## **Eli Lilly: 45 to 1** A Data-Science Valuation Brief

## Investors could buy Eli Lilly, or they could buy <u>all 4</u> of Pfizer, Novartis, Bristol Myers and Merck:

For Eli Lily:	Pfizer, Nova
Their market value is \$724 billion,	Their market
Their revenues were \$34.1 billion, and	Their revenu
Their net income was \$5.2 billion.	Their net inc
Lilly's P/E is 139, and its P/S is 21.2.	Their averag

**Pfizer, Novartis, Bristol-Myers and Merck** <u>combined:</u> Their market value is \$781 billion, 8% more than Lilly, Their revenues were \$215 billion, 629% more than Lilly, and Their net incomes were \$25.4 billion, 484% more than Lilly. Their average P/E is 30.7, and their P/S is 3.6.

## Alternatively, investors could buy 100% of the forty-five (45) companies listed below.

The 45 companies below have:

A total market cap of \$755 billion, 4.3% more than Lilly,

Revenues of \$742 billion, 2,176% more revenues than Lilly, and

Earnings of \$59.3 billion, 1,140% greater earnings than Lilly.

A.O. Smith, Albemarle, Archer-Daniels Midland, BJ's Wholesale, Bunge Global, Casey's General, CF Industries, Cincinnati Financial, Devon Energy, Dick's Sporting Goods, EMCOR Group, Expeditors International, HF Sinclair, Host Hotels & Resorts, Incyte, Interactive Brokers, Jabil, LPL Financial, M&T Bank, Molina Healthcare, NVR, Ovintiv, Owens-Corning, Packaging Corp of America, Penske, PulteGroup, Ralph Lauren, Reliance, Skyworks Solutions, Snap-on, Steel Dynamics, T. Rowe Price, Textron, The Hartford Financial, The Mosaic, Toll Brothers, TopBuild, Tractor Supply, Twilio, United Airlines, United States Steel, United Therapeutics, Universal Health, Williams-Sonoma and WR Berkley.

Currently, Eli Lilly's price to sales ratio is 21. In the last 9,919 trading days (40 years), Lilly had a P/S of 3.6 or less on 3,715 days (37.4%). In the future, Lilly will again have a P/S ratio substantially less than 4. *What does imply for Lilly's price?* 

Currently, Eli Lilly's price to earnings ratio is 139. In the last 9,919 trading days (40 years), Lilly had a P/E of 30.7 or less on 5,269 days (53.1%). In the future, Lilly will again have a P/E ratio substantially less than 30. *What does imply for Lilly's price?* 

## **Answers**: The Profit Map<sup>™</sup> informs us:

- 1. To produce a **15% price gain per year** for 5 years, LLY's price must rise to **\$1,532.94**.
- If LLY's revenues grow at 25% per year, in 5 years they'll grow to \$104.1 billion. What is the statistical probability that LLY's revenues will grow from \$34 billion to \$104.1 billion in 5 years? How many companies in the past 30 years have had revenues of \$34 billion and grew at 25% per year for 5 years?
- 3. To produce a **15% gain per year** for investors in 5 years, LLY's market cap must rise to **\$1.5 trillion**. What is the statistical probability that LLY will reach a market cap of **\$1.5 trillion**? What do historical precedents tell us about the statistical probability for companies with revenues of \$104.1 billion having a market cap of \$1.5 trillion?



- 4. If LLY's revenues grow at 25% per year for 5 years, to produce a 15% gain per year for 5 years, LLY's P/S ratio must be 13.99. In the past 30 years, how many companies with revenues of \$104.1 billion had a P/S ratio of 13.99? Currently, there are 32 companies with revenues over \$104 billion. 88% of them have a P/S ratio under 5. Only Microsoft has a P/S of 13.3.
- 5. If LLY's revenues grow at 25% per year for 5 years, their profit margin is 25% 5 years from now, and their market cap is \$1.5 trillion, LLY's P/E ratio will then be 138.20. In the past 30 years, how many companies with revenues of \$104.1 billion and a profit margin of 25% had a P/E ratio of 138.2? What percentage of those companies' stock prices rose? What percentage fell? By how much, and over what time periods? Currently there are 5 companies with a market cap over \$1.5 trillion. Their average P/E ratio is 43.7.

The **Profit Map™** allows investors to calculate *the actual future price* of any stock based on *their assumptions* of the growth of its revenues, its profit margins, its future price to earnings and its future price to sales ratios.

No investor can **know** what these four variable factors will be in the future. However, the **Profit Map™** provides users will data to assist them in making realistic assumptions, and provides immediate calculations for the potential profits or losses based on their assumptions.

**Conclusion:** All growth stocks eventually experience both P/E compression and P/S compression. Therefore, we caution investors of the potential impact of valuation ratio compression on Eli Lilly's stock.

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*"Investment losses are not accidents of nature. To avoid and prevent losses, first, we must identify their causes." – Raymond M. Mullaney, CEO, Equity Risk Sciences, Inc.* 

"You must never delude yourself into thinking you're investing when you're speculating." – Benjamin Graham, "The Intelligent Investor," 1949

