Growing in a Fishbowl – Growth Agenda for Healthcare Products Companies

Dubrovnik, June 2016
Why worry about growth?

Sources of TSR for top-quartile performers (S&P 500, 1994–2014)

Change in annual TSR (%)¹

<table>
<thead>
<tr>
<th></th>
<th>Free cash flow</th>
<th>Multiple</th>
<th>Margin</th>
<th>Revenue growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 year</td>
<td>14%</td>
<td>47%</td>
<td>12%</td>
<td>27%</td>
</tr>
<tr>
<td>3 years</td>
<td>13%</td>
<td>25%</td>
<td>17%</td>
<td>46%</td>
</tr>
<tr>
<td>5 years</td>
<td>12%</td>
<td>15%</td>
<td>17%</td>
<td>57%</td>
</tr>
<tr>
<td>10 years</td>
<td>10%</td>
<td>14%</td>
<td>4%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Historical analysis shows that 9% revenue growth necessary to achieve median S&P value creation

¹ Uses EV/EBIT TSR disaggregation methodology and excludes financial companies (GICS sector code 40)
Source: S&P Capital IQ; BCG ValueScience® Center
Rising shareholder value without top line revenue growth

Shareholder value vs. revenue growth for major Biopharma companies

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue</th>
<th>Total shareholder return</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>100</td>
<td>190 (19.0%)</td>
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Shareholder value vs. revenue growth for major Med Tech companies

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<td>160 (16.1%)</td>
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Note: Analysis represents JNJ; Medtronic; Abbott; Stryker; Becton Dickenson; St Jude; Zimmer; Biomet; Smith & Nephew; Terumo; Getinge CR Bard; Edwards; Intuitive Surgical. Does not exclude impact of acquisitions. Analysis represents ABT, AMGN, AZN, BAX, BAYRY, BMY, GILD, GSK, JNJ, LLY, MRK, NVS, NVO, PFE, RHHBY, SNY.
Growth of healthcare spending is getting more difficult

Average annual growth in per capita health spending, in real terms, 2001–2014

Average annual per capita growth rates for health care spending components, in real terms, 2005–2013

Source: OECD Health Statistics 2015

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The healthcare product company's dilemma

Health care systems try to contain cost

Healthcare companies need to grow
In healthcare, there are five approaches to growth

1. **Breakthrough therapies**
   - Significantly improved outcomes for patients
   - Can involve R&D and targeted BD / partnership
   - *Examples:* Regeneron, Celgene

2. **Patient-driven demand**
   - Patient-directed products and/or products targeting out of pocket spend
   - *Examples:* 23 and Me, Botox, Fitbit

3. **Emerging markets**
   - Tailored, segmented product offerings to meet local market needs
   - *Examples:* AZ, GE, Medtronic

4. **Efficiency and Value**
   - Products and services that lower cost, and provide better value in health-care delivery
   - *Examples:* Sedasys, Nuvasive

5. **Acquisition Fueled Growth**
   - Systematic consolidation of revenue-producing companies
   - Identification of cost synergies
About $1 trillion in growth opportunities by 2020, mostly through redistribution of existing funds.

Redistribution of existing funds comprises a large part of opportunity.

- Patient-driven offerings: $240-300B
- Solutions for new healthcare systems: $180-200B
- Breakthrough therapies: $250-350B
- Efficiency and value solutions: $150-350B
Patient-driven offerings examples

**Fitbit**: Wearable technology with the insight about increasing focus on fitness and health

**Zzzquil**: Vicks / P&G created a sleep only OTC franchise

**Probiotics**: Growing patient and medical community awareness of gut health and the importance of the microbiome

**23andMe**: Consumer-driven gene tests for $199
Value and efficiency examples

**Nuvasive**: Minimally disruptive surgical platform for the spine. Up to 20% cost savings through reduced hospital stays.

**Hard to make generics / biosimilars**: Higher value / higher margin opportunities with limited generic penetration to date e.g. in sterile injectibles, ophthalmics, respiratory.

**Homecare**: improved outcomes at the same or lower cost vs. in-patient care. Opportunities for innovative packaging and technologies to improve efficiency and safety of home care delivery.
Inorganic growth: 2015 transaction volume high in 2015

Global M&A activity in Biopharma

**Top 10 Biopharma deals 2014-2016YTD**

<table>
<thead>
<tr>
<th>#</th>
<th>Acquirer</th>
<th>Target</th>
<th>Deal size (B$)</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Actavis</td>
<td>Allergan</td>
<td>70.5</td>
<td>2014</td>
</tr>
<tr>
<td>2</td>
<td>TEVA</td>
<td>Allergan</td>
<td>40.5</td>
<td>2015</td>
</tr>
<tr>
<td>3</td>
<td>Shire</td>
<td>Baxalta</td>
<td>40.0</td>
<td>2016</td>
</tr>
<tr>
<td>4</td>
<td>Actavis</td>
<td>Forest Laboratories</td>
<td>28.0</td>
<td>2014</td>
</tr>
<tr>
<td>5</td>
<td>Abbvie</td>
<td>Pharmacyclics</td>
<td>21.0</td>
<td>2015</td>
</tr>
<tr>
<td>6</td>
<td>Pfizer</td>
<td>Hospira</td>
<td>17.0</td>
<td>2015</td>
</tr>
<tr>
<td>7</td>
<td>Novartis</td>
<td>Novartis</td>
<td>16.0</td>
<td>2015</td>
</tr>
<tr>
<td>8</td>
<td>Valeant</td>
<td>Merck</td>
<td>14.2</td>
<td>2014</td>
</tr>
<tr>
<td>9</td>
<td>Valeant</td>
<td>Salix</td>
<td>11.4</td>
<td>2015</td>
</tr>
<tr>
<td>10</td>
<td>Abbvie</td>
<td>Stemcentrx</td>
<td>9.8</td>
<td>2016</td>
</tr>
</tbody>
</table>

1. Biopharma includes both Pharmaceuticals and Biotechnology
2. Including announced (not yet completed) deals, and completed deals; excludes <$5m deals and terminated deals
Source: Evaluate Pharma; BCG analysis
Deflating expectations—temporary or structural change?

Share price performance of major biopharmaceutical companies from start of 2013 to date

Leader in 2013–2016 M&A is leader in share price: Allergan (14 deals, $114 B in volume)

Source: S&P Capital IQ; BCG ValueScience® Center
Key questions every company needs to ask and answer for the short, medium, and long-term

1. **Short-term**
   - What more can we do to maximize our existing business?

2. **Medium-term**
   - How can we accelerate growth in our core platforms?

3. **Long-term**
   - How should we reshape our company for the future?
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