

The Top Five Global Pharma Companies; Key Financial Indicators & Performance Forecasting



The Who, What, Where, How and Why of this Poster



What (Value







Financial investors reviewing their portfolio in pharma market shares

Big pharma CFOs wanting to gauge their company performance against other competitors

Product Managers needing a gap analysis of performance portfolios

All Strategy Managers in the pharma market

Presenting the cases of pharma companies to identify key financial performances Covering the top five global pharma companies by sales.

Three month study conducted across 4 analyst teams from US and EU geographies Investment appraisal relevant to approved or late stage development medicines only Five pharma companies selected based on largest global revenue scale

Data pooled directly from official corporate financial reports only

Confirmation of corporate data with at least 2 further secondary data findings

Synthesis of findings – from desk based research – into a Poster Display

Gain "ear-on-ground" knowledge on key drivers of big five pharma financial portfolios Independent assessment of investment worth based on unbiased analyst pool Easy reading format for rapid distillation of information



Table 1: Which Top Five Global Pharma are Chosen? The top five earning pharma companies are ranked here per revenue. Other key performance indicators listed here are R&D spending, net income and employee profitability of the top five entities. These are the five chosen case studies for this poster.

Revenue Rank	Company	Country	Revenue ¹ (USD Billions)	R&D Spending ¹ (USD Billions)	Net Income/ (loss) ¹ (USD Billions)	Number of Employees ¹	Employee Profitability² (USD)
1	Johnson & Johnson	USA	71,890	9.09	15.94	127,100	125,413
2	Pfizer Inc.	USA	52,824	7.87	6.18	97,900	63,126
3	Roche AG	Switzerland	51,082	11.42	8.98	91,750	97,875
4	Novartis AG	Switzerland	48,518	9.00	6.80	118,000	57,627
5	Merck & Co. Inc.	USA	39,807	7.19	5.49	68,000	80735

Source: SEC Filings & Annual Reports for FY 2016

Employee Profitability = Net Income/Number of Employees



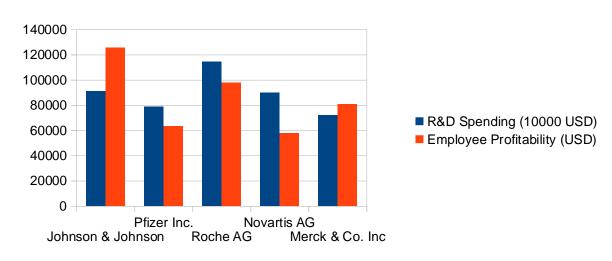


Chart 1: Comparison of R&D Expenditure and Employee Profitability

Key Findings Johnson & Johnson as well as being the top performing pharma company by sales, earned the highest income per employee or attained the greatest employee profitability at 125,413 USD while its R&D expenditure ranks 2nd at 9.09 billion USD. In contrast Novartis holds the lowest employee profitability at 57,627 USD with a similar R&D budget of 9.00 billion USD. Notably Roche has the highest R&D expenditure at 11.42 billion USD and conversely ranks 2nd in sales revenue. (**Chart 1**).



Table 2: PEG Ratio Valuation One way in which investors decide on buying shares is to scrutinise companies with good growth prospects which are selling at attractive prices. One popular indicator used to identify such shares is the PEG ratio³. In this case we use the EPS % growth rate for 2018 (based on a consensus of analyst EPS estimates) and forward price-earnings over the next 12 months. As a "rule of thumb", the lower the PEG ratio, the more attractive the share buy. Essentially it means that the investor pays less for future earnings growth. The PEG ratios for the 5 pharma companies is based on expected earnings for twelve months ending May 2018. The Zacks Large Cap Pharmaceuticals industry average is 2.17.

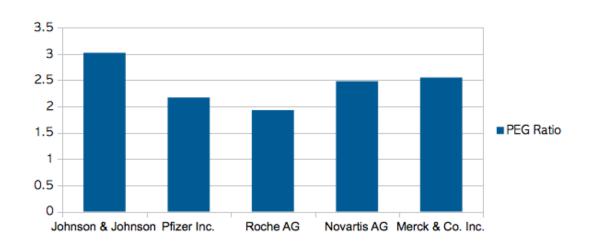
Company	PEG Ratio
Johnson & Johnson	3.02
Pfizer Inc.	2.17
Roche AG	1.93
Novartis AG	2.48
Merck & Co. Inc.	2.55

PEG Ratio = Price/Earnings Ratio ÷ EPS % Growth Rate





Chart 2: PEG Ratio Valuation





Key Findings

- Roche AG has the most attractive PEG ratio. In decreasing order of under-valuation Roche AG (1.93) and Pfizer Inc (2.17) trade below and at the same level respectively of the Zack's Large Cap Pharmaceuticals PEG ratio threshold of 2.17.
- All others, in increasing order of over-valuation, Novartis AG (2.48), Merck & Co. Inc. (2.55) and Johnson & Johnson (3.02), are being traded well above this PEG ratio threshold.



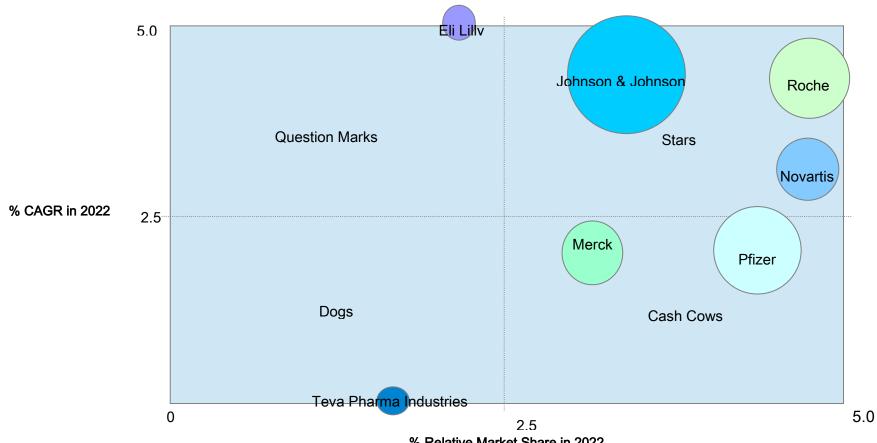
Table 3: BCG Analysis Here we use the Boston Consulting Group matrix to position the five pharma companies for future 2017-2022 growth on the basis of their relative market shares and growth rates in Compound Annual Growth Rate - CAGR. Relative market share on the basis of total prescription drug sales assumes likely cash generation, because the higher the share the more cash will be generated. The exact measure is the percentage of company's sales relative to the world wide market sales in prescription medicines. Rapid sales growth rates in a growing healthcare market, no doubt are what all the five companies are striving for; but the penalty is that they are usually net cash users - they require investment to nurture their drug portfolios. The reason for this is often because the growth is being 'bought' by the high investment in research and development, in the reasonable expectation that a high market share will eventually turn into a sound investment in future profits. This matrix analysis assumes, therefore, that a higher sales growth rate is indicative of accompanying demands on investment. The magnitude of company sales generated in FY 2016 is depicted by the size of the "bubble" in Chart 3.

Company	Revenue FY 2016 (USD Billions)	% CAGR in 2022	% Relative Market Share in 2022
Johnson & Johnson	71890	4	3.6
Pfizer Inc.	52824	2	4.4
Roche AG	51082	4	4.7
Novartis AG	48518	3	4.7
Merck & Co. Inc.	39807	2	3.5





Chart 3: BCG Analysis



% Relative Market Share in 2022



Key Findings - Interpretation of BCG Matrix (Chart 3); (Eli Lilly Inc. and Teva Pharmaceutical Industries have been added for illustrative purposes only.)

- Cash Cows (High Market Share; Low Market Growth): These are pharma entities with high market share in a slow-growing regional industry both Merck & Co. Inc. and Pfizer Inc. represent this dominance in a sluggish US healthcare climate with US sales of prescription drugs growing a meagre 5.8% in 2016. These pharma units are generating cash in excess of the amount of capital needed to fully expand their drug development portfolio and are considered to be "milking" the pharma market they operate in.
- Dogs (Low Market Share; Low Market Growth): Dogs are the pharma companies with low market share in a mature, slow-growing industry. These units typically "break even", generating barely enough cash to maintain the business's market share. Although a break-even unit offers the social benefit of providing jobs and possible synergies in assisting other business units, from an accounting point of view such a pharma entity, e.g. Teva Pharmaceutical Industries (%CAGR in 2022 0%; Relative Market Share in 2022 1.6%) are of a low return on assets ratio, a ratio used by many investors to judge how well a company is being managed. This entity is being seen as being vulnerable to management buyout over the next five years.
- Question Marks (Low Market Share; High Market Growth): Question Marks are growing rapidly and thus consume large amounts of cash, but because they have relative low market share they do not generate cash on the scale of their cash cow competitors. On the global scale, Eli Lilly (% CAGR in 2022 5%; Relative Market Share in 2022 2.0%) represents such an entity, since it has a large net cash consumption in the pharma market they operate in. Eli Lilly has the potential to gain market share and become a star, and eventually a cash cow if and when its market growth slows.
- Stars (High Market Share; High Market Growth): Roche AG, Novartis AG and Johnson & Johnson Inc. have high market shares with their drug portfolios in fast-growing areas. Sustaining their market leadership may require extra cash burn and if their market growth slows in the next five years



they should become cash cows. Clearly Novartis and Roche are chasing the number one position for both market share and growth in 2022. Based on last year's 2016 figures, Roche has edged ahead but it is still too early a call. The focus is on Entresto, Cosentyx and ribociclib (LEE001) which are anticipated to be the spearhead for Novartis' growth, however for Roche's performance it will be critical for the sales success of Perjeta and Gazyva, the launch of the PD-1 inhibitor Tecentriq and equally pivotal for the performance of Ocrevus in the highly competitive multiple sclerosis market. A cautionary note is the vulnerability of Roche's portfolio to biosimilars and Pfizer's recent acquisition of Medivation (and its leading asset Xtandi) which is likely to impact on this competitive landscape.



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