

Alkaloid AD Skopje

Hold

Initiation of coverage

Price: MKD 12,631

Price target: MKD 13,567

A rising money spinner, Skopje-style

We initiate on North Macedonia's Alkaloid AD Skopje (Alkaloid) with a price target (PT) of MKD 13,567 and a HOLD recommendation (upside of c.7%). Alkaloid is a traditional, mid-sized SEE producer of branded prescription generics, OTC drugs and fast-moving consumer goods (FMCG), one that has stayed in step with the times to keep its legacy product portfolio relevant, while consistently expanding into new indications and, selectively, new markets. The broad product slate enables the business to generate solid FCF yields and a solid return on invested capital, and supports an investor-friendly shareholder remuneration policy. This year, management is wrapping up a major investment to expand its solid-form drug capacity by another 50%, which we expect to drive a 9.5% revenues CAGR and c.13% net profit growth through to 2023E. This has been recognised already by local investors – which account for 97% of the shareholder base – so, at the current levels, the upside is priced in already, in our view, and thus our HOLD rating. Given an opportunity for better buying, though, Alkaloid's mix of growth and yield should catch the eye of regional investors, we believe.

We forecast Alkaloid to maintain relatively strong revenues and earnings growth for the next three or four years on the back of investments into new drug production capacity and multiple new in-licencing deals. For 2020E, we assume revenues growth of 10% and net profit at 18%, driving an EBITDA margin expansion to 17.2% vs. 16.7% in 2019. For 2021-22E, we forecast top-line and net profit CAGRs of 9.8% and 12.1%, respectively, again with some modest margin expansion, as the business starts to reap the benefits of scale. During this expansion cycle, we assume average capex for the next three years of c.EUR 22m (16% of revenues).

Strong balance sheet and cash generation. Alkaloid's FCF yield is typically in the range of 4-5% and its working capital is managed efficiently: its average ROIC for the past two years has been c.9.5% and we expect this to grow to the low teens going forward. We assume gearing will remain low, at c.0.3x; historically, the company has grown organically, but management would not rule out acquisitions to complement its existing product portfolio. We also note that Alkaloid has paid a regular dividend since listing and the current policy is a 50% payout.

On multiples, the stock looks fully valued, in our view, trading at a mid-teens premium vs. its peers on 2020-22E PERs and a small single-digit premium on EV/EBITDAs. On our 2020E earnings, the stock trades at a PER of 14.9x and an EV/EBITDA of 9.1x, premiums of 11% and 8.6%, respectively. On our 2021-22E numbers, the stock trades at an average PER of 13.0x, or a 15% premium vs. its peers, and an EV/EBITDA of 7.7x, or in line with its peers.

Risks: regulatory price compression for Rx drugs in the FYR region; the need for continuous investment in portfolio modernisation; and unhedged FX exposure to the RUB, the RSD, the UAH and the HRK.

Expected events

3Q20 results	30 October
2021 business plan	30 December

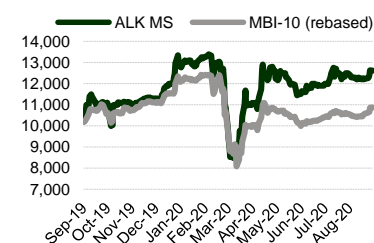
Key data

Market Cap	EUR 295m
Free float	100%
Shares outstanding	1,431m
3M ADTV	EUR 74.5k
Major Shareholder Zhivko Mukaetov (8.6%)	
Reuters Code	ALK.MKE
Bloomberg Code	ALK MS
MBI 10 Index	4,417

Price performance

52-w range	8,482-13,394
52-w performance	23.8%
Relative performance	7.5%

Alkaloid 12M share price performance



Year	Sales MKD m	EBITDA MKD m	Net profit MKD m	EPS MKD	EPS %yoy	DPS MKD	P/E (x)	EV/EBITDA (x)	P/CE (x)	Div yield %
2017	9,095	1,413	809	571	11%	243	11.0	6.7	9.7	3.9%
2018	9,783	1,555	862	609	7%	272	13.2	7.5	7.2	3.4%
2019	11,103	1,858	1,015	717	18%	324	13.2	7.5	11.8	3.4%
2020E	12,224	2,102	1,198	846	18%	381	14.9	9.1	11.6	3.0%
2021E	13,461	2,313	1,264	894	6%	402	14.1	8.3	10.1	3.2%
2022E	14,741	2,669	1,505	1,064	19%	479	11.9	7.1	8.7	3.8%

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Closing Prices as of 15 September 2020

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Company snapshot – HOLD, PT MKD 13,567

Alkaloid AD Skopje

HOLD

Bloomberg ticker

ALK MS

Closing price (MKD)

12,631

Price Target

13,567

Upside to PT

7.4%

Shares outstanding (m)

1.431

MCAP (EUR m)

295

Free float

100.0%

ADTV (EUR k)

74.5

52 W Range (MKD)

8482-13394

ALK MS

MBI-10 (rebased)

Sep-19

Oct-19

Nov-19

Dec-19

Jan-20

Feb-20

Mar-20

Apr-20

May-20

Jun-20

Jul-20

Aug-20

7,000

8,000

9,000

10,000

11,000

12,000

13,000

14,000

COMPANY DESCRIPTION

Alkaloid is a traditional, mid-sized SEE producer of branded prescription generics, OTC drugs and fast-moving consumer goods (FMCGs), one that has stayed in step with the times to keep its legacy product portfolio relevant, while consistently expanding into new indications and, selectively, new markets (e.g., Romania, Ukraine and the UK). Alkaloid started in the late-1930s, with the production of opium alkaloids (hence the name) for morphine, and was nationalised after 1945. Since then, the company has expanded into the production of other plant-based alkaloids and herbs, as well as modern pharmaceuticals, initially through cooperation with Western-based manufacturers. Around the time of the dissolution of the Yugoslav Republic, the company was partially, and then fully, privatised to employees and management in the period from 1989 to 1998. Alkaloid operates four business lines: pharmaceuticals (78% of 2019 sales), chemistry (2% of sales), cosmetics (8%) and botanicals (4%). By drug indication, the largest share of revenues come from antibiotics (including cephalosporins, a major export drug with relatively few competing manufacturers globally), then cardiovascular and central nerve system (CNS) drugs. The cosmetics and botanicals businesses are Alkaloid's FMCG portfolio; the former is dominated by the company's Becutan brand of baby care products; while botanicals are primarily premium

RATIOS

PER SHARE RATIOS

2017

2018

2019

2020E

2021E

2022E

EPS

571

609

717

846

894

1,064

CFPS

647

1,121

803

1,093

1,254

1,459

BVPS

6,201

6,267

7,193

7,748

8,307

9,019

DPS (net)

243

272

324

381

402

479

FINANCIAL RATIOS

2017

2018

2019

2020E

2021E

2022E

Gross margin

44.6%

45.3%

46.2%

45.1%

46.1%

46.5%

EBITDA margin

15.5%

15.9%

16.7%

17.2%

17.2%

18.1%

EBIT margin

10.0%

10.0%

10.8%

11.1%

11.1%

12.2%

Net margin

8.9%

8.8%

9.1%

9.8%

9.4%

10.2%

ROE

9.3%

9.7%

10.5%

11.2%

11.0%

12.1%

ROCE

8.7%

9.6%

9.5%

9.6%

9.9%

12.9%

Net debt/EBITDA

0.3x

0.1x

0.2x

0.3x

0.3x

0.2x

VALUATION RATIOS

2017

2018

2019

2020E

2021E

2022E

P/E

11.0x

13.2x

13.2x

14.9x

14.1x

11.9x

EV/EBITDA

6.7x

7.5x

7.5x

9.1x

8.3x

7.1x

P/CF

9.7x

7.2x

11.8x

11.6x

10.1x

8.7x

P/BV

1.0x

1.3x

1.3x

1.6x

1.5x

1.4x

EV/Capital Employed

1.0x

1.3x

1.3x

1.6x

1.5x

1.4x

EV/Sales

1.0x

1.2x

1.3x

1.6x

1.4x

1.3x

EV/EBIT

10.3x

11.9x

11.7x

14.1x

12.8x

10.6x

EV, MKD (m)

9,409

11,682

14,013

19,107

19,192

19,055

FCF, MKD (m)

206

722

265

-74

542

813

FCF yield

2.3%

6.3%

1.9%

-0.4%

3.0%

4.5%

Dividend yield

3.9%

3.4%

3.4%

3.0%

3.2%

3.8%

COMPANY FINANCIALS

INCOME STATEMENT, MKD (m)

2017

2018

2019

2020E

2021E

2022E

Sales

9,095

9,783

11,103

12,224

13,461

14,741

Cost of sales

-5,036

-5,354

-5,974

-6,710

-7,256

-7,890

Gross profit

4,058

4,429

5,129

5,514

6,205

6,850

R&D

-76

-86

-110

-122

-135

-147

Selling and marketing

-2,733

-2,883

-3,324

-3,634

-3,971

-4,275

Administrative

-356

-372

-421

-459

-505

-553

Provisions

-3

-1

-10

0

0

0

Other income/expense, net

22

-105

-63

54

-97

-82

Operating profit

912

983

1,201

1,353

1,498

1,793

Finance expenses

-4

-14

-13

-19

-27

-43

Profit before income tax

908

969

1,188

1,390

1,470

1,750

Income tax

-98

-106

-173

-192

-206

-245

Minority interests

0

0

0

0

0

0

Net profit

809

862

1,015

1,198

1,264

1,505

EBITDA

1,413

1,555

1,858

2,102

2,313

2,669

CASH FLOW, MKD (m)

2017

2018

2019

2020E

2021E

2022E

Cash generated from operations

916

1,585

1,134

1,547

1,774

2,065

Interest received

1

3

2

0

0

0

Net cash from operating activities

917

1,588

1,136

1,547

1,774

2,065

Purchases of PP&E

-711

-866

-871

-1,621

-1,232

-1,252

Sale of PP&E

2

1

0

0

0

0

Subsidies received

-

35

86

0

0

0

Other payments to employees

-62

-64

-65

0

0

0

Net cash from investing activities

-770

-894

-850

-1,621

-1,232

-1,252

Change in debt

145

-68

180

493

200

-100

Interest paid

-20

-18

-16

-20

-28

-44

Purchase of treasury shares

-

-

-76

-10

0

0

Dividends

-324

-379

-453

-500

-599

-632

Net cash from financing activities

-200

-465

-365

-38

-427

-776

BALANCE SHEET, MKD (m)

2017

2018

2019

2020E

2021E

2022E

PP&E

4,311

4,297

5,418

6,150

6,527

6,884

Intangible assets

1,455

1,602

1,732

1,753

1,817

1,881

Other non-current assets

33

36

122

135

135

135

Non-current assets

5,805

5,941

7,280

8,045

8,485

8,907

Inventories

2,480

2,737

3,263

3,617

3,983

4,362

Trade receivables

2,411

2,218

2,405

2,713

2,987

3,271

Other receivables

407

267

289

645

738

834

Cash and cash equivalents

214

434

357

245

360

397

Current assets

5,513

5,656

6,314

7,219

8,068

8,864

Total Assets

11,318

11,597

13,594

15,264

16,553

17,770

Share capital

2,197

2,197

2,186

2,111

2,111

2,111

Retained earnings, reserves

6,246

6,678

6,772

8,108

8,979

9,779

Minority interests

1

1

1

1

1

1

Total Equity

8,876

8,970

10,295

11,090

11,890

12,910

Non-current borrowings

271

284

313

700

900

800

Retirement benefit obligations

29

30

41

41

41

41

Deferred tax liabilities

0

0

0

0

0

0

Non-current liabilities

300

314

353

740

941

841

Trade and other payables

1,739

1,992

2,417

2,847

3,135

3,433

Income tax

20

16

62

14

14

14

Current borrowings

382

304

467

573

573

573

Total current liabilities

2,141

2,313

2,945

3,434

3,722

4,020

Total liabilities and equity

11,318

11,597

13,594

15,264

16,553

17,770

Net debt

438

154

422

1,028

1,113

976

Gearing

0.31

0.10

0.23

0.28

0.34

0.19

Capital employed

9,338

9,148

10,751

12,152

13,037

13,919

REVENUES BY REGION (MKD m)

Other CIS

EU-27

Croatia

Bulgaria

UK

103.33

192.131

259.488

289

332.35

382.2025

5,000

4,500

4,000

3,500

3,000

2,500

2,000

1,500

1,000

500

0

NET DEBT/EBITDA AND FCF

FCF yield

Net debt/EBITDA

2017

2018

2019

2020E

2021E

2022E

7.0%

6.0%

5.0%

4.0%

3.0%

2.0%

1.0%

0.0%

-1.0%

0.4x

0.3x

0.2x

0.1x

0.0x

Investment case

We initiate on North Macedonia's Alkaloid AD Skopje (Alkaloid) with a price target (PT) of MKD 13,567 and a HOLD recommendation (upside of c.8%). Alkaloid is a traditional, mid-sized SEE producer of branded prescription generics, OTC drugs and fast-moving consumer goods (FMCG), one that has stayed in step with the times to keep its legacy product portfolio relevant, while consistently expanding into new indications and, selectively, new markets. The broad product slate enables the business to generate solid FCF yields, a solid return on invested capital – c.9.5% in 2018-19; we expect 10% in 2021E – and support investor-friendly shareholder remuneration (a dividend payout of 50% of earnings). This year, management is wrapping up a major investment to expand its solid-form drug capacity by another by 50%; we expect this, together with new drugs in licencing deals and the expansion of its top-selling cephalosporins (an antibiotic) portfolio from 2022E, to drive a 9.5% revenues CAGR and c.13% net profit growth through to 2023E. This has already been recognised by local investors – which account for 97% of the shareholder base – so, at current levels, the upside is priced in already, in our view, and thus our HOLD rating. Given an opportunity for better buying, though, Alkaloid's mix of growth and yield should catch the eye of regional investors, we believe.

Alkaloid's main business is the manufacturing of branded generic pharmaceuticals (86% of its 2019 revenues), but it also sells branded cosmetics in its traditional Former Yugoslav Republic (FYR) markets, and branded, premium herbal teas that are seeing strong demand from the US market. Alkaloid started in the late-1930s, with the production of opium alkaloids (hence the name) for morphine, and was nationalised after 1945. The company expanded into the production of other plant-based alkaloids (e.g., codeine) and herbs, as well as also modern pharmaceuticals, initially through cooperation with Western-based manufacturers.

In the late-1970s, Alkaloid also developed a range of baby care products, sold under the Becutan brand. This includes not only traditional cosmetics, but also teas, supplements, wet wipes and nappies. The Becutan brand is sold mostly in the countries of the FYR, where they are very popular; according to management, the cosmetics rank in the top-three in their class by revenues, alongside Johnson & Johnson (J&J) and Nivea. Since the 1960s, the company has sold medicinal herbs, and the segment is dominated currently by its line of premium herbal teas – sold under both the company's Good Nature brand and private labels, mainly in the US. Between 2015-19, the revenues from teas grew by a CAGR of c.15%; this should be closer to 20% for the next several years, we believe, thanks to investments in new packaging equipment.

The company is currently in the middle of a major, multi-pronged investment phase, aimed at: 1) increasing the production capacity of solid dose forms, liquids and cephalosporin antibiotics; 2) intensifying in-licencing activity to enlarge existing portfolios (e.g., cardiovascular drugs) and expand into new ones (oncology, gynaecology); and 3) adding marketing capacity in selected new and existing markets (e.g., Romania, Russia and Central Europe). Looking back at the past four years, when the company made a big investment into doubling the capacity for the manufacturing of cephalosporins (a type of antibiotic with relatively few competing manufacturers globally), we can see that Alkaloid has been able to place these higher volumes into the market, which we expect to also be the case over the next several years.

We expect Alkaloid to maintain relatively strong revenues and earnings growth for the next three or four years on the back of these investments. For 2020E, we expect Alkaloid to increase its revenues by 10%, to MKD 12,224m, and its net profit by 18%, to MKD 1,198m, with an EBITDA margin expansion to 17.2% vs. 16.7% in 2019. For 2021-22E, we forecast top-line and net profit CAGRs of 9.8% and 12.1%, respectively, again with some modest margin expansion, as the business starts to reap the benefits of scale. In terms of the sales by region, we expect growth to be comparatively broad-based. Under the assumption that the increased production capacity will give the company the space to launch new drugs, formulation and dosages – not just more of what it makes already today – as well as selling newly in-licensed drugs, we believe that sales on Alkaloid's core markets of North Macedonia and the FYR countries (e.g., Serbia, BiH and Kosovo, but also Croatia and Bulgaria) will see sales rise sooner. In absolute terms, we expect most of the sales growth, around 70%, from these markets. Drug registration in other jurisdictions, e.g., Russia and Ukraine, are likely to take longer to obtain, so we are likely to see growth from new products a little later, but we expect Russia and CIS to deliver another c.13% of incremental growth in absolute terms through to 2023E.

Strong balance sheet and cash generation. Generic pharmaceuticals are generally highly cash generative, which is the case for Alkaloid as well. Owing to this, and the company's tight management of working capital, Alkaloid makes do with very low levels of debt, despite ongoing investments and a generous shareholder remuneration policy (a 50% payout of net profit). Over 2016-19, the net debt/EBITDA has ranged from 0.1x to 0.31x; our forecasts assume that gearing will "peak" at 0.34x in 2021E and its should be net cash positive from 2024/25E. Over the past three years, Alkaloid's cash

conversion has been at c.160 days, and it was 156 days last year. This is 20-30% better than the median for its other generic peers, and is connected with the company's strategy of keeping high-turnover FMGCs businesses in the group and, in the pharma segment, a relatively high proportion of OTC drugs. Despite some of the business segments, e.g., cosmetics and chemicals, generating materially lower margins than the group average, the blended return that Alkaloid generates on the working capital employed (NOPAT divided by average NWC) has been in line with its peers historically.

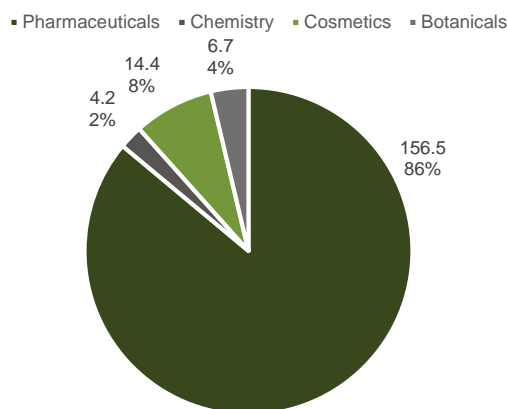
On multiples, the stock looks fully valued, trading at a mid-teens premium versus its peers on 2020-22E PERs and at a small single-digit premium on EV/EBITDAs. On our 2020E earnings, the stock trades at a PER of 14.9x and an EV/EBITDA of 9.1x, premiums vs. the median multiples of our peers group of 11% and 8.6%, respectively. On our 2021-22E numbers, the stock is trading at an average PER of 13.0x, or a 15% premium vs. its peers, and an EV/EBITDA of 7.7x, or in line with its peers. On our forecast (net) dividend from the 2020E earnings, the stock yields 3.0% currently, rising to 3.8% on the dividends from the 2022E earnings. While this is 70-100bps higher than the median of the dividend-paying pharma peers, investors can find much higher-yielding stocks in other sectors/countries in the frontier universe, in our view.

Risks. The main risk for Alkaloid, as we see it, is regulatory price compression for prescription drugs in the company's core FYR markets. According to data from the North Macedonia Insurance fund, which is responsible for reimbursing the cost of prescription drugs under the public healthcare system, average drug reimbursements per prescription have been held tightly in check. Nonetheless, threats to the budget, say from lower payroll tax revenues due to COVID-19 related unemployment, could push insurers to react. This said, we note that Alkaloid's strong brand positions would also allow it to offset, in part or in whole, the impact through higher patient co-pays. Alkaloid has unhedged FX exposure to currencies in several key markets (the RUB, the RSD, the UAH and the HRK), which can affect earnings both positively and negatively. More generally, all generics producers need continuous investment into portfolio modernisation (new drugs, new formulations) to ensure they stay relevant for the market. In each of its (smaller) chemicals, cosmetics and botanicals segments, Alkaloid has material risk exposure to a single customer.

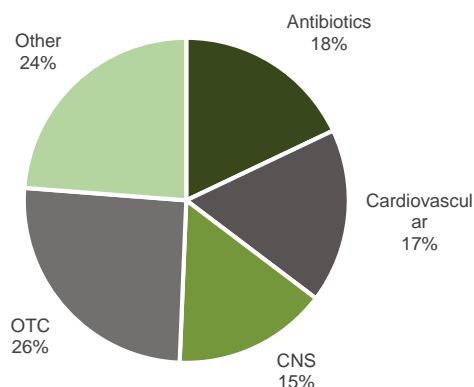
Company description

Alkaloid is a traditional, mid-sized SEE producer of branded prescription generics, OTC drugs and fast-moving consumer goods (FMCG), one that has stayed in step with the times to keep its legacy product portfolio relevant, while consistently expanding into new indications and, selectively, new markets (e.g., Romania, Ukraine and the UK). Alkaloid started in the late-1930s with the production of opium alkaloids (hence the name) for morphine, and was nationalised after 1945. The company expanded into the production of other plant-based alkaloids (e.g., codeine) and herbs, as well as modern pharmaceuticals, initially through cooperation with Western-based manufacturers. During the 1970s, it added cosmetics to the portfolio, as well as film for x-rays and other photo-sensitive applications (the latter has been divested). Around the time of the dissolution of the Yugoslav Republic, the company was partially, and then fully, privatised to employees and management, in the period from 1989 to 1998. Starting in the late-1990s, with support from the EBRD and the IFC, the company expanded its solid dose form production capacity and for semi-synthetic cephalosporins (antibiotics), including its top-selling drug, Pancef (cefexime).

2019 revenues by segment (EUR m)



Pharmaceuticals sales by indication (2019)



Source: Company data, WOOD Research

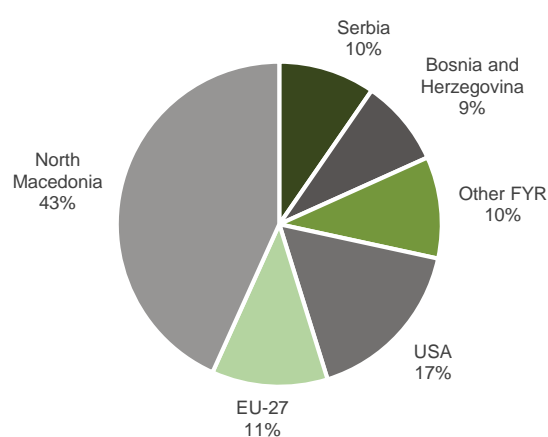
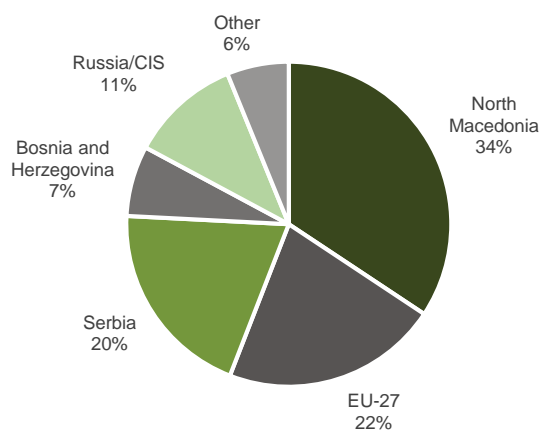
The company operates four business lines: pharmaceuticals, which generated 86% of its total revenues last year; chemistry (2% of sales); cosmetics (8%); and botanicals (4%). By drug indication, the largest share of revenues comes from antibiotics (including cephalosporins, a major export drug, with relatively few competing manufacturers globally), then cardiovascular and central nerve system (CNS) drugs (17% and 15% of sales, respectively), which are the mainstay of most generics producers. A relatively large share of revenues (26%) is from over-the-counter (OTC) products, including caffeine-containing OTC flu and cold drugs. OTCs are important for the company because they are not price regulated and not reimbursed by the state health insurers, so can: 1) be relatively more profitable; and 2) have a short cash-collection cycle.

The cosmetics and botanicals businesses are Alkaloid's FMCG portfolio; the former is dominated by the company's Becutan brand of baby care products; while botanicals is primarily premium herbal teas sold under the Good Nature brand. Like its OTC drugs, Alkaloid keeps these product lines because they generate above average cash flow for the company. Sales here are limited mainly to the domestic market and the Former Yugoslav Republics, particularly Serbia, Kosovo, Montenegro and Bosnia Herzegovina, but Alkaloid's herbal teas have also found demand in the US. The chemicals unit has a broader product portfolio but, traditionally, c.40% of sales is from argentum (silver) salts, which are used in medicines, but also have other applications, e.g., haemodialysers, disinfectants and antiseptics.

Alkaloid: sales by segment

MKD m	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-15	2015-19
Pharmaceuticals	4,980	5,598	5,708	5,966	6,264	6,591	6,910	7,696	8,359	9,556	4.8%	9.7%
Cosmetics	601	636	657	706	715	784	823	841	899	878	4.5%	2.9%
Botanicals	176	197	194	196	230	266	303	270	292	411	7.1%	11.5%
Chemistry	178	307	229	229	189	219	257	287	234	258	3.5%	4.2%
Total	5,934	6,738	6,789	7,098	7,398	7,860	8,293	9,095	9,783	11,103	4.8%	9.0%

Source: Company data, WOOD Research



Source: Company data, WOOD Research

Company management

Alkaloid is managed by a five-person Management Board (see below), with the support of a Steering Committee Management, overseen by a three-member Supervisory Board, consisting of two independent directors and one employee representative. An internal audit department reports to the Supervisory Board.

Zhivko Mukaetov: President of the Management Board and CEO. Mr. Mukaetov holds a BSc in Mechanical Engineering and a postgraduate degree from the Chartered Institute of Marketing in London, UK. Member of the Management Board since 2004; appointed as President of the Management Board in 2007. Responsible for the overall operations of Alkaloid Group.

Viktor Stojchevski: Member of the Management Board and CFO. Mr. Stojchevski holds a BSc in Economics. Member of the Board since January 2013. Responsible for the company's financial operations.

Milkica Gligorova: Member of the Management Board, Director of Pharmaceuticals Production. Mrs. Gligorova holds a BSc in Pharmacy, and is a Specialist in Pharmaceutical Technology. Member of the Board since 2004. Responsible for the overall production operations of the Pharmaceuticals segment.

Gjorgi Jovanov: Member of the Management Board and Director of Shareholding Operations and Propriety Issues. Mr. Jovanov holds a BSc degree in Economics. Member of the Board since 2006. Responsible for the operations in the shareholding and property segment.

Kire Icev: Member of the Management Board and Director of the General Services Department. Mr. Icev holds a BSc in Mechanical Engineering. Member of the Board since 2007. Responsible for the overall operations of the general services department.

Shareholder's structure

As part of the transformation of the economic system, the privatisation process started just before the collapse of the Yugoslav Republic back in 1989, went through several stages, and finally ended in 1998, when Alkaloid was registered as a shareholding company with private ownership. The stock started trading on the North Macedonian Stock Exchange in 2002, where, from the start and until today, it remains the most liquid title. As a result of the history of the privatisation process, Alkaloid's shareholder base is almost wholly domestic and all free float. According to the latest Central Depository data, foreigners own only 3% of the company, while c.5k retail investors – including former and current employees and managers – account for 80.6% of the shares outstanding; domestic institutions and other legal entities represent another 16.4%.

The only shareholder with a >5% stake is the CEO, Mr. Zhivko Mukaetov, with 8.63%. Mr. Zhivko Mukaetov is the son of the company's previous, longstanding CEO, Trajche Mukaetov (from 1985 until his death in 2007), who similarly owned Alkaloid stock. Mr. Mukaetov's stake, as well as other top managers, could be expected to grow slowly over time, as they are regular buyers in the market; this allows them to send a positive signal to the rest of the investment community, in our view.

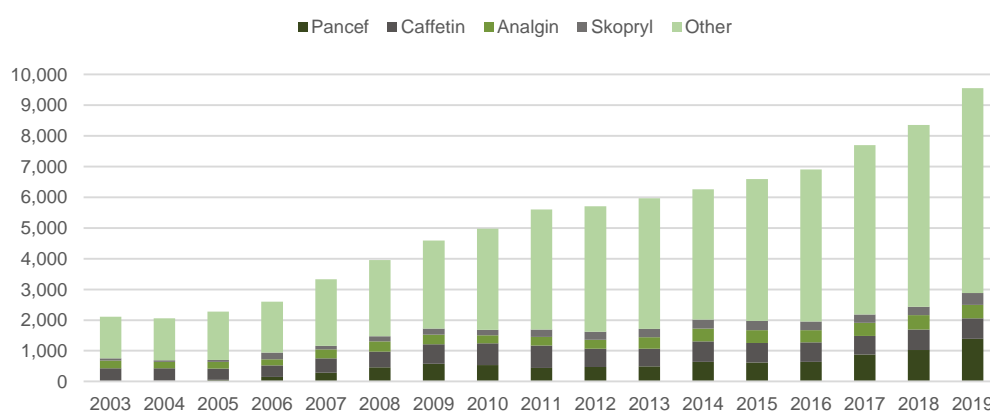
Business lines

Pharmaceuticals

Pharmaceuticals are, by far, Alkaloid's largest business, accounting for 86% of its turnover and 93% of its operating profit last year. There are four drugs that have remained among the business's top-selling products since 2003:

- ✓ **Pancef (cefixime):** a broad spectrum, third-generation cephalosporin antibiotic used to treat bacterial infections of the ear, urinary tract, and upper respiratory tract.
- ✓ **Caffetin and its brand extensions** (paracetamol, in various formulations): Alkaloid sells several paracetamol-containing OTC flu and cold drugs, usually combined with caffeine and a decongestant, or with ibuprofen in certain combinations.
- ✓ **Analgin (metamizole):** a painkiller, spasm reliever, and fever reliever that also has anti-inflammatory effects.
- ✓ **Skopryl and its brand extensions** (lisinopril): an ACE-inhibitor used to treat high blood pressure.

Sales of top four drugs (MKD m), 2003-19



Source: Company data, WOOD Research

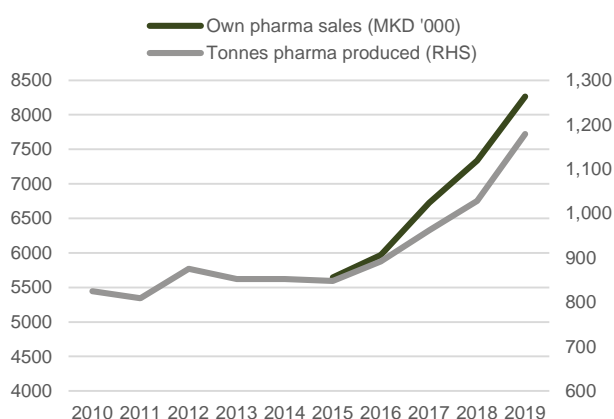
Between 2005-15, the antibiotic Pancef was Alkaloid's single biggest revenues driver, with a CAGR of c.26% annually, followed by Skopryl, with c.16% annual growth. Over the past four years, Pancef has become an even bigger driver, with a 2015-19 CAGR of c.31%, thanks to a doubling of the production capacity, completed in 2017, in large part. In 2022-23E, Alkaloid intends to expand its cephalosporin production capacity and the portfolio further, aiming to become a "one-stop-shop" for first through to third generation drugs. By comparison, the caffeine-containing OTC drugs and Analgin are relative laggards, growing at a mid-single digit pace. As a share of total segment sales, in the past 15 years, Pancef has gone from <1% of the sales mix to 14.5%, while Skopryl has ranged from 3.5-4.5% of sales (3.3% in 2018). The caffeine-containing drugs, on the other hand, have gone from a >20% share to c.7%, and Analgin from 11.5% to 4.6%.

Regardless of the success with Pancef, the bulk of Alkaloid's growth has come from the broad portfolio of other, mostly prescription drugs, which used to account for c.65% and now represent 70% of sales. These other drugs are spread across a decent range of indications, but mainly for the treatment of chronic illnesses, i.e., cardiovascular and neurological, which are the mainstay drugs for most generics producers. Alkaloid fields a decent range of antidepressants, say, or high blood pressure drugs (ACE inhibitors, calcium channel blockers, sartans, diuretics), including some fixed dosage combinations (FDC); the number of FDC cardio drugs should increase soon, thanks to in-licencing deals. Again, between 2005-15, the sales of other drugs increase by a CAGR of 11.4%, so slightly faster than the segment as a whole and by a CAGR of 15.2% over 2015-19 vs. the CAGR of 13.2% for the total. Over 90% of prescription drugs are sold at pharmacies, vs. hospitals, which limits the company's payments risks (state-run SEE hospitals can be, more often than not, prone to paying suppliers late).

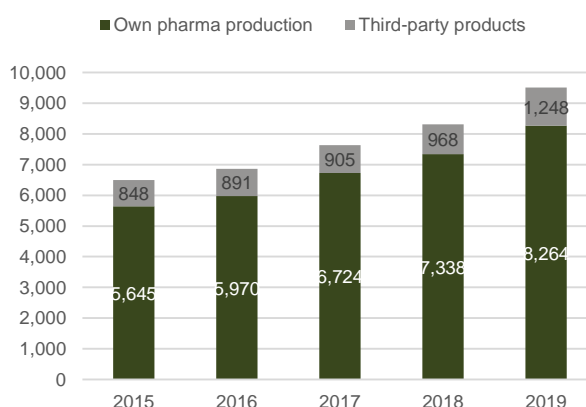
As noted above, the recent acceleration in sales has been driven primarily by increased capacity, e.g., the doubling of the production capacity for Pancef. The increased production of pharmaceuticals in tonnes accounts for c.85% of the growth in pharma revenues, with the remaining 15% being the average selling price. We also note that, in addition to its own products, Alkaloid sells in-licenced drugs and infusion solutions from third parties, a common practice when a drug-maker wants to round out its product portfolio, but manufacturing the products in-house may not make financial sense. Over the past

five years, the percentage of third-party products in total pharma sales is more or less stable, at between 12-14%, or an average of 13.2% over the past five years.

Own pharma sales vs. production in tonnes



Own pharma production vs. third-party pharma



Source: Company data, WOOD Research

We expect in-licenced drugs to grow somewhat for the next several years as the company intends to expand its in-licencing activities in the next few years to extend the product portfolio further, specifically in the: 1) cardiovascular; 2) oncology; and 2) gynaecology indications (the latter two are new for the business). In the cardiovascular indication, it has received regulatory approval already to add several new in-licenced fixed dose combination (FDC) drugs, which should, in our view, give the company a significant boost as they have proven extremely popular with both physicians and patients. Regarding oncology, there is an opportunity if the regional healthcare authorities consider allowing sales on these drugs in pharmacies, not only to hospitals, as was recently made the case in Croatia. In gynaecology, management will be in-licencing a range of new drugs, including oral contraceptives, to complement its existing portfolio of vitamins and supplements aimed especially at women.

Pharma sales by region

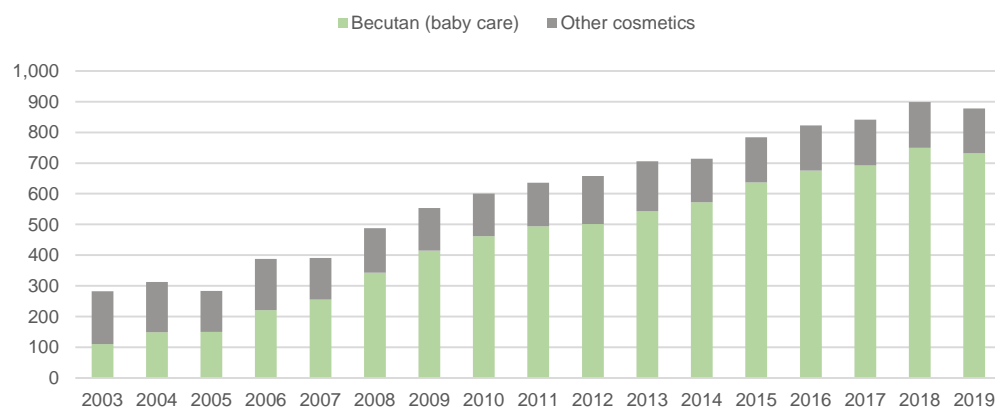
MKD m	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-15	2015-19
Domestic pharma sales	2,002	2,283	2,322	2,563	2,588	2,623	2,664	2,821	2,929	3,272	4.6%	5.7%
Pharma exports	2,978	3,315	3,387	3,404	3,676	3,669	4,246	4,875	5,430	6,284	3.5%	14.4%
Total pharma sales	4,980	5,598	5,708	5,966	6,264	6,291	6,910	7,696	8,359	9,556	4.0%	11.0%
Domestic pharma as % of total	40%	41%	41%	43%	41%	42%	39%	37%	35%	34%		

Source: Company data, WOOD Research

Cosmetics

The core of the cosmetics business is Alkaloid's range of baby care products, sold under the Becutan brand, established by the company in 1978. The range includes not only traditional cosmetics – creams, oils, soaps and shampoos – but also teas, supplements, wet wipes and nappies. The latter are marketed by Alkaloid, but purchased from contract manufacturers, as are some other goods in the range. The Becutan brand is sold mostly in the countries of the FYR, where they are very popular; according to management, the cosmetics rank in the top-three in their class by revenues, alongside J&J and Nivea. Expanding the Becutan line has allowed it to generate strong growth (a 2005-15 CAGR of 16%, but only a 5.6% CAGR for 2015-18), but also means that its EBIT margins are rather thin – up until 2014, in the mid-single digits, and less than 1% in 2018-19. The rest of the range is rounded out by other Alkaloid brands and includes sunscreens, shampoos and other skincare products, but also kitchen cleaning products (washing up liquids and cleaning sprays).

Cosmetics revenues (MKD m)

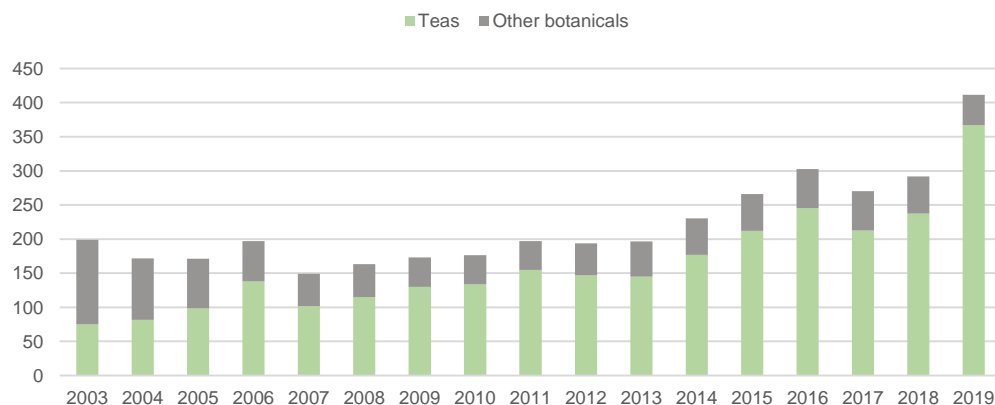


Source: Company data, WOOD Research

Botanicals

Herbal teas – sold under both the company's Good Nature brand and private labels – represent c.80% of sales in the botanicals segment and are undergoing a major investment cycle into new production capacity currently. Alkaloid focuses on atypical combinations of herbs for its teas, marketing them both for their medicinal benefits, as well as for their traditional, organic, North Macedonian quality. The company positions Good Nature as a premium brand, in terms of both packaging and content, so it is aimed rather at export markets. In the near term, the company is focusing on the US market, where it sells Good Nature teas and private labels, via a 50/50 JV with a US businesswoman with North Macedonian roots, but also through third-party channels. Private label partners include Swanson Health (health supplements) and body care manufacturers Aveda (Estée Lauder) and Arbonne International, but Good Nature also has a shop on Amazon as well. This year, the company will spend EUR 1.3m on a new filter tea packaging machine to meet the demand from the US market, where it is guiding for c.20% annual growth for the next several years.

Botanicals revenues (MKD m)

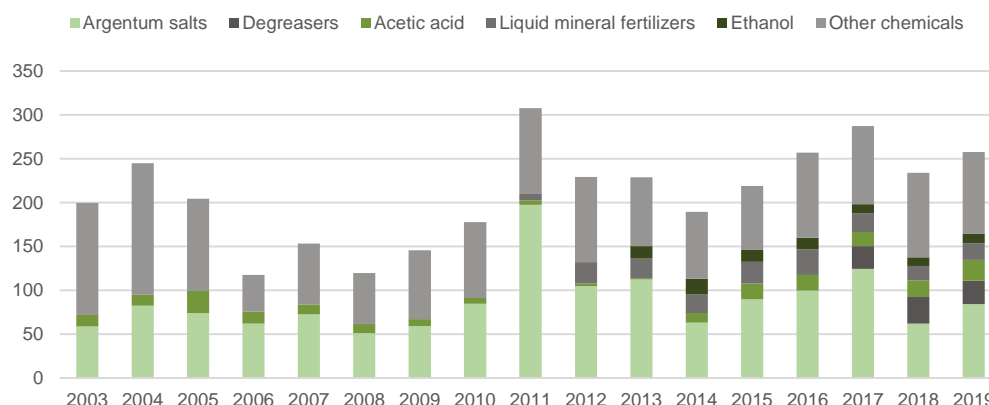


Source: Company data, WOOD Research

Chemicals

Chemicals are largely complementary with the chemicals needed for its pharmaceuticals production, with the exception of argentum (silver) salts and liquid mineral fertilisers. Silver salts have been a legacy product for many decades now, but the product is still in demand; in particular, Merck in Germany is a long-time buyer, since the 1970s. Liquid fertilisers are another legacy product but, unlike silver salts, one that management would consider divesting. The rest of the chemicals range is diverse, with products such as haemodialysis liquids, to food additives and various other industrial applications. One area that is now seeing strong demand, due to COVID-19 is Alkaloid's range of disinfectants and antiseptics; recently, the company has started signing supply contracts with a number of European partners and may offer these in the US as well.

Chemicals revenues (MKD m)



Source: Company data, WOOD Research

Revenues by region

Looking at a decade of Alkaloid's sales on a regional basis, three points stand out for us:

- ✓ Since 2015, Alkaloid has entered several new markets, which, while still a relatively small share of the overall sales mix (9% last year vs. 3% in 2015), have made a meaningful contribution – about one-quarter – to top-line growth in absolute terms. Here, we highlight the UK and Romania, where Alkaloid has gone from having zero or negligible business to a respectable level of sales (e.g., to mid-single digit EUR m) in the past three-to-four years, but also Ukraine, where the company has increased its sales CAGR by c.50% over the last five years.
- ✓ Sales on the “traditional” markets, with the 2015-19 CAGR mostly in the mid-single digits, are also respectable, in view of the regulatory pricing pressure for prescription drugs across the region. Moreover, in almost every case, average growth has *accelerated* vs. 2010-15, which we attribute to capacity expansions – pharma production in tonnes grew by an 8.6% CAGR in 2015-19, thanks to doubling the cephalosporin capacity, in large part – and, to some extent, the rollout of new drugs, including in-licensed products. Inasmuch as management is just wrapping up an investment into a c.50% increase in solid dosage form production capacity, we believe that Alkaloid could maintain its elevated sales growth in its traditional markets for at least another two-to-three years.
- ✓ The share of exports in Alkaloid's sales mix is still relatively low, in our view. Last year, it still generated c.35% of revenues in its home market of North Macedonia, a high proportion, given the country's small population of only 2.077m. To us, this suggests there is still much room for management to continue with its outward expansion push. It would take it relatively little – doubling its sales in the Ukraine, Romania and the UK to EUR 10m, or expanding into some new markets (Germany, Poland or Greece, for instance) – to increase the share of exports to 75-80% (Krka and Richter, for instance, generate 92-95% of their revenues outside their home markets).

Alkaloid: sales by region

MKD m	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-15	2015-19
Domestic	2,485	2,793	2,878	3,123	3,175	3,236	3,321	3,487	3,624	3,907	4.5%	4.8%
Pharma	2,002	2,283	2,322	2,563	2,588	2,623	2,664	2,821	2,929	3,272	4.6%	5.7%
CCB	483	511	556	560	587	613	657	666	695	636	4.1%	0.9%
Southeast Europe (FYR)	1,979	2,188	2,211	2,285	2,505	2,757	2,863	2,996	3,385	3,611	5.7%	7.0%
Serbia	804	948	1,058	1,084	1,216	1,391	1,491	1,587	1,916	2,052	9.6%	10.2%
Bosnia and Herzegovina	624	618	580	646	699	790	752	779	794	808	4.0%	0.6%
Kosovo	269	303	299	308	309	327	329	320	383	444	3.3%	8.0%
Other FYR	282	320	274	247	281	249	290	310	291	306	-2.0%	5.3%
Russia and CIS	341	436	449	360	380	453	511	642	616	1,049	4.9%	23.4%
Russia	269	414	355	314	343	381	437	511	389	742	6.0%	18.1%
Ukraine	65	14	80	40	28	47	50	103	192	259	-5.3%	53.2%
Other CIS	7	8	14	6	10	24	25	28	35	47	24.4%	18.1%
EU-27	1,089	1,254	1,189	1,259	1,243	1,293	1,438	1,847	2,015	2,243	2.9%	14.8%
Croatia	676	717	709	711	660	683	717	813	818	862	0.2%	6.0%
Bulgaria	149	160	177	187	205	223	239	250	276	321	7.0%	9.6%
UK	0	0	0	0	0	7	15	203	203	316	n.m.	160.6%
Slovenia	150	189	192	228	215	221	249	279	263	281	6.7%	6.2%
Romania	7	7	3	28	55	58	95	152	160	227	42.8%	40.4%
Germany	81	179	97	98	62	73	71	74	48	76	-1.7%	0.9%
Other EU-27	26	3	10	6	46	28	51	77	247	160	0.9%	55.3%
Other	41	66	62	71	95	122	160	122	143	293	19.8%	24.5%
US	34	56	47	54	81	109	142	102	125	268	21.7%	25.2%
Total	5,934	6,738	6,789	7,098	7,398	7,860	8,293	9,095	9,783	11,103	4.8%	9.0%
"Traditional" markets	5,854	6,654	6,700	6,986	7,193	7,621	7,947	8,513	8,995	10,059	4.5%	7.2%
"New" markets	81	84	89	111	205	239	346	581	788	1,044	19.8%	44.6%

Source: Company data, WOOD Research

On its domestic market, Alkaloid has, historically, generated stable, low- to mid-single digit revenues growth in pharma sales – typical of other regional peers – and broadly in line with the market as a whole. Looking at the data from the North Macedonian Insurance fund, which is responsible for reimbursing the cost of prescription drugs under the public healthcare system, the number of prescriptions reimbursed grew by a CAGR of 3.9% between 2015 and 2018, and reimbursement expenses rose by a CAGR of 4.9%. Alkaloid's domestic pharma sales grew by a CAGR of 3.8%, which is c.110bps slower than the market, but we note that Alkaloid's sales figures include OTC drugs (which are generally not reimbursed), while the reimbursement budget typically includes more expensive, imported drugs for chronic diseases (e.g., cancers, diabetes, multiple sclerosis), which are not always in a generic producer's portfolio.

Alkaloid's pharma revenues growth in its home markets is, again, typical of other generics producers. Between 2015 and 2019, Krka generated a 3% CAGR in its home market of Slovenia, and Richter generated 2.7% in Hungary (in EUR terms) vs. 5.7% for Alkaloid (we note that, in 2019, pharma sales grew by an unusually strong 11.7% yoy), due to the expansion of collaborations with big multinational companies.

North Macedonian drug reimbursement

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010-15	2015-18
RX count ('000)	15,228	16,333	17,485	17,822	19,385	21,130	22,274	23,091	23,667	5.6%	3.9%
Drug reimbursements (MKD bn)	1,778	1,903	1,993	2,124	2,263	2,426	2,626	2,786	2,800	5.3%	4.9%
Average reimbursement (MKD)	117	117	114	119	117	115	118	121	118	-0.3%	1.0%
Alkaloid domestic pharma revenues (MKD m)	2,002	2,283	2,322	2,563	2,588	2,623	2,664	2,821	2,929	4.6%	3.8%

Source: Health Insurance Fund of North Macedonia, WOOD Research

Alkaloid's largest export markets are the traditional Former Yugoslav Republics (FYR), including Croatia and Slovenia, and, most recently, Russia. The FYR markets generated one-third of revenues (EUR 59m) last year and, if we include Croatia and Slovenia, c.43% of sales, a proportion that has not changed much vs. the early part of the past decade, when the FYR plus Croatia and Slovenia generated 46% of sales. Unsurprisingly, as a branded producer, Alkaloid's products have the most traction there, and it is relatively cheaper to build a salesforce, compared to Russia, CEE or Western Europe.

Fortunately, the growth dynamic in the region has been pretty favourable, especially in the larger countries of Serbia and, recently, Croatia. In total, Alkaloid generated a 7% 2015-19 CAGR in the region in EUR terms. An aggregate size of the generics markets in the region is not available, but we note that Krka's 2015-19 sales CAGR for the same markets, which should be a good proxy, totalled 6.5%.

In Russia, the sales growth has been relatively steady over the years – 2018 was a notable exception – but, on average, has outpaced its much larger regional peers (Alkaloid generated EUR 12m of sales last year vs. Krka's EUR 311m and EUR 267m for Richter). Over 2010-15, growth averaged 6% in EUR terms vs. 2.7% at Krka and 0% at Richter; between 2015-19, Alkaloid's sales grew by a CAGR of 18.2% vs. Krka's 8.4% (Richter, in comparison, grew by an average 0.9%).

In terms of the company's recent expansion, we highlight the “new” markets, like Romania, the UK and the US, as examples that now contribute meaningfully to revenues, but also Ukraine, where the company has been present longer, but has begun making significant inroads only recently. Alkaloid's entrance to the Romanian market really began only in 2014, when it posted revenues of just EUR 0.9m, but it has grown this steadily now to EUR 3.7m, or by a CAGR of 33%. The UK is a wholly new market, which the company entered in 2015 and which generated sales of MKD 316m, or EUR 5.1m, last year, on the back of its carbocysteine drug (for chronic obstructive pulmonary disease (COPD) or cystic fibrosis) in large part. The company based its growth on the “new” markets (Romania, the UK, Poland, Hungary, etc.) in the past few years, mainly on out-licence and supply agreements with a few of the global leading generic companies, which have a strong presence in these markets.

Since 2016, the company started generating material sales in the CEE-3 countries, but the results have been more mixed so far. Similarly, in the past several years, it has been more active in Armenia and Georgia, but the contribution to the top line has been minimal so far.

Export sales by type: pharma vs. chemicals, cosmetics and botanicals (CCB)

MKD m	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2010-15	2015-19
Pharma exports	2,978	3,315	3,387	3,404	3,676	3,669	4,246	4,875	5,430	6,284	3.5%	14.4%
CCB exports	472	630	524	571	547	656	726	733	730	912	5.6%	8.6%
Total exports	3,449	3,945	3,911	3,975	4,222	4,325	4,972	5,608	6,159	7,196	3.8%	13.6%
CCB as a % of exports	15.8%	19.0%	15.5%	16.8%	14.9%	17.9%	17.1%	15.0%	13.4%	14.5%		

Source: Company data, WOOD Research

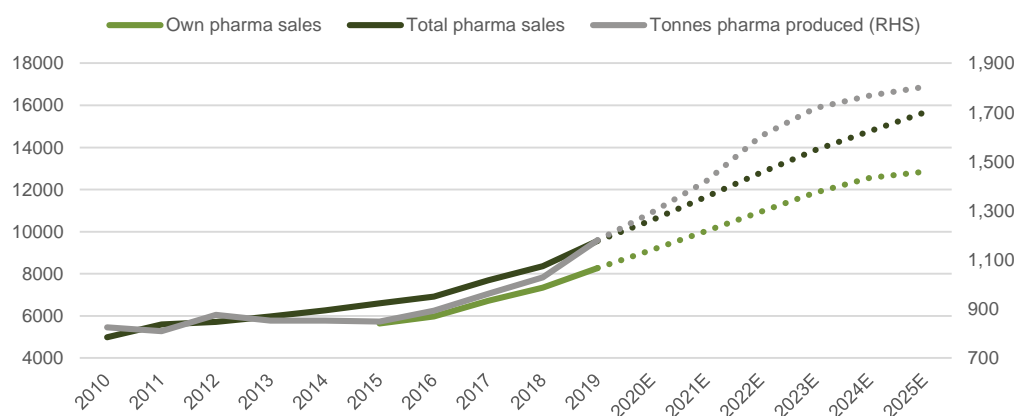
Earnings forecasts

We expect Alkaloid to maintain relatively strong revenues and earnings growth for the next three or four years on the back of its investments into new drug production capacity, several new in-licencing deals to expand the cardiovascular portfolio and add the oncology and gynaecology indications to the product slate, and, to lesser extent, the growth of herbal tea sales. For 2020E, we expect Alkaloid to grow revenues by 10%, to MKD 12,224m, and net profit by 18%, to MKD 1,198m, with EBITDA margin expansion to 17.2% vs. 16.7% in 2019. For 2021-22E, we forecast top-line and net profit CAGRs of 9.8% and 12.1%, respectively, again with some modest margin expansion, as the business starts to reap the benefits of scale. During this expansion cycle, we assume average capex for the next three years of MKD 1,368m (c.EUR 22m. Assuming a 50% dividend payout policy, Alkaloid's dividend from its 2020E earnings implies a yield of 3.0%, rising to 3.8% from the 2022E earnings. We estimate a 2020E ROIC of 9.5%, rising to 12.9% in 2022E (vs. our WACC assumption of 10.4% for the business).

Revenues

For the pharmaceuticals segment – which represents c.86% of total revenues – we forecast sales based on our projection for tonnes of own pharmaceuticals produced, which is linked to the company's planned investments into new production capacities. Historically, at least, we see a strong correlation between sales and capacity. Here, we forecast the tonnes of pharmaceuticals sold to increase by a CAGR of 7.3% through to 2025E vs. 2019. and for own drugs sold to grow by 7.6%. Including in-licenced drugs – which the company is buying in to round out and expand its portfolio – medical equipment and solutions, we assume an 8.6% CAGR through to 2025E and then a c.5% CAGR through to the end of our forecast horizon.

Pharmaceuticals revenues (MKD m) vs. tonnes of own pharmaceutical produced (RHS)



Source: Company data, WOOD Research

For the remaining business lines – chemistry, cosmetics and botanicals (CCB) – we forecast growth in 2020E of 11.2% and a CAGR of 7.5% for 2021-23E. The major drivers for the year should be the sales of herbal teas, predominantly on the US market, but also a positive COVID-19 impact as: 1) customers stocked up on cosmetics and disinfectants ;and 2) some restocking of chemicals and, again, higher demand for the company's range of disinfectants and antiseptics (sold under the Medical, Ecosal, Dezintal and Alkasept brands).

For the following three years (2021-23E), we expect botanicals to be the major driver of the CCB revenues, thanks to investments this year to increase capacities for producing herbal teas; here, we pencil in a revenue CAGR of just over 20%. On the other hand, we assume that growth in chemical and cosmetics will decelerate to 1-2% over this period.

Revenues by segment

MKD m	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2016-19	2019-23E
Pharmaceuticals	6,910	7,696	8,359	9,556	10,553	11,659	12,792	13,875	11.4%	9.8%
Chemistry	257	287	234	258	279	281	284	287	0.1%	2.7%
Cosmetics	823	841	899	878	935	954	973	992	2.2%	3.1%
Botanicals	303	270	292	411	457	567	692	796	10.8%	17.9%
Total	8,293	9,095	9,783	11,103	12,224	13,461	14,741	15,950	10.2%	9.5%

Source: Company data, WOOD Research

In terms of the sales by region, we expect growth to be comparatively broad-based. Under the assumption that the increased production capacity will give the company the space to launch new drugs, formulation and dosages – not just more of what it already makes today – as well as selling newly licenced drugs, we believe that sales on Alkaloid's core markets of North Macedonia and the FYR countries (e.g., Serbia, BiH and Kosovo, but also Croatia and Bulgaria) will see sales rise sooner. In absolute terms, we expect most of the sales growth, around 70%, from these markets. Drug registration in other jurisdictions, e.g., Russia and Ukraine, is likely to take longer to obtain, so we are likely to see growth from new products a little later, but we expect Russia and CIS to deliver another c.13% of incremental growth in absolute terms through to 2023E. We are positive on the outlook for Alkaloid in Romania, where we expect the company to intensify its marketing efforts further, but, for the time being, less confident about other EU-27 markets, e.g., the CEE-3 countries, which are extremely competitive and also comparatively lower growth markets. Finally, in the US (under "Other"), we expect to see a strong, c.20% CAGR on the back of demand for the company's range of premium herbal teas.

Revenues by region

MKD m	2016	2017	2018	2019	2020E	2021E	2022E	2023E	2016-19	2019-23E
Domestic	3,321	3,487	3,624	3,907	4,241	4,572	4,932	5,281	5.6%	7.8%
Pharma	2,664	2,821	2,929	3,272	3,605	3,930	4,284	4,626	7.1%	9.0%
CCB	657	666	695	636	636	642	648	655	-1.1%	0.7%
Southeast Europe (FYR)	2,863	2,996	3,385	3,611	4,127	4,569	5,022	5,452	8.0%	10.9%
Serbia	1,491	1,587	1,916	2,052	2,422	2,761	3,120	3,463	11.2%	14.0%
Bosnia and Herzegovina	752	779	794	808	832	857	883	909	2.4%	3.0%
Kosovo	329	320	383	444	542	607	662	708	10.5%	12.4%
Other FYR	290	310	291	306	331	344	358	372	1.9%	5.0%
Russia and CIS	511	642	616	1,049	1,141	1,312	1,481	1,618	27.1%	11.4%
Russia	437	511	389	742	802	922	1,032	1,125	19.3%	11.0%
Ukraine	50	103	192	259	289	332	382	420	73.6%	12.8%
Other CIS	25	28	35	47	50	58	66	73	23.6%	11.3%
EU-27	1,438	1,847	2,015	2,243	2,358	2,568	2,768	2,953	16.0%	7.1%
Croatia	717	813	818	862	896	945	997	1,047	6.3%	5.0%
Bulgaria	239	250	276	321	344	385	427	470	10.3%	10.0%
UK	15	203	203	316	344	379	420	454	173.8%	9.5%
Slovenia	249	279	263	281	298	316	335	352	4.1%	5.7%
Romania	95	152	160	227	250	287	322	354	33.7%	11.7%
Germany	71	74	48	76	76	76	76	76	2.2%	0.0%
Other EU-27	51	77	247	160	150	180	191	200	46.5%	5.7%
Other	160	122	143	293	359	441	538	646	22.4%	21.8%
Total	8,293	9,095	9,783	11,103	12,224	13,461	14,741	15,950	10.2%	9.5%
"Traditional" markets	7,947	8,513	8,995	10,059	11,072	12,117	13,204	14,223	8.2%	9.0%
"New" markets	346	581	788	1,044	1,153	1,344	1,537	1,727	44.5%	13.4%

Source: Company data, WOOD Research

COGS and opex

We forecast COGS on blended margins for: 1) Alkaloid's internally-produced goods; and 2) those that are sold by the company, but acquired from third-parties (14-15% of products in the pharmaceuticals portfolio, we expect, but also nappies, wet wipes and other sundry products in the cosmetics portfolio). Over the past several years, Alkaloid's gross margins have been between around 45.4% (46.2% in 2019), with a slight upwards trend thanks to a better margin on third-party goods. On this basis, we assume a blended margin of 45.1% for FY20E, rising to the mid-46% range through to 2022E. The main driver should be lower fixed costs, e.g., labour, transportation and "other" expenses, plus we expect the company to get better terms on the purchases of raw materials.

Alkaloid's operating costs are dominated by selling and marketing (S&M), which has been running just below 30% of revenues recently. This is a relatively high figure – over the same period, both Krka and Richter's S&M costs were under c.26% – but not terribly surprisingly, inasmuch as all three are branded producers (so large medical representative teams are just part of the business), but Krka and Richter are over c.8x larger in terms of total turnover. Currently, Alkaloid employs over 400 medical and product representatives, with teams in the largest drug markets (e.g., Russia, Serbia) close to 100 people each, and the company intends to continue hiring more on a selective basis. For 2020-21E, we assume S&M costs basically unchanged at c.29.6% of sales, falling to c.29% from 2022E.

Research and development costs. In its annual report, Alkaloid presents R&D costs equivalents to not quite 1% of revenues (and in its interim reports, these R&D costs are folded into the "other operating" cost line). This is somewhat misleading, because the company actually capitalises a significant share (c.75-80%) of R&D as intangible assets ("internally generated intangibles"), which is subsequently

amortised, and which accounted for 86% last year on net intangibles on the company's balance sheet. On a cash basis, management aims to spend 3-5% of revenues on R&D and we believe that, over the past four years, the R&D spend has averaged c.4.3% of revenues; going forward, we assume an average total R&D spend of 4%.

Other operating income/expenses. In Alkaloid's case, the prime drivers of these lines are FX exchange gains/losses and other income/expenses. Historically, other income/expenses net themselves off and we assume the same going forward. As for FX risk, the largest is Alkaloid's RUB-denominated receivables, followed by "other currencies", which are mainly the Serbian Dinar (RSD), the Croatian Kuna (HRK) and the Ukrainian Hryvna (UAH). We note that the largest FX exposure is to the EUR but, on a net basis, the FX risk is relatively minor, owing to two factors. Firstly, the MKD/EUR is tightly managed, so is exceedingly stable; the average MKD/EUR rate for the past decade has held at 61.6, with a standard deviation of 0.059 (+/- 0.096%). Secondly, management uses natural hedging, offsetting its EUR-denominated sales, but drawing on EUR-denominated debt. We pencil in a higher than average net FX loss for 2020E, at MKD 148m (vs. net FX losses for 2018 and 2019 of MKD 105m and MKD 63m, respectively), on the back of the weaker RUB and UAH. From 2021E-onwards, our EUR/RUB forecasts imply that FX losses will continue on the order of c.MKD 100m annually.

Financial expenses. Generic pharmaceuticals makers are generally highly cash generative, which is the case for Alkaloid as well. Owing to this, and the company's tight management of working capital, Alkaloid makes do with very low levels of debt despite ongoing investments and a generous shareholder remuneration policy. Over 2016-19, the net debt/EBITDA has ranged from 0.1x to 0.31x; our forecasts assume that gearing will "peak" at 0.34x in 2021E and should be net cash positive from 2024/25E. As a result, Alkaloid's net financial expenses are extremely low, and averaged MKD 15m in 2016-19; if we conservatively assume a return to positive short-term rates in the Eurozone in the coming years, they may peak for Alkaloid at c.MKD 40m in 2022E, declining thereafter.

Balance sheet and cash flows. As noted above, Alkaloid runs with a very low level of debt and we assume that gearing will "peak" at 0.34x in 2021E and should be net cash positive from 2024/25E. It is worth noting the company's better than average working capital management, in terms of both the quick cash conversion cycle and the earnings generated on the average net working capital (NWC) employed.

Over the past few years, Alkaloid's cash conversion has been c.160 days, and it was 156 days last year. This is 20-30% better than the mean for the other generic peers, and is connected with the company's strategy of keeping FMGC businesses in the group and, in the pharma segment, a relatively high proportion of OTC drugs. In both cases, these are high turnover, non price-regulated businesses that complement in a positive way – in terms of working capital management – the core prescription drug business. Also, despite some of the business segments, e.g., cosmetics and chemicals, generating materially lower margins than the group average, the blended return that Alkaloid generates on the working capital employed (NOPAT divided by average NWC) has been in line with its peers, historically.

Cash conversion cycle

Days	2016	2017	2018	2019
Alkaloid	169	161	162	156
Krka	258	272	277	260
Richter	174	167	178	166
Podravka	127	123	121	n.a.
Hikma	192	234	214	204
Aspen Pharmacare	287	249	288	288
Teva	173	214	233	231
Mylan	155	152	140	132
Median	174	191	196	204

Source: Bloomberg, WOOD Research

NOPAT as a % of average net working capita

	2016	2017	2018	2019
Alkaloid	21%	22%	25%	27%
Krka	16%	24%	27%	31%
Richter	36%	9%	18%	18%
Podravka	14%	6%	15%	17%
Hikma	27%	neg.	33%	45%
Aspen Pharmacare	31%	32%	33%	17%
Teva	7%	neg.	neg.	neg.
Mylan	18%	21%	17%	2%
Median	20%	22%	25%	18%

Source: Bloomberg, WOOD Research

Capex. According to management, the maintenance capex for the business is around EUR 10-15m (MKD 616-924m), but it will be spending more over the next two-to-three years on expanding capacity. We understand that Alkaloid has now completed work on the new 7,000 m² production hall, an investment launched last year with total costs of EUR 11m. This should increase production capacity by at least 50% to 3bn tablets, from 2bn. Additionally, the company is spending EUR 1.3m on a new packaging line for the herbal teas and over EUR 1m to finalise the project for the gasification of the Alkaloid - Gjorce Petrov site, in order to improve energy efficiency and reduce emissions.

In our model, we assume that capex will peak this year at c.EUR 26m (c.MKD 1,630m), but remain higher, at c.EUR 20m for 2021-23E, as the company is planning investments to increase liquid form capacity and increase output further at the cephalosporins unit (2022-23E) to add new drugs in the class, with the aim of becoming a one-stop-shop for first through to third generation drugs.

WOOD forecasts vs. Alkaloid's projections

We are not aware of any publically available consensus earnings estimates for Alkaloid, but the company does provide investors with its own guidance. Each December, it publishes a summary business plan for the next year; additionally, in its 1H20 investor presentation, it published summary guidance for 2021-22E (see below). The quality of the guidance from the annual business plans over the past four years, at least, has been of high quality, in our view; in all instances, the actual results were within a mid-single digit percentage difference vs. the guidance on each of the revenues, EBITDA and net profit lines. As for our forecasts (which we made before we had the forward guidance), we note that we are, broadly, a touch more optimistic than the company's numbers, but usually only by a few percentage points.

WOOD 2020-22E forecasts vs. Alkaloid projections (in EUR m)

in EUR m	WOOD			Alkaloid projections			WOOD vs. Alkaloid		
	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
Revenues	198.4	218.5	235.5	191.8	207.2	225.8	3%	5%	4%
EBITDA	34.1	37.5	42.6	33.1	36.5	40.5	3%	3%	5%
Net profit	19.4	20.5	24.0	18.3	19.8	21.6	6%	4%	11%
Cash from operations	25.1	28.8	33.0	29.0	28.8	32.8	-14%	0%	1%

Source: Company data, WOOD Research

Valuation

DCF valuation

We value Alkaloid using a 10Y DCF model, with a multiples valuation as a sanity check. On this basis, we arrive at a DCF-based 12M PT of MKD 13,567/share, or upside of c.7% to the current level. The key assumptions in our DCF model include:

- ✓ A WACC of 10.4%, starting with a risk free rate of 5% for North Macedonia and an equity risk premium of 5.5%, which is our base assumption for Balkan countries.
- ✓ We apply a levered beta of 1.04x, starting with an unlevered beta from the Damodaran sector beta database of 1.12x for emerging market drug producers.
- ✓ We calculate the terminal value as the average of: 1) the perpetuity with a 1% terminal growth rate; and 2) an exit EV/EBITDA of 7.0x, which is common for all our pharma sector companies.

DCF valuation

MKD m	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
EBIT	1,353	1,498	1,793	1,966	2,125	2,229	2,450	2,592	2,740	2,894
NOPLAT	1,165	1,288	1,542	1,691	1,828	1,917	2,107	2,229	2,356	2,489
Depreciation	749	815	876	915	947	933	953	971	987	1,001
Change in NWC	-232	-352	-365	-345	-284	-273	-262	-267	-279	-292
Capex	-1,621	-1,232	-1,252	-1,127	-939	-814	-856	-898	-943	-989
FCF	62	518	801	1,134	1,553	1,763	1,943	2,035	2,121	2,208
PV of FCF	62	470	658	844	1,047	1,077	1,076	1,021	964	909

	I. Perpetuity (g=1%)	II. Exit EV/EBITDA (7x)		
Sum of PV	8,127	8,127	Risk-Free Rate	5.0%
PV of Terminal value	9,718	11,149	Levered Beta	1.04
Total EV	17,845	19,276	Risk premium	5.5%
Net Debt (2019A)	-422	-422	Cost of Equity	10.7%
Minority interest	-1	-1	Cost of Debt	2.6%
Provisions	-41	-41	Tax Rate	13.8%
Dividend paid	-500	-500	Effective Cost of Debt	2.2%
Equity value	16,881	18,312	Weight of Equity	95.9%
Price target (BGN)	11,794	12,794	Weight of Debt	4.1%
Average		12,294	WACC	10.4%
12M price target		13,567		

Source: WOOD Research

PT sensitivity to WACC and terminal growth rate

WACC/terminal growth	-1.0%	-0.5%	0.0%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%
8.4%	15,358	15,868	16,440	17,084	17,815	18,653	19,624	20,759	22,107
8.9%	14,443	14,885	15,376	15,927	16,548	17,253	18,061	18,996	20,091
9.4%	13,618	14,003	14,429	14,903	15,434	16,032	16,712	17,491	18,392
9.9%	12,871	13,208	13,579	13,990	14,447	14,959	15,536	16,191	16,942
10.4%	12,192	12,488	12,813	13,171	13,567	14,008	14,502	15,058	15,690
10.9%	11,572	11,833	12,119	12,432	12,778	13,160	13,585	14,061	14,598
11.4%	11,003	11,235	11,488	11,763	12,066	12,399	12,767	13,177	13,636
11.9%	10,480	10,687	10,911	11,154	11,420	11,712	12,033	12,389	12,784
12.4%	9,998	10,182	10,382	10,598	10,833	11,089	11,371	11,681	12,024

Source: WOOD Research

Peer multiples

Peer valuations

Name	Country	Last price (LCU)	Mkt Cap (EUR)	P/E			EV/EBITDA			Dividend yield			EBITDA margin		
				20E	21E	22E	20E	21E	22E	20E	21E	22E	20E	21E	22E
Alkaloid	MD	12,631	295	14.9	14.1	11.9	9.1	8.3	7.1	3.0%	3.2%	3.8%	17.2%	17.2%	18.1%
Krka	SV	87.0	2,853	13.4	11.5	10.5	7.0	6.3	5.8	4.8%	5.1%	5.3%	24.8%	25.7%	26.1%
Richter	HU	6,850	3,569	13.7	12.5	12.0	8.2	7.1	6.4	1.6%	2.1%	2.0%	24.9%	26.3%	26.8%
Sopharma	BP	3.14	215	7.9	10.2	9.1	8.2	8.0	7.8	3.8%	3.4%	3.9%	7.4%	7.4%	7.4%
Recordati	IT	45.2	9,452	24.1	22.2	20.1	17.7	16.3	15.1	2.3%	2.4%	2.6%	38.6%	38.0%	38.2%
Hikma	JO	2.00	6,609	19.7	17.8	16.2	11.9	10.7	9.8	1.4%	1.6%	1.7%	28.6%	29.2%	29.5%
Aspen Pharmacare	SA	12,732	2,941	12.2	8.4	8.2	10.7	7.7	7.4	0.0%	1.3%	2.4%	22.4%	26.1%	25.6%
Endo International	US	2.80	542	1.3	1.3	1.4	5.9	6.0	6.4	0.0%	0.0%	0.0%	45.4%	43.9%	41.7%
Orion	FI	38.7	5,462	19.1	20.4	18.8	12.3	13.1	12.1	3.8%	3.9%	3.9%	30.3%	28.3%	30.6%
Lundbeck	DC	206	5,525	13.4	13.4	10.5	10.5	9.6	7.5	1.6%	2.0%	2.8%	24.4%	25.4%	28.7%
Teva	IR	8.79	8,116	3.5	3.3	3.1	6.9	6.3	5.5	0.0%	0.0%	0.0%	29.0%	29.4%	30.5%
Mylan	US	15.33	6,680	1.3	1.3	1.4	5.4	5.1	5.0	0.0%	0.0%	0.0%	45.4%	43.9%	41.7%
Median				13.4	12.0	10.5	8.6	7.9	7.2	1.6%	2.1%	2.5%	26.7%	27.3%	29.1%

Source: WOOD Research

As a sanity check for our DCF valuation, we look at Alkaloid's three-year forward earnings on median peer multiples for pharmaceuticals producers. On this basis, not applying any trading premia or discounts, we would see a fair value for Alkaloid on forward PER multiples of MKD 11,045/share, or c.13% below the current share price and 19% below our DCF 12M PT of MKD 13,567/share. On forward EV/EBITDA multiples, we would see a fair value for the stock of MKD 12,371/share, basically in line with the current share price, but 9% below our 12M PT. The average of the two is MKD 11,708/share, which is 14% below our 12M PT, and 7% below the current share price.

Peer multiples valuation

	PER	EV/EBITDA
Peer group avg. multiples 2020-22E	12.0	7.9
Trailing 3Y premium/(discount)	0%	0%
Average 2020-22E earnings forecast	1,322	2,361
EV		18,672
Net debt (2019)		-422
Minority interest		-1
Provisions		-41
Dividend paid		-500
Equity value (MKD m)	15,810	17,708
Price target (MKD/sh)	11,045	12,371
Weight	50%	50%
Weighted price target (MKD/sh)		11,708

Source: Bloomberg, WOOD Research

Risks

- ✓ **Regulatory pricing pressure.** The main risk for Alkaloid, as we see it, is regulatory price compression for prescription drugs on the company's core FYR markets. According to data from the North Macedonia Insurance fund, which is responsible for reimbursing the cost of prescription drugs under the public healthcare system, average drug reimbursements per prescription have been held tightly in check. Nonetheless, the threats to the budget, from lower payroll tax revenues due to COVID-19 related unemployment, could push insurers to react. This said, we note that Alkaloid's strong brand positions should also allow it to offset, in part or in whole, the impact through higher patient co-pays
- ✓ **Alkaloid has unhedged FX exposure to currencies in several key markets (the RUB, the RSD, the UAH and the HRK) which can affect earnings both positively and negatively.**
- ✓ **Generics producers need continuous investment into portfolio modernisation (new drugs, new formulations) to ensure they stay relevant for the market.**
- ✓ **Major customer risk.** In the key pharmaceuticals segment, sales are spread over many countries and customers, so there is low exposure to any one customer, but Alkaloid does have material exposure to single customers in the chemicals, cosmetics and botanicals segments. Specifically, 65% of the 2019 revenues from botanicals were generated by a single customer (MKD 267m, or 2.4% of total sales). In the cosmetics segment, one customer accounted for 16.2% of sales (MKD 142m, or 1.3% of total sales). 27.6% of the revenues in the chemicals segment were generated by a single customer (MKD 71m, or 0.6% of total sales).

Financials

Income statement

MKD m	2016	2017	2018	2019	2020E	2021E	2022E	2023E
Sales	8,293	9,095	9,783	11,103	12,224	13,461	14,741	15,950
Cost of sales	-4,549	-5,036	-5,354	-5,974	-6,710	-7,256	-7,890	-8,523
Gross profit	3,744	4,058	4,429	5,129	5,514	6,205	6,850	7,427
R&D	-71	-76	-86	-110	-122	-135	-147	-160
Selling and marketing	-2,434	-2,733	-2,883	-3,324	-3,634	-3,971	-4,275	-4,626
Administrative	-386	-356	-372	-421	-459	-505	-553	-574
Provision	-1	-3	-1	-10	0	0	0	0
Other income	301	316	303	245	394	273	273	273
Other expenses	-299	-294	-407	-308	-340	-370	-355	-375
Operating profit	854	912	983	1,201	1,353	1,498	1,793	1,966
Finance expenses	-12	-4	-14	-13	-19	-27	-43	-40
Profit before income tax	842	908	969	1,188	1,390	1,470	1,750	1,926
Income tax	-110	-98	-106	-173	-192	-206	-245	-270
Minority interests	0	0	0	0	0	0	0	0
Net profit	732	809	862	1,015	1,198	1,264	1,505	1,657
Depreciation	442	501	573	657	749	815	876	915
EBITDA	1,296	1,413	1,555	1,858	2,102	2,313	2,669	2,881
Gross margin	45.2%	44.6%	45.3%	46.2%	45.1%	46.1%	46.5%	46.6%
EBITDA margin	15.6%	15.5%	15.9%	16.7%	17.2%	17.2%	18.1%	18.1%
Operating margin	10.3%	10.0%	10.0%	10.8%	11.1%	11.1%	12.2%	12.3%
Net margin	8.8%	8.9%	8.8%	9.1%	9.8%	9.4%	10.2%	10.4%
EPS	517	571	609	717	846	894	1,064	1,171
DPS (net)	225	243	272	324	381	402	479	527
PER	9.6	11.0	13.2	13.2	14.9	14.1	11.9	10.8
EV/EBITDA	5.7	6.7	7.5	7.5	9.1	8.3	7.1	6.5
Dividend yield	4.5%	3.9%	3.4%	3.4%	3.0%	3.2%	3.8%	4.2%

Source: Company data, WOOD Research

Revenues by region

MKD m	2016	2017	2018	2019	2020E	2021E	2022E	2023E
Domestic	3,321	3,487	3,624	3,907	4,241	4,572	4,932	5,281
Pharma	2,664	2,821	2,929	3,272	3,605	3,930	4,284	4,626
CCB	657	666	695	636	636	642	648	655
Southeast Europe (FYR)	2,863	2,996	3,385	3,611	4,127	4,569	5,022	5,452
Russia and CIS	511	642	616	1,049	1,141	1,312	1,481	1,618
EU-27	1,438	1,847	2,015	2,243	2,358	2,568	2,768	2,953
Other	160	122	143	293	359	441	538	646
Total	8,293	9,095	9,783	11,103	12,224	13,461	14,741	15,950

Source: Company data, WOOD Research

Key figures in EUR m

EUR m	2016	2017	2018	2019	2020E	2021E	2022E	2023E
Sales	134.6	147.7	159.0	180.5	198.4	218.5	239.3	258.9
Cost of sales	-73.8	-81.8	-87.0	-97.1	-108.9	-117.8	-128.1	-138.4
Gross profit	60.8	65.9	72.0	83.4	89.5	100.7	111.2	120.6
Opex	-39.7	-43.0	-46.7	-53.2	-55.4	-63.2	-67.9	-73.8
EBITDA	21.0	23.0	25.3	30.2	34.1	37.5	43.3	46.8
Operating profit	13.9	14.8	16.0	19.5	21.9	24.3	29.1	31.9
Profit before income tax	13.7	14.7	15.7	19.3	22.6	23.9	28.4	31.3
Net profit	11.9	13.1	14.0	16.5	19.4	20.5	24.4	26.9

Source: Company data, WOOD Research

Balance sheet

MKD m	2016	2017	2018	2019	2020E	2021E	2022E	2023E
Property, plant and equipment	4,068	4,311	4,297	5,418	6,150	6,527	6,884	7,097
Intangible assets	1,339	1,455	1,602	1,732	1,753	1,817	1,881	1,950
Deferred tax assets	18	18	21	5	3	3	3	3
Available-for-sale financial assets	5	5	7	7	7	7	7	7
Other non-current assets	9	15	15	117	132	132	132	132
Non-current assets	5,439	5,805	5,941	7,280	8,045	8,485	8,907	9,188
Inventories	2,393	2,480	2,737	3,263	3,617	3,983	4,362	4,719
Trade receivables	2,225	2,411	2,218	2,405	2,713	2,987	3,271	3,540
Other receivables	257	407	267	289	645	738	834	925
Cash and cash equivalents	278	214	434	357	245	360	397	668
Current assets	5,153	5,513	5,656	6,314	7,219	8,068	8,864	9,852
Total assets	10,591	11,318	11,597	13,594	15,264	16,553	17,770	19,040
Share capital	2,197	2,197	2,197	2,186	2,111	2,111	2,111	2,111
Share premium	-	-	-	-65	-65	-65	-65	-65
Legal reserves	613	613	614	616	616	616	616	616
Other reserves	1,347	1,140	849	1,670	1,723	1,723	1,723	1,723
Retained earnings	4,286	4,926	5,309	5,887	6,705	7,505	8,524	9,612
Minority interests	1	1	1	1	1	1	1	1
Total equity	8,443	8,876	8,970	10,295	11,090	11,890	12,910	13,997
Non-current borrowings	68	271	284	313	700	900	800	700
Retirement benefit obligations	27	29	30	41	41	41	41	41
Deferred tax liabilities	0	0	0	0	0	0	0	0
Non-current liabilities	95	300	314	353	740	941	841	741
Trade and other payables	1,592	1,739	1,992	2,417	2,847	3,135	3,433	3,714
Income tax	27	20	16	62	14	14	14	14
Current borrowings	440	382	304	467	573	573	573	573
Total current liabilities	2,059	2,141	2,313	2,945	3,434	3,722	4,020	4,302
Total liabilities and equity	10,597	11,318	11,597	13,594	15,264	16,553	17,770	19,040
Net debt	230	438	154	422	1,028	1,113	976	605
Gearing	0.18	0.31	0.10	0.23	0.28	0.34	0.19	0.15
Capital employed	8,690	9,338	9,148	10,751	12,152	13,037	13,919	14,636
NOPAT	743	813	875	1,026	1,165	1,288	1,793	1,966
ROIC	8.5%	8.7%	9.6%	9.5%	9.6%	9.9%	12.9%	13.4%

Source: Company data, WOOD Research

Cash flow

MKD m	2016	2017	2018	2019	2020E	2021E	2022E	2023E
Cash receipts from customers	8,095	8,848	9,670	10,498	11,562	12,821	14,078	15,324
Cash paid to suppliers and employees	-7,276	-7,932	-8,085	-9,365	-10,015	-11,046	-12,013	-13,033
Cash generated from operations	819	916	1,585	1,134	1,547	1,774	2,065	2,291
Interest received	6	1	3	2	0	0	0	0
Net cash generated from operating activities	825	917	1,588	1,136	1,547	1,774	2,065	2,291
Purchases of property, plant and equipment	-616	-711	-866	-871	-1,621	-1,232	-1,252	-1,127
Sale of property, plant and equipment	-	2	1	0	0	0	0	0
Subsidies received	0	-	35	86	0	0	0	0
Other payments to employees	-62	-62	-64	-65	0	0	0	0
Net cash used in investing activities	-677	-770	-894	-850	-1,621	-1,232	-1,252	-1,127
Proceeds from borrowings	1,827	2,374	2,039	2,570	493	200	-100	-100
Repayments of borrowings	-1,771	-2,229	-2,107	-2,389	0	0	0	0
Interest paid	-16	-20	-18	-16	-20	-28	-44	-41
Purchase of treasury shares	-	-	-	-76	-10	0	0	0
Dividends	-299	-324	-379	-453	-500	-599	-632	-753
Net cash used in financing activities	-259	-200	-465	-365	-38	-427	-776	-893
Net increase/(decrease) in cash and cash equivalents	-111	-53	228	-79	-113	115	37	271
Cash and cash equivalents at beginning of year	390	278	214	434	357	245	360	397
Translation differences	-1	-10	-9	3	0	0	0	0
Cash and cash equivalents at the end of year	278	214	434	357	245	360	397	668
FCF	209	206	722	265	-74	542	813	1,164
FCF yield	2.9%	2.3%	6.3%	1.9%	-0.4%	3.0%	4.5%	6.4%

Source: Company data, WOOD Research

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