Zentiva

Pharmaceuticals
Czech Republic

<table>
<thead>
<tr>
<th>Current price</th>
<th>CZK 550</th>
<th>Buy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target price</td>
<td>CZK 663</td>
<td>Coverage Initiation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sales (CZK m)</td>
<td>7,517</td>
<td>10,357</td>
<td>11,359</td>
<td>12,447</td>
</tr>
<tr>
<td>EBIT (CZK m)</td>
<td>1,828</td>
<td>2,184</td>
<td>2,446</td>
<td>2,706</td>
</tr>
<tr>
<td>Net income (CZK m)</td>
<td>904</td>
<td>1,409</td>
<td>1,704</td>
<td>1,937</td>
</tr>
<tr>
<td>EPS (CZK)</td>
<td>30.8</td>
<td>36.9</td>
<td>44.7</td>
<td>50.8</td>
</tr>
<tr>
<td>P/E (x)</td>
<td>17.9</td>
<td>14.9</td>
<td>12.3</td>
<td>10.8</td>
</tr>
<tr>
<td>DPS (CZK)</td>
<td>0.0</td>
<td>7.4</td>
<td>35.7</td>
<td>43.2</td>
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<tr>
<td>Yield (%)</td>
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<td>1.3</td>
<td>6.5</td>
<td>7.9</td>
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<tr>
<td>EV/EBITDA (x)</td>
<td>9.3</td>
<td>8.1</td>
<td>6.9</td>
<td>6.3</td>
</tr>
<tr>
<td>P/CE (x)</td>
<td>11.9</td>
<td>11.5</td>
<td>9.5</td>
<td>8.3</td>
</tr>
</tbody>
</table>

Source: Zentiva, Patria Finance

Zentiva is a pure generic drug producer offering both healthy growth potential and the prospect of attractive dividend yields. Traditionally active mainly on the Czech and Slovak markets, it now has ambitions to penetrate other CE countries. We are initiating our coverage of the stock with a buy recommendation and target price of CZK 663 per share.

- Zentiva is the largest producer of generics in the Czech and Slovak Republics, where it benefits from long-standing links with physicians, pharmacists and local authorities and good brand recognition among consumers. These help to defend a high domestic market share under threat from both international originators and regional generic peers. Zentiva has recently begun penetrating Polish and Russian markets, which has helped to change its profile from a restructuring to a growth story. We expect sales to rise by 9% annually over 2004-08 and net profit to double by 2007.

- The recent capital increase will allow the company to repay its outstanding debt by 2005. As a result, almost unlevered Zentiva, with a low capex/sales ratio thanks to free production capacity and high operating efficiency, will generate substantial free cash flow to be either distributed among shareholders or used for acquisitions in the medium and long term. Return on equity should stabilize above 20% and remain among the highest compared to regional peers.

- The stock is currently trading at a 17% discount to our fair value estimate of CZK 663 per share. Unlike the current market multiples, which may seem uninspiring, the discounted cash flow reveals Zentiva’s expected strong organic growth and moderate capex in the medium term.

- Zentiva lacks a product niche where it considerably outperforms regional peers in terms of quality, product range and/or name recognition. Should the company decide to enter Western markets in the more distant future, we believe a partnership or acquisitions are more likely than an export-based expansion.

Zentiva is the largest domestic generic producer with a superior position on the Czech and Slovak market and ambitions to penetrate pharmaceutical markets in Poland and Russia.
## Contents

- Investment Summary  3
- Projections  5
- Valuation  14
- Financial performance  16
- Zentiva business model  23
  - Summary  23
  - Ownership and structure  24
  - Market environment  26
  - Geographical sales structure  27
  - Business model  31
- Market overview  39
  - Introduction  39
  - Pharmaceutical market  40
  - Pharmaceutical demand  41
  - Pharmaceutical supply  44
  - Drug financing  47
  - Framework, legislation and EU accession  48
- Macroeconomic overview  55
  - Czech Republic  55
  - Slovak Republic  56
  - Poland  57
  - Russia  58
- Consolidated financial data  60
- Appendix 1  62
**Investment Summary**

Zentiva is the leading producer of generics in both the Czech Republic (CR) and Slovakia and ranks among the top five generic producers in the CE region with an expected turnover of EUR 330m in 2004. It focuses on low-cost development of generic copies of original brands that are internationally successful and may be widely used in public primary health-care systems i.e. prescribed by physicians and/or sold by pharmacists. Its product portfolio is strongly diversified with drugs covering all the major therapeutic areas; no single therapeutic substance contributes more than 4% to Zentiva’s total sales, which stabilizes Zentiva’s operating performance.

The company has the largest domestic sales network, enabling it to benefit fully from high generic penetration on the local market. The well-established traditional relations with physicians, pharmacists and local authorities and good brand recognition among Czech and Slovakian consumers are Zentiva’s main competitive advantages. This has helped it to compete with both international originators and regional generic peers on the domestic market and sustain its extraordinary - though declining - domestic market share above 15%, which was boosted last year by the acquisition of Slovakofarma, the dominant Slovak generic producer. Both the improved market position after the acquisition and excellent market knowledge should partially offset negative impacts from competition pressures. We therefore expect Zentiva to avoid a substantial fall in its domestic market share in the medium term.

Because of its historical focus on the local market and operation restructuring, Zentiva’s sales growth has lagged behind that of its regional peers, who have benefited from a foreign expansion. As a result, revenues have been inferior to peers in terms of geographical diversification. This has raised the systematic risk associated with the stock above the peers’ levels, we believe.

Nevertheless, to improve its growth and possibly risk profile, Zentiva has begun penetrating the Polish and Russian markets. This has modified the company’s profile from a restructuring to a typical organic growth story: net profit should double by 2007 on sales expanding 9% annually in 2004-08. While the expected expansion abroad will slightly decrease cyclical risk, we expect to see increased risk relating to expansion (Zentiva has no track record of successfully penetrating foreign markets), FX-related risks, and the frequency of political and regulatory issues affecting the company’s operating performance.

Although Zentiva would be highly price competitive on western European and/or US markets, the different market environment, tough competition with respect to distribution/sales networks, and Zentiva’s unfocused product mix limit its export potential there. Compared to some its regional peers, Zentiva lacks a product niche where it considerably outperforms its competitors in terms of quality and brand recognition (e.g. Gedeon Richter’s contraceptives). Should the company decide to enter those markets in the more distant future, we believe a partnership, possibly linked to Zentiva ownership changes, or acquisitions are more likely than exports.
The excellent knowledge of the domestic market and the brand recognition the company’s products enjoy there have helped keep marketing costs fairly low compared to regional peers, although they have risen since the re-branding to Zentiva last year. Combined with moderate R&D expenditures, this has lifted the EBIT margin above the peer average. Nevertheless, the major driver of Zentiva’s appealing return on equity was the high asset turnover and financial leverage. Following the recent capital increase, return on both equity and invested capital should stabilize above 20% and remain among the highest in the region and similar to Gedeon Richter’s.

The capital increase will also allow the company to repay most of its outstanding debts this year and the remainder in 2005 as it plans to retain the vast majority of earnings (POR up to 20%). As a result, virtually unlevered Zentiva will generate large FCF to be either distributed among shareholders or used for acquisitions in the medium and long term. In our projections, we assume no acquisitions (though they are possible), with cash being paid as dividends.

The restructuring of former Slovakofarma has already brought benefits that we believe create further positives as yet unreflected in Zentiva’s results. It should deliver synergies, boosting market power in both the Czech and Slovak Republic through a unified promoted portfolio and company name. Synergy potential also lies in API production, as the pooling of substantial Slovak API production capacity and the API R&D centre in Prague may cut Zentiva’s dependence on suppliers and raise its gross margin.

We identify two major threats to Zentiva’s expected performance and our projections. Firstly, regulatory changes on the domestic market may hit revenues hard, as has been seen in Slovakia following the restructuring of the drug financing system in November 2003, causing Zentiva’s 1H04 sales there to fall by 9%. Secondly, our projections assume a successful market-penetration strategy in Russia and Poland, which seems to be supported by the recent results. Nevertheless, should Zentiva meet unexpected regulatory and/or competition constraints there, our projections might undergo extensive modification.
Projections

Model approach

Being a typical growth story, we have paid special attention to modeling Zentiva’s future revenues. The key to obtaining a reliable estimate is identifying the most important revenue drivers. We therefore divide Zentiva’s sales projections into two parts in our model. The new portfolio revenues for pharmaceuticals introduced in 2004 and onward are separated from projections for the old portfolio (both promoted and non-promoted) introduced before 2004.

New portfolio sales

Model variables

In the new portfolio model we define the following variables: average annual peak revenues per introduced product (i.e., the revenues a product generates at the peak of its cycle) in each of the core markets, the development of the peak revenues over the projected period in each country, the number of products launched in each country annually and the life pattern of an average product (i.e., how fast the products arrives at peak revenues, how long it generates them, and the length of the period from peak to zero revenues generated by the product). The expected average annual peak sales per product launched in 2004 are defined first. Zentiva aims to introduce generic versions of original brands that are internationally successful and may be widely used in public health-care systems. Three versions of the world’s leading brands are presently among Zentiva’s 10 best selling generics and others are in the pipeline. Assuming that products launched this year will be among Zentiva’s actively promoted and best-selling products, we estimate that they will bring CZK 90m and CZK 39m of peak revenues a year on average in the CR and Slovakia respectively in three years.

Average peak sales per product

The company is aiming to achieve significant penetration of the Russian and Polish markets. While the historical product portfolio has been different in each country - the Czech and Slovak portfolio is significantly broader with many non-promoted brands - new products are likely to be introduced at roughly the same time on all the major markets, subject mostly to the pace of registration procedures. Still, we expect average peak revenues for a drug launched on the new market this year to lag behind sales in Slovakia.

<table>
<thead>
<tr>
<th>Average peak per-product revenues (products introduced in 2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZK m</td>
</tr>
<tr>
<td>Per-product peak sales</td>
</tr>
<tr>
<td>% of total peak sales</td>
</tr>
</tbody>
</table>

Source: Patria Finance

1 Throughout the report, we collectively refer to the Czech and Slovak market as the “domestic market” and we use “new market” for the Polish and Russian markets.

2 The average annual per-product sales of Zentiva’s Top 10, 20, and 25 portfolio reached CZK 283m, CZK 211m and CZK 191m in 2003 respectively (pro forma). In the CR, the Top 10 products reached CZK 176m; CZK 76m in Slovakia, CZK 32m in Poland and CZK 25m in Russia.
The share of exports in average peak sales of products introduced in 2004 will therefore be higher than in both the old and the entire portfolio and does not correspond to the historical geographical structure of total revenues.\(^3\)

Nominal growth in per-product revenues will be supported by expected price increases as the nominal drug-price level in the CR and the entire region still lags behind the EU average (approx. 65% and even less in the generic sector in the CR), though volume sales will continue to grow by a modest 2% in the CR.\(^4\) This, combined with the expected increase in market pressure from both original and regional generic producers, should lead to only gradual growth in average peak per-product revenues in the CR - we assume 5% a year. The same dynamics are expected in Slovakia in the medium and long term, although higher market growth is forecast there in the coming years after the extraordinary drop expected in 2004, reflecting the recent reform of the Slovak drug financing system.

We assume that both Russian and Polish revenues will benefit from the ambitious penetration strategy. The average peak per-product revenues will therefore increase dramatically there with double-digit growth rates expected until 2008. As a result, the share of domestic sales on annual peak revenues per new product will decline from almost 70% at the end of this year to 54% by 2008.

### Average peak revenues per product

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>CR</td>
<td>90</td>
<td>95</td>
<td>99</td>
<td>104</td>
<td>109</td>
<td>115</td>
<td>121</td>
</tr>
<tr>
<td>- growth</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>SK</td>
<td>39</td>
<td>42</td>
<td>45</td>
<td>47</td>
<td>49</td>
<td>52</td>
<td>54</td>
</tr>
<tr>
<td>- growth</td>
<td>8%</td>
<td>6%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>PL</td>
<td>28</td>
<td>39</td>
<td>49</td>
<td>58</td>
<td>64</td>
<td>67</td>
<td>71</td>
</tr>
<tr>
<td>- growth</td>
<td>40%</td>
<td>25%</td>
<td>18%</td>
<td>10%</td>
<td>6%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>RU</td>
<td>23</td>
<td>33</td>
<td>43</td>
<td>54</td>
<td>61</td>
<td>64</td>
<td>68</td>
</tr>
<tr>
<td>- growth</td>
<td>45%</td>
<td>30%</td>
<td>25%</td>
<td>12%</td>
<td>6%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>11</td>
<td>11</td>
<td>12</td>
<td>12</td>
<td>13</td>
<td>13</td>
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<tr>
<td>- growth</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Avg. peak per-product revenues</td>
<td>190</td>
<td>220</td>
<td>247</td>
<td>275</td>
<td>295</td>
<td>311</td>
<td>327</td>
</tr>
<tr>
<td>- growth</td>
<td>16%</td>
<td>13%</td>
<td>11%</td>
<td>7%</td>
<td>5%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>% of domestic sales</td>
<td>68%</td>
<td>62%</td>
<td>58%</td>
<td>55%</td>
<td>54%</td>
<td>54%</td>
<td>54%</td>
</tr>
</tbody>
</table>

Source: Patria Finance

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3 In 2003, 60% of revenue was generated in the Czech Republic, 26% in Slovakia, 4% in Poland, 3% in Russia, and 7% in other markets; H1 2004: CR 60%, Slovakia 23%, Poland 8%, Russia 4%, other 5%.

4 While we are aware of pharmaceutical price differences between the CE region and Western Europe as one of the (nominal) growth drivers, we would not exaggerate its importance given (i) prevailing large price differences even within the EU-15 and (ii) expected decline in generics prices in Western Europe - pricing pressures for generics producers have intensified in several EU countries as a result of new legislation that force pharmacists to choose among the cheapest available drugs.
Drug life pattern

The next step in building our projections is an estimate of the 'standard' life pattern of an average product. Based on management information, the average period of active drug promotion is 6-7 years. Revenues rise very steeply y-o-y once a product begins to be actively promoted by sales representatives. After approx. 7 years of active promotion, the drug is usually replaced by a new generic brand and revenues on the former drop sharply. We are aware that some brands deliver considerable revenues after 10, 20 or even more years (e.g. Ibalgin), and this without considerable promotion. But this does not significantly hinder our model, we believe.

<table>
<thead>
<tr>
<th>Drug life pattern forecast</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of peak revenues</td>
</tr>
<tr>
<td>Year 1</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>20%</td>
</tr>
</tbody>
</table>

Source: Patria Finance

Number of products launched annually

Finally, the number of products launched on each market annually is set. As mentioned in the Zentiva business model chapter (see page 31), the company's current R&D pipeline is designed to deliver at least 5 new market authorizations a year, in line with Zentiva's pronounced strategy. While we accept the figure for the domestic market given the stabilized Zentiva portfolio there, it is also expected to register drugs on the new markets that are already marketed domestically. Therefore, we assume 7 products will be launched each year in both Poland and Russia over 2004-06.

Total new portfolio sales...

Based on the above, we separately project revenues from drugs introduced in each year over the 2004-10 period and add them up to obtain total new-portfolio revenues, as shown in the table below:

<table>
<thead>
<tr>
<th>Average peak revenues per product</th>
</tr>
</thead>
<tbody>
<tr>
<td>CZK m</td>
</tr>
<tr>
<td>No. of new items</td>
</tr>
<tr>
<td>Drugs launched in 2004</td>
</tr>
<tr>
<td>Drugs launched in 2005</td>
</tr>
<tr>
<td>Drugs launched in 2006</td>
</tr>
<tr>
<td>Drugs launched in 2007</td>
</tr>
<tr>
<td>Drugs launched in 2008</td>
</tr>
<tr>
<td>Drugs launched in 2009</td>
</tr>
<tr>
<td>Drugs launched in 2010</td>
</tr>
<tr>
<td>Total new portfolio</td>
</tr>
</tbody>
</table>

Growth

| 418% | 109% | 60% | 38% | 28% | 21% |

Source: Patria Finance

...and their geographical breakdown

The geographical breakdown of new portfolio revenues reveals that growth rates are expected to be higher on the new markets over the next three years. Also, the share of exports will be influenced by a higher number of market authorizations on the new markets in 2004-06; it will then rise further to 46% according to our projections. Compared to Zentiva's total revenues, the geographical structure of the new product portfolio will change less significantly over time, based again on our assumption of the simultaneous introduction of new products on all markets (or introduction of products with the same revenue generation potential) and the same drug life pattern in all countries.
New portfolio sales – geographical breakdown

Source: Patria Finance

**Old drug portfolio**

Based on the historical long-term trend in revenues generated by products introduced before 1999, we project a 3.2% annual decline in old portfolio revenues in the long term across all markets. Nevertheless, Zentiva has recently upgraded its product portfolio and enhanced marketing following the introduction of the Zentiva brand name last year. We believe this will somewhat improve growth in the pre-2004 portfolio, lifting it above the long-term sustainable level on the domestic market in 2004-05. Also, sales in Slovakia are likely to be supported in the short term by the unification of Zentiva’s Czech and Slovak portfolios following the Slovakofarma acquisition.\(^5\)

Bear in mind however that the entire Slovak market was hit by the drug-financing reform including the launch of fixed charges for physicians’ visits and drug prescription in November 2003, which will weigh on Zentiva sales there this year.

The export portfolio is significantly younger than the domestic one since Zentiva is penetrating the new markets with brand new or recently launched drugs. We therefore anticipate significantly higher growth rates in the old portfolio for Poland and Russia until 2007.

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\(^5\) Note that the company decided to stop supporting low-margin generics with limited growth potential. In the medium term, the rationalization should deliver benefits in the form of scale economies.
Old drug portfolio forecast

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmaceuticals</td>
<td>9,655</td>
<td>9,762</td>
<td>9,646</td>
<td>9,384</td>
<td>9,084</td>
<td>8,793</td>
<td>8,511</td>
</tr>
<tr>
<td>growth</td>
<td>5.8%</td>
<td>1.1%</td>
<td>-1.2%</td>
<td>-2.7%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>CR</td>
<td>5,794</td>
<td>5,724</td>
<td>5,541</td>
<td>5,364</td>
<td>5,192</td>
<td>5,026</td>
<td>4,865</td>
</tr>
<tr>
<td>growth</td>
<td>6.0%</td>
<td>-1.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Slovakia</td>
<td>2,163</td>
<td>2,115</td>
<td>2,048</td>
<td>1,982</td>
<td>1,919</td>
<td>1,857</td>
<td>1,798</td>
</tr>
<tr>
<td>growth</td>
<td>-9.0%</td>
<td>-2.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Poland</td>
<td>625</td>
<td>799</td>
<td>911</td>
<td>882</td>
<td>854</td>
<td>827</td>
<td></td>
</tr>
<tr>
<td>growth</td>
<td>80%</td>
<td>28.0%</td>
<td>14.0%</td>
<td>0.0%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Russia</td>
<td>427</td>
<td>487</td>
<td>531</td>
<td>514</td>
<td>497</td>
<td>481</td>
<td></td>
</tr>
<tr>
<td>growth</td>
<td>40%</td>
<td>14.0%</td>
<td>9.0%</td>
<td>0.0%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
</tr>
<tr>
<td>Other</td>
<td>647</td>
<td>636</td>
<td>615</td>
<td>596</td>
<td>577</td>
<td>558</td>
<td>540</td>
</tr>
<tr>
<td>growth</td>
<td>2.8%</td>
<td>-1.7%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
<td>-3.2%</td>
</tr>
</tbody>
</table>

Source: Patria Finance

Total revenues

As a result of the above projection, Zentiva's revenues are expected to show a nominal CAGR of 9% in 2004-08. While domestic sales will grow by 5% and Zentiva will modestly lose market share (in line with the expected increase of market fragmentation), exports should boom by 24% annually in this period and their share will approach a third of total revenues in the next six years, up from 14% in 2003. API production only has a marginal impact on overall revenue dynamics, being consumed mostly in-house; we assume that API sales will grow in line with inflation, i.e. 3% annually.

Total revenues forecast

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Total Revenues</td>
<td>10,357</td>
<td>11,359</td>
<td>12,447</td>
<td>13,568</td>
<td>14,679</td>
<td>15,826</td>
<td>16,892</td>
</tr>
<tr>
<td>growth</td>
<td>7.9%</td>
<td>9.7%</td>
<td>9.6%</td>
<td>9.0%</td>
<td>8.2%</td>
<td>7.8%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>9,866</td>
<td>10,853</td>
<td>11,926</td>
<td>13,031</td>
<td>14,126</td>
<td>15,256</td>
<td>16,306</td>
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<tr>
<td>growth</td>
<td>8.1%</td>
<td>10.0%</td>
<td>9.9%</td>
<td>9.3%</td>
<td>8.4%</td>
<td>8.0%</td>
<td>6.9%</td>
</tr>
<tr>
<td>API</td>
<td>441</td>
<td>454</td>
<td>468</td>
<td>482</td>
<td>496</td>
<td>511</td>
<td>526</td>
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<tr>
<td>growth</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Other</td>
<td>50</td>
<td>52</td>
<td>54</td>
<td>55</td>
<td>57</td>
<td>59</td>
<td>60</td>
</tr>
<tr>
<td>growth</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
</tr>
</tbody>
</table>

Source: Patria Finance
Gross margin

Gross margin will be to a large extent driven by an increasing share of exported higher-margin promoted new brands. It will rise to 61% by 2007, as indicated in the following chart. Restructuring of the product mix including a gradually declining share of lower-margin licensed-in production will also bring benefits in terms of higher gross margin. Another positive impact is likely to originate from Zentiva’s declining API purchases given the expected increase in its own production, especially after the acquisition of Slovakofarma last year.
Operating costs

We assume the company will raise its development costs to safeguard competitiveness – higher/more registration charges and more extensive use of bio-equivalency studies are likely. Moreover, the decrease in licensed-in production shifts part of the development costs from the license providers onto Zentiva, while also having a positive impact on the gross margin. Note that Zentiva currently lags far behind its regional peers in terms of the R&D/sales ratio, which is close to 5% vs. the average 7-8%. We expect the ratio to gradually move up to the lower end of the range by 2010. In the long-term, Zentiva and other generic producers will be increasingly faced with the challenge of developing biogenerics, which will require new technological know-how.6

Marketing costs affected by expansion plans

The strong domestic brand recognition and market position have enabled Zentiva to maintain marketing costs at fairly low levels. Nevertheless, pressure from rivals on its domestic market share and penetration of the new market will lift marketing costs substantially to the long-term sustainable 19% of sales this year compared to 15% in 2002. They will be driven by both staff costs and direct selling expenses (including training, car leasing and travel costs).

Besides the above, the Slovakofarma post-acquisition restructuring weighed on the administrative costs last year and will marginally affect them this year as well. Also, the IPO-related costs (CZK 92m) will partially offset a one-off gain (CZK 200m) incurred on a sale of a marginal part of Zentiva’s product portfolio due to the Anti-Monopoly Office’s ruling following the Slovakofarma acquisition last year. Once all the internal processes in Slovakia have been redesigned according to the Zentiva business model, administrative costs should stabilize between 13%-14% of sales.

EBITDA and EBIT

The above cost-increasing factors, linked mostly to the penetration of the new markets, will offset the effect of the increasing gross margin and will depress the EBITDA margin below its long-term sustainable level of 26% in 2004. Afterwards, a moderate rebound is expected, driven by both the increased gross margin and the stabilized operating expenses (as a % of sales). In absolute terms, EBITDA will however expand substantially driven by sales growth, which will outweigh any changes in the EBITDA margin. In the long term, the rising R&D costs will weigh moderately on the margin.

Low capital intensity

Like most generic producers, Zentiva’s capex remains rather low (as a % of sales and/or assets) given the non-innovative character of technological processes in the generic sector, innovations being implemented through medicine upgrades rather than investment in machinery. Moreover, it has sufficient production capacity (utilization of 62%) to expand abroad even without its enlargement in the coming years. We thus expect capex up to 6% of sales over the projected period.

6 Compared to chemical-based drugs, biotech drugs are generally more difficult to copy without significant changes in their efficiency and safety.
In 2004, the company is however renovating and expanding its headquarters in Prague, which will raise capex by CZK 150m to 7% of sales. Given that there are no major investment plans and the asset turnover is high, depreciation as a % of sales should remain at the lower end of the regional range (5%-9%) in the medium term.  

Low depreciation/sales ratio will help Zetiva’s EBIT margin to exceed 21% this year. As we expect no major changes in capex and depreciation patterns, the EBIT margin should track the above-mentioned EBITDA margin trend. We expect it to improve close to 22% by 2006 and then to modestly decline, while still sustaining a level superior to that of most regional peers.

Operating performance

![Graph showing operating performance]

Source: Zentiva, Patria Finance

Earnings and cash flow

Unlike operating margins, which will be temporarily depressed by the company’s expansion plans, net margin should firm up continuously over the projected period. Besides the operating performance, it will be driven by the declining (i) financial burden and (ii) effective corporate income tax rate.

Financial costs will decline by 2005 in line with repayments of the outstanding loans (the majority of the debt is due this year) following the recent capital increase. The company also plans to retain the majority of its earnings in the short term, which will also be used for the debt repayments (POR up to 20%). In the medium and long term, Zentiva will generate large FCF, most of which will be distributed among shareholders, we assume. Note that while possible, no acquisitions are expected at the moment.

Net margin to firm up over 2004-07...

...supported by lower financial costs...

7 Zentiva’s amortization will increase after 2004 (by USD 2m p.a.) by a one-off reclassification of Zentiva’s negative goodwill directly to retained earnings as of January 1, 2005 (approx. CZK 1.2bn), a result of the IFRS methodology changes.
...and effective CIT rate decline

Zentiva’s effective CIT rate (39% in 2003) will decline thanks to the gradually fall in the Czech CIT rate to 24% by 2006 (down from the current 28%) and its increased exposure to the 19% Slovak rate after the Slovakofarma acquisition last year. Moreover, higher exports to low-CIT-rate Poland (19%) will push up Zentiva’s net profit margin as well. We therefore estimate a gradual fall in the effective CIT rate to 25% by 2008.

Working capital on the rise due to receivables

Like most pharmaceutical companies, Zentiva has a rather high working capital due to the 4:1 disparity between receivables, which account for a third of the balance sheet, and payables. With the rising share in exports to the new markets, Zentiva’s average receivable period will lengthen even further. While receivables in the CR and Slovakia are mostly paid within 65 and 110 days respectively, a collection period of up to 180 days is typical for Poland and Russia. Moreover, Zentiva has been the largest supplier for all its distributors, giving it a superior position on the domestic market, but its bargaining power will gradually decline in the longer term with its expansion abroad. We thus project an increase in the average receivable repayment period to 111 days by 2007 from 98 days last year.8

The chart below depicts Zentiva’s performance with regard to expected free cash flow generation.

Free cash flow forecast

Source: Patria Finance

8 The receivables-payables disparity exposes the company to FX risk. At present SKK-denominated receivables create the major exposure although the company usually hedges its long-term positions. But given the expected increase in exports to Poland and Russia, FX risks and the cost of hedging could rise, a possibility that we ignore in our projections at the moment.
Valuation

We base our valuation on the company’s consolidated IFRS figures. Below, we provide our projections for the 2004-10 period and a summary of the valuation.

**Assumptions**

We use the following assumptions in the valuation:

<table>
<thead>
<tr>
<th>Assumptions</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-free rate – nominal</td>
<td>5.1%</td>
</tr>
<tr>
<td>Market risk premium</td>
<td>6.0%</td>
</tr>
<tr>
<td>Beta levered</td>
<td>90.0%</td>
</tr>
<tr>
<td>CAPM cost of equity</td>
<td>10.5%</td>
</tr>
<tr>
<td>After-tax cost of debt</td>
<td>4.5%</td>
</tr>
<tr>
<td>Debt/equity</td>
<td>4.2%</td>
</tr>
<tr>
<td>WACC</td>
<td>10.3%</td>
</tr>
<tr>
<td>Nominal residual term growth</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

**Fair value estimate of CZK 663 per share**

Based on the above valuation, we set our fair value estimate at CZK 663 per share, which implies EV/EBITDA of 9.7 and 8.4 for 2004 and 2005 respectively. Since Zentiva is a typical growth stock, the ratio gradually declines to 5.7 by 2010.

**High sensitivity to assumptions**

The expected sharp increase in sales also prolongs the duration of the cash flow, with a corresponding high proportion assigned to the present value of the terminal period. It also raises the sensitivity of our target price to changes in the assumptions included in our model and valuation.

### Projections and valuation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>10,357</td>
<td>11,359</td>
<td>12,447</td>
<td>13,568</td>
<td>14,679</td>
<td>15,826</td>
<td>16,892</td>
</tr>
<tr>
<td>growth</td>
<td>37.8%</td>
<td>9.7%</td>
<td>9.6%</td>
<td>9.0%</td>
<td>8.2%</td>
<td>7.8%</td>
<td>6.7%</td>
</tr>
<tr>
<td><strong>EBITDA</strong></td>
<td>2,687</td>
<td>3,022</td>
<td>3,336</td>
<td>3,635</td>
<td>3,910</td>
<td>4,178</td>
<td>4,434</td>
</tr>
<tr>
<td>EBITDA margin</td>
<td>26%</td>
<td>27%</td>
<td>27%</td>
<td>27%</td>
<td>27%</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td><strong>EBIT</strong></td>
<td>2,184</td>
<td>2,446</td>
<td>2,706</td>
<td>2,949</td>
<td>3,176</td>
<td>3,392</td>
<td>3,604</td>
</tr>
<tr>
<td>Tax on EBIT</td>
<td>611</td>
<td>636</td>
<td>649</td>
<td>708</td>
<td>762</td>
<td>814</td>
<td>865</td>
</tr>
<tr>
<td><strong>NOPAT</strong></td>
<td>1,572</td>
<td>1,810</td>
<td>2,056</td>
<td>2,241</td>
<td>2,414</td>
<td>2,578</td>
<td>2,739</td>
</tr>
<tr>
<td>Depreciation</td>
<td>503</td>
<td>576</td>
<td>630</td>
<td>686</td>
<td>734</td>
<td>785</td>
<td>829</td>
</tr>
<tr>
<td>Capex</td>
<td>-725</td>
<td>-625</td>
<td>-685</td>
<td>-746</td>
<td>-807</td>
<td>-870</td>
<td>-929</td>
</tr>
<tr>
<td>Incremental working capital</td>
<td>-437</td>
<td>-540</td>
<td>-588</td>
<td>-553</td>
<td>-483</td>
<td>-498</td>
<td>-463</td>
</tr>
<tr>
<td><strong>FCF</strong></td>
<td>914</td>
<td>1,221</td>
<td>1,414</td>
<td>1,629</td>
<td>1,858</td>
<td>1,995</td>
<td>2,176</td>
</tr>
<tr>
<td>WACC levered consolidated</td>
<td>10.3%</td>
<td>10.3%</td>
<td>10.3%</td>
<td>10.3%</td>
<td>10.3%</td>
<td>10.3%</td>
<td>10.3%</td>
</tr>
<tr>
<td><strong>PV of FCF</strong></td>
<td>871</td>
<td>1,055</td>
<td>1,108</td>
<td>1,157</td>
<td>1,197</td>
<td>1,166</td>
<td>1,153</td>
</tr>
<tr>
<td>PV of FCF - Transition Period</td>
<td>7,271</td>
<td>28%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PV of Residual Value</td>
<td>19,165</td>
<td>72%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EV</strong></td>
<td>26,436</td>
<td>100%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest Bearing Debt</td>
<td>1,134</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Equity Value</strong></td>
<td>25,303</td>
<td>96%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of Shares</td>
<td>38,136,230</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Estimated fair value**

CZK 663 per share
### Sensitivity analysis

<table>
<thead>
<tr>
<th>Residual growth rate</th>
<th>WACC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9.3%</td>
</tr>
<tr>
<td>5.0%</td>
<td>959</td>
</tr>
<tr>
<td>4.5%</td>
<td>872</td>
</tr>
<tr>
<td><strong>4.0%</strong></td>
<td><strong>802</strong></td>
</tr>
<tr>
<td>3.5%</td>
<td>744</td>
</tr>
<tr>
<td>3.0%</td>
<td>696</td>
</tr>
</tbody>
</table>

### Peer comparison

The following table summarizes the market multiples at which the CE3 pharmaceutical companies currently trade:

<table>
<thead>
<tr>
<th>Peer comparison</th>
<th>Zentiva</th>
<th>Richter</th>
<th>Egis</th>
<th>Jelfa</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/E</td>
<td>14.9</td>
<td>12.3</td>
<td>11.9</td>
<td>10.6</td>
</tr>
<tr>
<td>P/CE</td>
<td>11.5</td>
<td>9.5</td>
<td>9.5</td>
<td>8.6</td>
</tr>
<tr>
<td>EV/EBITDA</td>
<td>8.1</td>
<td>6.9</td>
<td>9.9</td>
<td>8.9</td>
</tr>
</tbody>
</table>

* based on the KBC Group estimates and the following prices: Zentiva – CZK 550; Richter – HUF 21,650; Egis – HUF 9,405; Jelfa – PLN 63.4

### Hardly comparable market multiples...

Bear in mind however that shifting effective tax burdens and differing capex profiles over the next few years undermine the usefulness of a comparison based on P/E, P/CE and EV/EBITDA ratios. Richter has a tax holiday until 2011 and the CIT rate in the CR will decline by 4 percentage points by 2006. Also, unlike most of its peers, Zentiva will sustain moderate capex in the coming years thanks to its extensive free production capacity (see page 31).

### ...also due to temporary market discounts

The above ratios also fail to give an accurate picture of the companies’ growth profiles. Zentiva for example trades at a 4.7x 2010e EV/EBITDA multiple. Moreover, weak visibility on the future regulatory environment affecting Hungarian pharmaceuticals players may lead to their shares trading at temporary discounts. On top of that, the entire Hungarian market is affected by fiscal uncertainty and fears of general politic/macroeconomic instability in the country. In light of these factors, we have used solely a DCF approach in our valuation.

### Highly diversified portfolio, undiversified markets

Zentiva’s risk profile benefits from the well-diversified and balanced product portfolio, meaning that no single medicine failure can make a significant dent in the company’s performance. In terms of geographic concentration, Zentiva’s portfolio is inferior to that of its peers since it relies heavily on domestic sales. This may raise systematic risk associated with the stock above the level of its peers. With this in mind and given that pharmaceutical sales are often considered less sensitive to the economic cycle than the entire market, we assign a beta of 0.90 to the stock. While the expected expansion abroad will lower cyclical risk slightly, expansion-related risks (Zentiva has no track record in successfully penetrating foreign markets), FX-related risks, and possible impacts of political and regulatory issues on the company will intensify.

On the other hand, the company will accelerate organic revenue growth, an area where it has recently lagged behind most of its peers.
Financial performance
– peer comparison

There follows a comparison of Zentiva's financial performance in the last three years with the selected CE generic producers. While the companies are not fully comparable given their different business and product strategies and structure, we believe the financial ratios used below still offer a useful indication of Zentiva’s performance with respect to its regional peers.

Summary

Appealing returns…

Zentiva has recorded superior return on equity and on invested capital in recent years (56% and 26% respectively in 2003) compared to the selected regional generic producers. Operational restructuring lifted the gross and EBIT margin above the peer average, though the net margin was affected by high financial costs and the effective CIT rate. ROE was boosted in particular by the high financial leverage and the company also outperformed its peers in asset turnover. Following the recent capital increase, both ROE and ROIC should stabilize at about 20% and remain among the highest in the region and similar to Gedeon Richter’s. While being largely comparable with regards to net margin and financial leverage, we think Zentiva should still outperform peers in asset turnover due to its focus entirely on the core business and high efficiency of internal processes.

Sales

...but inferior historical sales growth

In terms of sales, Zentiva rose to No. 5 in the CE region after last year’s Slovakofarma acquisition. It is outstripped by Pliva of Croatia, Richter of Hungary and Krka and Lek of Slovenia. While Zentiva’s sale have recorded 6% CAGR in recent years (excluding the Slovakofarma acquisition), all its main rivals reported double-digit growth, driven mostly by exports. In addition, sales in the CE region are driven by rising average per capita consumption of pharmaceutical products in nominal terms that remains still below the EU average (see page 40). The following chart also demonstrates that Zentiva and other regional generic producers are focused on sustaining or improving their margins. The exception is Pliva, which is concentrating on enhancing turnover and diversifying its revenue stream through both organic and external growth, while its margins are substantially declining.

9 Richter and Egis of Hungary, Polpharma and Jelfa of Poland, Krka and Lek of Slovenia, and Pliva of Croatia
10 Note that Slovakofarma’s sales have seen a single-digit decline in the last two years, excluding the effect of substantial divestments.
11 Pliva’s sales were boosted by the acquisitions of UK company Dominion Pharma in 2000, the German AWD.pharma GmbH in 2001, the Danish 2K Pharmaceuticals and the US-based branded and generic producer Sidmak Laboratories in 2002, and Spanish player Edigen last year.
**Gross margin**

The consolidated gross margin has been rising for several years as a result of the company’s operational and product-mix restructuring, which increased the share of its own branded products to the detriment of licensed-in products. Zentiva has succeeded in cutting the cost of purchased ingredients by (i) negotiating more favorable supply contracts and (ii) increasing the share of its own and cheaper APIs. Despite the negative impact of the Slovakofarma acquisition last year, the consolidated margin still rose y-o-y. Currently, it is comparable to the peer average, as shown in the chart below. While exceeding Egis’s gross margin last year, Zentiva still lags Richter, which benefits from a substantial share of high-margin exports to the US and Russia, where pricing is largely unregulated.

---

12 Slovakofarma’s gross margin stood at a mere 49% in 2003, up from 43% a year before.
The gross margin should firm up and exceed 60% in the coming years given (i) the previously-mentioned focus on in-house production of key APIs to increase the independence of external supplies, (ii) the decreasing share of licensed-in products in the portfolio, and (iii) the enhanced bargaining power after the Slovakofarma acquisition in 2003.

**Operating costs**

Although R&D expenditures as a % of sales have increased over time, they remain well below the average 7-8% among peers. In order to sustain competitiveness, a further increase is likely at Zentiva in line with the present trends. The company will have to maintain a high rate of new product launches on all the major markets. Moreover, the declining share of licensed-in products will also push up R&D expenditures, as a part of sourcing costs will fall below the gross profit level (see Projections for more details).

**R&D expenditures** (as a % of sales)

Zentiva’s focus on the domestic market has allowed it to keep marketing costs fairly low thanks to high brand recognition and well-established traditional links with physicians and pharmacists in both the CR and Slovakia. As it is penetrating the Russian and Polish markets while maintaining its domestic market share, marketing expenditures have risen and may even temporarily exceed long-term sustainable levels. Currently, they are around the regional average. They were also boosted by the re-branding of Leciva and Slovakofarma to Zentiva last year.
### Personnel and administrative costs should stabilize

Personnel costs including training and travel costs (as a % of total sales) have increased substantially over the last three years and further slight increases are likely as the significant expansion of the sales network in Russia and Poland continues. On the other hand, administrative costs have declined from more than 16% of sales in 2001 to below 13% last year, a level around which they are expected to stabilize following reorganization, cost optimization, and streamlining of internal processes.

### Above-average EBIT margin

Zentiva’s EBIT margin remains above the peer average, although it declined last year due to the above-mentioned increases in marketing, R&D and personnel costs, which more than offset the increased gross margin. The acquisition of Slovakofarma with an inferior 8% EBIT margin (2003) also weighed on the consolidated margin, though it will rise substantially following post-acquisition restructuring. As is clear from the chart below, Richter remains in a position of superiority to its regional peers (thanks to strong gross margins and low marketing costs) while Egis has the weakest performance, with the gap even widening over the last three years.
Zentiva has a natural hedge on the SKK (especially after the acquisition of Slovakofarma last year) and USD at the operating level. But the major FX concerns relate to CZK/EUR fluctuations, since the company’s has insignificant EUR revenues compared to costs of purchased APIs. Zentiva itself estimates that every 4% weakening of the Czech koruna against the EUR would lead to a 1% decline in EBIT. The planned expansion in Poland and especially Russia will further increase Zentiva’s turnover sensitivity to FX rate changes as purchases from those countries will remain marginal. Note that in 2003, exports contributed 14% to total sales and we project that the share will increase to 33% by 2010.

**Net margin**

Despite the lower operating margin last year, Zentiva’s net margin saw another slight improvement, making it comparable to the regional average. Financial costs declined in 2003 due to the repayment of a CZK 1.5bn debt to Warburg Pincus and due to overall lower interest rates on the debt. On the other hand, the rather high CIT rate in the CR (31% in 2003) weighed on Zentiva’s net profitability compared to its regional peers. Zentiva’s effective tax rate even exceeded the nominal rate and reached 39% last year. Note that Richter, which is achieving strong net profitability due to its extremely low effective CIT, enjoys a tax holiday until 2011 as a result of the state’s generous investment-incentive policy. This makes impossible a direct comparison with Zentiva and other peers in terms of net margin, P/E and P/CE multiples for the next several years. Zentiva will gradually benefit from a declining CIT rate in the CR (to 24% by 2006) and from its exposure to the 19% Slovak rate after the Slovakofarma acquisition. The increasing share of sales in lower-tax-rate Poland and Russia (19% and 24% respectively) should also enable the net margin to rise faster than operating margins. Note also that the recent capital-increase proceeds are to be partially used for debt repayments with a consequent decline in interest costs.

<table>
<thead>
<tr>
<th>Year</th>
<th>Polpharma</th>
<th>Lek</th>
<th>Jelfa</th>
<th>Krka</th>
<th>Richter</th>
<th>Zentiva</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>7</td>
<td>12</td>
<td>10</td>
<td>13</td>
<td>15</td>
<td>13</td>
</tr>
<tr>
<td>2002</td>
<td>8</td>
<td>13</td>
<td>12</td>
<td>14</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>2003</td>
<td>9</td>
<td>14</td>
<td>13</td>
<td>15</td>
<td>17</td>
<td>15</td>
</tr>
</tbody>
</table>

Source: Companies

Note that the CR, Slovakia and Poland are currently expected to join the EMU in 2009-10.
**Return on equity**

We divide ROE into three major components: net margin, asset turnover and financial leverage.\(^{14}\) Note that Zentiva’s ROE stood at 56% last year and it significantly outperformed its peers: Richter was second with ROE of 20% and the sample peer average stood at 12.5% in 2003. While Zentiva’s net margin has been largely comparable to the peer average, it has considerably outperformed peers in both asset turnover and financial leverage. Following the recent capital increase and repayment of most debts, Zentiva’s financial leverage (assets/equity) will decline to approx. 130%, bringing it in line with the sample average. As a result, ROE should stabilize above 20% and still remain among the highest in the region mostly thanks to the above-average asset turnover. ROIC should also decline to about 20% from almost 30% in 2002.

**Asset turnover**

**Financial leverage**

\(^{14}\) ROE = Net margin * Asset turnover * Financial leverage = Net profit / Sales * Sales / Assets * Assets / Equity

---

**Working capital**

Zentiva is close to the peer average for receivables turnover. Note that most peers are increasingly focused on exports to the US and the EU-15 countries, which may help them to push the average repayment period down. Zentiva on the other hand plans to expand east, increasing pressure on the average payment period, which we have also reflected in our FCF projections. In the short term, Zentiva may benefit from its higher market power on the domestic market and especially in Slovakia after the Slovakofarma acquisition, where it may push to reduce the receivables turnaround time.
Receivables turnover (days)

Source: Companies

Capex and depreciation

As mentioned above, with utilization of 62%, Zentiva has sufficient production capacity to expand organically in the coming years without substantial capex. This should help it to generate strong free cash flow, which will either be distributed to shareholders or used for acquisitions. The chart below indicates that capex as a % of sales will remain significantly below that of peers. Note that the combination of significantly shifting tax burdens of the companies and differing capex patterns in the coming years makes any meaningful comparison based on earnings multiples difficult.

Capex and depreciation (as a % of sales)

Source: Patria Finance, K&H Equities, Kredyt Bank
Zentiva business model

Summary

Zentiva is the leader in the production of prescribed generics and OTC drugs in both the Czech Republic and Slovakia and is one of the five largest generic producers in the CE region. Its product portfolio covers all the major therapeutic areas, which has helped it to sustain the extraordinary domestic market position. Zentiva has the largest sales network on these markets, good brand recognition among consumers in Czech Republic and Slovakia and long-lasting relations with physicians, pharmacists and local authorities. The combination of these factors helps it to compete with both international originators and especially regional generic peers on the domestic market.

Zentiva focuses on the low-cost development and timely launch of generic product formulations of original brands that are internationally successful and may be widely used in public primary health-care systems i.e. prescribed by physicians and/or sold by pharmacists. The current R&D pipeline is designed to ensure solid single-digit revenue growth on the domestic market. Moreover, the unification of the former Czech and Slovak product mix and related R&D activities after the Slovakofarma acquisition may lead to a moderate increase in the company’s medium term growth potential. The acquisition also improved Zentiva’s self-sufficiency in API production and should positively impact the operating performance.

The long-term market share trend has been however negative due to intense competition from foreign producers. To improve its growth profile and geographically diversify sales, Zentiva has decided to penetrate new markets, having sufficient capacity for organic growth in the medium term. Poland and Russia have rather fragmented and unsaturated primary health-care systems, which fits to Zentiva’s strategy. Their size is approximately double that of the Czech market and even moderate market share gains would mean a substantial increase in sales for the company. Zentiva has adopted a gradual, “therapeutic area-specific” approach to penetrating these markets rather than launching its entire portfolio all at once. As the foreign sales network is being developed gradually, higher specialization of representatives is possible. Nevertheless, it is handicapped by its negligible export experience compared to regional peers.

Although Zentiva would be highly price competitive on western European and/or US markets, the different market environment, tough competition with respect to distribution/sales networks, and Zentiva’s unfocused product mix limit the export potential to those markets. Recall that compared to some of its regional peers Zentiva lacks a product niche where it considerably outperforms rivals in terms of quality, product range and/or name recognition. Should the company decide to enter these markets in the more distant future, we believe a partnership, possibly linked to changes in Zentiva’s shareholder structure, or acquisitions are more likely than an export-based penetration.
Ownership and structure

Background

Zentiva NV is a public company with limited liability operating under Dutch law. It is 54% owned by Warburg Pincus, a US private equity firm that teamed up with the Zentiva management in 1998 to fund a buyout of the state’s majority stake in the company. The management and employees hold 14% in the company, with CEO Jiri Michal owning the largest single stake of 6%.

Ownership and group structure

Zentiva’s management is a mixture of domestic and foreign managers. Mr. Michal has been with the company since 1993, CFO Petr Sulc joined Zentiva in 2001 and COO Petr Suchy has worked for the company for ten years. Of the foreign managers, Lars Ramneborn is responsible for trade, Peter Neuwirth for business development and API and Kerstin Thaele for R&D. All joined Zentiva in the last five years and have long-term experience in the sector. Since the management holds a substantial stake in the company, maximizing shareholder value should be beyond doubt.

Management

15 Warburg Pincus has been a direct equity investor in world healthcare for more than 30 years and has invested in more than 100 healthcare companies, where it usually cooperates with local management teams. It invests in public and private companies at all stages of development with a long-term perspective. Primary areas of interest are healthcare services, medical devices, biotechnology and specialty pharmaceuticals. Its experience is so far reflected in successful restructuring of Zentiva.
Zentiva’s head body is the AGM and the company is managed by the Board, which has both managing and controlling functions. One part of the Board (up to 8 members) is directly appointed by the AGM and is responsible for controlling the other part, which has up to 3 members responsible for managing day-by-day business. The latter members are appointed by the AGM from at least two candidates per position nominated by the first part of the board.

**Main assets**

Zentiva NV’s majority stakes in the largest Czech and Slovak generic producers, Zentiva Praha (formerly Leciva) and Zentiva Hlohovec (formerly Slovakofarma), are its major assets and are fully consolidated. Through its Czech subsidiary, Zentiva has set up small trading and marketing entities in all the major target markets: CR, Slovakia, Poland and Russia. Zentiva also has equity stakes in subsidiaries in Georgia (Leciva Geo), Uzbekistan (FarmSanoat) and Ukraine (U-Farma), although these have been either fully or almost fully written-off.

**Slovakofarma acquisition**

Zentiva acquired its 85% stake in the Slovak Slovakofarma in H2 2003 for CZK 1.94bn. The changes to the product mix and restructuring of operations and systems should significantly improve the subsidiary’s efficiency and productivity as was proved in the Czech subsidiary following the 1998 MBO. The restructuring should involve possible product and development synergies between both Zentiva’s major subsidiaries. For example, Slovakofarma’s production of APIs should lower Zentiva’s dependence on external supplies of ingredients. Moreover, the acquisition enhances the company’s pricing power over suppliers. The merger will also strengthen coordination in R&D and drug innovation. Cost savings are being achieved in distribution and marketing, where merged sales forces can promote a unified product mix more effectively as the historical product overlap has been removed. The relatively large cultural and geographical proximity of the Czech and Slovak companies and markets should also support post-merger synergies.
Market environment

Pharmaceutical market size

Zentiva is predominately active on the Czech and Slovak markets where it maintains a dominant position. The overall size of the Czech pharmaceutical market exceeds USD 1bn (at the wholesale level), more than twice that of the Slovak market. To improve its growth profile and geographically diversify its sales, Zentiva has decided to penetrate new markets: namely Poland and Russia. Their size is approximately double that of the Czech market, meaning that even moderate market share gains would lead to a substantial increase in sales. In H1 2004, 83% of pharmaceutical revenues were still generated on the domestic market, but the importance of the new market is gradually growing.

Market size – annual wholesalers turnover (2002)

![Market size chart](chart.png)

Source: K & H Equities, Patria Finance

Generic market size

Among the markets, Poland has the highest generic penetration, with respectively 45% and 55% in value and volume. Slovakia shows 25% in value and 35-40% in volume terms, the lowest among the target markets, which may indicate higher growth potential of the generic market there. Note however, that generics penetration in the CE region significantly exceeds levels seen in developed countries, which are up to respectively 20% and 35% in value and volume terms.16 Compared with 80% and 50% on the domestic market, imports supply approx. 65% and 35% of the market in value and volume terms respectively in both Poland and Russia.

Market structure

CE countries have seen radical changes to market structure in the last fifteen years as most local firms have been squeezed out or taken over by large foreign players. The previous dominance of state-owned pharmaceutical producers (Leciva in the CR, Slovakofarma in Slovakia, Polpharma in Poland and Richter and Egis in Hungary) has therefore been eroded, although local players retain the No.1 position on local markets (except for Polpharma, the Polish No. 3), mostly thanks to their long-established relationships with physicians and high brand-awareness among citizens. Compared to the domestic market, the Polish and Russian pharma sectors remain highly fragmented, with the top five producers controlling no more than a quarter of the market.

It is obvious that Zentiva's market position on the domestic markets is exceptional in a CE context. The key question is whether this is a gradually deteriorating residue of the past monopoly, or a reflection of a superior ability to retain market share.

For detailed market overview see page 39.

Geographical sales structure

Compared to its peers, Zentiva has relatively little experience in penetrating foreign markets. As mentioned previously, 83% of Zentiva’s production is sold on the domestic market, where the company inherited a large market share and sales network. Currently, we perceive the geographic undiversified sales as one of Zentiva’s major competitive weaknesses, which is (given the sufficient production capacities) reflected both in the size of its current FCF, and its riskiness (e.g. sensitivity to national regulation changes, seasonality). Following the recent share capital increase, international expansion has become a priority, with Poland and Russia as the major target markets. Zentiva has also started monitoring possible acquisitions and partnership targets in Western Europe, though such moves are not imminent. Within the EU, Zentiva may employ the Mutual Recognition Procedure (MRP) to enter these markets (as may foreign companies entering the domestic market), though penetration costs in the EU-15 may be significant given the high market saturation. Any possible acquisition will focus primarily on increasing marketing power or expanding the brand portfolio rather than on acquiring new manufacturing facilities. Regarding the US, Zentiva has the FDA’s approval for several APIs, but exports there are out of Zentiva’s interest and we currently see no additional potential there given the different market environment, tough competition there and Zentiva’s unfocused product mix.
Zentiva may exploit the rather fragmented character of the Polish market and the strong expected demand for cheap generics supported by the financial constraints of the health care system. However, competition from local and foreign generics is intensifying due to the attractive size and potential of the Polish market. Zentiva also plans to penetrate the fast-growing high-margin Russian market, though gaining significant market share will require high additional costs given the competition from cheap generics not yet complying with the GMP and the different regulatory and market environment. Recently, exports to Russia have stagnated at about 3.5% and exports to Poland approached 8% of total sales in H1 2004, up from 2% in 2000. Zentiva also exports to the three Baltic countries but they are currently outside Zentiva’s main focus, other markets representing only 5% of sales in H1 2004.

**Exports – peer comparison (2003)**

![Exports vs Domestic Sales](chart)

Source: Companies

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### Domestic market position

**Appealing market share**

As indicated above, Zentiva’s market share (as a % of pharmaceutical sector sales) has declined considerably over the last 10-15 years, mostly in the early 90s, due to the opening up of the domestic market to foreign competition and rising demand for imported and usually much dearer drugs. Nevertheless, its market share exceeds 15% in both the CR and Slovakia after the recent Slovakofarma acquisition. Moreover, Zentiva’s brands contribute up to 50% to overall sales on the domestic market in volume terms, and they sustain appealing market recognition among physicians, pharmacists and the general population.

**Major competitors**

On the generics market, Zentiva has 51% and 61% of sales in the CR and Slovakia respectively and its major competitors are mostly regional generic players such as Ivax (formerly the Czech-based Galena), Krka of Slovenia and Richter of Hungary. German group Ratiopharm and Menarini of Italy are also active on the market (see below). On the OTC market, Walmark, Novartis, Ivax and Ratiopharm are Zentiva’s main competitors.

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17 Leading producers in the EU-15 countries have usually up to 10% of the pharmaceutical market.
Conservative market-share outlook...

We assume that Zentiva will participate in the expected 7-9% growth in the pharmaceutical market in the coming years slightly less than its competitors. It will face further increasing competition following the recent introduction of the MRP and as large foreign drug producers and regional generic peers improve their knowledge of the domestic market. The marketing power of foreign originators (especially towards specialists) is supported by distribution companies that continue to offer sweeteners to physicians (office equipment, courses abroad, etc) who prescribe more expensive medicines from the original producers. This will affect Zentiva’s peak revenue potential on its newly launched drugs as well as the revenue growth rate on its old product portfolio.

...despite several positive factors

These negative factors should be partially offset by Zentiva’s excellent brand recognition among local consumers, its vast sales network (see page 31), knowledge of the market and long-established relations with both physicians/pharmacists and the health authorities. Regarding the latter, Zentiva aims to convince local authorities to remove several prescription restrictions to allow a broader drug portfolio to be prescribed by physicians and not just specialists, which would clearly shift the market in favour of generic producers. Moreover, insurance companies are encouraging doctors to prescribe cheaper generics.

New market position

Zentiva’s current market share in Poland and Russia is approx. 0.4%. As for other generic producers either from the region or from India, Israel and China, both countries are attractive for Zentiva due to their fragmented primary health care systems, strong demand for low-price generics reflecting the financial constraints (and high patient contributions in Russia) and the strong growth of the Russian market. As is the case on the domestic market, primary health care will be the major focus. So far, representatives’ visits to physicians are rare in both countries and Zentiva aims to exploit that potential. Note that ageing generics are prescribed by physicians especially in Russia due to their low awareness of new generic products. This, together with the likely removal of numerous prescription restrictions, offers further sales growth potential on those markets.
Geographical sales structure

Source: Zentiva, Patria Finance

Zentiva’s new team in Russia

A new Russian sales team has been hired to enhance revenues, though the startup had a temporarily negative impact on 2003 sales, which fell 20% y-o-y, but then rose 58% in H1 2004. The product portfolio should expand to cover all major therapeutic areas. To date, OTC sales have prevailed. The three major illnesses among the Russian population are respiratory diseases, which account for about 40% of all illnesses, circulatory disorders and injury and poisoning. From this standpoint, Zentiva may see particular success in the CVS category, while showing weakness in musculoskeletal area (see the table on page 35).

Increasing competition also from regional peers

We again stress that Zentiva will have to fight increasing competition in both countries, a trend boosted also by regional peers - Richter occupies the No. 2 position in Russia and Ukraine and continues its expansion in Poland. In 2002, it acquired a majority stake in Polfa Grodzisk, which should become predominantly an R&D centre for Richter; the launching of small-scale drug production in Poland is planned as well. Polpharma occupies the No. 3 position in Poland with rather ambitious plans in Russia; it has recently introduced a new business plan based on the production of cheap generics mostly in CVS, CNS and alimentary therapy areas, which seems to compete directly with Zentiva’s expected export mix to the Polish market. The Slovenian Krka and Lek, and especially the Croatian Pliva also have fairly strong positions on the Polish market (among the Top 20), with local subsidiaries and plans for further expansion.

Acquisition considerations

Besides its product-penetration ambitions, Zentiva has indicated that acquisitions are possible in Poland, Russia and other countries, subject to favorable conditions. Note however that Zentiva’s joint ventures in Uzbekistan and Georgia in the 90s failed to bear fruit and the company fully wrote-off both investments and receivables relating to the companies (costing EUR millions). Besides these, Zentiva currently has a subsidiary in Ukraine, which is set to be sold.
Sufficient capacity for organic growth

We do not reflect possible acquisitions in our forecast and valuation as its free production capacity gives Zentiva sufficient room for foreign expansion without a substantial increase in the capex over the next few years. Zentiva’s production is concentrated at two factories: Hlohovec in Slovakia and in Prague. The Hlohovec factory has a higher capacity (200m packages per year based on two shifts) but a mere 51% utilization compared to 74% at the Prague factory (177m packages). At the consolidated level, capacity utilization reached 62%. Note however that the free capacity is essential for generic producers to ensure sufficient flexibility in launching new generics timely.

Business model

Distribution and sales network

The majority of production is sold through a wholesale network\(^{18}\) while direct deliveries to hospitals represent only 10% and 5% of sales in the CR and Slovakia respectively. As Zentiva is the largest supplier for all its distributors on the domestic market it has rather high bargaining power towards them and high flexibility when deciding on distribution channels. This is not the case for the Polish and especially Russian market. Given the geographical size of the country, bargaining power of distributors is much stronger and more co-operative approach must be applied.

\(^{18}\) Zentiva distributes most its products through 7, 10, 2 and 15 wholesalers in the CR, Slovakia, Poland and Russia respectively.
Zenitva employs 385 sales representatives, more than 50% of them operate on the domestic market, the largest sales force among pharmaceutical companies here, which is among Zenitva’s major competitive advantages. In Poland and Russia, Zenitva’s number of representatives is still insufficient to penetrate the market to a considerable extent and the company thus expects their substantial increase.

Sales network – geographical breakdown (March 2004)

Representatives’ major therapeutic area of focus is CVS in both the CR and Slovakia (47 and 24 representatives respectively), with other areas rather equally covered. In Poland, representatives have focused solely on the urologic/gastroenterologic area and it has become necessary to spread the sales force into other areas as well. To support this aim, Zenitva intends to hire another 20 representatives this year and set up closer links with physicians; the CVS is the major area of interest at the moment. A new management team with long-term experience on the CIS generic market was hired in Russia last year and Zenitva has supported its expansion there by more than doubling its number of representatives to 47. Besides contacting physicians, efforts are being made to focus on targeting pharmacists given the high share of OTC sales in Russia (the major area of Zenitva’s interest there before 2004).

Motto: In touch with physicians and pharmacists

Zenitva’s key goal in marketing is focused on keeping physicians and pharmacist well informed about its promoted product portfolio as they recommend/sell most generic products. Its representatives are usually specialized in a partial therapeutic area, in which they promote rather limited number of brands. As a result, its marketing is more concentrated and forcible than if the entire portfolio would be offered. Note that any marketing strategy in the region should be based on a solid sales network that ensures good awareness of the company’s new products. Medical conferences, direct contact with physicians and other perks for physicians are therefore typical in the region.

19 The number of representatives in the CR is comparable to Richter’s 130 on the Hungarian market (which is of a similar size to the CR – see page 26), while Egis has a national network of more than 200 representatives.

20 Note that Richter has 279 representatives in Russia alone and 420 in the entire CIS; the Egis sales force is over 450 in the CIS.
Production structure

Clear brand generic producer

The vast majority of revenues are generated by prescribed and OTC generic drugs. API sales are insignificant as most production is consumed in-house; the expected increase in the API production should thus not have impact on the sales structure. Prescribed generic drugs are further split between Zentiva’s own brands (77% in 2003) and licensed-in products (23%). Contractual manufacturing is very limited (1% of sales last year); cooperation with companies such as Hexal (Germany), Alpharma (Norway) and Siegfried (Switzerland) helps the company to utilize its free capacity (see page 31 for capacity utilization details).

Licensed-in production to be limited

The share of licensed-in products has been declining for several years as part of the business restructuring also supported by the entry of Warburg Pincus into the company in 1998. Note that margins of licensed-in products are inferior compared to the company’s own branded drugs and we thus expect their share to further decline. The ratio of prescribed and OTC drugs should remain rather stable after the Slovakofarma post-acquisition product-mix restructuring. Demand for OTC drugs is expected to be driven by the rising real income of patients, higher levels of self-treatment in the population and the fact the state will be motivating patients to switch from prescribed drugs to OTC drugs to ease pressure on the state budget. In Slovakia, the recently introduced SKK 20 payment for prescriptions and visits to the doctor should also lead to fewer visits and people may increasingly treat themselves at home. On the other hand, prescribed drugs are more attractive for the company given their higher margins, which may largely offset the above factors.

Aggregate sales structure

![Chart showing aggregate sales structure from 2001 to H1 2004. The chart indicates the breakdown of sales into subscribed generics, OTC drugs, APIs, and other categories.](chart.png)

Source: Zentiva, Patria Finance
Product portfolio

Zentiva actively promotes 40 names

Zentiva has 280 names and 560 products registered and applied for the registration of another 126 new products. Out of these, 40 names are actively promoted, their choice is based on several criteria: they must target a large number of patients, have sufficient gross margins (about 65% in average) and be easily marketed by representatives. On the domestic market, they contribute more than 52% to overall sales. The product portfolio is however considerably narrower in Poland and Russia (and other markets), where virtually all exported brands are actively promoted. All Zentiva’s products are manufactured in compliance with GMP.

Main brands...

Among the best-selling prescribed generics currently belong Simvacard (a cholesterol reducer), Agapurin (vasotheapeutics), Helicid (anti-ulcerant), and Tralgit (system anti-infectives). The best-selling OTC brands are Ibalgin (pain killer) and Indulona (moisturizer cream), which were No. 1 and 10 in Zentiva’s portfolio in terms of sales in 2003. Besides insulin, Augmentin (system anti-infectives) is produced on the license (GSK).

...to copy the global top selling drugs

Three of the top 10 list are generic versions of ten globally most sold brands: Simvacard is a generic version of Merck’s Zocor (global No.2, 2003 sales of USD 5bn), Helicid is a version of AstraZeneca’s Losec (No. 7, USD 3.3bn), and Agen (a blood-pressure reducer) is a version of Pfizer’s Norvasc (No. 3, USD 4.3bn). The company’s strategy is to continue developing and promoting generics from the list of globally most sold products, which should ensure its sustainable revenue growth in the future (see R&D for details).

\[
\begin{array}{|c|c|c|c|c|c|c|c|c|c|}
\hline
\text{Zentiva’s Top 10} & \text{Zentiva brand} & \text{Therapeutic instance} & \text{Sales}\text{21} & \% \text{of total sales} & \text{CR} & \text{Market position} & \text{Originator} & \text{Brand} \\
\hline
& & (CZK m) & \% of total sales & \text{CR} & \text{SR} & \text{Poland} & \text{Russia} & \\
Ibalgin & ibuprofen & 356.6 & 3.7\% & 1 & 1 & - & - & Boots \text{ Brufen} \\
Simvacard & simvastatin & 341.9 & 3.6\% & 1 & 1 & - & - & Merck \text{ Zocor} \\
Agapurin & pentoxifylline & 338.8 & 3.5\% & 2 & 1 & 12 & 21 & AstraZeneca \text{ Losec} \\
Helicid & omeprazol & 307.1 & 3.2\% & 1 & 1 & 4 & - & GSK \text{ Augmentin} \\
Augmentin & co-amoxicillin & 299.2 & 3.1\% & 1 & 1 & - & - & J&J \text{ Ultram} \\
Tralgit & tramadol & 274.0 & 2.9\% & 5 & 1 & - & - & Pfizer \text{ Norvasc} \\
Agen & amlodipin & 252.9 & 2.6\% & 1 & 1 & - & - & - \\
Insulin & insulin & 244.4 & 2.5\% & 2 & 2 & - & - & - \\
Enelbin & naftidrofuryl & 216.2 & 2.3\% & 1 & 2 & - & - & - \\
Indulona & moisturizer & 199.7 & 2.1\% & 1 & 1 & - & - & Zentiva \text{ -} \\
\hline
\end{array}
\]

Source: Zentiva, Patria Finance

For a broader product portfolio list see Appendix 1

\[21\text{ Pro-forma 2003}\]
We assess the product portfolio as being well diversified and balanced with high-market-share drugs in all therapeutic areas on the domestic market. No single therapeutic substance contributes more than 4% to Zentiva’s total sales; the top ten substances have less than 30% of sales. These figures are considerably below Richter’s and Egis’s sales concentration. The strong product diversification helps to stabilize Zentiva’s operating performance and enable it to sustain rather high domestic market share through having generics in all major therapeutic categories. On the other hand, without a niche-market strategy, such as Richter’s contraceptives, Zentiva is disadvantaged as far as expansion plans to the US or Western Europe is concerned. Also, it can hardly compete with in-bulk producers, such as Teva, that are benefiting from economies of scale.

### Production breakdown by therapeutic category

<table>
<thead>
<tr>
<th>Therapeutic category</th>
<th>% of 2003 sales</th>
<th>Zentiva’s 2003 market share</th>
<th>Products</th>
<th>Brands</th>
<th>Promoted brands</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CR</td>
<td>SR</td>
<td>PL&amp;RU</td>
<td></td>
</tr>
<tr>
<td>CVS</td>
<td>25%</td>
<td>21.7%</td>
<td>17.7%</td>
<td>0.4%</td>
<td>117</td>
</tr>
<tr>
<td>CNS</td>
<td>18%</td>
<td>27.7%</td>
<td>17.7%</td>
<td>0.6%</td>
<td>117</td>
</tr>
<tr>
<td>Alimentary</td>
<td>17%</td>
<td>21.5%</td>
<td>23.7%</td>
<td>0.4%</td>
<td>77</td>
</tr>
<tr>
<td>Musculo-Skeletal</td>
<td>8%</td>
<td>22.7%</td>
<td>15.6%</td>
<td>0.2%</td>
<td>32</td>
</tr>
<tr>
<td>Anti-Infectives</td>
<td>10%</td>
<td>15.1%</td>
<td>17.7%</td>
<td>0.4%</td>
<td>77</td>
</tr>
<tr>
<td>Respiratory</td>
<td>6%</td>
<td>10.6%</td>
<td>7.9%</td>
<td>0.5%</td>
<td>48</td>
</tr>
<tr>
<td>Others</td>
<td>15%</td>
<td>7.6%</td>
<td>6.3%</td>
<td>0.2%</td>
<td>92</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>17.2%</td>
<td>17.0%</td>
<td>0.4%</td>
<td>560</td>
</tr>
</tbody>
</table>

Source: Zentiva, Patria Finance

As regard the therapeutic category composition, the portfolio seems superior in CNS and CVS and inferior in respiratory and women’s categories. CVS drugs currently contribute the most to consolidated sales (25%) and the company has also launched several new brands in this area recently. Exports to Poland involve mostly gastro-urology area, while CVS, anti-infectives and OTC drugs are largely exported to Russia. Zentiva intends to register brands in Poland in the next 3-5 years that are already marketed domestically. For this purpose it will significantly strengthen its sales network in the country, especially in the CVS therapeutic area. A similar strategy is expected in Russia, e.g. Simvacard and Zoxon – both well-established brands on the domestic market – were launched in H1 2004. Out of the top ten products, only Agapurin and Helicid have been considerably exported so far (36-38%), while other names have been sold almost exclusively in the CR or Slovakia (84-100%).

The importance of lower-margin licensed-in products (18% of 2003 sales), such as Augmentin (co-amoxicillin) or insulin, should decline in the portfolio in favor of own brands in coming years.

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22 Given the narrow portfolio exported to Poland and Russia, sales concentration is significantly higher on those markets. E.g. three most sold brands contribute by approx. 70% to Zentiva’s overall sales in Poland.

23 Richter’s oral contraceptives contributed 25% to its total sales and Egis’ top brand had 10% of the overall sales in 2003.
Suppliers

Zentiva has at least two major suppliers of the materials needed for the production of all key branded generics but five. It has sufficient stocks to cover one month of production. Among major suppliers are Eli Lilly, S&D Chemicals and Uquifa; major API material suppliers are Shijiazhuang, Sinosource and Lihovar Kojetin. Zentiva aims to raise production of key APIs to ensure greater independence from external supplies - 82% of the company’s API consumption must currently be covered externally. The acquisition of Slovakofarma was in line with this aim. Among the major ingredients in the portfolio are pentoxyfyllin, simvastatin and losartan in the CVS category and codeine in the CNS category, which together contributed 54% to Zentiva’s API production.

Research & Development

The R&D activity focuses on developing generic product formulations of original brands that are internationally successful and may be widely used in public healthcare systems. As mentioned above, three versions of the top ten world brands are presently among Zentiva’s best sold generics and further are in the pipeline. This simple copy strategy, lacking an innovatory ambitions, has led to Zentiva’s rather low R&D expenditures of below 5%, which is expected to rise in coming years, though (for more details see Financial performance – Peer comparison and Projections). Note that a usual life cycle in generics is significantly shorter than in original products, e.g. Zentiva is actively marketing its products for 6-7 years in average (they remain in product portfolio for several additional years though). The company owns 2,120 patented products, out of which 1,452 are internationally valid, and 65 patents related to production processes. None of them is however substantially important for the company’s performance.

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24 Zentiva is currently producing 60 active pharmaceutical ingredients.
Recent outcomes

The chart below shows that the number of products that received marketing authorization over 1999-2003 has been increasing (excluding a dip in 2002). In H1 2004, Zentiva submitted 54 applications for drug registration, including 6 new molecules, out of which 3 belong among the top 50 global substances in terms of turnover. As of March 31, 2004, the company had 126 pending applications for drug registration (123 in June), out of which 24 were first registrations of 12 new pharmaceutical substances. These are expected to be launched in two years’ time, which is in line with the previous practice: Zentiva introduced 6 new substances in both the CR and Slovakia last year and 4 brands in Poland. Out of them, a blood-pressure reducer Lozap (losartan), a generic version of Cozaar by Merck, gained the No. 1 position in its category this year and seems to become one of Zentiva’s top selling products, as there are no prescription limits for physicians.25 The first half of this year was rather promising as the company introduced two major generics on the domestic market: Betaxa (a beta blocker) and Febira (a lipid regulator).26 This year, the company expects to introduce generics mostly in the CVS and CNS areas on the domestic market. A higher number of authorizations is expected particularly in Poland and Russia in coming years given the company’s expansion strategy there.

R&D pipeline

The R&D department is currently focused on the development of generic versions of 11 out of the 50 pharmaceutical substances with the highest worldwide turnovers; the company has not made public more detailed information on its substances though. It had 23 generic drug projects and 10 with regard to OTC drugs in March 2004; the majority of them are expected to receive market authorizations by 2008, which again indicates 5-6 market authorizations a year.

25 Among the CVS drugs launched in the Czech Republic last year was also Ramil (an ACE inhibitor) with a No. 7 position in the same period. In the musculo-skeletal area, both Coxtral (musculoskeletal disorders) and Tralgit (an analgesic) are currently the No. 3 brands in their categories. Tralgit was also introduced in Slovakia last year and is already the best-selling brand in its category; Coronol (blood pressure) and Citalec (psychiatric disorders) were No. 7 and No. 1 respectively in Slovakia in March 2004.

26 Betaxa and Febira became no. 8 and 24 in the relevant markets in March. Osteodon (osteoporosis), Azitrox (an anti-infective) and Rispen (anti-psychotic) started to be marketed in Slovakia in H1 2004.
This should ensure Zentiva the single-digit sales growth dynamics on the domestic markets, which would correspond to the historical trend. The unification of the former Leciva’s and Slovakofarma’s product mix could somewhat improve the growth potential. The breakdown of Zentiva’s R&D pipeline according to therapeutic area is shown below.

### R&D pipeline

![Chart showing R&D pipeline]

Source: Zentiva, Patria Finance

**APIs development**

Zentiva also intends to continue developing and produce new API products to improve its self-sufficiency and it cooperates with selected leading generic producers in this regard. It had completed seven projects as of March 2004 and has another six projects in the pre-API industrial production phase. Note that the recent acquisition of Slovakofarma considerably increased the production potential of the company especially in cooperation with the R&D API centre in Prague. APIs will be consumed mostly in-house, which increases its independence on suppliers and is expected to deliver additional cost-savings.

### APIs R&D pipeline

![Bar chart showing APIs R&D pipeline]

Source: Zentiva, Patria Finance
Market overview

Introduction

The drug market is very complex and highly regulated, and the product-versus-payment flow is influenced by dozens of subjects and authorities. As they can all have a significant impact on drug demand and/or supply, we will here describe and analyze major market forces on both the domestic and major export markets. The diagram below offers a simplified representation of the domestic market structure and should work as a guideline to the Market overview chapter.

1. Contributions to public health insurance are obligatory for permanent residents in the Czech Republic. An employer pays two thirds of an employee's insurance and takes another third out of the employee's wages. The State covers the health insurance of about 56% of citizens - i.e. children, unemployed, pensioners, etc. Private entrepreneurs are the last insurance category.

2. The Universal Health Insurance Company (VZP) is still the largest insurance company in the CR covering almost 70% of Czech citizens. It is however losing around 3% of its clients annually to eight other employee health insurance companies. Slovak VZP also remains the biggest national insurance company covering approx. 65% of the population.

3a. Medicines in specific areas are available with 100% reimbursement (mostly vaccinations). Other products are sorted into groups. For each group at least one 100%-reimbursed product is defined, usually the cheapest available. Other drugs in each group are reimbursed by a fixed amount, which equals the price equivalent of the reimbursed product recalculated on the API content. The difference between the amount reimbursed and the retail price is covered by the patient.

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27 E.g. end-users, clients and payers are usually different entities on the pharmaceutical market.
3b. The MOH Committee sets drug’s reimbursement status - zero, partial or full reimbursement; the Committee might put several conditions on reimbursement (e.g. prescription by a specialist).

3c. The reimbursed drug prices are usually updated twice a year by a drug committee in the Ministry of Health. Prices are determined in complex discussions between the Ministry of Health, FinMin and VZP.

Generic substitution

4. A substitution by pharmacists of a specific branded drug that has been prescribed by a doctor for an equivalent generic product is possible only if the prescribed drug is unavailable at the pharmacy and a patient agrees to the substitution.

Physicians

5. As of February 2004, physicians in the CR are obliged to ask patients to choose between a fully reimbursed medicine and only partially reimbursed drugs.

Maximum prices

6. The Finance Ministry sets the maximum wholesale prices for medicines, which are fully or partially reimbursed. The Ministry also defines the maximum margins of distributors.

Drug registration

7. To market a new drug, permission from the State Institute for Drug Control (SUKL) must be obtained, which is dependent on the company meeting the requirements of the GMP directive.

Financial restrains

8. Low financial resources and excessive debt are the major and permanent weaknesses of the health system in the CE region, including the Czech Republic. These are having an increasingly adverse impact on overall health spending, including spending on pharmaceuticals.

Pharmaceutical expenditure

9. The per-capita pharmaceutical expenditure in absolute terms in PPP in the CE region still lags countries such as Germany and France, though it exceeds the levels seen, for example, in Greece or Ireland. As a % of GDP the CE countries’ pharmaceutical expenditure is comparable to the EU-15 standard.

Pharmaceutical market

While the CE pharmaceutical market is handicapped by the low purchase power of patients and general shortage of financial sources in the public health systems (reflected in a lower absolute level of domestic demand compared to the EU average and low R&D support from the government - see page 46), this favors generic producers that offer cheap alternatives to original drugs.

The per-capita pharmaceutical expenditures in absolute terms in PPP in the region exceed the levels seen, for example, in Greece or Ireland, though it still lags behind countries like Germany and France. The following charts also show that in relative terms (as a % of GDP) the CE countries’ pharmaceutical expenditure is comparable to the EU-15 standard. Hungary spends the most in the CE region in both absolute and relative terms. However, pharmaceutical expenditure in the entire CE region versus the EU-15 using nominal exchange rates is still significantly lower.

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28 Not plotted in the chart, Poland’s pharmaceutical expenditures are 2% of GDP.

29 Aggregate macroeconomic price levels in the CR, Slovakia, Poland and Russia are estimated at 51%, 45%, 46% and 30% of the EU-15 average respectively.
We believe the above is an important factor influencing the projections of the financial and operational performance of Zentiva. While still significantly lower than the EU average in nominal terms, pharmaceutical expenditures on the domestic market are comparable to the most developed EU countries in the GDP-relative measures and to the low-end of the EU-15 range in absolute measures in PPP. Therefore, a convergence of pharmaceutical spending in USD terms towards the most developed EU countries would be gradual and it would be unrealistic to expect market growth to significantly outpace nominal GDP and/or national purchasing power growth in the medium term. Also, the limited financial sources in the sector have led to high penetration for cheaper generics in the entire CE region unlike most EU countries, where generic producers are widely expected to benefit from public-finance cutbacks in the coming years.

**Pharmaceutical demand**

**Domestic market**

The following charts show that while the value of retail sales rose by 14% and 9% in the CR in the last ten and five years respectively and by 13% in Slovakia in the last five years, the actual volume of drugs consumed per year only rose by 2% annually in the CR over the last decade (and even declined in Slovakia). Also, consumption as measured by the recommended daily intake per person per day rose in the last ten and five years by 6% and 5% respectively. After a jump in 1993-94, growth has stabilized and exceeded the volume growth rate by 3% annually.
Market drivers

As mentioned above, the indebtedness of the public health-care system have limited the growth potential of the entire domestic pharmaceutical sector, though it has boosted demand for cheaper generic products in place of original medicines. The demand for pharmaceuticals is also influenced by general trends in the population such as aging, higher purchasing power driven by the current strong real wage increase, rising pressure on individuals to contribute to pharmaceutical costs for self-inflicted ailments (obesity, lung cancer, etc), or increased amount of anti-allergens resulting from the increasing incidence of allergies. We believe these factors and strong demand for OTC drugs (see below) should continue to drive growth in the sector over the coming years.

OTC market outlook

The demand for OTC drugs from individuals has contributed to a strong growth in the CR (9%) and the region recently.

1. We believe that OTC drugs have a higher income elasticity of demand compared to prescribed drugs and are currently driven by the rapid real income growth of the CE population, which is expected to continue in the coming years (see Macroeconomic overview).

2. The general population is also taking more preventive measures and is more aware of health issues, which is changing household spending patterns in favor of OTC drugs. Increased demand is expected in particular for OTC-purchased anti-allergens, vaccinations (e.g., flu vaccination), and anti-smoking drugs. Note also that the demand for OTC drugs tends to be more volatile (incl. seasonal effects) than for prescribed drugs, for example, during flu epidemics in the region.

3. The national authorities are expected to further motivate patients to switch from prescribed to OTC drugs to ease the pressure on the state budget (e.g. by charges for doctor visits).

30 The Czech national average monthly gross wage rose by 8.8% in 1Q04 and reached CZK 16,722 (USD 655); in real terms, the average wage grew by 6.4%.
**New market**

Overall, the major trends in Polish market demand are comparable to those described for the domestic market. On top of that, the sector was hit by changes in the state drug refund lists in December 2003 and in March this year, when imported drugs were replaced by cheaper generic drugs, significantly increasing the prices of many popular brands for patients. So far this year, this has caused the sector’s sales to remain almost flat after double-digit average annual growth in the last decade, also supported by a hoarding effect last year (see chart below). Eli Lilly, Novo Nordisk and Merck incurred major market-share loses. Aflofarm, Menarini and Krka, on the other hand, have all benefited form the change. OTC products have been rising strongly. Note that Poland is the largest OTC market in the CE region with a 50% share; OTC medicines account for almost a third of the Polish pharmacy market in value terms.

**Pharmaceutical wholesale and retail sales in Poland**

![Graph showing pharmaceutical wholesale and retail sales in Poland]

Source: IntelliNews from GUS/Effect, Patria Finance

In terms of the product demand structure, the weight of antibiotics has declined in the CE countries in the last couple of years. On the other hand, CNS, CVS and metabolic-disease drugs have increased and their importance (as well as of asthma- and oncology-related drugs) will probably continue growing in the medium term. The following chart shows that CVS and musculo-skeletal drugs have a significantly higher share of sales on the domestic market than on the new markets, while alimentary and respiratory drugs contribute more to the sector’s sales in Poland and Russia.

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31 Drugs in the CNS and respiratory category recorded growth rates of more than 20% last year, while anti-infections and urino-genital drugs grew the least, 8-10%.

32 Source: Espicom Business Intelligence: World Pharmaceutical Markets, Poland, July 2003
As the chart makes clear, Zentiva’s revenues currently show a slight bias towards CNS and CVS areas compared to the revenue breakdown on all the relevant markets. Both areas are expected to grow in importance, which may be particularly favorable to Zentiva’s exports.

**Demand outlook – summary**

We believe that despite the negative implications of public-finance cutbacks the CE pharmaceutical markets should record solid growth rates over the next few years: Slovakia is thought to have the highest growth potential (double digit rates are likely) after the one-off drop this year as a result of the sector-financing restructuring at the end of 2003, while the CR and Poland may grow by 7-9% p.a. respectively, subject to possible further changes in the drug refund list in Poland.

**Pharmaceutical supply**

Although increasing drug prices also played a role, the historic volume and value growth-rate inequality on the domestic market has mainly been caused by increased sales of more expensive foreign products due to (i) a demand for quality comparable to the most developed European countries, (ii) the more aggressive and/or efficient promotion of foreign producers and (iii) the early adoption of the GMP in the mid-90s in the CR and later in Slovakia (see Framework, legislation and EU accession for details). This meant that domestic pharmaceutical companies have been losing market share to leading global pharmaceutical players, as the charts below show. Similar developments have occurred on the Polish and Hungarian markets, hitting established local dominant producers such as Polpharma and Gedeon Richter (see Market structure for details).
The increased demand for foreign drugs is also visible in the trade balance for pharmaceutical products. The following charts show that the deficit increased approximately 10% annually in the CR in the last three years (to more than USD 1bn); Slovakia's deficit reached USD 0.5bn and showed a higher growth rate (17% in the last three years). The Polish trade deficit grew approx. 10% annually over the period, to the current level of almost USD 2bn.

Major export markets

Among the 10 biggest exporting destinations of Czech producers are the traditional markets of Germany, Russia, Austria, Slovakia, and France, followed by the other CEE markets, which overall contribute two thirds of exports. Given the high level of competition and the saturation of western markets, domestic pharmaceutical companies are increasingly focusing on eastern markets where they have a better market, culture and language understanding than their western counterparts and where growth potential remains high.
For Slovak exporters, the Czech Republic remains the single most important export market, contributing by approximately 60% to the overall pharmaceutical exports. The rest is exported mostly to the CEE region. Zentiva is the largest exporter in both the Czech and Slovak Republic. Polish pharmaceutical producers export mostly to Russia and other CIS countries, the Baltic States, Switzerland and Germany.

Largest importers

The largest importers to the domestic market have been Germany, France, Switzerland, the UK and the USA, which together account for more than 50% of Czech imports. Exports from Slovakia to the CR (and vice versa) are still high due to the common history of these two markets stretching over many years. Both the major importers to Poland and their combined share of the total country’s imports are very similar to those of the domestic market.

Limited domestic R&D potential

Pharmaceutical production in the CR is almost solely dependent on the production of generics due to the limited potential of R&D. Also, the Czech government has no plans to significantly increase its funding of the pharmaceutical research that could trigger original-product development. The chart below shows the weak level of state support for R&D in the health sector in the CR: state expenditures have been decreasing as a percentage of GDP for many years. In Slovakia it is even worse, with R&D health expenditure as a percentage of GDP at half the Czech level. Most R&D is thus financed through investments by large foreign companies to majority-owned local producers.

R&D health expenditures – CR

Source: Ministry of Health, Patria Finance

R&D on new markets

R&D activity in Poland has also fallen in recent years mainly due to funding shortages. The Pharmaceutical Institute in Warsaw, which used to be the centre of Polish research, has been forced to cut staff levels due to financial difficulties. Like on the domestic market, local companies have attracted funds for R&D and modernizing production mostly through investments by foreign owners. Hardly any of the Russian producers is investing heavily in R&D. Most of them produce generics developed a long time ago. State-owned pharmaceutical research institutes have no funds for operation, much less for the development of new substances.
Drug financing

Domestic market

Reimbursement scheme in the CR

While health care is free by law, most drug purchases have to be co-financed by patients, the average level of participation reaches roughly 10%. Medicines in specific areas are available with 100% reimbursement (mostly vaccinations). Other products are sorted into 521 groups. For each group at least one 100%-reimbursed product is defined, usually the cheapest available product. Other drugs in each group are reimbursed by a fixed amount, which equals the price equivalent of the reimbursed product recalculated on the API content. Where a higher priced brand-name drug is chosen, the difference between the amount reimbursed and the retail price is covered by the patient. If no fully reimbursed drug is available, an expensive medication may be prescribed and fully paid for by the patient's health insurance company.

Transparency issue

The list of reimbursed drugs and their prices are usually updated twice a year by the drug committee of the Ministry of Health. Prices are determined on an ad hoc basis in complex discussions between the Ministry of Health, FinMin and VZP, which consider clinical effectiveness, peer-drug prices and other factors. The system is characterized by low transparency compared to the EU standard but is more straightforward compared to Hungary or Poland with several reimbursement levels.

Slovakian and Czech reimbursement similarity

The reimbursement system in Slovakia is again very similar to that of the CR, with at least one product fully reimbursed in each therapeutic category. There are three main categories of reimbursement: full, partial and zero. The level of reimbursement is thus based on three criteria: the therapeutic effect of the medication, the price, and the reference reimbursement price of similar medication in the same category. The number of fully reimbursed drugs has declined from 2,180 in 1999 to 560 last year; more than 3,000 drugs are partially reimbursed.

Sector-wide vs. Zentiva’s average reimbursement

It is estimated that approx. 80% of the expenditure on pharmaceuticals in the CR is covered by health insurance and the remaining 20% is paid either in cash by patients or directly by the state (28% in Slovakia). Note that approximately 35% and 54% of Zentiva's pharmaceutical products registered in the CR and Slovakia respectively are fully reimbursed. In Poland, approx. 40% of Zentiva's medicines are reimbursed by the state, which indicates they are mostly the cheapest medications in a particular therapeutic category.
New market

Poland has three listings of 2,700 medications with different levels of reimbursement: one list for 100% paid basic medications, a second for supplementary medicines, which are reimbursed 50 or 70%, and a third list for medicines used to treat chronic, infectious or mental diseases – these are reimbursed respectively 50%, 70% or 100%. There is also a prescription fee paid by the patient when purchasing a medicine: approx. PLN 3.2 (USD 0.8) for a fully reimbursed medicine. Patient’s average participation is estimated at approximately 30%. The government recently decided to remove from the lists all medicines that are 50% more expensive than the cheapest equivalent in its category. Also, the prices of drugs that intend to enter the lists of basic medications must be 10% lower than the prices of equivalents which are already on the list.33 In other cases, they may enter the second list of supplementary medications, subject to the MOH decision. These measures are intended to cut spending on imported original drugs, the major issue of public health care system.

Only limited reimbursement in Russia

Russia has a weak reimbursement system, so 70% of drugs are paid for in full by patients. The federal list of 450 life-saving drugs and other essential medicines represent the scope of reimbursement, though only for in-patient care. Sold in special pharmacies, these drugs, which are mostly domestic or cheap imported generics, are fully or partially reimbursed only for people suffering from selected serious diseases such as HIV, TBC, asthma, etc (approx. 30% of the entire population according to Russian Medical Server). These drugs and rarely unlisted medicines are purchased by the federal MoH and the Russian Health Science Academy. At the regional level, the level of reimbursement and the number of reimbursed drugs differ significantly, depending on the regions’ budget resources.

Framework, legislation and EU accession

Since 1995, the Czech pharmaceutical sector has been largely harmonized with the majority of EU legislation related to medicaments, pharmaceuticals, and intellectual property rights. The notice defining GMP was accepted in 1995.34 This greatly increased the production costs of pharmaceuticals in the CR and required high investments in production technologies, but it greatly helped domestic companies to have a smoother adjustment to the EU market after EU accession. Slovakia’s legislation was also harmonized with EU legislation in the 90s, ministerial decrees that implement EC directives on GMP were adopted in 1999. In Poland, all producers had to adjust to GMP as of the EU entry date. According to the latest information, Russian producers have to obtain GMP certification by 2005, which will probably force small producers to close, and others to undertake large investment outlays, possibly raising exports opportunities for CE producers including Zentiva.

33 The rule is planned to be relaxed so that equally-priced drugs may enter the list.

34 Good Manufacturing Practice standards focus on technological proceedings in production, on the quality of the medicine, on clinical trials, and pharmacological and toxicological tests, the results of which must be provided before a drug can be marketed. The directives were issued by the EC in 1989-90 and came into force in 1991 for EU-based producers.
Pharmaceutical Act

The Pharmaceutical Act that defines the legal and regulatory framework of the industry in the CR and Slovakia was approved in 1997 and 1998 respectively. In the CR, the act was significantly amended in 2003 in order to ensure full compatibility with EU law. Similarly, although the Polish EU-compatible Pharmaceutical Act was introduced in 1992, amendments were needed and the new law finally came into effect in 2002 (some enabling and implementing decrees and amendments as of the EU entry). In Russia, the key Law on Medicines was approved in 1998 and a price regulation decree was issued in 1999 in order to reduce prices, as the margins of pharmacies exceeded 50%.

Registration

The registration procedure is almost identical in the CR and Slovakia. All pharmaceutical producers here must obtain permission from the State Institute for Drug Control (SUKL), which is based on the company meeting the requirements of the GMP. Although standard registration procedure should take no longer than 210 days, in practice it takes 9-18 months in the CR and even longer in Slovakia (24-36 months). The registration charge ranges from EUR 760 to EUR 2,840 in the CR and is EUR 1,880 in Slovakia. As MRP (see below) is applicable, all EU-registered products should be reciprocally acknowledged on request within 90 days. Registrations by the EMEA are automatically valid in the CR and Slovakia as of May 1, 2004.\(^35\) All registrations are valid for five years and can be repeatedly extended for another five years.

Registration process scheme

\(^{35}\) The European Agency for the Evaluation of Medicinal Products is responsible for the centralized registration procedure in the EU. National authorities provide a so-called decentralized registration procedure.
The Czech and Slovak governments accepted all EU regulatory requirements on MRP\textsuperscript{36} without objection, while Poland won a transition period (see below). As a result, all pharmaceutical products on the Czech market were forced to acquire the necessary documentation as of June 30, 2003. The EU however accepted the principle of “well established use”, which is applied to pharmaceuticals that have already been on the market longer than 10 years. Pharmaceutical companies had to adjust their product mix: either to invest in the necessary MRP tests even for cheap medicaments sold domestically and increase their price significantly or leave the market.

The acceptance of MRP means that the number of required registrations will be significantly lower than in previous years as SUKL now focuses solely on registration cases of Czech/Slovak companies using decentralized national registration procedure. Indeed, the decline has already become evident in the last two years with regard to the first registration of new substances, as depicted in the chart below. Many EU drug producers waited for MRP to come into effect in the CR and they did not apply for specific local registration during 2002-03.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{New active substances registration statistics in the CR}
\end{figure}

\textbf{Source: SUKL}

The Office for the Registration of Medicinal Products has been in charge of registering pharmaceutical products in Poland since 2002. MRP for new registrations has been effective in Poland since EU accession and the office has 90 days for the registration. Otherwise, the law calls for the process to be finished in 210 days, but in practice it takes up to two years. After registration, a decision is made on whether the product will be sold OTC or by prescription. All registrations are valid for a maximum of five years. The standard registration fee is EUR 2,830.

\textbf{MRP has no retrospective effect in Poland}

\textsuperscript{36} The MRP is an EU authorization procedure which is based on the recognition by one EU member state (MS) of a marketing authorization issued in another MS. The assessment reports from the country that issued the first marketing authorization for a particular product are made available to the other MS that are expected to recognize this authorization, unless there are serious objections regarding issues, which constitute a potential risk to public health. Once the procedure has been finalized, authorization is issued on a national basis in each of the countries concerned.
Unlike the CR and Slovakia, Poland has been granted a transitional period until the end of 2008 for renewal of marketing authorizations issued under the previous legislation and not compliant with the EU acquis, which is clearly favorable to Polish producers compared to Zentiva. As certain valid authorizations were thus granted under an incompatible looser national legislation, drugs marketed under this authorization cannot be launched in other EU member states.

**Specifics of Russian registration**

An application for drug registration in Russia must be submitted to the Russian Federation Ministry of Health, which controls practically every aspect of the regulatory activities. Registration is issued by the Department of State Control of the MOH for a fee of USD 12,000 and 6,000 for foreign and domestic drugs respectively. It is valid for five years. The registration must be performed personally in direct contact with a state expert. Note also, that Russia does not officially recognize FDA and EU registrations. However, the MOH has issued a list of 205 well-established pharmaceutical suppliers, which get special instructions making the procedure more convenient.

**Maximum prices**

The Czech Finance Ministry and the Slovak Ministry of Health set the maximum wholesale prices of medicaments, which are fully or partially reimbursed. The maximum prices for manufacturers should reflect economically justified production, marketing and administration costs and a reasonable profit on the product. The Ministries also define the maximum margins of distributors, currently up to 32% and 34% in the CR and Slovakia respectively, and the conditions for determining the prices of non-reimbursed drugs. Re-pricing takes effect every six months (12 months in Slovakia).

In Poland the official retail prices of reimbursed drugs are set by the Ministry of Health in cooperation with the Ministry of Finance and the Pharmaceutical Management Committee. Wholesale margins may reach as much as 10% of the official wholesale price and retail margins are calculated as a percentage of the official wholesale prices or a defined fixed amount. The Russian Ministry of Health and the Ministry of Economy set the official (maximum) wholesale prices; they usually accept prices submitted by a foreign manufacturer. Wholesale and retail margins are then determined by 89 local authorities and they reflect local market specifics. E.g. both margins reach 25% in Moscow (or 15% + 25% for specified essential drugs).

Retail prices also include VAT rate of 5% and 19% in the CR and Slovakia respectively and 7% and 10% in Poland and Russia respectively (22% for OTC and non-reimbursed drugs in Poland), which are rather high rates compared to the EU-15 standard of up to 6%. Imported drugs are usually subject to no customs duty.
**Reimbursement**

*Reimbursement in the CR*

After a new pharmaceutical product has been registered in the CR and the maximum selling price has been set, the reimbursement request then goes to the MOH Committee, which sets the drug’s reimbursement status - zero, partial or full reimbursement (see Drug financing for details). VZP (in which the state holds a majority stake) tries to actively influence the level of reimbursement and it usually discusses the retail price with the applicant first, before submitting the request to the Committee. It might put several conditions on reimbursing (e.g. prescription by a specialist). The list of all reimbursed medications, their level of reimbursement, the maximum retail price and the reimbursement conditions are published by VZP. Medications fully paid for by the patient are also listed.

*... Slovakia*

The reimbursement system in Slovakia is very much the same as in the CR. Every three months the Ministry of Health (the Categorization Commission) should publish a list of fully reimbursed and partially reimbursed medications. In practice, this happens once or twice a year. The current list contains around 4,000 medications. Compared to the EU standard, the systems are less transparent, which makes them vulnerable to lobbyists’ activities. However, the reference-price system remains more transparent than the Hungarian or Polish multi-level reimbursement system, for example.

*... Poland*

Applications for reimbursement in Poland have to be submitted to the Ministry of Health’s Committee, which reviews them (within 90 days in the case of applications for reimbursement and 180 days in the case of both registration and an application for reimbursement at the same time). Nowadays, the MoH has three listings of medications with different levels of reimbursement (see Drug financing for details).

*... Russia*

The system of reimbursement in Russia is inferior compared to the previously mentioned countries. There are two reimbursement levels: the federal system and the regional system. The federal list of life-saving drugs and other essential medicines (450 in total) represents reimbursement on the federal and usually local level. The federal Ministry of Health passes the list to the government once a year. Local reimbursement depends on the 89 regional listings of reimbursed drugs, which often use the federal listing as a lead.
Drug prescription and substitution

On the domestic market, the substitution by pharmacists of a specific branded drug, which has been prescribed by a doctor, for a generic product is possible only if the prescribed drug is unavailable at the pharmacy and a patient agrees to the substitution. As of February 2004, physicians in the CR are obliged to ask patients to choose between a fully reimbursed medicament and only partially reimbursed drug. Patients now actively decide whether they want to pay extra cash for drugs. This measure has thus made it more difficult for pharmaceutical companies to influence the patients’ choice of medicaments through physicians.

In Poland, pharmacists are obliged to inform patients of cheaper generic products and may substitute prescribed branded products for generics. This is however not usual as doctors have the right to block a generic substitution by annotating the prescription. Moreover, the majority of Polish physicians do not inform patients about cheaper generic products at all. Pharmacists in Russia are allowed to substitute a prescribed branded product for generics and this practice is rather common as patients themselves require cheaper generic drugs given the poor level of reimbursement.

EU parallel trade

The EU principle of parallel imports came into force in the CR, Slovakia and Poland after EU accession. Since the prices of pharmaceuticals in the CE region are still lower than in EU-15 countries, parallel trade may become a trigger that will lead to the shift of domestic producers’ supplies designated for local markets to other countries in the EU. On the other hand, a broader supply of foreign generics is also possible on the local market. Parallel imports may thus contribute to losing domestic market share and rising exports by domestic drug producers. The parallel trade opportunity is however only a precondition for arbitrage trading. New EU countries have agreed that products launched on local markets before the EU-compatible patent protection laws were introduced (see below for details) may be prevented from entering the EU-15 markets. Also, drug re-labeling and leaflets that must be translated into national languages may discourage parallel trade. Moreover, drug prices of the top 25 molecules in Greece, Italy and Belgium are still only about half of those in the UK, which should be a profitable price differential for parallel traders to exploit. The average drug price level in the CR is estimated at approx. 65% of the EU average (and even less with regard to generic drugs), or 50% of the UK level. As the administrative costs of parallel trade between, for example, Germany on the one hand and Poland and/or the CR on the other hand are lower than in the case of UK imports, some positive effects of parallel trade for CE producers are possible, though they are expected to be product- and company-selective rather than general.

37 Parallel imports allow the purchase of medicines at low prices in one EU country and their subsequent resale at higher prices in another country after repacking and re-labelling

38 Source: IMS Global – Separating the myths from the reality: East-West parallel trade
Intellectual property rights

Protection introduced in the early 90s...
Pharmaceutical product patents were introduced in the CR and Slovakia in 1991, and one and two years later in Russia and Poland respectively, without retrospective effect. Before those dates, only specific manufacturing processes were protected. As a result, Zentiva and other local producers could benefit from generics introduced before 1991 with no restrictions on the domestic market. At the moment, all the related positive effects have already been exhausted and the protection is fully EU-compatible: the protection period in all mentioned countries is 20 years from the application date and Supplementary Protection Certificates may be issued for up to an additional five years, but the combined protection period cannot exceed 15 years after the granting of the first marketing authorization.

Bolar exemption is effectively used in the CE region
Unlike some EU-15 countries, the Roche-Bolar exemption is enforced and used in practice in the CR, Slovakia and Poland (and Hungary), though it has not always been explicitly incorporated into national legislations. While this has been advantageous for CE generic producers so far, all the EU members have to incorporate the directive within 18 months from the end of April 2004. This will equalize their position as regards performing studies and trials without the threat of infringing any patent. The scope of trials that would not breach the protection has not yet been precisely defined in practice in the CE region, though.

Data exclusivity prolonged to eight years
Moreover, the EU generic producers will be negatively affected by the prolonged data exclusivity period from the current standard of six years (three years in Poland for products whose marketing authorization applications were submitted before May 1, 2004) to an eight-year period, based on a new EU directive to be implemented by December 2005. After the data exclusivity period expires, generic producers will be prohibited from launching their products for an additional two years. The ten-year period can be extended to as much as 11 years if the original authorization holder obtains an authorization for a new therapeutic use of the product with significant clinical benefits. Note however that Poland and Slovakia (and Hungary) applied for a 15-year transition period for the implementation of the directive; obtaining of the derogation seems rather unlikely at the moment though.

39 Supplementary Protection Certificates (SPC) extend the period of protection for original products that have been marketed and protected by patents, but whose original protection period has been eroded by a slow marketing authorization process.
40 The Roche-Bolar exemption permits a generic producer to conduct trials and experiments on a generic variation of an original drug before the expiration of an existing patent or SPC without infringing that patent or SPC.
41 The data exclusivity period defines how long a generic producer may not request an abridge procedure for a generic product after the original producer has received its marketing authorization. Note that the abridge procedure allows a generic producer to prove a mere essential similarity of its generic product to the original one without providing results of own tests and trials.
Macroeconomic overview

Czech Republic

GDP in 2003 increased, as in the first quarter of this year, by 3.1%, driven by a rapidly increasing household consumption, backed by a strong growth in real wages and credit-based financing. So far this year, investments have taken on the role of a driving force, while the growth of household consumption has slightly slowed down. Although the export of goods has continued to grow at a high rate, overall results of foreign trade have hampered the growth of the Czech economy. Despite growth, the unemployment rate gradually rose up to the 10% level.

We expect the Czech economy to grow by 3.3% in 2004 and 3.5% next year - mainly thanks to investments and exports. The recovery in Western Europe, and especially in Germany, has begun to be visible and also the outlook for the entire EU is more favorable than it was last year. This, together with the development of domestic export capacities, should accelerate exports to EU countries. Household consumption will slow down slightly and will be limited by a persisting high rate of unemployment. On the other hand, it will be supported by a relatively rapid growth in real wages and household loans. A faster domestic growth compared to EU-15 economies will gradually narrow the gap to the EU average. In 2003, the CR reached 63% of the EU-15 GDP per capita in PPP.

<table>
<thead>
<tr>
<th>Czech Republic</th>
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<td>3.3</td>
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<td>3.5</td>
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<tr>
<td>Industrial production (y/y; %)</td>
<td>4.8</td>
<td>5.8</td>
<td>6.5</td>
<td>5.5</td>
<td>5.0</td>
</tr>
<tr>
<td>Construction production (y/y; %)</td>
<td>2.2</td>
<td>8.9</td>
<td>7.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>CPI (average y/y; %)</td>
<td>1.8</td>
<td>0.1</td>
<td>3.2</td>
<td>2.8</td>
<td>2.7</td>
</tr>
<tr>
<td>PPI (average, y/y; %)</td>
<td>-0.5</td>
<td>-0.4</td>
<td>3.5</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Average wage (y/y; %)</td>
<td>7.2</td>
<td>6.8</td>
<td>7.8</td>
<td>6.5</td>
<td>5.5</td>
</tr>
<tr>
<td>C/A (% GDP)</td>
<td>-5.6</td>
<td>-6.2</td>
<td>-5.7</td>
<td>-5.3</td>
<td>-5.0</td>
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<tr>
<td>CZK/EUR (average)</td>
<td>30.8</td>
<td>31.8</td>
<td>32.2</td>
<td>31.5</td>
<td>30.0</td>
</tr>
</tbody>
</table>

Source: CSOB, CSU, CNB

Inflation is increasing

While the average inflation in 2003 reached a historic low of 0.1% and was well below the Czech National Bank’s (CNB) targets, it has started increasing again this year mainly due to high oil prices, increased excise taxes, VAT changes and rising food prices. Inflation has still retained its mostly cost-driven character, while the significance of the demand component has remained marginal. Inflation will most likely move to between 3.6 and 4.0% by the end of the year, which will be at the upper limit of the CNB’s target. Therefore, the central bank is likely to increase the two-week repo rate to 2.5% by end-2004 (currently 2.25%) and it will probably continue to increase the rates up to 3.25% next year. The domestic rates are however unlikely to deviate significantly from the Eurozone rates. So far, the adoption of the euro is officially intended for 2009-10.
The CIT rate will fall to 24% by 2006 from the current 28%. Although the rate will remain higher than in the neighboring CE economies, an effective tax burden is more favorable thanks to large deductible items and depreciation. The lowering of direct taxes for enterprises is compensated by an increase in indirect taxes: some services and goods were transferred from the lower 5% VAT class to the basic class in January. In May, there were further transfers to the basic class, the rate of which was decreased from 22% to 19%.

In the last three years, public budget deficits (without proceeds from privatization) have exceeded 5%. However, given a low state and public debt, we believe that the deficit economy does not represent a high risk factor in the short term.

**Slovak Republic**

The GDP grew by 5.5% in the first quarter of 2004, and thus it surpassed expectations. Last year it reached 4.2%, the fastest growth in Central Europe, particularly due to strong foreign demand despite the poor performance of Slovakia’s largest trade partners, i.e. the EU-15. Exports have been boosted in particular by the expansion of production capacities over the past years e.g. in the automotive and electrical industry. Although domestic demand was not expected to recover before 2H04, household consumption soared by 3.3% in Q1, encouraged by 2.7% real wage growth after four quarters of decline. Unemployment fell significantly, although mainly because of administrative measures curbing the misuse of the social-security system.

We expect the Slovak economy to grow by 4.5% in 2004 and almost 5% in coming years. Announced investment projects of two global car manufacturers, PSA Peugeot–Citroen and Hyundai/Kia, also bear out our considerations; they are expected to launch production in 2006/07. Huge investment activities will precede another wave of the export boom. The long-expected recovery of Western-European economies, along with awakening domestic demand, might help Slovakia in the forthcoming years. After the deregulations peter out in 2005, inflation is expected to fall significantly and this should provide more space for real wage growth. Consumption should thus generate a greater part of the GDP. Again, the high pace of growth of the Slovak economy compared to the EU-15 will contribute to its economic convergence. It is currently at 51 % of the EU-15 average in terms of GDP per capita in PPP.

<table>
<thead>
<tr>
<th>Slovakia</th>
<th>2003</th>
<th>2004e</th>
<th>2005e</th>
<th>2006e</th>
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</thead>
<tbody>
<tr>
<td>GDP (y/y; %)</td>
<td>4.2</td>
<td>4.5</td>
<td>4.5</td>
<td>5.5</td>
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<tr>
<td>Industrial production (y/y; %)</td>
<td>5.7</td>
<td>5.5</td>
<td>6.0</td>
<td>7.0</td>
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<tr>
<td>Construction production (y/y; %)</td>
<td>6.0</td>
<td>5.0</td>
<td>5.0</td>
<td>5.2</td>
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<tr>
<td>CPI (average, y/y; %)</td>
<td>8.5</td>
<td>8.0</td>
<td>3.0</td>
<td>2.5</td>
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<tr>
<td>PPI (average, y/y; %)</td>
<td>8.2</td>
<td>3.0</td>
<td>2.8</td>
<td>1.9</td>
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<tr>
<td>Average wage (y/y; %)</td>
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<td>0.5</td>
<td>3.4</td>
<td>3.4</td>
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<tr>
<td>C/A (% GDP)</td>
<td>-0.9</td>
<td>-1.1</td>
<td>-2.1</td>
<td>-2.0</td>
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<tr>
<td>SKK/EUR (average)</td>
<td>41.5</td>
<td>40.2</td>
<td>39.3</td>
<td>38.9</td>
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</table>

Source: Statistical Office, NBS, CSOB
**Inflation is still high but the outlook is favorable**

While average inflation was 8.5% in 2003 and continues to be more than 8% in 2004, there is space for a rate cut. At the end of 2003 and in the first half of 2004 the central bank was confronted with strong pressure on the koruna to appreciate. As a result, the NBS repo rate has been cut from 6.0% to the current 4.5% since the beginning of 2004. The inflation outlook for 2005 certainly provided room for this as it is expected to fall near to 3%.

**External conditions are no issue either**

The current account deficit was a mere -0.9% in 2003 and this year’s deficit is expected slightly in excess of 1%. The deficit should be covered by the FDI inflow. Foreign trade developments, along with the continuing FDI inflow and the positive interest-rate differential, should continue to encourage the appreciation of the Slovak currency.

**The tax reform is attracting investors’ attention**

The Slovak government implemented an ambitious tax reform in 2004. It introduced a 19% flat-rate tax and cancelled the tax on dividends. This change resulted in a drop in corporate tax from 25% and, in particular, it made the tax system more transparent. Effects of the reform can already be noticed in a significant improvement of state budget results. The overall impact will not be obvious however until 2005. Nonetheless, the tax reform has already attracted the attention of several foreign investors (Hyundai/Kia, for instance) and provides preconditions of dynamic economic growth in the future.

**Poland**

GDP increased by 6.9% y-o-y in 1Q04, the fastest growth in the last 7 years, driven mostly by exports. They have been helped by the significant weakening of the Polish currency compared to the euro. On the other hand, domestic demand has been largely acting as a brake and still lagged behind foreign demand. In the last quarter, Poland succeeded in increasing investments (+3.5% y-o-y), which until then had weighed on the economic growth.

The economy should continue growing very fast in coming quarters, with exports remaining the major engine, buoyed up by the weaker zloty this year. The currency will not have much room for strengthening over coming months due to the uncertain political situation and the practically permanent risk of government crisis and early elections. Private consumption is likely to ease up in the next quarters, following the dramatic extensive stockpiling prior to the EU accession.

<table>
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<tr>
<th>Poland</th>
<th>2002</th>
<th>2003</th>
<th>2004e</th>
<th>2005e</th>
<th>2006e</th>
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</thead>
<tbody>
<tr>
<td>GDP (y/y; %)</td>
<td>1.4</td>
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<td>5.0</td>
<td>5.5</td>
<td>4.8</td>
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<td>Industrial production (y/y; %)</td>
<td>1.4</td>
<td>8.6</td>
<td>12.0</td>
<td>14.0</td>
<td>6.5</td>
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<tr>
<td>Construction production (y/y; %)</td>
<td>-10.4</td>
<td>-8.1</td>
<td>9.0</td>
<td>13.0</td>
<td>11.0</td>
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<tr>
<td>CPI (average, y/y; %)</td>
<td>1.9</td>
<td>0.8</td>
<td>2.5</td>
<td>2.4</td>
<td>2.5</td>
</tr>
<tr>
<td>Average wage (y/y; %)</td>
<td>2.3</td>
<td>3.4</td>
<td>4.8</td>
<td>6.8</td>
<td>5.3</td>
</tr>
<tr>
<td>C/A (% GDP)</td>
<td>-3.6</td>
<td>-1.9</td>
<td>-2.6</td>
<td>-3.0</td>
<td>-4.8</td>
</tr>
<tr>
<td>PLN/EUR (average)</td>
<td>3.9</td>
<td>4.4</td>
<td>4.7</td>
<td>4.5</td>
<td>4.3</td>
</tr>
</tbody>
</table>

*Source: CSOB*
Back to 3% inflation

After Poland almost witnessed deflation in 2003, consumer prices at the end of last year began rising sharply, driven mainly by foodstuffs and raw material prices. Recently, EU accession has resulted in unexpectedly strong pressure on price levels driven by increased consumer and corporate purchasing due to worries about later price rises, causing inflation to hit 3.4%. Producer prices are pushed up by rising crude oil and metals prices. As buying fever dissipates, there is strong downward pressure on consumer prices causing inflation to significantly fall.

Interest rate hikes

As expected, the Polish central bank, or rather the Monetary Policy Council, has tightened up monetary policy and recently raised interest rates to the current 6%. The economy has been reporting its best growth figures for the least seven years, inflation has been rising and finally domestic demand has also shown a temporary rise before the EU entry. What is more, the current uncertain political situation does not promise fast progress in the public finance reforms that are intended to bring about an important fall in the state budget deficit.

Low C/A deficits

As has already been stated above, the economy’s main engine at the moment is foreign demand. This is understandably reflected in the current account deficit, which has thus rose to 1.5% of GDP. Although the C/A balance temporarily worsened thanks to a recovery in consumer and investment imports before EU accession, in the coming quarters it should report very low deficits, although being negatively affected by the expected recovery in investment activity.

Russia

Russian real GDP grew by strong 7.4% in 2003 and the growth pace has been maintained also in 1Q04. Main drivers on the demand side were private consumption encouraged by strong increase in real income of households (+15.5% in 2003), and renewed domestic investment activity connected with low real interest rates as a result of excessive liquidity in Russian banking system.

However, most of investment spending leads up to the oil industry and does not contribute to the diversification of Russian economy needed for long-term sustainable growth. Current strong growth rates also reflected benign development in the international oil markets, rather than structural reforms in Russia whose progress is still slow. It is estimated that every USD 1 increase in price of Russian Ural oil adds about 0.3% to the real GDP growth and conversely. We estimate this year’s real GDP growth of 6.6% as the record high of oil prices in the international markets will more than offset the effects of appreciating ruble against USD and tight fiscal policy (the federal budget allows for the surplus of roughly 0.55% of GDP).
Putin’s target to double GDP in 7 years seems too ambitious

President Putin declared the target to double GDP till 2010. This seems to be too ambitious as Russia’s oil-driven economy would have to grow at a sustained annual rate of no less than 9.3% to meet this target. Since the economy grew “only” 7.3% under the conditions of record high oil prices, structural reforms, in particular in Russia’s financial sector, civil service and public administration, would be needed to reach the goal and to reduce excessive dependence on the oil sector. The government has been however rather reluctant to encourage productivity gains by shifting production from obsolete loss-making enterprises in heavy industry to the small and medium-sized sectors oriented to the production of high value-added manufactured goods. Given the current (i) high oil prices that are likely to decrease gradually in the future towards their long-term average level and (ii) small progress of structural reforms, we expect Russia’s average annual real GDP growth in the next five years no higher than 5.5%.

Tight monetary policy leads to negative real interest rates.

The major task of Russian economic policy is the balancing two contradictory targets – sterilization of FX receipts’ impact on ruble and decrease of inflation, which still remains high. It seems that Central Bank insists more on exchange rate development and defend ruble against appreciation pressures. Excess of liquidity in the market connected with FX inflows’ sterilization causes low or even negative real interest rates and lead to massive credit expansion with significant risk for bank assets’ quality and inflation pressures impending the attainability of this year’s inflation target (end year inflation within the 8-10% band).

Fully convertible ruble by 2007

The new law on currency regulation and control, which entered into force on June 2004, should radically liberalize currency market. There will be no restrictions on any operation with foreign currency. The reform should be completed by 2007. Nonetheless, the law gives Central bank the right to introduce certain limits on capital flows in Russia within two years to protect Russia from negative events on the world markets.

Higher oil sector taxation to enable further VAT decrease

Russian government decided to prosper from booming oil sector and increased the tax burden on the sector. Simultaneously the government has expressed its plans to significantly reduce VAT rate and to unify it by 2006 (VAT has been already reduced from 20% to 18% this year). This step may contribute to the expansion of small and medium enterprises in manufacturing and lead to the needed diversification of Russian economy.
## Consolidated financial data

### INCOME STATEMENT (CZK m)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Domestic revenues</td>
<td>6,316</td>
<td>8,086</td>
<td>8,493</td>
<td>8,894</td>
<td>9,369</td>
<td>9,889</td>
<td>10,421</td>
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<td>Export and other revenues</td>
<td>1,255</td>
<td>2,271</td>
<td>2,866</td>
<td>3,554</td>
<td>4,199</td>
<td>4,790</td>
<td>5,405</td>
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<tr>
<td>Total sales</td>
<td>7,571</td>
<td>10,357</td>
<td>11,359</td>
<td>12,447</td>
<td>13,568</td>
<td>14,679</td>
<td>15,826</td>
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<td>Cost of goods sold</td>
<td>-3,045</td>
<td>-4,169</td>
<td>-4,504</td>
<td>-4,886</td>
<td>-5,298</td>
<td>-5,717</td>
<td>-6,164</td>
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<tr>
<td>Gross margin</td>
<td>4,526</td>
<td>6,188</td>
<td>6,855</td>
<td>7,562</td>
<td>8,269</td>
<td>8,961</td>
<td>9,662</td>
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<tr>
<td>Sales and Marketing expenses</td>
<td>-1,326</td>
<td>-1,968</td>
<td>-2,158</td>
<td>-2,365</td>
<td>-2,578</td>
<td>-2,789</td>
<td>-3,007</td>
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<tr>
<td>Administration and General expenses</td>
<td>-665</td>
<td>-947</td>
<td>-986</td>
<td>-1,081</td>
<td>-1,179</td>
<td>-1,284</td>
<td>-1,391</td>
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<td>R&amp;D expenses</td>
<td>-342</td>
<td>-587</td>
<td>-689</td>
<td>-780</td>
<td>-877</td>
<td>-978</td>
<td>-1,086</td>
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<td>EBITDA</td>
<td>2,193</td>
<td>2,687</td>
<td>3,022</td>
<td>3,336</td>
<td>3,635</td>
<td>3,910</td>
<td>4,178</td>
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<tr>
<td>Depreciation</td>
<td>-365</td>
<td>-503</td>
<td>-576</td>
<td>-630</td>
<td>-686</td>
<td>-734</td>
<td>-785</td>
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<tr>
<td>EBIT</td>
<td>1,828</td>
<td>2,184</td>
<td>2,446</td>
<td>2,706</td>
<td>2,949</td>
<td>3,176</td>
<td>3,392</td>
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<tr>
<td>Interest income</td>
<td>18</td>
<td>15</td>
<td>16</td>
<td>18</td>
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<td>Interest expense</td>
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<td>-50</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<tr>
<td>Other and extraordinary items</td>
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<td>-33</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Pre-tax profit</td>
<td>1,507</td>
<td>2,116</td>
<td>2,463</td>
<td>2,723</td>
<td>2,969</td>
<td>3,197</td>
<td>3,415</td>
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<td>Income tax</td>
<td>-590</td>
<td>-649</td>
<td>-706</td>
<td>-726</td>
<td>-788</td>
<td>-842</td>
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<td>Minority interest</td>
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<td>-59</td>
<td>-53</td>
<td>-60</td>
<td>-66</td>
<td>-72</td>
<td>-77</td>
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<tr>
<td>Net profit</td>
<td>904</td>
<td>1,409</td>
<td>1,704</td>
<td>1,937</td>
<td>2,141</td>
<td>2,336</td>
<td>2,496</td>
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### BALANCE SHEET (CZK m)

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<tbody>
<tr>
<td>Property, plant and equipment</td>
<td>4,363</td>
<td>4,574</td>
<td>4,620</td>
<td>4,672</td>
<td>4,729</td>
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<td>Intangible assets</td>
<td>-945</td>
<td>-976</td>
<td>227</td>
<td>229</td>
<td>232</td>
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<td>Long-term investments</td>
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<td>55</td>
<td>61</td>
<td>61</td>
<td>67</td>
<td>71</td>
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<tr>
<td>Deferred tax asset</td>
<td>76</td>
<td>92</td>
<td>107</td>
<td>118</td>
<td>129</td>
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<td>149</td>
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<tr>
<td>Loans receivable</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td>Total fixed-assets</td>
<td>3,548</td>
<td>3,745</td>
<td>5,014</td>
<td>5,080</td>
<td>5,157</td>
<td>5,245</td>
<td>5,344</td>
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<td>Cash &amp; cash equivalents</td>
<td>692</td>
<td>746</td>
<td>819</td>
<td>897</td>
<td>978</td>
<td>1,058</td>
<td>1,141</td>
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<td>Trade receivables</td>
<td>2,567</td>
<td>2,833</td>
<td>3,287</td>
<td>3,726</td>
<td>4,130</td>
<td>4,468</td>
<td>4,817</td>
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<tr>
<td>Inventories</td>
<td>1,908</td>
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<td>2,257</td>
<td>2,474</td>
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<td>2,917</td>
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<tr>
<td>Other assets</td>
<td>160</td>
<td>180</td>
<td>205</td>
<td>232</td>
<td>257</td>
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<td>300</td>
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<tr>
<td>Total current assets</td>
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<td>5,868</td>
<td>6,568</td>
<td>7,329</td>
<td>8,061</td>
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### TOTAL ASSETS

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<th>9,613</th>
<th>11,582</th>
<th>12,410</th>
<th>13,218</th>
<th>13,966</th>
<th>14,747</th>
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</thead>
<tbody>
<tr>
<td>Loans and other short-term borrowings</td>
<td>2,914</td>
<td>869</td>
<td>2</td>
<td>20</td>
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<td>68</td>
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<tr>
<td>Trade payables</td>
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<td>944</td>
<td>1,036</td>
<td>1,135</td>
<td>1,237</td>
<td>1,338</td>
<td>1,443</td>
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<td>Other short-term liabilities</td>
<td>666</td>
<td>711</td>
<td>779</td>
<td>854</td>
<td>931</td>
<td>1,007</td>
<td>1,086</td>
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<td>Total current liabilities</td>
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<td>2,524</td>
<td>1,817</td>
<td>2,009</td>
<td>2,256</td>
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### TOTAL LIABILITY AND EQUITY

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<tr>
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<th>13,218</th>
<th>13,966</th>
<th>14,747</th>
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<td>Share capital</td>
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<td>13</td>
<td>13</td>
<td>13</td>
<td>13</td>
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<tr>
<td>Share premium, capital reserve</td>
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<td>9,383</td>
<td>9,876</td>
<td>10,393</td>
<td>10,903</td>
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<td>Cumulative translation adjustment</td>
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<td>226</td>
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<td>226</td>
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<td>226</td>
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<td>Total shareholders equity</td>
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<td>10,632</td>
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<td>Minority interests</td>
<td>557</td>
<td>616</td>
<td>668</td>
<td>728</td>
<td>795</td>
<td>867</td>
<td>944</td>
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<td>TOTAL LIABILITY AND EQUITY</td>
<td>8,875</td>
<td>9,613</td>
<td>11,582</td>
<td>12,410</td>
<td>13,218</td>
<td>13,966</td>
<td>14,747</td>
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<tr>
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<td>-------</td>
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<td>-------</td>
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</tr>
<tr>
<td>Margins</td>
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<td></td>
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<tr>
<td>Gross</td>
<td>60.2%</td>
<td>59.7%</td>
<td>60.3%</td>
<td>60.7%</td>
<td>60.9%</td>
<td>61.0%</td>
<td>61.0%</td>
</tr>
<tr>
<td>EBITDA</td>
<td>29.2%</td>
<td>25.9%</td>
<td>26.6%</td>
<td>26.8%</td>
<td>26.8%</td>
<td>26.6%</td>
<td>26.4%</td>
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<tr>
<td>EBIT</td>
<td>24.3%</td>
<td>21.1%</td>
<td>21.5%</td>
<td>21.7%</td>
<td>21.7%</td>
<td>21.6%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Pre-tax</td>
<td>20.0%</td>
<td>20.4%</td>
<td>21.7%</td>
<td>21.9%</td>
<td>21.9%</td>
<td>21.8%</td>
<td>21.6%</td>
</tr>
<tr>
<td>Net</td>
<td>12.0%</td>
<td>13.6%</td>
<td>15.0%</td>
<td>15.6%</td>
<td>15.8%</td>
<td>15.9%</td>
<td>15.8%</td>
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<tr>
<td>Ratios</td>
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<td>31.9%</td>
<td>22.0%</td>
<td>20.8%</td>
<td>21.7%</td>
<td>22.5%</td>
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<tr>
<td>ROIC</td>
<td>21.6%</td>
<td>20.2%</td>
<td>19.7%</td>
<td>19.7%</td>
<td>20.5%</td>
<td>21.2%</td>
<td>21.5%</td>
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<tr>
<td>ROA</td>
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<td>7.6%</td>
<td>8.0%</td>
<td>8.1%</td>
<td>8.4%</td>
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<td>8.7%</td>
</tr>
<tr>
<td>Effective tax rate</td>
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<td>30.7%</td>
<td>28.7%</td>
<td>26.7%</td>
<td>25.7%</td>
<td>24.7%</td>
<td>24.7%</td>
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<tr>
<td>Net debt (CZK m)</td>
<td>3,619</td>
<td>123</td>
<td>-816</td>
<td>-877</td>
<td>-890</td>
<td>-990</td>
<td>-1,064</td>
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<tr>
<td>Net debt/shareholder’s equity</td>
<td>150.3%</td>
<td>1.9%</td>
<td>-9.0%</td>
<td>-9.1%</td>
<td>-8.8%</td>
<td>-9.3%</td>
<td>-9.5%</td>
</tr>
<tr>
<td>BVPS (CZK)</td>
<td>63.1</td>
<td>168.5</td>
<td>237.2</td>
<td>252.3</td>
<td>265.2</td>
<td>278.8</td>
<td>292.2</td>
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<td>DPS (CZK)</td>
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<td>7.4</td>
<td>35.7</td>
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<td>47.7</td>
<td>52.1</td>
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<tr>
<td>Dividend yield</td>
<td>0.0%</td>
<td>1.3%</td>
<td>6.5%</td>
<td>7.9%</td>
<td>8.7%</td>
<td>9.5%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Payout ratio</td>
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<td>20.0%</td>
<td>80.0%</td>
<td>85.0%</td>
<td>85.0%</td>
<td>85.0%</td>
<td>85.0%</td>
</tr>
<tr>
<td>Projected cash flow (CZK m)</td>
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<tr>
<td>Operating activities</td>
<td>1,264</td>
<td>1,772</td>
<td>2,028</td>
<td>2,324</td>
<td>2,646</td>
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<tr>
<td>Investing activities</td>
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<td>-625</td>
<td>-685</td>
<td>-746</td>
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<tr>
<td>Financing activities</td>
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<td>-1,147</td>
<td>-1,344</td>
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<td>-1,975</td>
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</tbody>
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# Appendix 1

<table>
<thead>
<tr>
<th>Pharmaceutical area</th>
<th>Zentiva’s key products</th>
<th>Molecule</th>
<th>Sales * (CZK m)</th>
<th>Market position</th>
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<tbody>
<tr>
<td>Simvacard</td>
<td>simvastatin</td>
<td>342</td>
<td>#1</td>
<td>#1 x x</td>
</tr>
<tr>
<td>Agapurin</td>
<td>pentoxyphylline</td>
<td>339</td>
<td>#2 #1 #12 #21</td>
<td>#1 x x</td>
</tr>
<tr>
<td>Agen</td>
<td>amlodipine</td>
<td>253</td>
<td>#1 x</td>
<td>#2 x x</td>
</tr>
<tr>
<td>Enebrin</td>
<td>nafidrofuryl</td>
<td>216</td>
<td>#1 #2 x</td>
<td>#1 x x</td>
</tr>
<tr>
<td>Nitromack</td>
<td>isosorbide trinitrate</td>
<td>134</td>
<td>#2 #1 x</td>
<td>#2 x x</td>
</tr>
<tr>
<td>Diacordin</td>
<td>dilitiazem</td>
<td>123</td>
<td>#7 #9 #19 x</td>
<td>#2 #1 x</td>
</tr>
<tr>
<td>Vasocardin</td>
<td>metoprolol</td>
<td>114</td>
<td>#2 #5 x #25</td>
<td>#2 #1 x</td>
</tr>
<tr>
<td>Cilkanol</td>
<td>troxerutin</td>
<td>100</td>
<td>#2 #8 x</td>
<td>#3 #1 x</td>
</tr>
<tr>
<td>Lozap</td>
<td>losartan</td>
<td>47</td>
<td>#1 x x</td>
<td>#2 #1 x</td>
</tr>
<tr>
<td>Ramil</td>
<td>ramipril</td>
<td>15</td>
<td>#6 #1 x</td>
<td>#2 #1 x</td>
</tr>
<tr>
<td>Simvacard</td>
<td>simvastatin</td>
<td>342</td>
<td>#1</td>
<td>#1 x x</td>
</tr>
<tr>
<td>Agapurin</td>
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<tr>
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<tr>
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<td>troxerutin</td>
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<tr>
<td>Lozap</td>
<td>losartan</td>
<td>47</td>
<td>#1 x x</td>
<td>#2 #1 x</td>
</tr>
<tr>
<td>Ramil</td>
<td>ramipril</td>
<td>15</td>
<td>#6 #1 x</td>
<td>#2 #1 x</td>
</tr>
</tbody>
</table>

| CVS                  | Simvacard              | simvastatin | 342 | #1 | #1 | x | x |
|                      | Agapurin               | pentoxyphylline | 339 | #2 | #1 | #12 | #21 |
|                      | Agen                   | amlodipine | 253 | #1 | x | x |
|                      | Enebrin                | nafidrofuryl | 216 | #1 | #2 | x | x |
|                      | Nitromack              | isosorbide trinitrate | 134 | #2 | #1 | x | x |
|                      | Diacordin              | dilitiazem | 123 | #7 | #9 | #19 | x |
|                      | Vasocardin             | metoprolol | 114 | #2 | #5 | x | #25 |
|                      | Cilkanol               | troxerutin | 100 | #2 | #8 | x | x |
|                      | Lozap                  | losartan | 47 | #1 | x | x |
|                      | Ramil                  | ramipril | 15 | #6 | x | x |

| CNS                  | Citalec                | citalopram | 120 | #1 | #1 | x | x |
|                      | Neuro                  | alprazolam | 81 | #1 | #2 | #11 | x |
|                      | Hypnogen               | zolpidem | 62 | #2 | #2 | #29 | x |
|                      | Risperin               | risperidone | 46 | #5 | x | x |

| Alimentary           | Helicid                | omeprazole | 307 | #1 | #1 | #4 | x |
|                      | Insulin                | human insulin | 244 | #2 | #2 | x | x |
|                      | Flavobion              | silymarin | 100 | #2 | #1 | x | x |

| Pain Management      | Tralgit/Tramal         | tramadol | 274 | #3 | #1 | x | x |
|                      | Dolamina               | diclofenac | 159 | #3 | #3 | x | x |
|                      | Coxtral                | nimesulide | 50 | #3 | #3 | x | x |

| Anti-Infectives      | Augmentin              | co-amoxycillin | 299 | #1 | #1 | x | x |
|                      | Mycomax                | fluconazole | 113 | #3 | #6 | #15 | x |
|                      | Ofloxin                | ofloxacin | 98 | #1 | #3 | #7 | x |
|                      | Azitrox                | azithromycin | 34 | #3 | #6 | #9 | x |

| Respiratory          | Zodic                  | cetirizine | 146 | #2 | #1 | x | x |

| Urology & other      | Penester               | finasteride | 121 | #3 | #8 | #4 | x |
|                      | Zoxon                  | doxazosine | 97 | #2 | #6 | #9 | x |

| OTC                  | Ibcalgin               | ibuprofen | 357 | #1 | #1 | x | x |
|                      | Indulona               | moisturiser cream | 200 | #1 | x | x |
|                      | Paralen                | paracetamol | 166 | #1 | x | x |
|                      | Pinosol                | fytolakum | 149 | #2 | #1 | #29 | #6 |
|                      | Anopyrin               | acetilsalycylic acid | 138 | #10 | #15 | x | #111 |
|                      | Vitamin E              | tocopherol | 138 | #1 | #1 | #1 | #5 |
|                      | Celaksone              | ascorbic acid | 115 | #1 | #1 | x | x |
|                      | Ateralgin              | paracetamol | 85 | #2 | #2 | x | x |
|                      | Modafen                | ibuprofen and | 83 | #1 | #2 | x | x |
|                      | Calibrum               | multivitamin | 74 | #1 | #1 | x | x |

* Pro-forma 2003