceuticals in Eastern Europe is around USD 140, the growth of the Ukrainian market is likely to exceed even the boldest forecasts.

### Internationals bid for incumbent players to capture growth

Faced with limited room for organic growth, international pharmaceutical companies have carefully been screening potential acquisitions in emerging markets. Since 2006, M&A deals in CEE and the CIS exceeded USD 5 bln. Actavis, Barr, Stada and Zentiva were particularly active.

#### Selected cross-border deals in 2006-2007

Target company	Country	Buyer	Stake	Year	Deal value USD mln
Makiz-Pharma	Russia	Stada	100%	2007	171
Eczacibasi Generic Pharmaceuticals	Turkey	Zentiva	75%	2007	621
Akrihin	Russia	Polpharma	80%	2007	120
ZiO Zdorov'ye	Russia	Actavis	51%	2006	60
PLIVA	Croatia	Barr Pharmaceuticals	92%	2006	2,376
Jelfa SA	Poland	Sanitas	84%	2006	342

Source: ISI Emerging Markets, mergermarket, Thomson One Banker

#### Darnitsa is the most likely Ukrainian takeover candidate:

- Largest domestic producer; the Top-3 player on the market (3.5% share in 2006)
- Most technologically advanced pharmaceutical producer in Ukraine: 3/4 of equipment is less than four-years old. Capacity utilization stands at only 70%
- Physical room for expansion: More than ample space at its existing site and adjacent territories, in contrast to its local peers
- Most diversified product portfolio of more than 200 drugs and almost all possible medicinal forms (pills & capsules, ampoules, powders, ointments, etc.); flexible product mix
- Well-known brand on the Ukrainian market and a strong sales force
- Strong cash generation, which is advantageous in view of further acquisitions within Ukraine
- Ownership concentrated in one set of hands
- Lack of alternatives: Only one local rival, BCPP, represents a reasonable alternative for strategic investors, the remaining two Top-4 companies are faced with the risk of mandatory relocation outside of Kyiv city limits, an extremely expensive proposition. Greenfield construction is also costly and timeconsuming

### Already in the spotlight of strategic investors

Darnitsa had already received an offer from a global player seeking to increase its exposure to Ukraine. The majority shareholder rejected the offer, and opted for further value creation through further organic growth and acquisitions. Right after the private placement of a minority stake last month, the company received several new bids from strategic investors for another 10% stake.



# Valuation summary

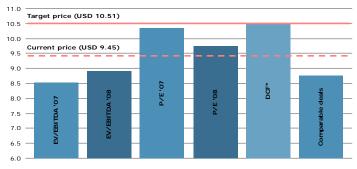
Darnitsa is the key operating asset of Nord Star Pharmashare, an off-shore shell that holds 86.26% of the company (see section "Legal structure"). We derive the fair value of Nord Star Pharmashare from the value of Darnitsa adjusted for the size of Nord Star's stake.

Based on relative valuations and the results from our DCF modeling, we set a USD 677 mln 12M target equity value for Darnitsa, or USD 10.50 per share of Nord Star.

	EV/EBITDA '08	P/E '08	Comparable deals	DCF	12M target
Darnitsa MCap, USD mln	573	628	564	677	677
x 86.26%					
= Nord Star MCap, USD mln	494	542	487	584	584
Nord Star share price, USD	8.9	9.7	8.7	10.5	10.5
Upside/Downside	-5.9%	3.2%	-7.3%	11.1%	11.1%

Source: Concorde Capital estimates

#### Valuation summary chart, USD per share



\* 12 month horizon Source: Concorde Capital estimates

Aside from 86.26% in Darnitsa, Nord Star Pharmashare holds majority stakes in four companies for Darnitsa's tax planning purposes (see section "Legal structure" for more details). According to management, these entities do not own any material assets and have no debt obligations. We consolidate all the profits accumulated on their accounts under Darnitsa's P&L presented in this report, based on the management's accounting data.

The management verbally confirmed that next year they will provide consolidated audited accounts of Nord Star Pharmashare for 2007.

#### Notes on our valuation:

- We assign more weight to our DCF valuation, which we believe better captures Darnitsa's long term growth and its acquisition prospects
- Darnitsa's peer group consists of both emerging market (EM) and mature market (MM) companies. We assign higher weight to EM peers, which have many more characteristics in common with Darnitsa than major global players included in the MM group
- Comparable deals valuation is based on eight deals including acquisitions and IPOs in the pharmaceutical production sector of Central and Eastern Europe and the CIS over 2006-2007

## USD 48 mln placement last month closed at 15.4x EBITDA

To finance its CapEx program and test its value on the market, Darnitsa placed a 10% stake of its parent company, Nord Star Pharmashare, in September this year. The deal was closed at 15.4x Darnitsa's EBITDA '07, valuing the company at USD 560 mln.



# **UKRAINIAN PHARMACEUTICAL MARKET**



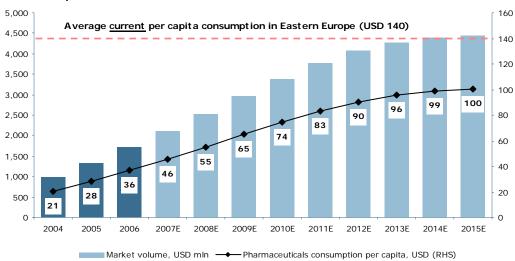
# Underpenetrated, double growth by 2010

In 2006, the Ukrainian market for pharmaceuticals grew by  $\sim\!29\%$  to an estimated USD 1.7 billion, or USD 36 per capita. In terms of value, the market size is comparable to Hungary; in per capita terms, the market is similar to Russia or Romania.

Ukraine represents around 15% of the total CIS pharmaceutical market, according to RMBC research. Imports supply more than 65% of the market in value terms.

The retail segment of the Ukrainian pharmaceutical market is worth about USD 1.4 bln or ~85% of the total market in value terms. The remaining 15% is represented by the *hospital market* (drug purchases by hospitals financed mainly from state and local government budgets).

#### Ukrainian pharmaceutical market, 2004-2015E



Source: Espicom, Concorde Capital estimates

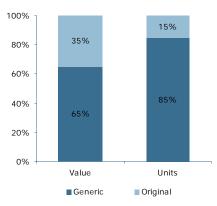


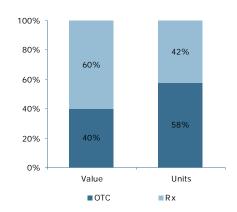
# **Product mix: Generics and OTC prevail**

The Ukrainian market is dominated by *generic* drugs, which make up around 65% of total market and more than 85% of local producers' sales on average. Although concentration in generics results in smaller profitability compared to producers that focus on *original* drugs, generics are easier and cheaper to launch, which enables domestic producers to expand their sales and maintain their market share.

Over-the-Counter (OTC) drugs hold about 40% of the market, while prescription drugs (Rx) account for the remaining 60%. The share of active pharmaceutical ingredients (APIs), the active chemicals used in drug manufacturing, is negligible.

## Market segmentation, 2006



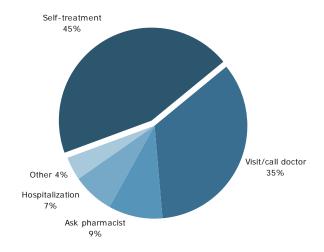


Source: Ratiopharm

OTC medicines dominate prescription drugs for two main reasons:

- according to Ukrainian regulations, almost all drugs (except narcotic drugs and a few others) can be sold without a prescription
- most people prefer self-treatment: in almost 60% of cases, consumers do not seek out doctor for a prescription

#### How Ukrainians seek medical help



Source: Survey by Comcon Pharma Ukraine



The alimentary tract & metabolism was the leading therapeutic category in 2006, accounting for 23%, (~USD 370 mln) of the market. This was followed by the cardiovascular system (13%), respiratory system (12%) and central nervous system (12%).

### Pharmaceutical market by therapeutic category, 2006

Α	Alimentary tract & metabolism	23.3%
В	Blood & blood forming organs	3.3%
С	Cardiovascular system	12.8%
D	Dermatologicals	5.3%
G	Genitourinary system & sex hormones	7.0%
Н	Systemic hormonal preparations	0.9%
J	General anti-infectives	10.0%
L	Antineoplastic & immunomodulating agents	1.8%
M	Musculoskeletal system	7.7%
Ν	Central nervous system	12.5%
Р	Parasitology	0.7%
R	Respiratory system	12.5%
S	Sensory organs	1.7%
V	Various	0.3%

Source: Ratiopharm

#### Most drugs cost less than \$5

Drugs priced below USD 5 generated more than 60% of industry revenues in 2005. In units, almost 100% of drugs in the Ukrainian retail market were priced between USD 1 and USD 20; the price of 57% of those did not exceed USD 0.4 per unit (pack).

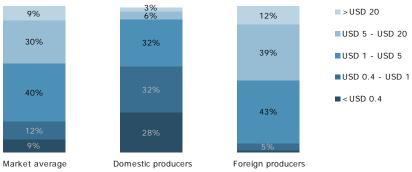
#### Drugs distribution by price, 2006

	Value	Units
Below 0.4	9.0%	56.9%
0.4 - 1	12.2%	19.8%
1 – 5	39.7%	19.3%
5 - 20	29.8%	3.9%
Above 20	9.3%	0.3%

Source: Espicom

Drugs priced under USD 5 accounted for over 90% of the turnover of domestic producers, while drugs cheaper than USD 0.4 for 71% of total units sold. Overall, drugs produced by foreign companies were more expensive, with those priced between USD 1 and USD 20 representing 80% of turnover in 2005.

#### Price differentiation



Source: Espicom

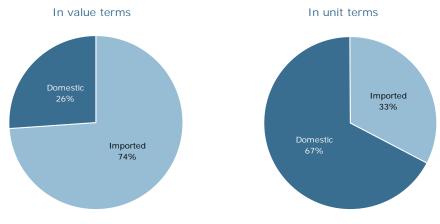


# Competition

There are about 600 pharmaceutical producers on the Ukrainian market, of which 150 are domestic. More than 350 distributors supply more than 20 ths retail outlets all over Ukraine. The total number of brands available on the market exceeds 8 thousand.

Most domestic companies were privatized in the 1990s, mainly to local businesses. Foreign ownership is insignificant compared to European markets. Foreign brands dominate the retail market in terms of value, with about a 75% share, while domestic producers have relatively stronger positions in hospital sales with almost 55% in terms of value and 89% by volume. Almost all foreign brands are imported.

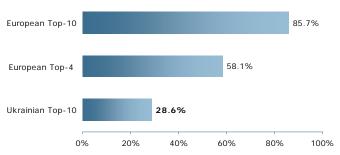
## Market shares of imported and domestic drugs, 2006



Source: Business-Credit

The Ukrainian pharmaceutical market is still very fragmented compared to other Eastern European countries, and we expect further consolidation in manufacturing and distribution. In 2006, the Top-4 producers (including foreign companies) combined for only 15% of retail sales in Ukraine, while the Top-10 accounted for 29%. Concentration in pharmaceutical distribution is somewhat higher with the Top-4 companies holding about 30% of the wholesale market.

#### Market concentration, Ukraine vs. Europe\*

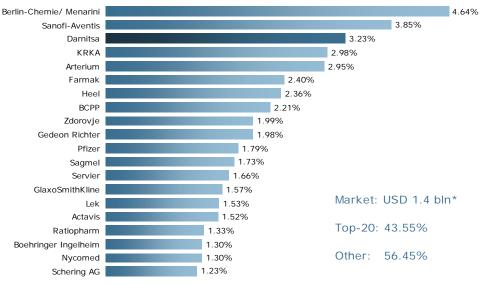


\* the data for Ukraine is as of 2006, for Europe – as of 2004

Source: Business-Credit, Espicom, Concorde Capital estimates



There are many players and intense competition on the Ukrainian pharmaceutical market, especially in its capacious and fast-growing retail segment. However, no single player holds more than 6% of the market. The largest company by market share, Berlin-Chemie/Menarini Group, holds only 5.5% of overall market and 4.6% of the retail segment. Other major players in the retail segment are Sanofi-Aventis, Darnitsa, KRKA and Arterium (markets Kyivmedpreparat's and Galychfarm's products).

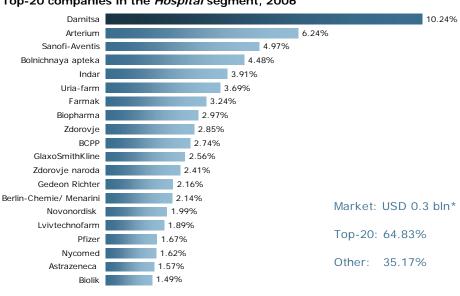


Top-20 companies in Retail pharma market, 2006

Source: Business-Credit

Source: Business-Credit

In 2006 Darnitsa was the leading company in the *hospital market* with a 10.2% share in terms of value. It was followed by Arterium (6.2%), Sanofi-Aventis (5.0%), Bolnichnaya Apteka (4.5%) and Indar (3.9%). The total hospital market was worth USD 263 mln, with the Top-10 companies accounting for USD 119.1 mln of this or 45.3% of the market.



Top-20 companies in the Hospital segment, 2006

11



As foreign and domestic companies occupy different price segments, the toughest competition is not so much between foreign and domestic companies, but within each price segment. Among domestic companies, the leaders are Darnitsa with 3.5% of the overall market, Arterium (Kyivmedpreparat and Galychfarm, 3.1%), Farmak (2.6%), and Borschagovskiy Chemical & Pharmaceutical Plant (BCPP, 2.3%).

Top-4 domestic producers of pharmaceuticals

Company	Description
Darnitsa <a href="http://darnitsa.ua/">http://darnitsa.ua/</a>	Highly diversified generics producer: around 200 different items in a variety of forms including tablets, capsules, pellets, caplets, ointments, creams, gels, liquid solutions for external and internal use, and powder for injection solutions
Arterium Corporation  http://www.arterium.ua/en/	Established in March 2005, Arterium Corp. includes Kyivmedpreparat and Galychfarm. Kyivmedpreparat specializes in the production of anti-infective drugs, while Galychfarm is engaged in the production of pharmaceuticals based on natural extracts
Borschagovskiy Chemical & Pharmaceutical Plant (BCPP)  http://www.bhfz.com.ua/site/inde x.php?lang=en	Antiarrhythmic preparations (drugs improving blood supply to the myocardium, brain & tissues) antihistaminic preparations, complex of antituberculotic preparations, antimicrobial and antiparasitic preparations and metabolic process regulators
Farmak http://www.farmak.kiev.ua/eng/	Produces drugs to treat the respiratory system, central nervous system, gastrointestinal tract & metabolism, cardiovascular system, sensory organs, blood & blood forming organs, genitourinary system and sex hormones, general anti-infectives for systemic use, systemic hormonal preparations, dermatologicals and antiparasitic products

To sustain foreign rivalry, domestic companies apply the whole arsenal of strategies to support their market position, including market segmentation, product differentiation and innovation. Many of them spend a lot on promotion and advertising, educate distributors and use lobbying power to fix contracts with hospitals.

## Repeal of import barriers brought higher competition

The removal of defensive import duties on pharmaceutical products in August 2005 contributed a lot to the growth of the Ukrainian pharma market. In 2005 net imports jumped 43% yoy and grew by another 35% in 2006, thereby improving the availability of foreign drugs to Ukrainian consumers.

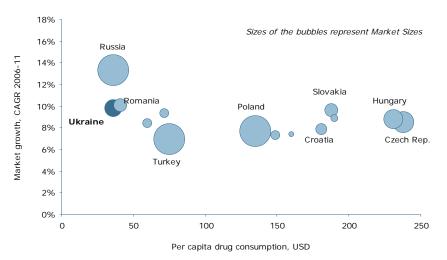
The cancellation of import barriers also brought higher competition to the market and motivated local producers to improve their efficiency and quality control.



# Market drivers

We expect the Ukrainian pharmaceutical market to grow at 17% 5Y CAGR, from USD 1.7 bln in 2006 to USD 3.7 bln by 2011. In per capita terms, the estimated size of the Ukrainian market in 2011 is comparable to today's Turkish and Bulgarian markets, but still lower than in most countries in the region.

#### Per-capita medical drug consumption and market growth potential\*



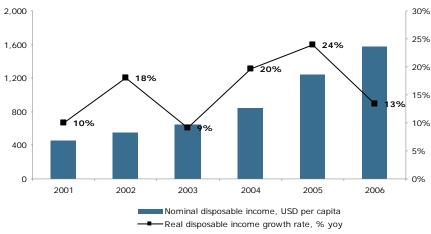
\* For the sake of consistency, we mapped Espicom's market growth projections for all countries, including Ukraine. Compared to Espicom, our estimates of the Ukrainian pharma market's growth are relatively more optimistic (17% 5Y CAGR), but still below the expectations of local market players. We believe our projections are well balanced, given extremely low market saturation compared to European countries, and the build-up in Ukraine's per capita GDP and real disposable income.

Source: Espicom, Concorde Capital estimates

# **Higher consumer incomes**

Ukrainian population, although slightly decreasing, is getting considerably better off. Over 2001-2006, nominal disposable income per-capita grew at 28.2% CAGR in nominal terms. In real terms it was increasing at 19.3% CAGR over the same period, enabling consumers shift toward more expensive and higher quality drugs.

# Disposable income



Source: State Statistics Committee of Ukraine, Concorde Capital estimates

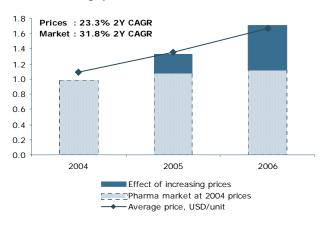


#### Increasing prices accounted for 3/4 of market growth

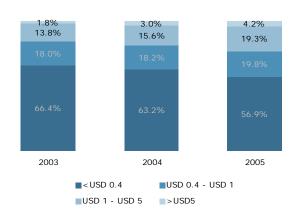
Steady growth in disposable income enabled Ukrainian consumers to accommodate increasing drug prices, which grew on average at 23.3% over 2004-2006, and were responsible for about 3/4 of total market growth. Retail prices for domestically-produced drugs grew about three times faster than for imported products.

The market grew in terms of volume as well, due to a combination of factors such as higher incomes, larger government spending on healthcare, and the emergence and growth of insurance services and private hospitals, etc. However, an increase in volume contributed only about 24% to market growth in the last two years.

#### Growth of avg. prices vs. entire market, USD bln



#### Changes in price distribution\*



<sup>\*</sup> Measured by the number of packages falling into each range of per unit prices

Source: Espicom, apteka.ua, Concorde Capital estimates

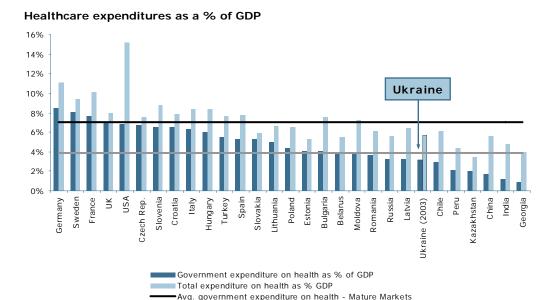
# Increasing government spending

Over the last two years drugs sales to hospitals grew almost three times faster than in the retail segment, mainly on the back of fast-growing budget expenditures on healthcare (63.7% CAGR over 2005-2006). The share of hospital sales in the total pharma market increased from around 10% in 2004 to 15.4% in 2006. We expect growth in the hospital segment to continue outpacing retail, growing at 26.8% 5Y CAGR vs. 15.0% for retail.

As the country's welfare improves, we expect that the current situation where drugs are only available on a limited-basis in state-owned hospitals to change: budget expenditures for drug purchases will expand to keep their shelves stocked. More generous financing will also enable hospitals to request and receive more expensive, higher quality and a wider range of drugs.

We expect budget spending on healthcare to grow at 18.7% 5Y CAGR from 2.6% of GDP in 2006 to at least 3.5% by 2011, to approach the 4-6% ratios of Poland, Slovakia, Hungary, Turkey, and more.





Source: WHO/World Health Statistics, 2006 (expenditure ratios as of 2003)

Budget expenditures, in turn, depend heavily on GDP growth. On the back of favorable conditions on commodity markets and rapidly growing foreign investment, the Ukrainian GDP grew in nominal terms at almost 28% CAGR over 2005-2006, and we expect it to continue growing at around 17% CAGR for the next five years.

Avg. government expenditure on health - Emerging Markets

# Mandatory GMP compliance

Ukrainian pharmaceutical producers face mandatory compliance with Good Manufacturing Practices in 2009, though oversight and law enforcement might be lagged by another 1-2 years. We believe that only a handful of the sector's 150 companies will be checked out in time, due to the substantial requirements of time and money.

We expect the new standards to have two structural effects on the market:

- Local producers outside of the top-10 will have two options: quit or sell out to larger players. Consolidation around the largest local companies is most likely
- The improved market power of local producers is likely to result in higher prices for domestically produced drugs (potentially up to a fivefold increase), pushing them closer to the prices of imported drugs.

#### Introduction of medical insurance

According to the state program, mandatory medical insurance is going to replace the current state-funded healthcare system by about 2010, resulting in lower concentration of buyer power and an increase in drug prices in the hospital segment. Voluntary medical insurance has already emerged in Ukraine. Gross premiums increased at  $\sim\!26\%$  CAGR over 2003-2006, and last year the sector posted almost 40% annual growth.

We believe that the development of medical insurance will be one of the strongest drivers of pharmaceuticals consumption beyond 2010.



# Legal environment and regulations

The pharmaceutical industry is subject to significant government control due to its importance to the social security of the country. Issues related to development, manufacturing, registration, quality control and distribution are regulated by the Law "On Pharmaceuticals," which has been in effect since 1996. The industry is supervised by the Ministry of Health, the State Committee for Medicine and Microbiology Production, and other government authorities.

#### Quality control and registration

Pharmaceutical quality control is the responsibility of the State Pharmaceutical Quality Inspection. Only registered pharmaceuticals with a quality certificate provided by a manufacturer can be sold in Ukraine. Until 2009 all domestic pharmaceutical producers are obliged to adopt GMP standards. Unregistered pharmaceuticals are allowed to be imported exclusively for pre-clinical and clinical tests, for registration, for exhibition, or for individual use.

#### **Trade**

Wholesale and retail trade in prescription drugs requires specific licensing while trade in OTC drugs is subject to general trade legislation. Prescription rules, as well as the list of drugs that can be sold without a prescription (OTC drugs) are approved by the Ministry of Health of Ukraine. Purchases of drugs for hospitals (with budget funds) can be done only through open tenders.

## VAT-free, Import duties abolished in 2005

Information about pharmaceuticals permitted for manufacturing and use in Ukraine, as well as the list of drugs exempt from VAT, is contained in the state registry of pharmaceuticals and in the list approved by Cabinet ruling #1949 of December 2003. According to the law "On the Unified Customs Tariff, all pharmaceuticals and their ingredients have also been exempted from import duties since 2004.

# Price regulations: State restricts intermediaries' mark-ups

The government limits intermediary traders' margins on certain drugs, in accordance with Ministry of Health ruling #480/294 of December 2001. According to government resolution #1499 of November 2001, the Cabinet has set mark-up ceilings at 35% of the producer's/imports price for retailers and at 10% for companies selling to hospitals.



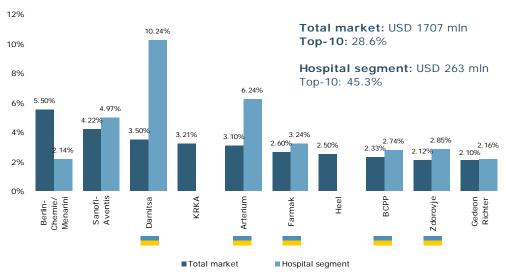
# **THE COMPANY**



# **Market position**

Darnitsa has the largest market share among domestic producers, and overall is a Top-3 player in the market, with a share of around 3.5%. In the hospital segment, Darnitsa is the largest player with a market share of 10.2%, well ahead of its closest rival, Arterium Corp.

#### Darnitsa's market share, 2006

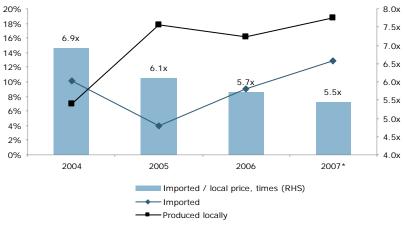


Source: Espicom, Business-Credit, Company data

## A leader in the most promising price segment

We expect prices for locally made drugs to continue to grow faster than more expensive imports. The quality of domestic products is increasing, in addition to the share of branded generics in companies' revenues and their promotion budgets. We also forecast the price differential between local and imported drugs to narrow faster over the next 3-5 years.

### Price trends: local drugs vs. imported



Source: Farmstandard



# **Product mix**

Darnitsa is the largest producer of pharmaceuticals in Ukraine, with the most diverse product mix of its local competitors. The company's product portfolio consists of about 200 medicines in 13 therapeutic categories. They include 35 brands produced in cooperation with well-known foreign companies like Schering, Cipla, Medak, and Lupin.

Darnitsa focuses on the production of generics, which account for around 91% of its sales.

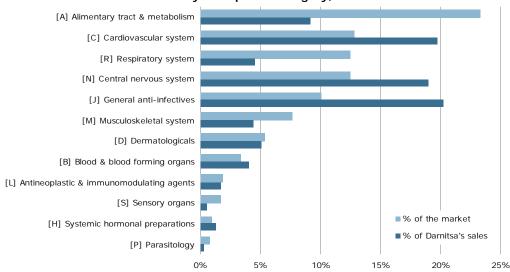
## Darnitsa revenue splits

	2005	2006
Generic	93%	91%
Original	7%	9%

Source: Company data

The company's product mix effectively mimics demand: almost 60% of the company's revenues come from products in the three therapeutic categories that make up 35% of total retail market sales.

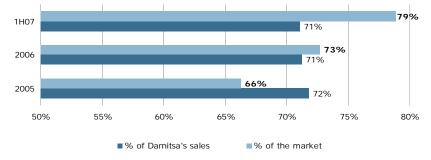
Market & revenue breakdown by therapeutic category, 2006



Source: Company data, Pharmstandard, Concorde Capital calculations

Darnitsa is aggressively targeting the largest market segments: it increased the share of the five most demanded therapeutic categories ( $\sim$ 71% share) in sales from 66% to 79%.

Top-5 categories on the market and in Darnitsa sales, 2005-1H07



Note: Top-5 categories by share in the total market, as of 1H07 (A, C, R, N, J)  $\,$ 

Source: Company data, Pharmstandard, Concorde Capital calculations



About 95% of the company's revenues are generated by drugs produced in the form of solutions for injections, tablets and capsules.

#### Revenue breakdown by product form

	2005	2006	1H07
Solutions	46%	46%	45%
Tablets and capsules	49%	49%	48%
Ointments, gels, creams	5%	5%	7%

Source: Company data

## Refreshing product portfolio

Darnitsa is continually expanding its product range. Over 2005-2006, the company launched 12 products, and around 50 more products are in the development and registration stages.

The introduction of new products is one of the core elements of the company's strategy. New products typically contribute much to revenue growth in addition to their higher margins.

## Product launches, 2004-1H07

		Therapeutic category
Dexamethazone-Darnitsa		Sensory organs
Ketozoral-Darnitsa*		Dermatologicals
Clamed*		General anti-infectives
Nazoline*		Respiratory system
Rinazal*	2004	Respiratory system
Roxilide*	2004	General anti-infectives
Taufon-Darnitsa		Sensory organs
Timolole-Darnitsa		Sensory organs
Tonorma**		Cardiovascular system
Flukonazole-Darnitsa		General anti-infectives
Azicine*	2005	General anti-infectives
Dipren*		Musculoskeletal system
Loratadin-Darnitsa		Respiratory system
Ceftoktam*		General anti-infectives
Neuro-Norm*	2006	Central nervous system
Neofilline*		Respiratory system
Peflocine*		General anti-infectives
Pranalol*		Cardiovascular system
Remicide**		Musculoskeletal system
Ciproxole*		General anti-infectives
Energotone*		Cardiovascular system
Diclofenak-Darnitsa	1H07	Musculoskeletal system
Cerazone*		General anti-infectives

#### Sub-totals:

[C] Cardiovascular system	3
[D] Dermatologicals	1
[J] General anti-infectives	8
[M] Musculoskeletal system	3
[N] Central nervous system	1
[R] Respiratory system	4
[S] Sensory organs	3

<sup>\* -</sup> Branded generic, \*\* - Generic combinations



# Strategic partnership with foreign players

Darnitsa has strategic partnership agreements with a number of foreign producers to be the exclusive supplier of their products to the Ukrainian market. Darnitsa is planning to start producing foreign brands from imported raw materials to improve their positions in highly attractive market niches.

# Darnitsa partnerships

Foreign partner	Therapeutic category
Bayer-Schering	medicines for curing disseminated sclerosis,
	antineoplastic preparations, etc.
Medac	antineoplastic preparations
Nippon Kayaku	antineoplastic preparations
Biocon	Biotechnological preparations, including insulin
Lupin	antituberculosis medicines
•	



# **Production facilities**

In terms of the volume of medications produced, Darnitsa is the leading company in Ukraine. Its current annual capacity is 500 mln ampoules a year, 4 bln tablets and capsules, 37 mln tubes of soft medications, and 6.7 mln sterile bottles of drops. Utilization rate is roughly 70%.

In 1997 Darnitsa hired the Swiss engineering company LUWA to develop a concept for technical reconstruction and re-equipment in full compliance with GMP requirements. Since then, Darnitsa's production facilities have been continually upgraded, making it the most technologically advanced producer of pharmaceuticals in Ukraine: 3/4 of Darnitsa's equipment is less than four years old.

#### Production shops

Production shop	Area, m2	Year of launch/	Units	Production capacity	C	Output
		upgrade				
					2006	2007E
Solutions for injections	12,500	1997- 2006	ampoules, mln	500	392	478
Soft medications (ointments, gels, etc.)	2,500	1996- 2007	tubes, mln	37	4.8	6.1
Hard medications (tablets and capsules)	5,000	2004- 2005	tablets, mln	3,680	187 mln	205 mln
Macrolide antibiotics	1,536	2003	tablets, mln	240	packages**	packages**
Cephalosporin antibiotics	1,486	2002	bottles, mln	21	13.4	13.8
Drops	1,500	2004	bottles, mln	6.7 sterile 13.1 non-sterile	1.5 mln packages	1.8 mln packages

<sup>\*</sup> starting Sep.07, before - 6 mln tubes

Source: Company data

#### Favorable location and enough room for expansion

The company is located in the heart to the largest regional market for pharmaceuticals (Kyiv & Kyiv oblast), in immediate proximity to the country's main highways. Both production site and headquarters are located in the Kyiv outskirts, on the area of 11.5 hectares (28.7 acres).

In contrast to its two closest local rivals, Kyivmedpreparat and Farmak, Darnitsa has plenty of room for new production shops on its existing site or at nearby areas. The possibility of buying an adjacent site of 6.8 hectares (17 acres) for USD 7-10 mln is currently being considered. In addition, unlike Kyivmedpreparat and Farmak, Darnitsa is not located in the city center and thus avoids being forced to relocate by city authorities.

## Darnitsa production site



Source: the Company

<sup>\*\*</sup> one package contains 5-20 tablets



# Cost structure

Around 79% of Darnitsa's operating costs is cost of goods sold, of which 62% are raw and auxiliary materials; SG&A account for about 14%, and D&A - 6%.

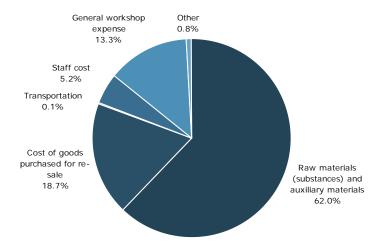
#### Operating cost\*, 2006

Cost of sales	78.9%
Selling and distribution costs	7.3%
General and administrative expenses	7.1%
Depreciation and amortization	6.4%
Other operating expense	0.2%

<sup>\*</sup> Hereafter we refer to non-audited, adjusted for intra-group costs Source: Company data, Concorde Capital estimates

The structure of Darnitsa's costs is similar to other generic-intensive pharmaceutical producers worldwide, with the share of substances and auxiliary materials dominating (62% of COGS '06). Darnitsa purchases substances in bulk from numerous foreign producers, about 60% in volume terms come from China, which is the largest producer of substances worldwide. India provides another significant share of substances to the company (15%). In monetary terms, half of Darnitsa's raw materials come from Europe and the another half from China and India.

## Cost of goods sold\*, 2006



<sup>\*</sup> COGS exclude amortization Source: Company data, Concorde Capital estimates

# Cost advantages

Raw materials cost. Compared to other European producers, Darnitsa benefits from around 10-30% lower raw materials costs, since suppliers of raw materials to the plants in non-EU countries are not required to have a COS (Certificate of Suitability) quality certificate. It is extremely costly, with the cost passed on to purchasers of raw materials.

**Staff cost.** Darnitsa's staff accounts for only ~10% of operating costs, much lower than other generics producers. Actavis, Zentiva, and Sanofi-Aventis spend around 25% of their operating costs on personnel, more than double Darnitsa's level. Notwithstanding lower per-employee revenue, we estimate that Darnitsa's staff is still unproportionally cheaper compared to its European peers', enabling the company to earn higher EBITDA margin.



# Distribution

The company's products reach the domestic market through wholesalers; it also exports its products both directly and through third-parties. In 1H07, its Top-10 distributors accounted for about 97% of Darnitsa's sales to the local market, or 81% of its total revenue.

Top-10 distributors of Darnitsa's products in Ukrainian market

	2005	2006	1H07
Wholesale company Darnitsa*	12.9%	21.7%	27.9%
BBC	19.9%	18.5%	23.9%
Ganza	21.0%	17.1%	0.6%
Alba-Ukraine	7.5%	8.9%	12.8%
Artur-K	5.1%	8.7%	6.9%
Fra-M	6.4%	7.1%	8.0%
BADM	3.2%	3.6%	6.6%
Farmaciya	3.6%	3.2%	3.7%
Donfarmholding	2.0%	3.2%	2.3%
Venta	3.0%	2.8%	4.5%
Share of Top-10 distributors			
in local sales	84.8%	94.8%	97.2%

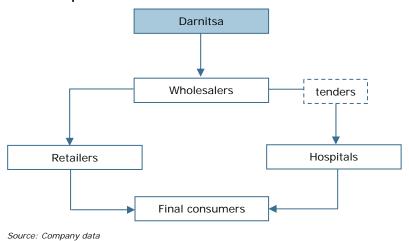
<sup>\*</sup> Affiliated company Source: Company data

A standard commercial contract with distributors is for a term of one year with an option for renewal and includes credit terms ranging from 60 to 80 days with average deferral of payment amounting to 45 days.

In turn, wholesalers either sell Darnitsa's products to retailers (drug stores) or via tenders to state-run hospitals. The tenders are conducted by the Ministry of Health, which purchases drugs and transfers them to hospitals according to their requests.

Most of the company's products are sold in the retail segment; in 2006 only about 20% of its revenue was generated from hospitals. Nevertheless, Darnitsa's position in the hospital segment is quite strong, it holds about a 10% market share and is the largest player.

Darnitsa's product routes to final consumers



Darnitsa's main strategic export destinations are rapidly growing CIS markets. About 2/3 of all exports go to Russia, Georgia, Belarus and Kazakhstan. Since 2005, the share of exports in revenue has almost doubled.

Sales breakdown by destination

	2005	2006	1H07
Ukraine	90.6%	89.4%	83.9%
Exports	9.4%	10.6%	16.1%



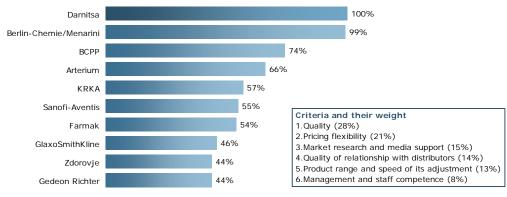
### Sales and marketing force

As of 1H07, Darnitsa's sales and marketing workforce consisted of 129 employees, or 15% of the company's staff.

Their regular visits to pharmacists, general practitioners, specialist physicians and hospitals, has helped the company to build close relationships with these key market participants.

Darnitsa was the most recognized company on the market, according to the GFK-Ukraine market research agency's survey of more than 60 local distributors.

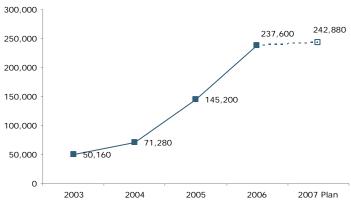
#### Producers recognition by distributors (curved)



Source: GFK-Ukraine

Darnitsa's sales and marketing division was organized in late 1999. Since then it has been reorganized twice, and the number of employees has increased from 1 to 129. The company's representatives currently cover all the regions of Ukraine.

# The number of visits to doctors by Darnitsa representatives





# CapEx program

Darnitsa has been intensively investing into modernization in recent years, which has made it the most technologically advanced pharmaceutical producer in Ukraine.

To ensure strong competitiveness and growth, the company's investment program aims to buildup capacity, quality, infrastructure and introduction of new products. Its CapEx plan amounts to  $\sim$ USD 345 mln during 2007-2012.

## Investment program

Description	Expected date of completion	Total investment USD mln	Outstanding at 30 June 2007 USD mln
Installation of equipment for production of <b>soft medication forms</b> (ointments, gels, shampoos) of general treatment drugs, antibiotics and hormones	Sep.07	14.3	2.6
New warehouse and logistic center: - automated warehouse for 11,000 pellet-places with robotic loaders - special temperature sections (2-8C, 8-15C) - sections for raw materials testing - loading and off-loading sections - sections for orders packaging - integration with ERP system Total area 14,000 m2	May.08	29.9	11.7
ERP system	Jul.08	2.0	2.0
Reconstruction of <b>2 sterile workshop sections</b> . Additional capacity of 160 mln ampoules per annum to increase total capacity to 350 mln ampoules per annum	Aug.08	26.0	20.8
Construction of <b>analytical and chemical mediums workshop</b> (tuberculosis program)	May.09	10.4	10.4
Construction of workshop for production of <b>anti-</b> <b>asthma hormone medications</b>	May.09	23.4	23.4
Construction of new workshop for production of <b>biotechnology drugs</b> , including:	2012	274.4	274.4
<ul> <li>R-DNA insulin – normal, long, mixtures (already registered)</li> <li>R-DNA human growth hormones</li> <li>R-DNA vaccines including anticancer</li> <li>filgrastim (G-CSF) which is used in chemotherapy</li> </ul>	2010	35.1	25.1
Total		380.4	345.3



# Management strategy

Darnitsa's management is pursuing four major strategic objectives:

- absolute leadership of the domestic market in 1.5-3 years
- optimization of its product mix to ensure competitiveness and high margins
- · growth through acquisitions
- · expansion in CIS markets, which is considered an important sales driver

To fulfill its strategic goals, the company plans to:

- certify under GMP standards, gaining a mid-term competitive advantage
- increase branded generics to 50% of production in three years (currently <20%), increase production of generic combinations from the current 5% to 10%
- launch production of R-GNA insulin by 2010
- increase exports from the current 16% of sales to 40% by 2010

## **Compliance with GMP requirements**

The company is currently in the process of implementing Good Manufacturing Practices (GMP). Darnitsa plans to certify all its business processes under GMP by 2009. The management expects it will bring the following benefits:

- ensure competitiveness on the domestic market since Ukrainian legislation obligates producers to receive GMP certification by 2009
- allow it to capture upward adjustments in local prices, as ~40% of local companies are likely to not receive GMP accreditation in time, and will sell out or leave the market
- facilitate export growth

Darnitsa was the first domestic producer of pharmaceuticals that started technical re-equipment of its production base to make it GMP compliant, in accordance with recommendations from one of the leading European engineering companies, LUWA.

Darnitsa's production of sterile antibiotics has already been certified under European and local GMP standards. According to management, certification of other facilities will be completed in time, due to significant financial resources spent on modernization and improvement of quality controls in the last few years.

# Optimizing product mix

In the pharmaceutical industry, it is hard to achieve revenue growth without consistently introducing new/enhanced products. In 2006, drugs launched over 2004-2006 were responsible for 41% of the company's revenue growth, while their share in total sales was only 4.7%.

### Contribution of new products\* to revenue growth, 2006

	In unit terms	In value terms
Incremental contribution to	m unit torms	III Value terris
	24.00/	40.00/
revenue growth	21.0%	40.8%
Share in sales	1.9%	4.7%

\* Launched over 2004-06 Source: Company data

The company is targeting the launch of 10-15 new products a year. Its product pipeline includes 19 top-priority product launches for 2007-2008, in seven therapeutic categories. Most of sales growth is expected from the new products belonging to three of the four most demanded categories on the market: cardiovascular, anti-infectives, and central nervous system drugs. The top-priority pipeline includes only drugs ready for launch in the next 11 months.



#### Top-priority product pipeline

Therapeutic category	# of new products	*1st year est sales USD mln	*2nd year est sales USD mln
To be launched in 2007:			
[A] Alimentary tract & metabolism	2	0.70	1.39
[C] Cardiovascular system	4	1.45	4.25
[D] Dermatologicals	2	0.32	0.51
[J] General anti-infectives	4	1.05	1.85
[M] Musculoskeletal system	1	0.15	0.30
[N] Central nervous system	2	0.83	2.31
[R] Respiratory system	1	0.03	0.09
Total	16	4.53	10.69
To be launched in 2008:			
[C] Cardiovascular system	2	0.37	0.72
[N] Central nervous system	1	0.06	0.13
Total	3	0.43	0.85

<sup>\* 12</sup>M trailing Source: Company data

Darnitsa's prospective pipeline includes drugs currently in the process of registration, which can take up to 5 years. This means that these drugs can be launched in another 2-3 years on average, based on past experience.

#### Prospective pipeline

Therapeutic category	# of new	*1st year est sales	*2nd year est sales
	products	USD mln	USD mln
ОТС			
[C] Cardiovascular system	12	1.78	3.19
[J] General anti-infectives	2	0.30	0.55
[M] Musculoskeletal system	3	0.49	1.00
Rx	5	2.28	3.82
Total	21		

<sup>\* 12-</sup>month trailing Source: Company data

#### New market niches

Darnitsa plans to invest ~USD 275 mln by 2012 in the construction of new workshops for the production of anti-asthma preparations and insulin. The capacious market for these products and relatively low competition promise substantial growth and solid margins.

The market for anti-asthma medications is estimated at USD 40 mln, and Darnitsa's management aims to capture around 60% of it.

**Human insulin and other biotechnological drugs.** As a part of its USD 265 mln project to launch biotechnological products, Darnitsa plans to start making human (R-DNA) insulin by 2010. The CIS annual market for R-DNA insulin is around USD 230 mln. Darnitsa already has a license for production and distribution of R-DNA insulin from Indian Biocon, the youngest of the five global producers. There are no active producers of R-DNA insulin in the CIS, the closest is in Poland (Bioton). Darnitsa will compete with global players on the CIS and Eastern European markets primarily in prices. Darnitsa has already invested about USD 10 mln of entry cost. According to management, R-DNA insulin will bring in about USD 60 mln in annual sales, with up to a 50% EBITDA margin.



#### More promotion

Darnitsa's strategy is to introduce more branded generics and generic combinations, which bring higher margins, faster growth and allow it to secure competitive positions in attractive market niches.

Out of 11 drugs launched over 2006-1H07, nine were branded generics. In 2006, sales of branded generics accounted for only 17.5%, but contributed  $\sim 56\%$  of the company's revenue growth.

#### Branded vs. non-branded products

	2006	2007E	2008E	 2010E
branded	18%	23%	25%	 45%
non-branded	82%	77%	75%	 65%

Source: Company data

# **Growth through acquisitions**

High and increasing competition on the Ukrainian pharma market is likely to result not only in buy-outs of local firms by foreign rivals, but also in defensive consolidation among local players. As one of the market leaders with strong cash flow generation, Darnitsa itself is considering M&A opportunities in the Ukrainian market.

The acquisition of one of its closest rivals would make Darnitsa the clear-cut market leader, pushing its market share ahead of the current leader, Berlin-Chemie/Menarini Group (5.5% in 2006). We consider three local producers as the most feasible acquisition targets, with the following pros and cons:

#### **Arterium Corporation**

Revenue in 2006: USD 58 mln Market share in 2006: 3.10%

- + Taking dominant positions in hospital segment (up to 16.5% share), antibiotics (up to 30% of the segment)
- + Stronger positions in CIS export markets
- + Extension of Darnitsa's product portfolio by around 15 names, entering the niche of phytopreparations, which are currently produced by Halychfarm
- Risk of being pushed to relocate by 2011 (respective ruling of municipal authorities has already came in effect): Arterium's key producion asset, Kyivmedpreparat, is located in the center of the city. The company has land outside Kyiv, but relocation/construction can take more than 2y and more than USD 120 mln
- Kyibmedpreparat's production infrastructure does not fit GMP requirements and can hamper the process of certification

#### **Farmak**

Revenue in 2006: USD 57 mln Market share in 2006: 2.60% \*

- + Addition of Farmak's insulin to the Darnitsa's product portfolio will have positive effect on margins, and provide exposure to a capacious market segment within and outside Ukraine
- + Large share in the niche of alcohol-based preparations
- Extremely dedicated owner is targeting value creation and is unlikely to sell-out in the near term
- Risk of being pushed to relocate by 2011 (respective ruling of municipal authorities has already came in effect): Farmak is located close to the center of the city. Relocation/construction can take more than 2y and is costly

#### **BCPP**

Revenue in 2006: USD 41 mln Market share in 2006: 2.33%

- + Material capacity buildup in pills and capsules, sterile antibiotics
- 29% is owned by a municipal enterprise and formally must be sold via a tender
- Legal issues with former [foreign] owners still lingering

<sup>\*</sup> while revenues are similar to Arterium's, Farmak exports relatively more



# Approaching new geographical markets

Darnitsa is targeting further penetration into neighboring CIS markets to benefit from their high growth rates and lower competition from global pharmaceutical companies. By 2010, the company plans to boost its exports to 40% of sales. By 2010, the company plans to build up share of exports in its sales to 40%, from the current 16%.

Darnitsa's export pipeline: products pending for approval

	Initial	Re-registration	Total
	registration		
Belarus	42	22	64
Kazakhstan	44	16	60
Uzbekistan	12	42	54
Moldova	32	20	52
Georgia	37	13	50
Azerbaijan		33	33
Russia	1	16	17
Kirgizia		17	17
Tajikistan	5		5
Armenia		3	3
Latvia		3	3
Ghana		1	1
Turkmenistan		1	1
Total	173	187	360
•			

Source: Company data

The company has already started realizing its expansion strategy: since 2005 exports as a share of revenue increased almost twice since 2005, from 9% to 16% in 1H07.



# **Risks**

#### Competition

The rapidly growing Ukrainian pharma market is appealing for foreign and local players. Competition in the industry is developing at a high rate. Similar to other local companies, Darnitsa is suffering from increasing competition to drug imports, and has to adjust its product mix and quality fast and consistently. Failure to adjust to intense competition could mean the loss of its customers' loyalty, lower margins and its market share.

We think that Darnitsa is better positioned against foreign rivals than its local peers due to its highly diversified and flexible product mix, advanced technology, more space for physical expansion, strong brand recognition and its customers' loyalty.

### Dependence on large tenders

One fifth of the company's revenues come from sales to hospitals, which results in a high dependency on state-controlled tenders. Tenders normally involve high stakes and large risks – boosting or dampening a company's revenues. This year, a change in the tender procedure resulted in zero hospital sales in 1H07.

In our view, the expected improvement of Darnitsa's positions against local competition in the mid-term and its strategy of diversifying sales destinations through exports, will facilitate higher diversity in its customer base and lower dependency on particular deals.

#### Regulations

The Ukrainian pharma industry is heavily regulated and changes might affect Darnitsa's performance.

We believe that Darnitsa benefits more than it losses from complicated regulations and if they change, ceteris paribus, it will be hurt less than foreign rivals, since a local player like Darnitsa is likely to adjust to new conditions relatively easy due to closer ties with authorities and more experience living under changing rules.

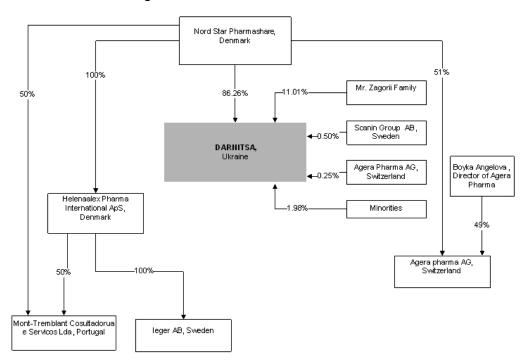


# Legal structure

Darnitsa is 86.26% owned by Nord Star Pharmashare, which is 90% held by the Zagorii family. Gleb Zagoriy, the son of Darnitsa's founder, heads the Supervisory Board and takes active role in the company's management. The Zagorii family is not affiliated with any financial or industrial group.

Besides its stake in Darnitsa, Nord Star holds majority stakes in four other companies for Darnitsa's tax planning purposes. According to the management, these entities do not own any material assets and have no debt obligations.

## Structure of the holding



Source: Company data

# Functions performed by group companies

Company	Functions
Nord Star Pharmashare A/S	Holding Company which is 90% beneficially
	owned by Mr. Zagorii and his family
CJSC 'Pharmaceutical Company 'Darnitsa'	Production asset
Agera pharma AG	Purchases of raw materials and equipment
Heelnaalex Pharma International ApS	Purchases of raw materials and equipment
Mont-Tremblant Consultadorua e Servicos Lda	Purchases of raw materials and equipment
leger AB	Trademarks owner



# Management team

Top management of the Company comprise:

Volodymyr Zagorii General Director

Evgeniy Cherkas Deputy General Director, Production
Nikolay Fedko Deputy General Director, Supplies
Andriy Myronyuk Deputy General Director, Sales

Irina Tikhonova Chief Accountant

Mykola Zozulya Deputy General Director, CapEx

Tatiana Sokolova Deputy General Director, Quality control

**Volodymyr Zagorii**, 56, General Director, joined the company in 1988. He holds a professor degree in pharmaceuticals and is the head of industrial pharmaceutical department at the Kyiv Medical Academy. His overall industry experience exceeds 30 years.

**Evgeniy Cherkas**, 32, Deputy General Director of Production, joined the company in 1997. He is a graduate of the National Pharmacy Academy with specialization in industrial pharmacy. His overall industry experience exceeds 10 years.

**Nikolay Fedko**, 32, Deputy General Director of Supplies, joined the company in 1999. He graduated from the National Pharmacy Academy with a specialization in pharmacy accounting and auditing.

**Andriy Myronyuk**, 35, Deputy General Director of Sales, joined the company in 1994. He holds degrees from the Kyiv State Shevchenko University and the National Pharmacy Academy with specializations in physics and pharmacy technology. He has 12 years of industry experience.

**Irina Tikhonova**, 47, Chief Accountant joined the company in 2007. In 1983 she graduated from the Rostov State University with a specialization in accounting. She holds a CAP certificate and a statutory auditor's certificate.

**Mykola Zozulya**, 58, joined the company in 1987. He graduated from the Kyiv Construction Engineering Institute in 1972. In 1989 he completed training in Riga's Construction Quality Improvement program. In 2001 he passed FAVEA trainings in GMP. His industry experience exceeds 20 years.

**Tatiana Sokolova**, 54, joined the company in 1976 after graduating from the Kyiv Food Industry Institute. In 2001 she obtained her second degree from the National Pharmacy Academy in Pharmacy Technology. The same year she successfully passed FAVEA trainings in GMP documentation, quality assurance and quality control. Her overall industry experience exceeds 30 years.



# **VALUATION**



# Peer comparison

Peer valuation suggests a USD 573-628 mln range for 100% of Darnitsa's equity, and USD 8.90-9.75 per Nord Star's share.

- We consider emerging market peers, mostly from Eastern Europe, form a more accurate base for comparison than companies from mature markets.
- We focus on EV/EBITDA and P/E ratios, as Darnitsa earns wider margins than most of its peers, due to lower raw materials and labor costs (discussed on p.25). In 2007 we expect Darnitsa to post 39.7% EBITDA margin and 28.7% net margin, materially higher than peer average, 25.0% and 8.7% respectively.

## Peer valuation summary

	EV/EE	BITDA	P/	Έ
	2007E	2008E	2007E	2008E
Darnitsa	16.5	13.4	23.2	19.3
Emerging Markets avg	16.0	13.2	25.6	20.4
Mature Markets avg	11.5	10.7	24.8	18.5
Mean	13.1	11.6	25.1	19.2
Weighted avg*	14.8	12.5	25.4	19.9
Implied MCap:				
@ EM avg	590	599	673	643
@ MM avg	428	494	650	583
@ Weighted avg	549	573	667	628
Implied share price:				
@ EM avg	9.16	9.30	10.44	9.99
@ MM avg	6.65	7.67	10.09	9.06
@ Weighted avg	8.53	8.89	10.36	9.76
Implied upside/downside:				
@ EM avg	-3%	-2%	11%	6%
@ MM avg	-30%	-19%	7%	-4%
@ Weighted avg	-10%	-6%	10%	3%

<sup>\*</sup> Weighting used: Mature markets – 25%, Emerging markets – 75% Source: Thomson One Banker, Bloomberg, Concorde Capital estimates



# Detailed peer data

As of October 11, 2007

		MCap,	E	EV/EBITDA			P/E		Net Debt/MCap		
		USD mln	2006	2007E	2008E	2006	2007E	2008E	2006	2007E	2008E
Darnitsa*	Ukraine	609	21.4	16.5	13.4	24.7	23.2	19.3	-0.03	-0.02	-0.05
Krka Dd Novo Mesto	Slovenia	5801	n/a	17.9	15.5	n/a	29.8	25.4	0.02	0.02	0.02
Richter Gedeon Nyrt	Hungary	3998	11.4	12.3	10.4	14.9	18.8	15.4	-0.08	-0.09	-0.11
Pliva D.D.	Croatia	2981	50.3	13.7	11.2	neg	29.1	21.9	0.03	0.03	0.03
Pharmstandard	Russia	2532	21.0	16.1	13.0	36.3	25.3	19.3	0.05	0.05	0.05
Egis Nyrt	Hungary	1018	8.1	11.0	9.0	13.0	20.3	14.0	-0.07	-0.07	-0.06
Ranbaxy Laboratories	India	3976	23.1	18.9	15.9	33.5	23.5	21.2	0.23	0.22	0.23
Zhejiang Hisoar	China	308	21.3	21.9	17.1	46.2	32.6	25.4	0.00	0.00	0.00
Novartis	Switzerland	149509	14.3	13.3	12.2	20.8	18.7	17.9	0.00	-0.05	-0.07
Sanofi-Aventis	France	122297	9.9	8.1	7.6	23.2	12.1	11.7	0.07	0.03	-0.02
Stada Arzneimittel	Germany	3666	16.1	10.9	9.4	30.3	19.0	15.5	0.30	0.31	0.30
Zentiva N.V.	Netherlands	2340	10.4	13.2	10.0	18.2	21.1	16.2	0.06	0.32	0.31
Hikma Pharmaceuticals Plc	U.K.	1580	15.4	13.4	10.5	27.5	24.6	18.9	-0.03	-0.03	-0.03
Barr Pharmaceuticals	U.S.	5980	neg	10.8	8.6	neg	18.5	15.2	0.41	0.27	0.19
Mylan Labs Inc.	U.S.	3968	11.6	14.8	26.9	21.5	10.0	13.9	0.04	1.95	5.30
Alpharma Inc.	U.S.	923	5.7	9.2	8.5	15.4	34.7	25.7	-0.12	0.05	0.08
Bradley Pharma	U.S.	288	8.6	11.7	7.4	29.8	65.2	21.6	0.08	0.08	0.08
Ono Pharmaceutical	Japan	6556	10.3	10.3	10.5	21.4	21.3	21.6	-0.15	-0.19	-0.20
Shionogi & Co., Ltd.	Japan	5901	12.7	12.0	9.6	30.6	29.9	23.1	-0.13	-0.15	-0.16
Towa Pharmaceutical	Japan	720	25.9	12.4	9.6	83.9	25.1	20.8	0.00	-0.05	-0.08
Sawai Pharmaceutical	Japan	511	9.1	9.4	8.7	20.0	22.1	18.6	0.02	0.22	0.27
Mean			15.9	13.1	11.6	28.6	25.1	19.2	0.04	0.15	0.31

		MCap,	Rev	venue grov	vth	El	BITDA Mar	gin	Net Margin		
		USD mln	2006E	2007E	2008E	2006E	2007E	2008E	2006E	2007E	2008E
Darnitsa*	Ukraine	609	8.8%	29.7%	18.9%	39.1%	39.7%	39.9%	22.3%	26.9%	24.2%
Krka Dd Novo Mesto	Slovenia	5801	34.8%	n/a	13.4%	30.0%	31.1%	31.5%	13.0%	0.1%	16.1%
Richter Gedeon Nyrt	Hungary	3998	36.4%	-12.5%	13.4%	29.7%	31.1%	31.6%	19.3%	28.1%	19.6%
Pliva D.D.	Croatia	2981	2.1%	18.4%	12.3%	5.9%	18.3%	20.1%	8.9%	-2.9%	7.5%
Pharmstandard	Russia	2532	56.1%	34.5%	21.4%	40.6%	39.3%	40.2%	10.2%	16.6%	19.6%
Egis Nyrt	Hungary	1018	13.3%	10.8%	14.1%	22.8%	15.1%	16.2%	10.5%	13.7%	7.7%
Ranbaxy Laboratories	India	3,382	3976	24.9%	14.7%	15.7%	15.3%	15.8%	3.8%	7.0%	8.7%
Zhejiang Hisoar	China	449	308	38.8%	21.5%	14.6%	10.3%	10.8%	6.2%	4.9%	5.7%
Novartis	Switzerland	149509	21.7%	3.9%	4.8%	28.2%	27.8%	28.3%	15.6%	18.7%	19.9%
Sanofi-Aventis	France	122297	16.1%	9.3%	1.1%	35.3%	38.0%	38.4%	7.1%	12.9%	24.4%
Stada Arzneimittel	Germany	3666	36.2%	33.6%	13.7%	18.0%	20.0%	20.3%	3.7%	5.5%	7.7%
Zentiva N.V.	Netherlands	2340	74.2%	8.3%	24.8%	29.0%	26.5%	27.7%	9.1%	14.5%	10.1%
Hikma Pharmaceuticals Plc	U.K.	1580	20.2%	25.2%	6.4%	29.8%	26.1%	27.5%	12.4%	13.1%	12.1%
Barr Pharmaceuticals	U.S.	5980	75.0%	36.5%	8.8%	-21.5%	28.1%	30.6%	11.7%	-27.0%	11.9%
Mylan Labs Inc.	U.S.	3968	0.3%	73.0%	94.3%	28.3%	36.4%	22.0%	16.2%	8.5%	9.4%
Alpharma Inc.	U.S.	923	18.1%	9.5%	12.7%	21.6%	14.7%	14.5%	9.5%	8.4%	3.3%
Bradley Pharma	U.S.	288	8.6%	-0.7%	14.3%	24.8%	18.5%	25.4%	6.1%	6.7%	2.7%
Ono Pharmaceutical	Japan	6556	-7.2%	2.0%	0.4%	42.9%	40.2%	39.0%	29.2%	23.8%	23.9%
Shionogi & Co., Ltd.	Japan	5901	-10.7%	10.9%	8.5%	24.2%	22.7%	25.6%	10.6%	10.4%	9.9%
Towa Pharmaceutical	Japan	720	-11.4%	35.2%	12.4%	13.5%	19.9%	22.2%	9.1%	3.1%	9.2%
Sawai Pharmaceutical	Japan	511	3.7%	44.6%	14.8%	25.4%	20.4%	19.9%	-1.4%	7.8%	6.2%
Mean			21.1%	21.4%	16.4%	22.9%	25.0%	25.4%	10.5%	8.7%	11.8%

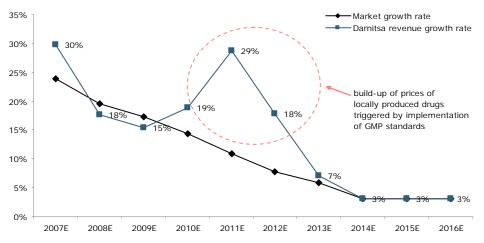
<sup>\*</sup> based on non-audited financials, restated on the basis of management accounting data Source: Thomson, Bloomberg, Company data, Concorde Capital estimates



# **DCF** valuation

Our DCF valuation suggests Darnitsa's 12 month equity value of USD 677 mln, well above the level indicated by peer comparison. Unlike peer comparison, DCF captures the company's growth beyond 2008, in particular appreciation of prices of domestically produced drugs over 2010-2012, driven by the implementation of GMP compliance (for details refer to the p.17):

## The effect of GMP implementation on Darnitsa's revenue \*

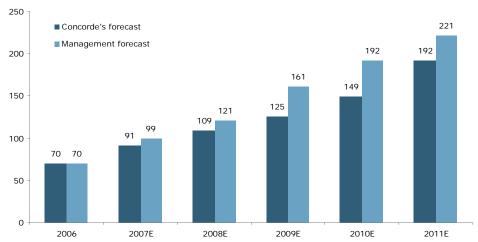


<sup>\*</sup> The effect on market growth is minor, as we expect imports to exceed 80% of the Ukrainian market by 2011 Source: Concorde Capital estimates

Our assumption about the buildup in prices over 2010-2012 is quite conservative, with Darnitsa's average per-unit price being still below USD 1/pack, and substantially below the average price of imported drugs (~USD 3/pack in 1H07).

The assumption of domestic prices approaching price level of imported drugs also could not push our revenue forecast ahead of management's estimates:

#### Darnitsa's revenue growth\*, USD mln



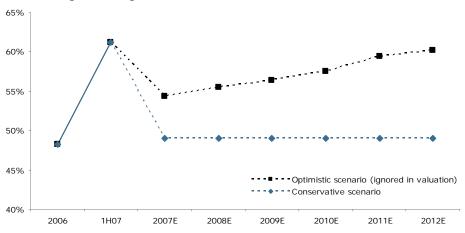
<sup>\*</sup> Management forecast beyond 2011 is unavailable Source: Company data, Concorde Capital estimates



#### Other features of Darnitsa's model are:

- 1) 2006 P&L was restated on the basis of management accounting data by adding back the margin transferred to the books of affiliated companies (see "Ownership structure" section) to the officially reported P&L. The management verbally confirmed that next year they will provide consolidated audited accounts for 2007.
- 2) We *conservatively* assume stable gross margins for the entire forecast period. We do not factor in the following effects:
- the increase in profitability in 1H07: 61.2% gross margin vs. 48.2% in 2006;
- expected increase of the share of branded generics in the company's product portfolio;
- the increase in profitability over 2010-2012, which is highly probable, since GMP-driven appreciation of domestic prices is unlikely to be off-set by growth of raw materials prices;
- possibility that consolidation will result in collusive pricing by the largest domestic producers;

#### Darnitsa's gross margin forecast



- Source: Company data, Concorde Capital estimates
- 3) Also, we do not factor in Darnitsa valuation possible acquisitions of other domestic producers, but conservatively allow excessive cash to accumulate on the balance sheet.
- 4) Insulin program is not accounted for, any visible progress in its realization is another catalyst for the stock.



# Macro and market assumptions

	2006	2007E	2008E	2009E	2010E	2011E	2012E	 2016E	CAGR 5Y
GDP, USD bln	106.1	123.2	139.7	156.9	174.3	189.4	218.6	 329.1	12.3%
Real GDP growth	7.0%	6.5%	4.5%	4.0%	3.8%	3.5%	6.0%	 4.5%	4.5%
Population, mln	46.8	46.5	46.2	45.9	45.6	45.3	45.1	 44.0	-0.6%
Real disposable income growth	16.1%	12.9%	10.9%	9.7%	8.4%	7.1%	7.1%	 5.5%	9.8%
Budget expenditure, USD bln	27.1	38.5	48.1	56.5	65.6	74.5	71.9	 108.3	22.4%
incl. healthcare expenditure, USD bln	2.8	3.5	4.5	5.3	6.1	6.6	7.7	 11.5	18.7%
as % of GDP	2.6%	2.9%	3.2%	3.4%	3.5%	3.5%	3.5%	 3.5%	
per capita, USD	60.1	75.9	96.9	116.3	133.8	146.3	169.6	 261.6	19.5%
Domestic production, USD mln	552.9	619.2	687.3	742.3	801.7	857.8	857.8	 1,027.4	9.2%
Net imports, USD mln	1,154.1	1,497.4	1,842.5	2,225.4	2,590.6	2,905.8	2,905.8	 3,540.0	20.3%
Domestic market, USD mln	1,707.0	2,116.6	2,529.8	2,967.7	3,392.3	3,763.6	3,763.6	 4,567.4	17.1%
per capita, USD	36.5	45.6	54.8	64.7	74.7	83.1	83.4	 103.7	17.9%
Retail segment, USD mln	1,443.6	1,693.6	1,971.0	2,274.1	2,599.3	2,901.8	2,769.0	 3,265.6	15.0%
% growth	23.7%	17.3%	16.4%	15.4%	14.3%	11.6%	10.3%	 3.2%	
per capita, USD	30.9	36.4	42.7	49.6	57.0	64.1	61.4	 74.2	15.7%
Hospital segment, USD mln	263.4	423.0	558.8	693.6	793.0	861.8	994.6	 1,301.7	26.8%
% growth	65.5%	60.6%	32.1%	24.1%	14.3%	8.7%	12.9%	 2.8%	
% of budget healthcare exp.	9.4%	12.0%	12.5%	13.0%	13.0%	13.0%	13.0%	 11.3%	
per capita, USD	5.6	9.1	12.1	15.1	17.4	19.0	22.1	 29.6	27.6%

# DCF output

Valuation as of October, 15

JAH	mln

	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
EBITDA	183	217	250	297	383	451	483	498	514	529
EBIT	144	177	209	257	342	411	444	460	476	492
Tax Rate	9%	10%	14%	19%	22%	25%	25%	25%	25%	25%
Taxed EBIT	132	159	180	208	267	308	333	345	357	369
Plus D&A	39	40	41	41	40	40	39	39	38	37
Less CapEx	-197	-101	-94	-63	-58	-57	-53	-50	-46	-42
Less change in OWC	85	-13	-12	-17	-32	-20	-1	-1	0	0
FCFF	58	85	115	168	218	272	318	333	348	364
WACC	17.3%	16.9%	16.2%	14.4%	12.4%	11.5%	11.4%	11.4%	10.9%	10.9%
Sum of discounted CFs	1,087	1,206				WAC	C To Perpetu	ity		11.0%
PV of Terminal Value	1,754	2,054				Term	inal Value			5,404
Firm Value	2,841	3,260				Perpe	tuity Growth	n Rate		4.0%
Portion due to TV	62.4%	63.0%				Impli	ed Exit EBIT	DA Multiple		10.2x
Less Net Debt	-58	-144								
Equity Value	2,909	3,386								
Darnitsa equity Value, USD mln*	582	677								
Nord Star implied share price,										
USD	9.03	10.51								

<sup>\* 2008</sup> UAH/USD rate forecast: 5.00

## Sensitivity of Darnitsa's 12M equity value, USD mln

10-Year Discount Rates	Perpetuity Growth Rate							
	3.0%	3.5%	4.0%	4.5%	5.0%			
WACC-2.0%	698	728	762	801	846			
WACC-1.0%	658	686	717	753	796			
WACC+0.0%	621	647	677	709	749			
WACC+1.0%	587	610	638	669	705			
WACC+2.0%	555	577	602	631	665			

WACC to perpetuity		Perpetuit	y Growth F	Rate	
	3.0%	3.5%	4.0%	4.5%	5.0%
9.5%	730	775	829	895	977
10.5%	668	701	739	785	840
11.5%	621	647	677	709	749
12.5%	585	606	629	655	684
13.5%	557	574	592	613	636

Source: Concorde Capital estimates



# Comparable deals

Comparable deals analysis indicates that Darnitsa should be priced in the range of 15.4-15.6x EBITDA '07 (USD 558-570 mln). According to the management, the price offered by a strategic investor prior the placement of the 10% stake falls within the range.

M&A deals in the CEE and CIS pharmaceutical sector\*, 2006-2007 (USD mln)

Target company	Country	Buyer	Stake	Year	Deal value	EV/	P/E
: =:: g = : = :::pay		24,5.	2.2.10	. 54.	USD mln	EBITDA	
Makiz-Pharma	Russia	Stada	100%	2007	171	n/a	n/a
Pharmstandard	Russia	IPO	40%	2007	880	17.6	26.3
Eczacibasi Generic Pharmaceuticals	Turkey	Zentiva	75%	2007	621	13.7	n/a
Akrihin	Russia	Polpharma	80%	2007	120	n/a	n/a
ZiO Zdorov'ye	Russia	Actavis	51%	2006	60	n/a	n/a
Veropharm	Russia	IPO	50%	2006	140	13.4	17.5
PLIVA	Croatia Ph	Barr armaceuticals	92%	2006	2,376	16.9	n/a
Jelfa SA	Poland	Sanitas	84%	2006	342	n/a	n/a
Average						15.4	21.9
Darnitsa implied I	MCap**					558.1	570.5
Nord Star implied	share pric	e, USD				8.67	8.86

 $<sup>^\</sup>star$  Multiples are based on financials as of 2006 or 2007, based on the nearest year to deal closing  $^{\star\star}$  Based on 2007 forecast



# Financial summary\*

# Income statement, USD mln

	2006	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
Net Revenues*	70.4	91.4	108.6	125.3	149.0	191.8	226.1	242.1	249.8	257.5	265.3
Change yoy	8.8%	29.7%	18.9%	15.4%	18.9%	28.8%	17.9%	7.1%	3.2%	3.1%	3.1%
Gross Profit	33.9	44.8	53.2	61.4	73.0	94.0	110.8	118.6	122.4	126.2	130.0
Gross margin	48.2%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%	49.0%
SG&A	(6.7)	(8.3)	(9.9)	(11.4)	(13.6)	(17.5)	(20.6)	(22.0)	(22.7)	(23.4)	(24.1)
% of Net Revenues	9.5%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%	9.1%
Other Operating I/C, net	0.3	(0.2)	-	-	-	-	-	-	-	-	-
EBITDA	27.5	36.2	43.3	50.0	59.4	76.5	90.2	96.6	99.7	102.7	105.9
EBITDA margin	39.1%	39.7%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%	39.9%
Depreciation	(3.0)	(7.7)	(8.0)	(8.2)	(8.1)	(8.0)	(8.0)	(7.8)	(7.7)	(7.6)	(7.4)
EBIT	24.6	28.5	35.3	41.8	51.3	68.5	82.2	88.8	92.0	95.2	98.5
EBIT margin	34.9%	31.2%	32.5%	33.4%	34.4%	35.7%	36.4%	36.7%	36.8%	37.0%	37.1%
Interest Expense	(0.2)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
Financial Income	0.4	0.4	-	-	-	-	-	-	-	-	-
Other Income/(Expense)	0.1	0.0	-	-	-	-	-	-	-	-	-
PBT	24.8	28.7	35.0	41.5	51.0	68.2	82.0	88.5	91.7	94.9	98.2
Tax	(0.2)	(2.4)	(3.5)	(5.8)	(9.7)	(15.0)	(20.5)	(22.1)	(22.9)	(23.7)	(24.6)
Effective tax rate	0.7%	8.5%	10.0%	14.0%	19.0%	22.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Net Income	24.6	26.2	31.5	35.7	41.3	53.2	61.5	66.4	68.8	71.2	73.7
Net Margin	35.0%	28.7%	29.0%	28.5%	27.7%	27.7%	27.2%	27.4%	27.5%	27.6%	27.8%
Dividend Declared	-	-	-	-	-	-	-	-	-	-	-

## Balance sheet, USD mln

	2006	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
Current Assets	55	56	79	107	148	205	268	333	399	467	538
Cash & Equivalents	23	14	32	55	89	134	189	253	320	389	462
Trade Receivables	14	18	21	23	25	31	34	34	34	34	34
Inventories	14	19	21	23	26	31	35	35	33	32	30
Other current assets	3	4	5	6	7	9	11	12	12	12	13
Non-Current Assets	60	91	104	115	120	123	126	129	131	133	134
PP&E, net	55	86	99	110	114	118	121	124	126	128	129
Other Non-Current Assets	5	5	5	5	5	5	5	5	5	5	5
Total Assets	116	147	183	222	267	328	395	462	530	600	673
Shareholders' Equity	94	121	153	189	230	284	345	411	480	551	625
Share Capital	36	36	36	36	36	36	36	36	36	36	36
Reserves and Other	59	85	117	153	194	248	309	375	444	515	589
Current Liabilities	21	26	30	33	37	45	50	51	50	49	48
ST Interest Bearing Debt	3	3	3	3	3	3	3	3	3	3	3
Trade Payables	18	23	26	29	33	40	45	46	45	44	43
Accrued Wages	0	0	0	0	0	1	1	1	1	1	1
Accrued Taxes	0	0	0	0	0	0	1	1	1	1	1
Other Current Liabilities	0	0	0	0	0	0	0	0	0	0	0
LT Liabilities	-	-	-	-	-	-	-	-	-	-	-
LT Interest Bearing Debt	-	-	-	-	-	-	-	-	-	-	-
Other LT	-	-	-	-	-	-	-	-	-	-	-
Total Liabilities & Equity	116	147	183	222	267	328	395	462	530	600	673

## Cash flow statement, USD mln

	**2006	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
Net Income	39	26	32	36	41	53	61	66	69	71	74
Depreciation	9	8	8	8	8	8	8	8	8	8	7
Non-oper. and non-cash items	(40)	(21)	0	1	1	1	1	0	0	0	0
Less Changes in working capital	1	17	(3)	(2)	(3)	(6)	(4)	(0)	(0)	(0)	(0)
Operating Cash Flow	8	30	37	42	47	56	67	74	77	79	81
Capital Expenditures, net	(7)	(39)	(20)	(19)	(13)	(12)	(11)	(11)	(10)	(9)	(8)
Other Investments, net	-	-	-	-	-	-	-	-	-	-	-
Investing Cash Flow	(7)	(39)	(20)	(19)	(13)	(12)	(11)	(11)	(10)	(9)	(8)
Net Borrowings/(repayments)	5	-	-	-	-	-	-	-	-	-	-
Dividends Paid		-		_	-	-	-	-	-		_
Other	(4)	-	-	-	-	-	-	-	-	-	-
Financing Cash Flow	1	-	-	-	-	-	-	-	-	-	-
Beginning Cash Balance	1	23	15	32	55	89	134	189	253	320	389
Ending Cash Balance	23	14	32	55	89	134	189	253	320	389	462
Net Cash Inflows/Outflows	1	(9)	17	23	34	45	55	64	67	70	73

# Exchange Rates, UAH/USD

	2006	2007E	2008E	2009E	2010E	2011E	2012E	2013E	2014E	2015E	2016E
Average	5.05	5.05	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Year-end	5.05	5.05	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

 $<sup>^\</sup>star$  Accounts of Pharmaceutical Company "Darnitsa", non-audited, restated based on the management accounting data  $^{\star\star}$  Unadjusted for intra-group cash flows



# **Glossary**

## Generic and original drugs

Generic drugs are copies of brand-name (original) drugs that have exactly the same dosage, intended use, effects, side effects, means of administration, risks, safety, and strength as the original drug. In other words, their pharmacological effects are exactly the same as those of their brand-name counterparts. The principal reason for the reduced price of generic medicines is that these companies incur less costs in creating the generic drug and are therefore able to offer a lower price and still maintain profitability. Manufacturers of generic drugs are mainly able to avoid the following three costs that brand name pharmaceutical companies incur: (1) costs associated with the research and development of the drug; (2) costs associated with obtaining regulatory approval (i.e. proving safety and efficacy of a drug); and (3) marketing costs. In general, generic drugs can be legally produced where: (1) the patent for the original drug has expired, (2) the generic company certifies the brand company's patents are either invalid, unenforceable or will not be infringed, (3) for drugs which have never held patents, or (4) in countries where a patent(s) is/are not in force. The expiration of a patent removes the monopoly of the patent holder on drug sales licensing.

#### **OTC** and Rx drugs

OTC or over-the-counter drugs are available without a prescription, in contrast to prescription (Rx) drugs, which require a doctor's approval.

## **Good Manufacturing Practices (GMP)**

GMP is a term that is recognized worldwide for the control and management of manufacturing and quality control testing of pharmaceutical products.

GMP standards are standards of Good Manufacturing Practice, its key objective is the protection of consumer's health from low quality medications. GMP standards were developed to guarantee that medication is manufactured and controlled in full compliance with relevant regulations which reflect all customer requirements of quality, safety and effectiveness. All world's leading manufactures of medications fully comply with GMP requirements.

Since sampling products will statistically only ensure that the samples themselves (and perhaps the areas adjacent to where the samples were taken) are suitable for use, and end-point testing relies on sampling, GMP takes the holistic approach of regulating the manufacturing and laboratory testing environment itself. GMP requires that all manufacturing and testing equipment is suitable for use, and that all operational methodologies and procedures (such as manufacturing, cleaning, and analytical testing) utilized in the drug manufacturing process has been validated (according to predetermined specifications), to demonstrate that they can perform their purported functions. The World Health Organization's (WHO) version of GMP is used by pharmaceutical regulators and the pharmaceutical industry in over one hundred countries worldwide, primarily in the developing world. The European Union's GMP (EU-GMP) enforces more compliance requirements than the WHO GMP, as does the Food and Drug Administration's version in the US, Australia, Canada, Japan, Singapore and others having highly developed/sophisticated GMP requirements. In the United Kingdom, the Medicines Act (1968) covers most aspects of GMP in what is commonly referred to as "The Orange Guide", officially known as The Rules and Guidance for Pharmaceutical Manufacturers and Distributors.



Concorde Capital 2 Mechnikova Street 21st Floor Kyiv 01601, UKRAINE Tel.: +380 44 391 5577 Fax: +380 44 391 5571 www.concorde.com.ua office@concorde.com.ua

**CEO** 

Igor Mazepa

im@concorde.com.ua

RESEARCH COVERAGE BY SECTOR

**Equity Sales** 

Marina Martirosyan Anastasiya Nazarenko Duff Kovacs, CFA Zack Watson mm@concorde.com.ua an@concorde.com.ua dk@concorde.com.ua zw@concorde.com.ua Strategy

Konstantin Fisun Oleksandr Klymchuk kf@concorde.com.ua ok@concorde.com.ua

**Metals & Mining** 

Eugene Cherviachenko Andriy Gerus ec@concorde.com.ua ga@concorde.com.ua

Director of Research

Konstantin Fisun, CFA

kf@concorde.com.ua

Utilities (Telecom, Energy)

Alexander Paraschiy

ap@concorde.com.ua

Oil & Gas, Chemicals

Vladimir Nesterenko

vn@concorde.com.ua

Consumer/Retail Group

Andriy Gostik, CFA Olha Pankiv Alexander Romanov Anna Dudchenko ag@concorde.com.ua op@concorde.com.ua ar@concorde.com.ua ad@concorde.com.ua

Machinery

Olha Pankiv Eugene Cherviachenko Inna Perepelytsya op@concorde.com.ua ec@concorde.com.ua pi@concorde.com.ua

Financial Services, Retail

Alexander Viktorov

av@concorde.com.ua

Macroeconomics

Alexander Viktorov Polina Khomenko av@concorde.com.ua pk@concorde.com.ua

Fixed Income

Oleksandr Klymchuk

ok@concorde.com.ua

**Corporate Governance** 

Nick Piazza

np@concorde.com.ua

**News/Production** 

Nick Piazza Polina Khomenko np@concorde.com.ua pk@concorde.com.ua

Editor

Brad Wells bw@concorde.com.ua

#### Disclaimer

This report has been prepared by Concorde Capital investment bank for informational purposes only. Concorde Capital does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that Concorde Capital might have a conflict of interest that could affect the objectivity of this report.

Concorde Capital, its directors and employees or clients might have or have had interests or long /short positions in the securities referred to herein, and might at any time make purchases and/or sales in them as a principal or an agent. Concorde Capital might act or has acted as a market-maker in the securities discussed in this report. The research analysts and/or corporate banking associates principally responsible for the preparation of this report receive compensation based upon various factors, including quality of research, investor/client feedback, stock picking, competitive factors, firm revenues and investment banking revenues.

Prices of listed securities referred to in this report are denoted in the currency of the respective exchanges. Investors in financial instruments such as depository receipts, the values or prices of which are influenced by currency volatility, effectively assume currency risk.

Due to the timely nature of this report, the information contained might not have been verified and is based on the opinion of the analyst. We do not purport this document to be entirely accurate and do not guarantee it to be a complete statement or summary of available data. Any opinions expressed herein are statements of our judgments as of the date of publication and are subject to change without notice. Reproduction without prior permission is prohibited. © 2007 Concorde Capital