

# Pharmaceuticals

## The Link between Value and Strategy

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# Agenda

- Strategic choices and measurement by shareholders
- Specific strategic choices and impact on valuation
- Status of pharma industry today
- Future direction of industry

# Investors may hear from management about many strategies

- Strategies = choices
- But choices exist at all levels of operation

## FOR EXAMPLE

- R&D
- Business development
- Sales and marketing
- Manufacturing
- Finance
- Investor relations

# ....but which strategies can be measured by investors?

- Shareholders can measure the manifestation of strategies in aggregate
  - Sales (by product, division and geography)
  - Profit (by division and geography) and cash flow (Annual Accounts)
  - Share price performance and dividends
- Analysts can measure (subjectively)
  - Net present value of product portfolio (this includes estimates of future value)
  - Pipeline or R&D success

# Which strategies do investors care about?

- Strategies with high signal to noise ratios!
  - Significant Mergers or Acquisitions (M&A)
  - Significant disposals
  - Large product deals
    - In-licensing or co-development
  - Significant shifts in business direction

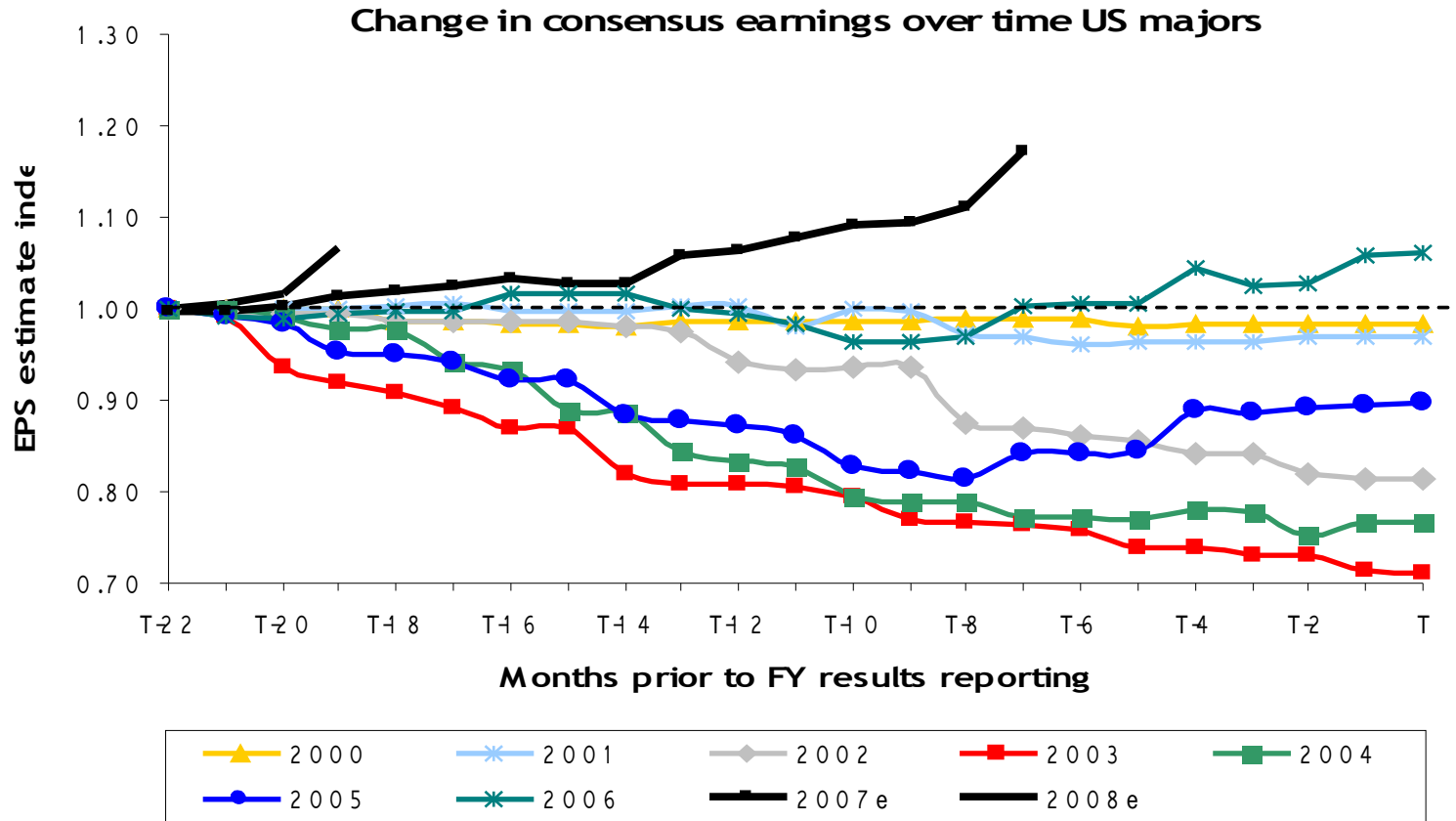
***Investors care about strategies that improve the quality and/or the quantity of earnings and rate of earnings growth***

# Quality vs Quantity

- “Quality of earnings” suggests that the flow of profits are more reliable, dependable, or robust
- Quantity simply refers to the amount

***The expectation of higher quality earnings at a lower growth rate may be valued more highly than a lower quality of earnings at a higher growth rate (ie business or credit risk)***

# US Index of Consensus Earnings



Source: Lehman Brothers estimates

# Strategy conflicts with management reward system

- R&D can take 10-12 years to deliver a new product to market
- Tenure of a CEO or management team is much less than 10 years
- Senior management tend to be rewarded over a shorter time frame than is consistent with making decisions with long term payback
- There is a bias for short-medium term strategies that have more immediate share price impact

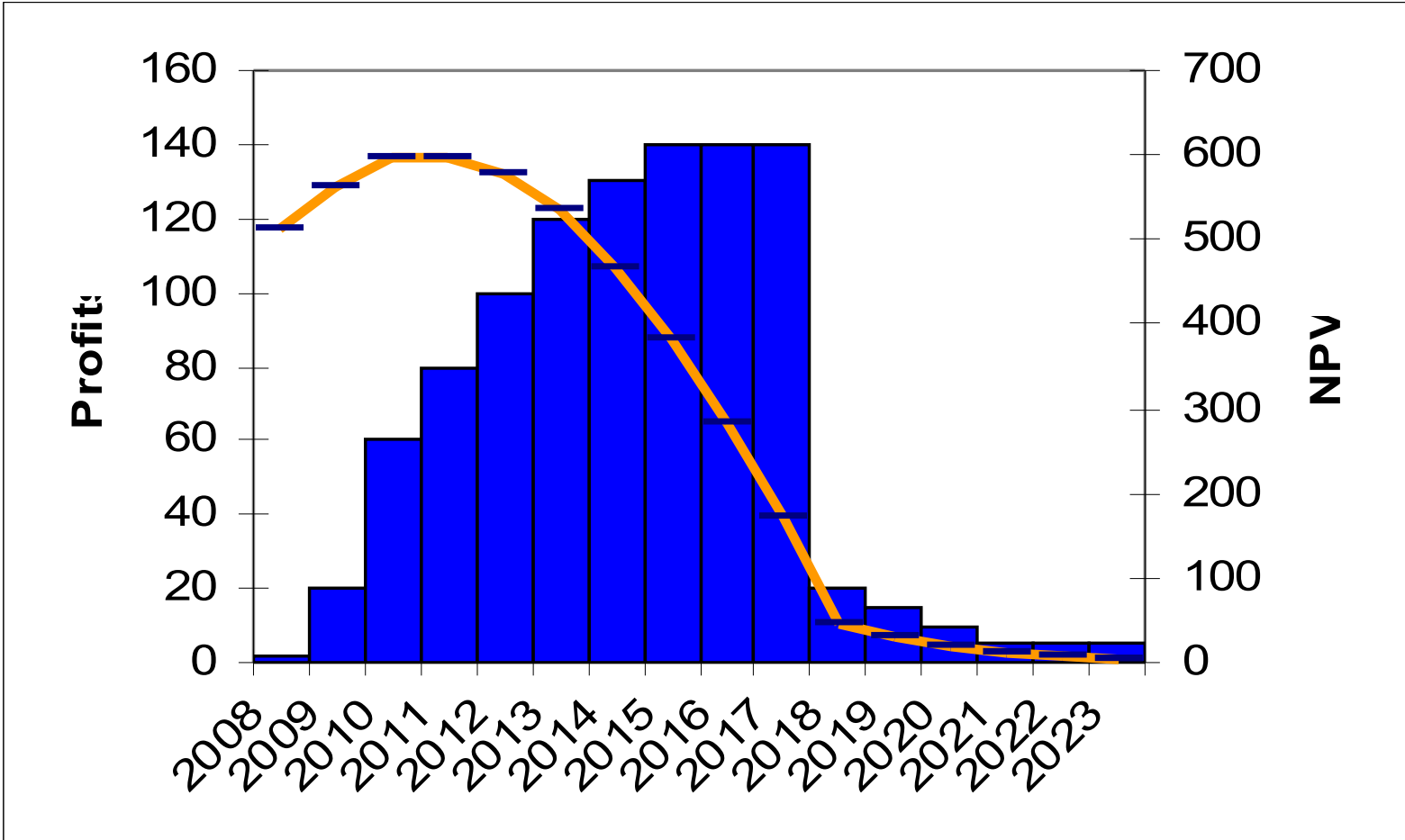
# A Comment on Share Price

- Total shareholder return
  - Dividend + capital gain
- Capital gain
  - Share price growth
- Share price growth
  - Profits growth
  - PE multiple expansion
- Profits growth
  - Sales growth and margin expansion

# PE Multiple and Future Value

- PE represents a terminal value, a short cut valuation that has become linked with perception of future growth.
- NPV captures future growth
  - Analysts use Life Cycle Models
  - Pipeline products can be given a value

# NPV and Area Under the Curve



# Enterprise Value (EV)

- $EV = \text{Market capitalisation} + \text{net debt or} - \text{net cash}$
- $\text{Market capitalisation} = \text{number of shares} \times \text{price per share}$

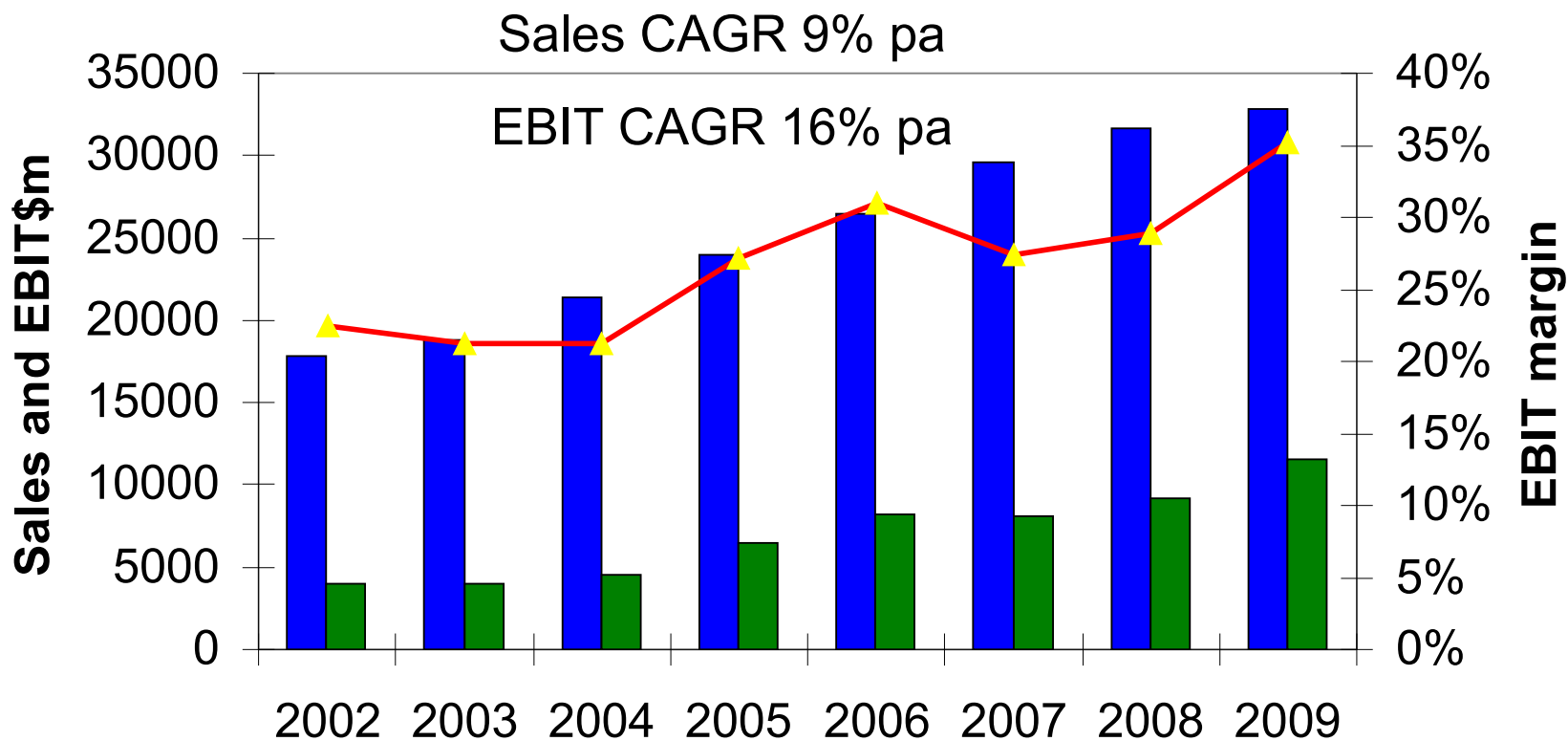
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# Some examples of strategy in action

# AstraZeneca – strategy post-merger

- To stay focused on Pharma
  - ie NOT to diversify
- To add biologics expertise
- To in-license aggressively
- To cut costs aggressively

# AZN's Business Performance Has Been Creditable



# Sales evolution: 1999-2009

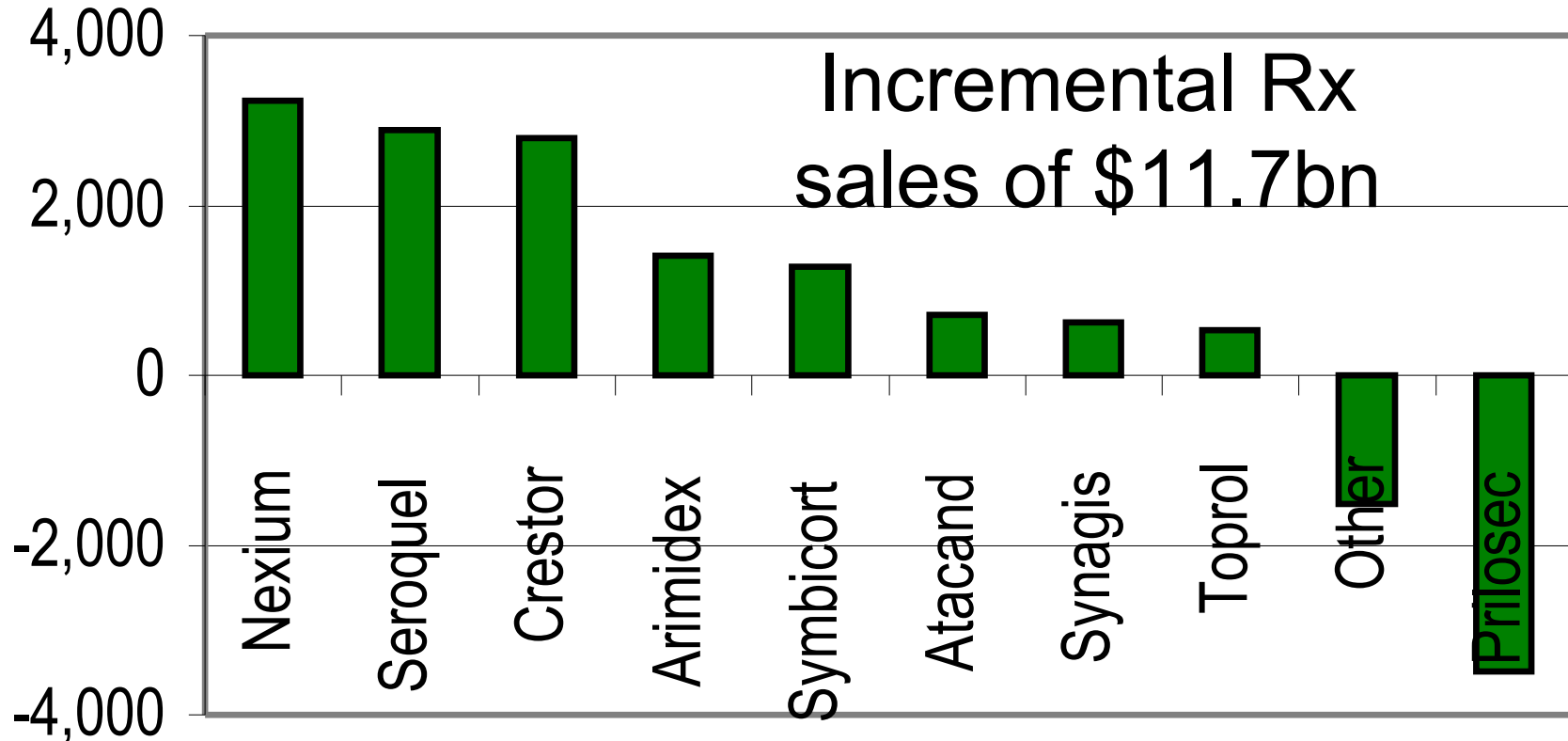


**55%** Facing Patent Expiry\*

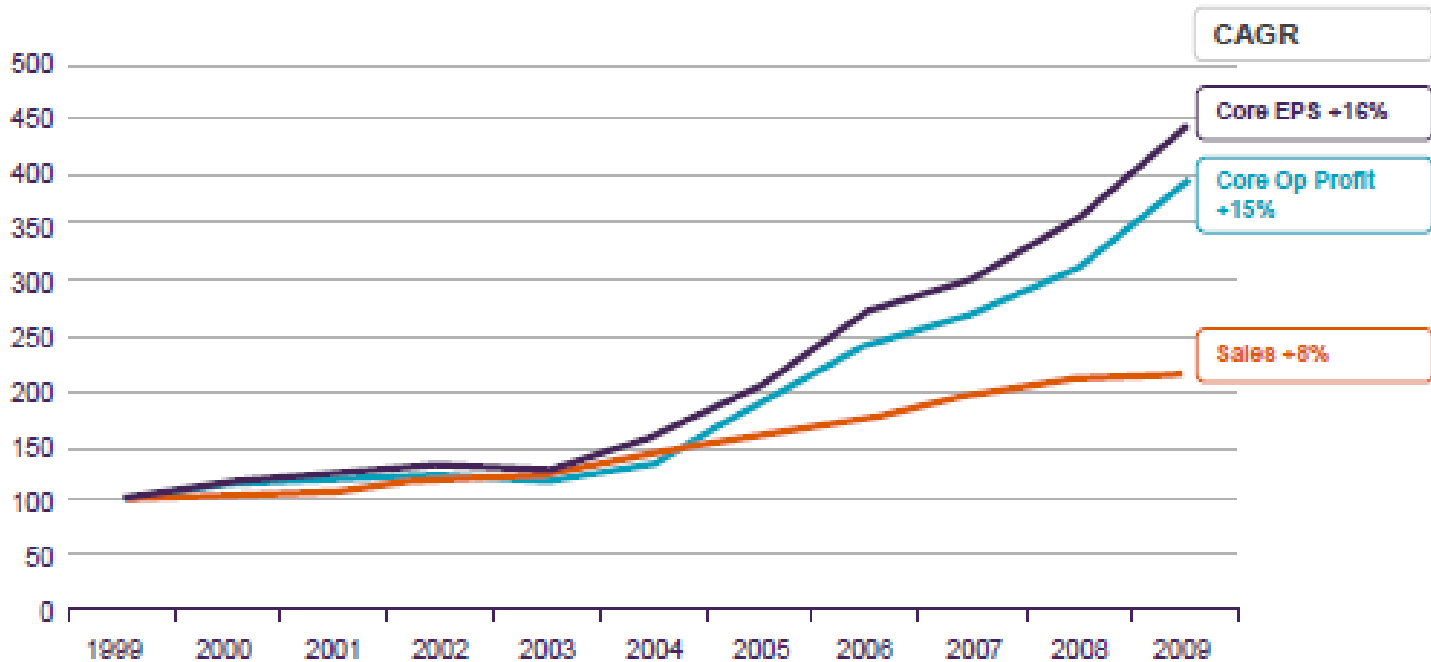
\* Within 6 years

# Net Sales Increased Strongly

Incremental Sales 2002-2007



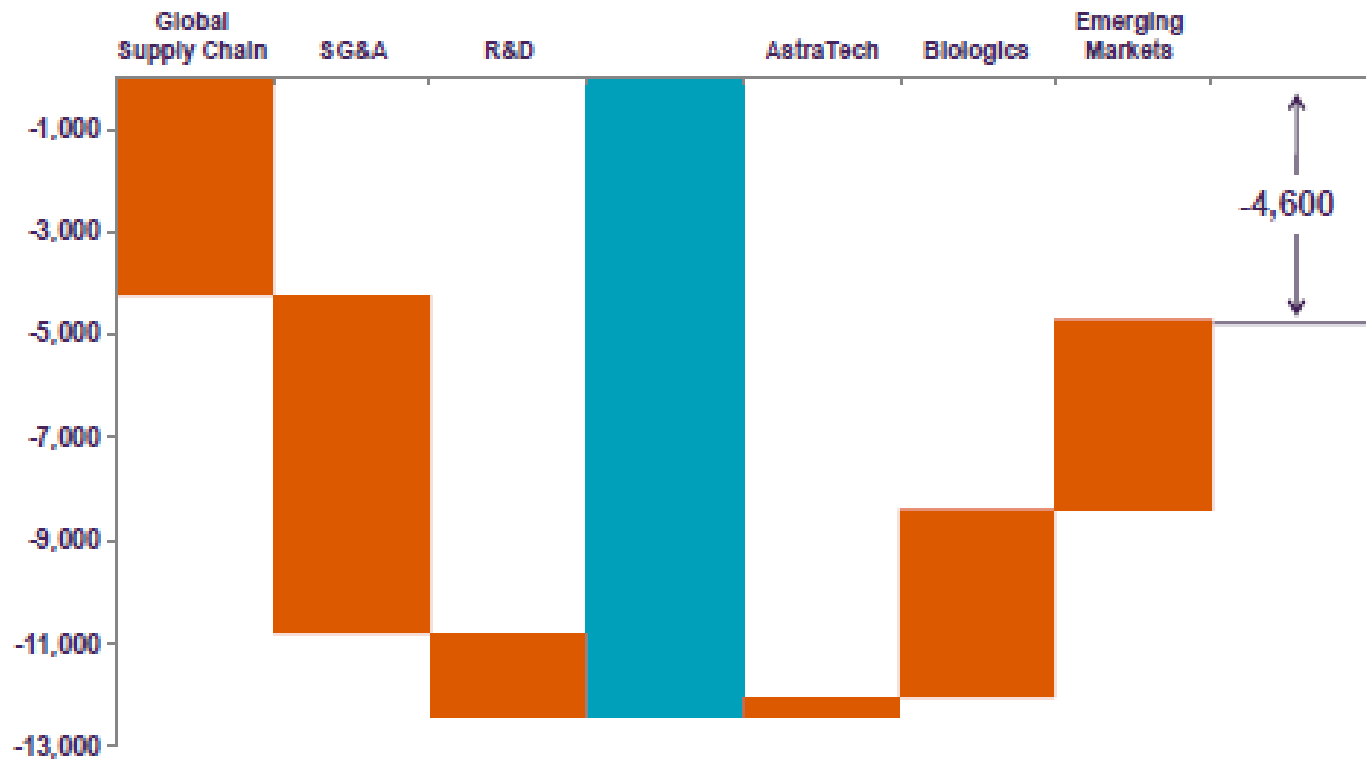
# AZN: Strong financial performance 1999-2009



Source: AZ annual reports, implied core margins

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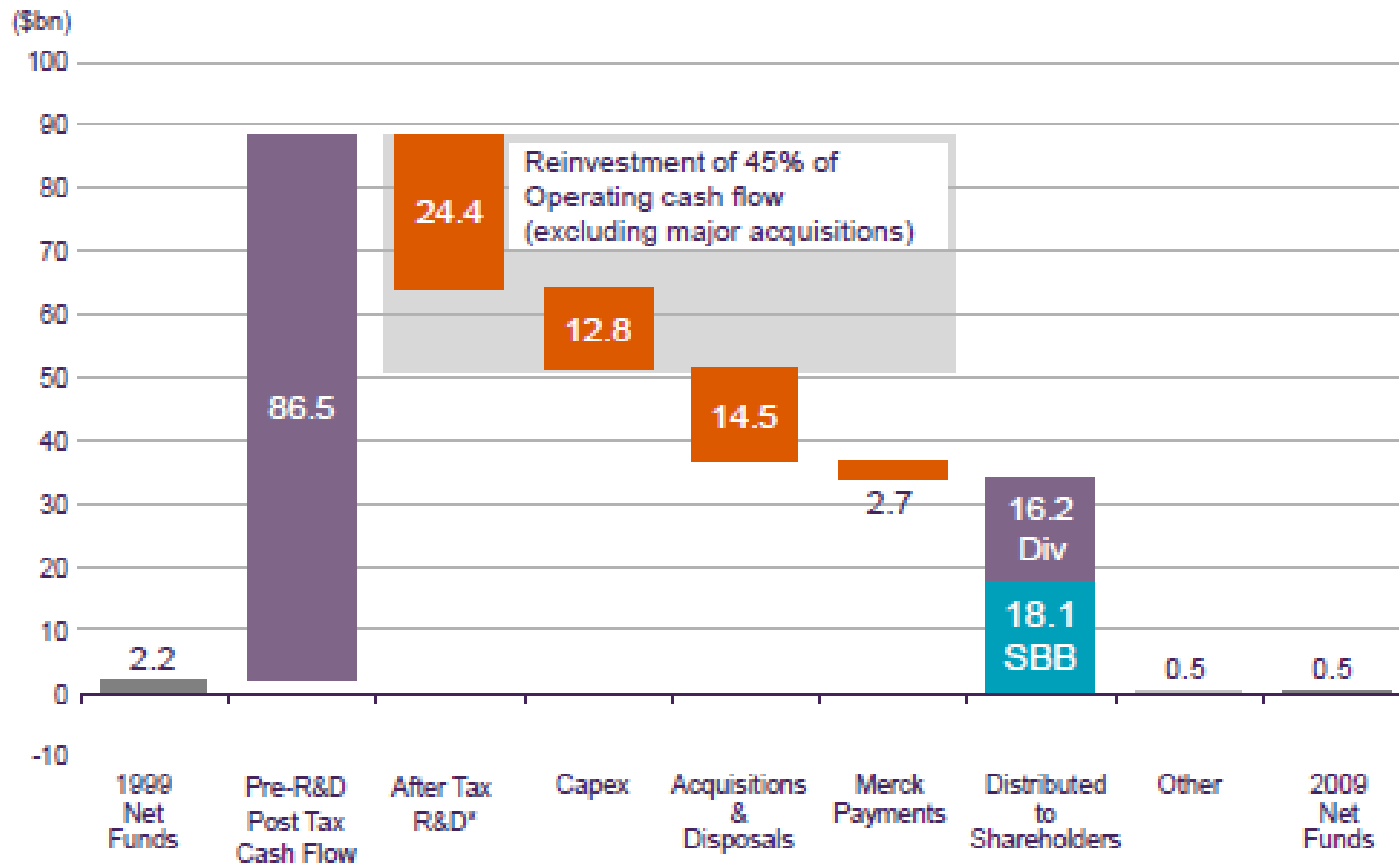
# Restructuring and synergies: 2006-2009



2008-2009 headcount movements are shown on a Full Time Equivalent basis and include AZ employees and contractors

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# Strong cash generation: 1999-2009



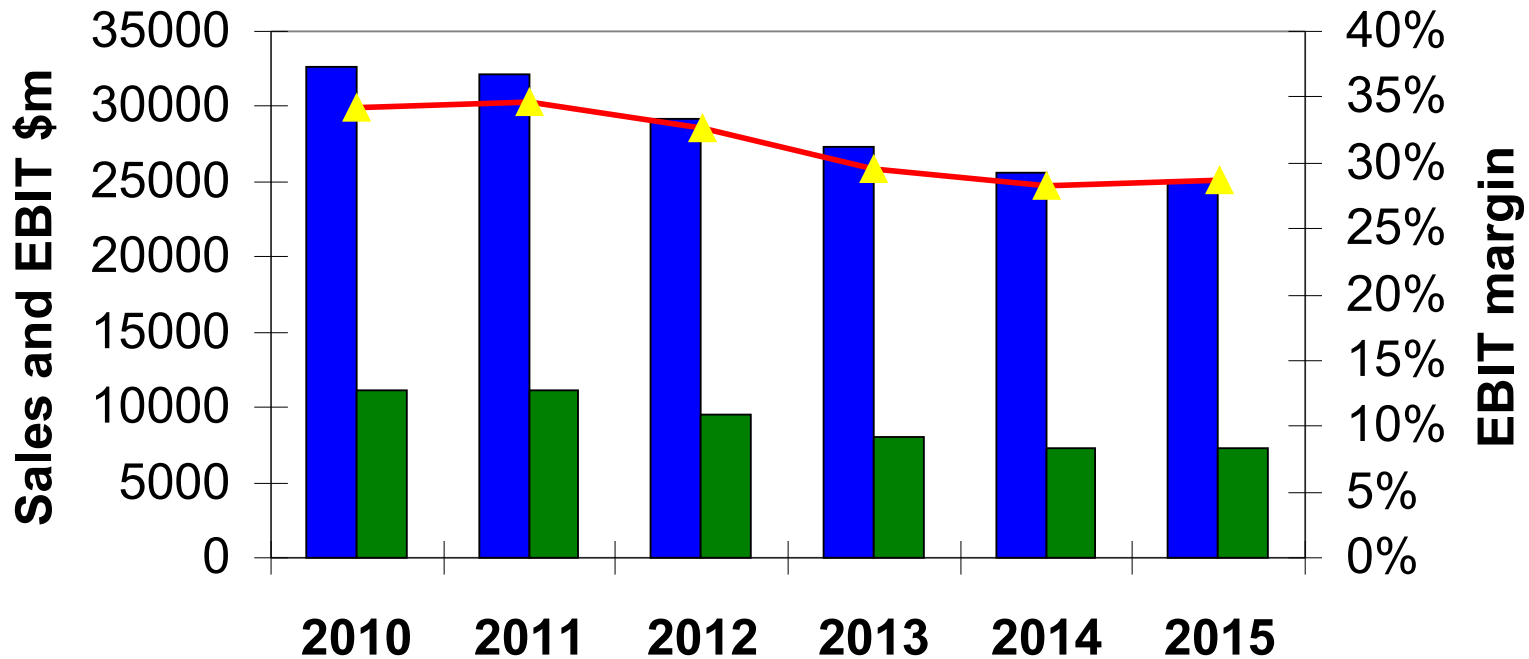
\* R&D includes internal R&D expenditures, net of tax and depreciation/amortization, and externalization. Source: AZ annual reports

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# ... But the Future Looks Dull

Sales CAGR -4%

EBIT CAGR -7%



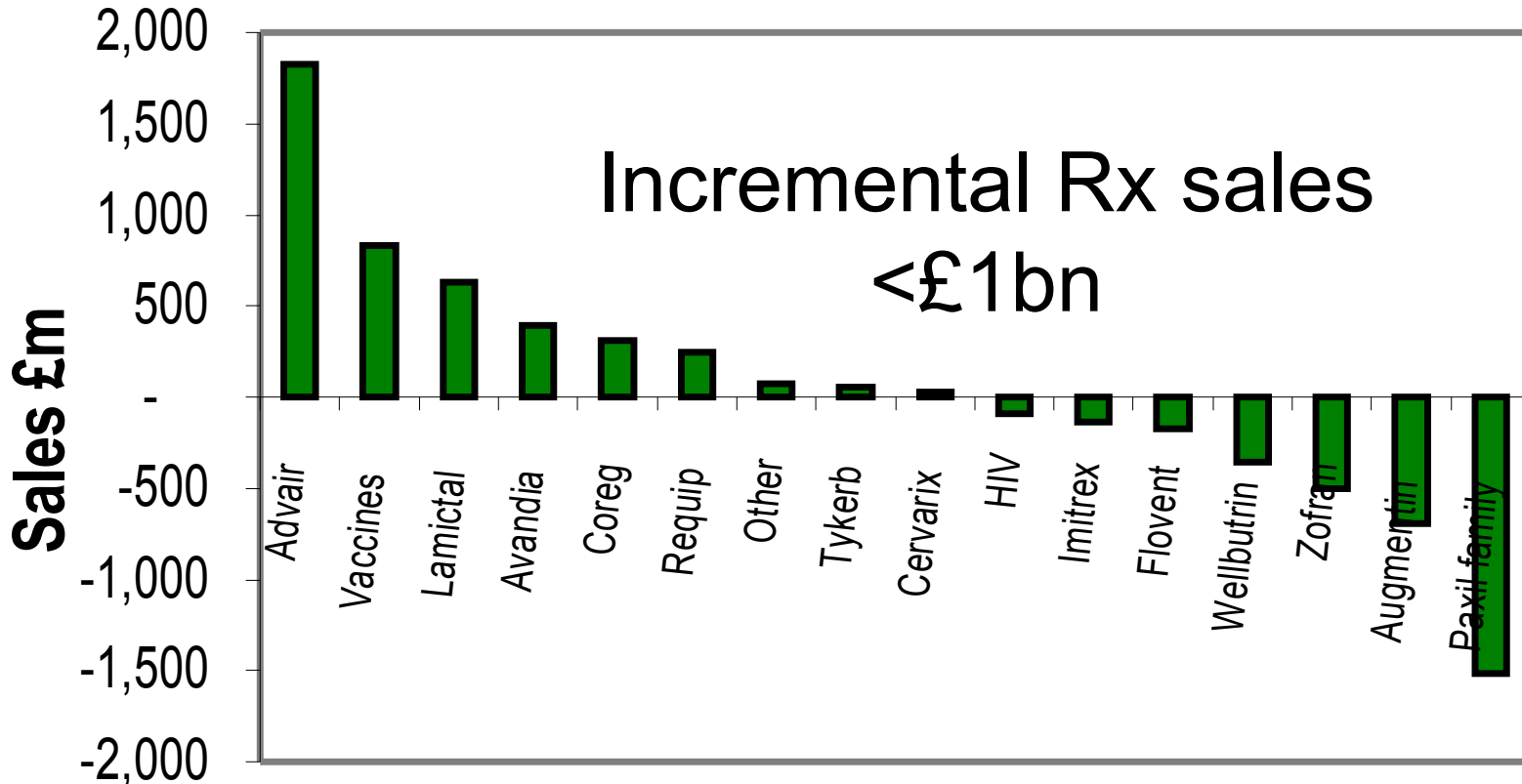
Source: Credit Suisse

# GSK – strategy post-merger

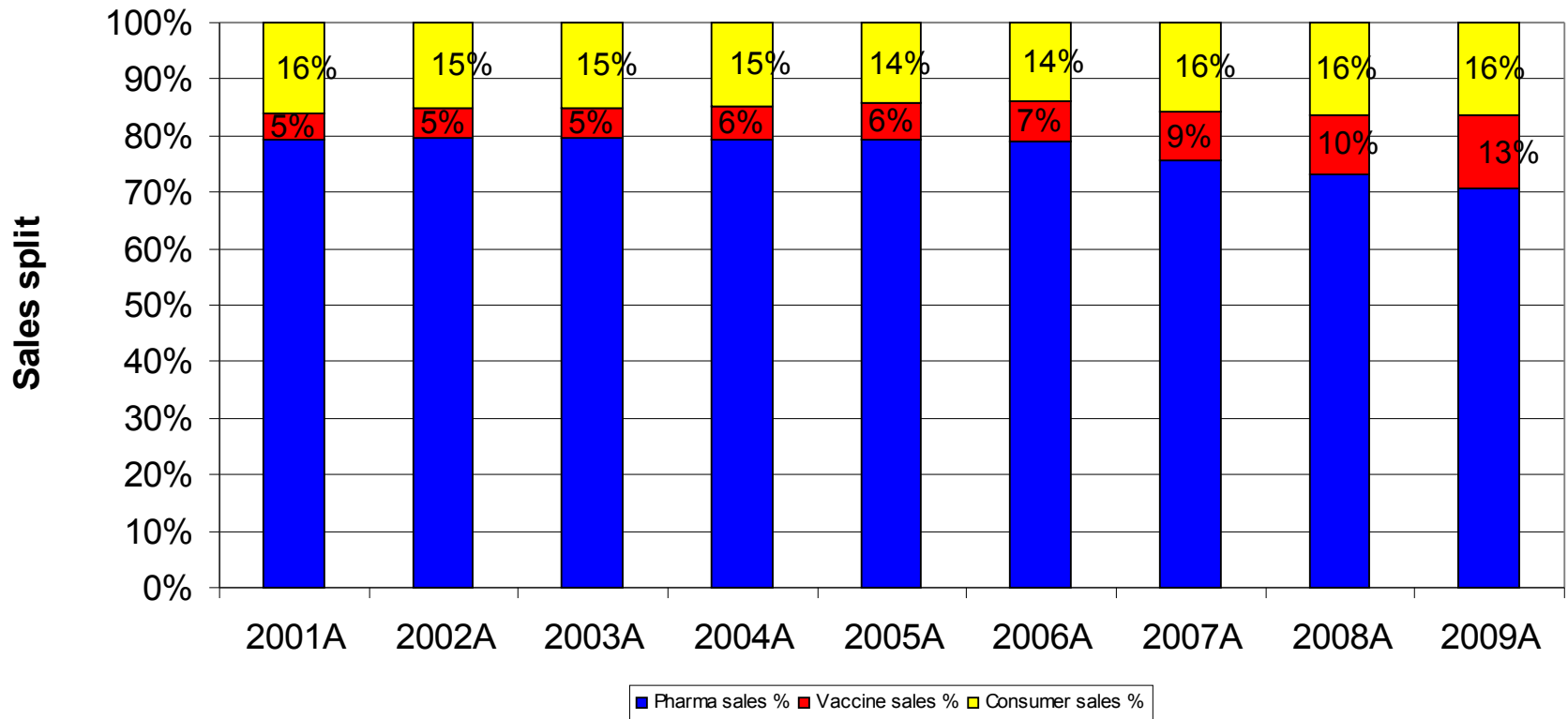
- To focus on innovative R&D strategies
- To maintain diversified model
  - ie Consumer Products and Vaccines + Rx
- To expand in Emerging Markets

# GSK's Strategy?

## Incremental sales 2002-2007

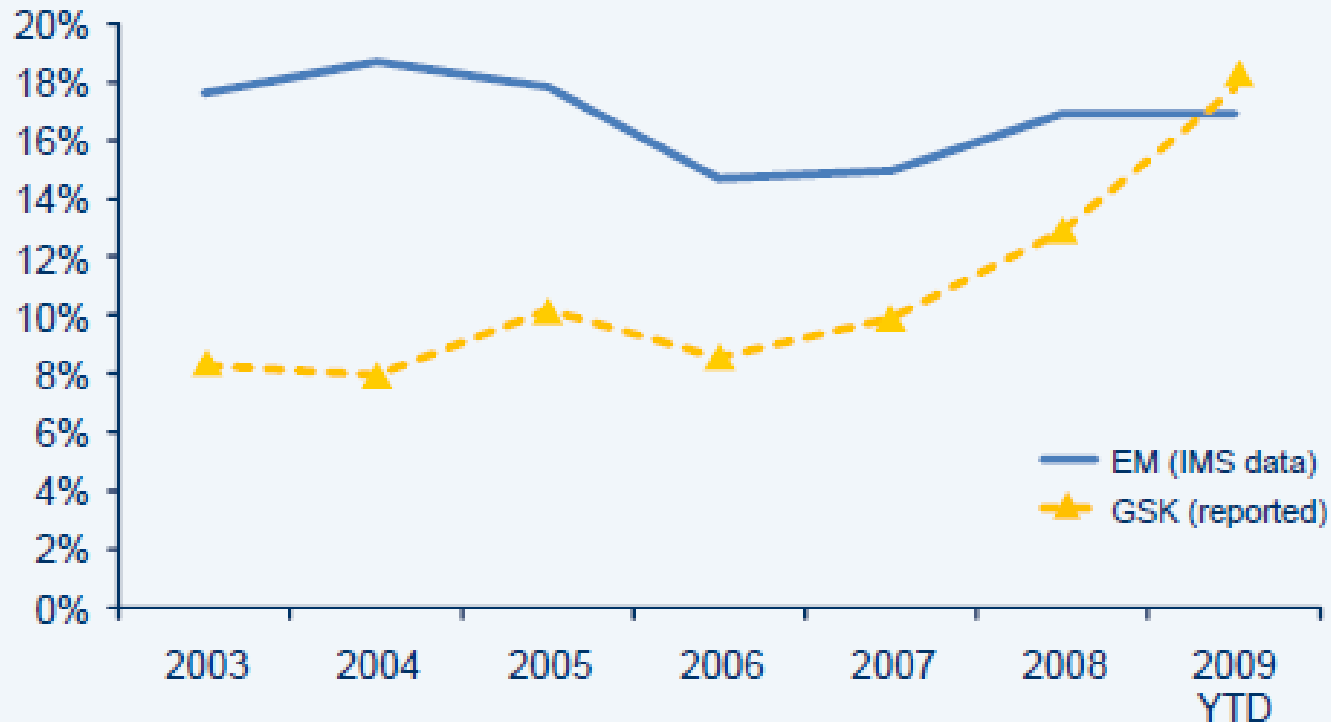


# Diversification is a Slow Process



## Strengthening GSK in Emerging Markets

GSK is catching up with EM market growth and our objective is to grow faster than the market<sup>1</sup>



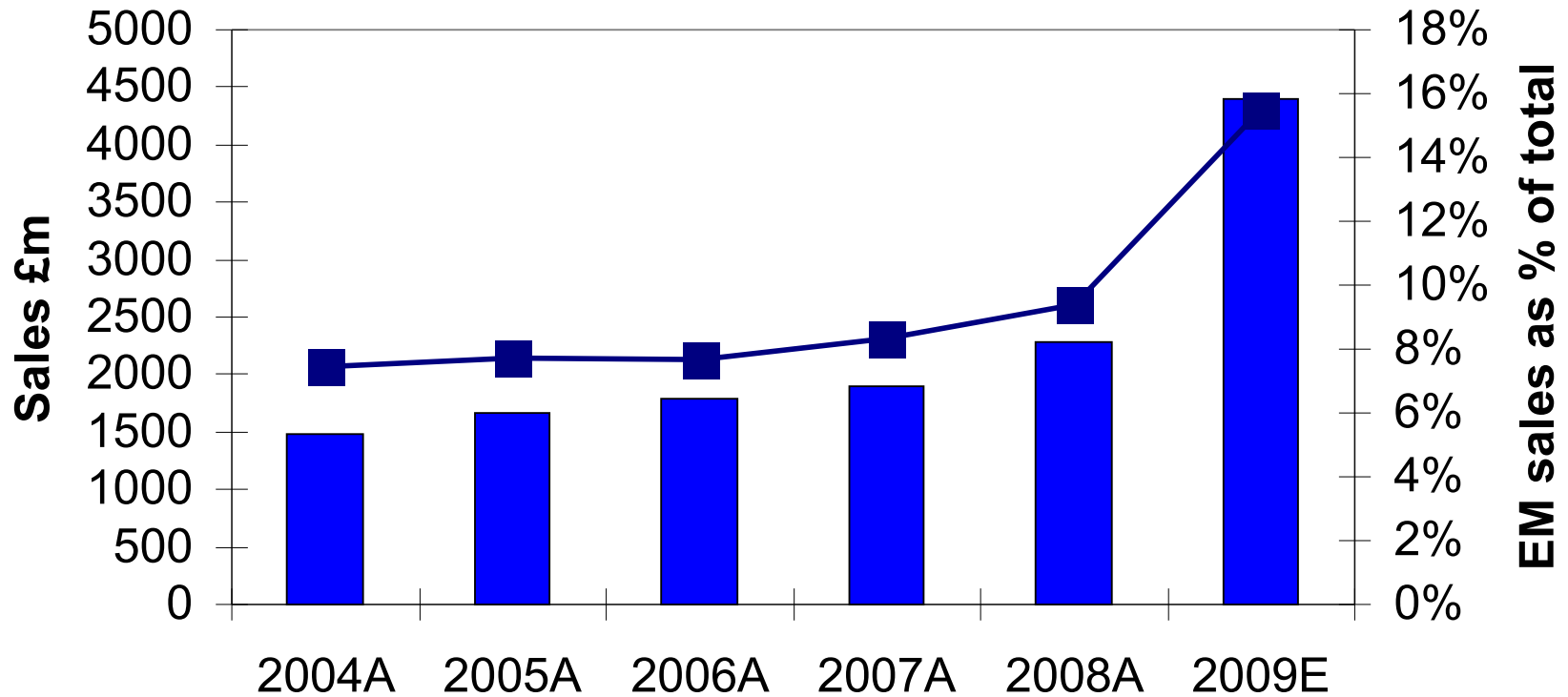
Source: IMS data (MAT Sep 09) and GSK reported Q309 YTD.

Note: IMS audits currently do not capture all activities e.g. vaccines, and therefore undervalues sales in EM, particularly for GSK.

<sup>1</sup> IMS Prognosis through 2013 (redefined for GSK EM region) projects EM market growth of 13-15%.

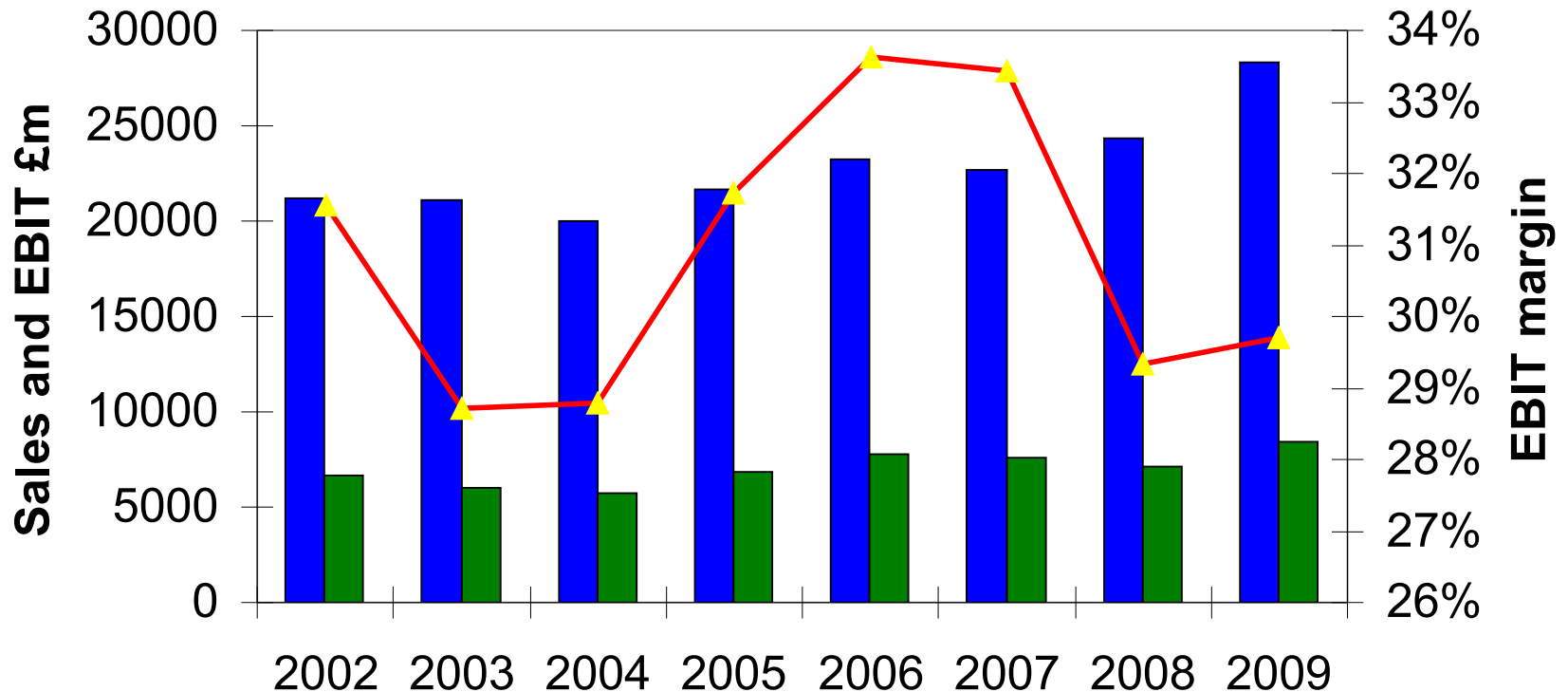
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# But Emerging Market Sales Are Performing Well



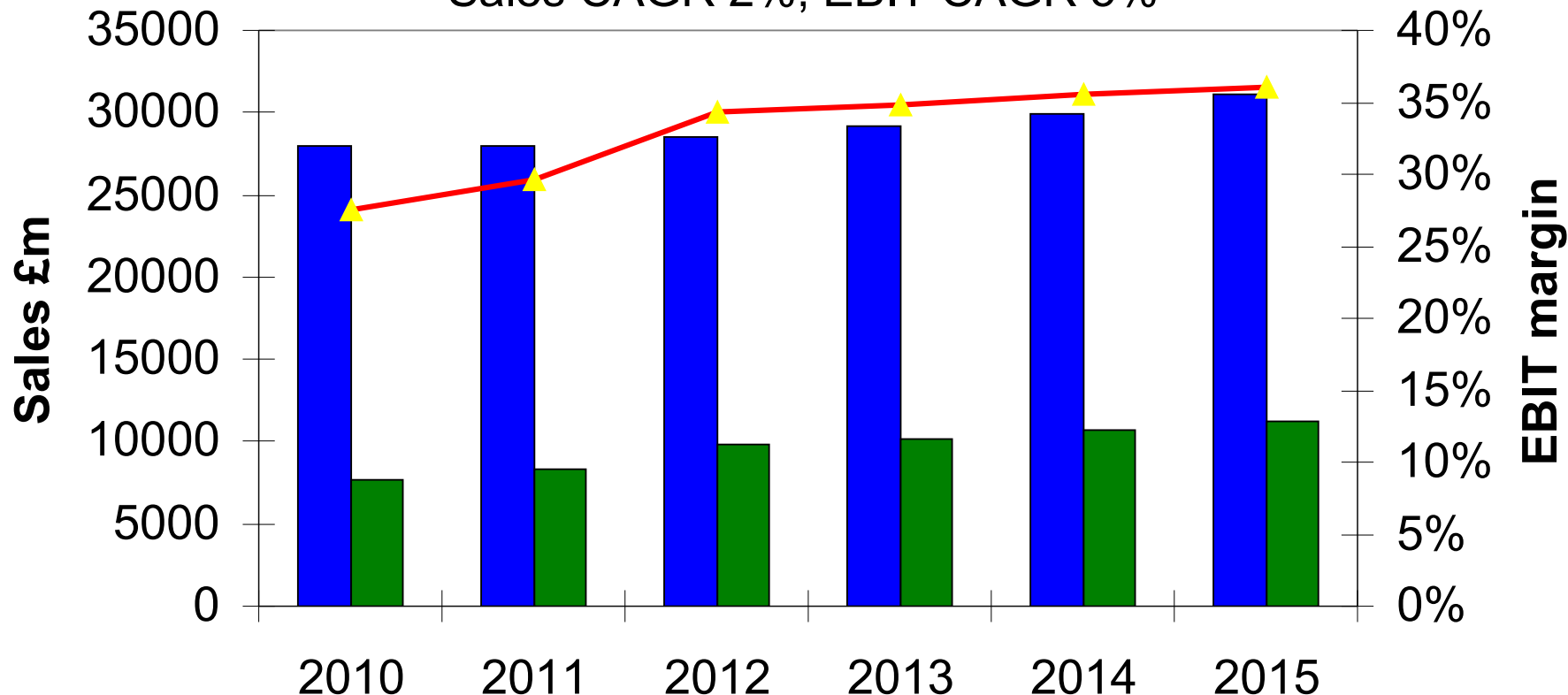
# GSK Business Performance Has Been Poor

Sales CAGR 4%; EBIT CAGR 3%



# But Future Looks Better Than AstraZeneca's

Sales CAGR 2%; EBIT CAGR 5%

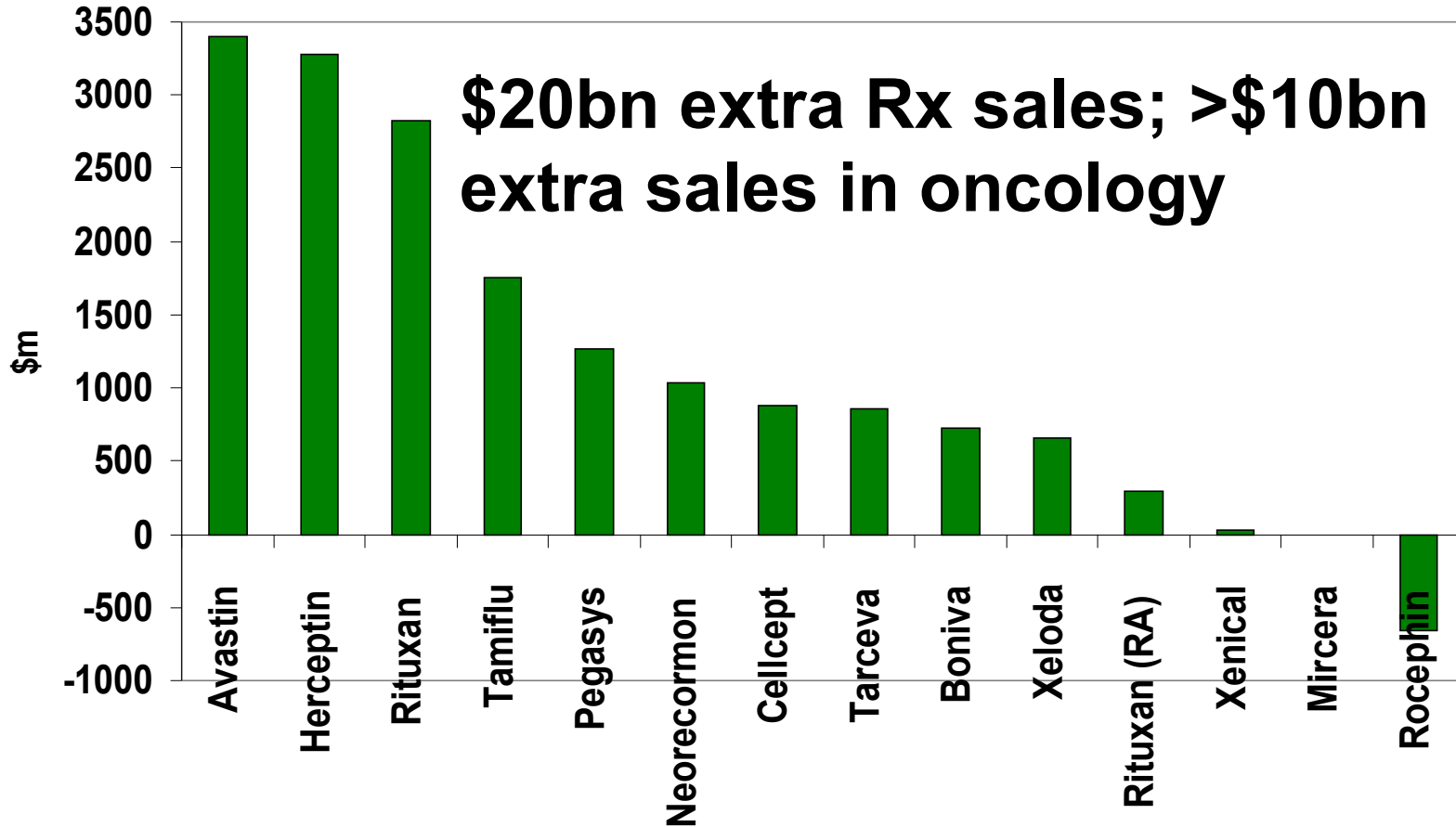


# Roche – strategy over last 5 years

- Focus on Pharma and Diagnostics
  - Disposal of Flavours and Fragrances
  - Disposal of OTC
- Specialize in biotech/specialty drugs, especially cancer
- Partner/acquire Biological assets

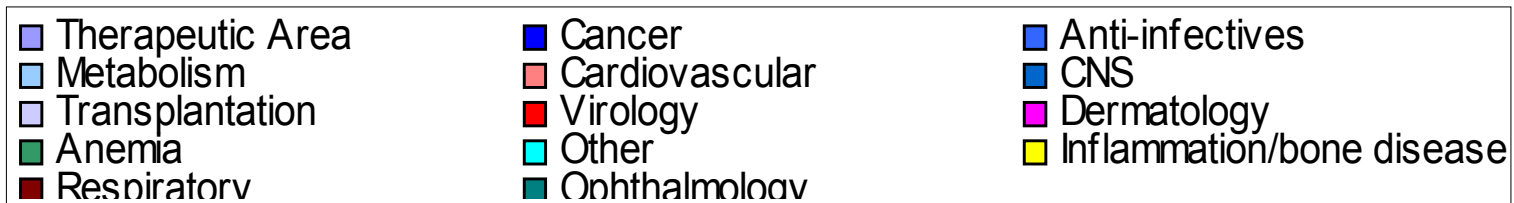
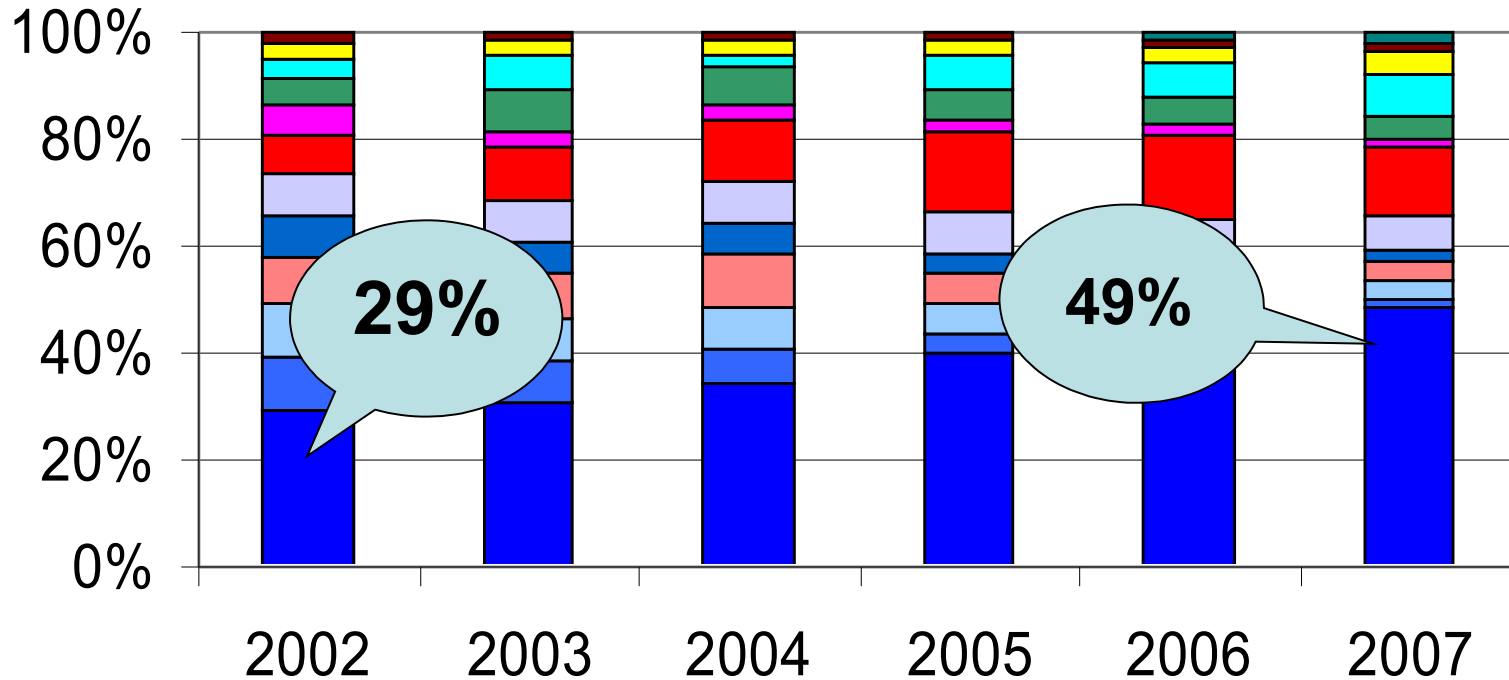
# Roche's Golden Years

Incremental Sales 2002-2007



Source: Lehman Brothers

# Roche Oncology – from 29% to 49% of Rx Sales



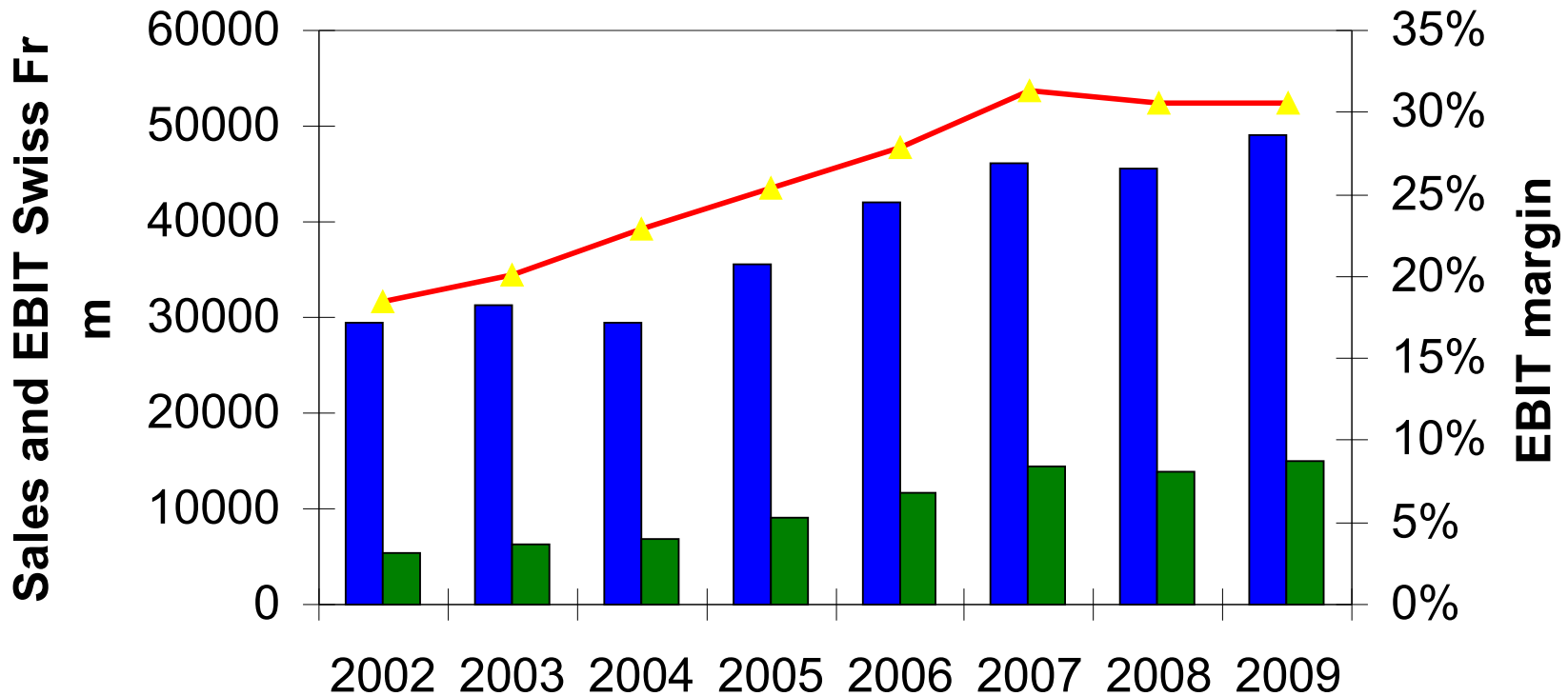
Source: Lehman Brothers 31



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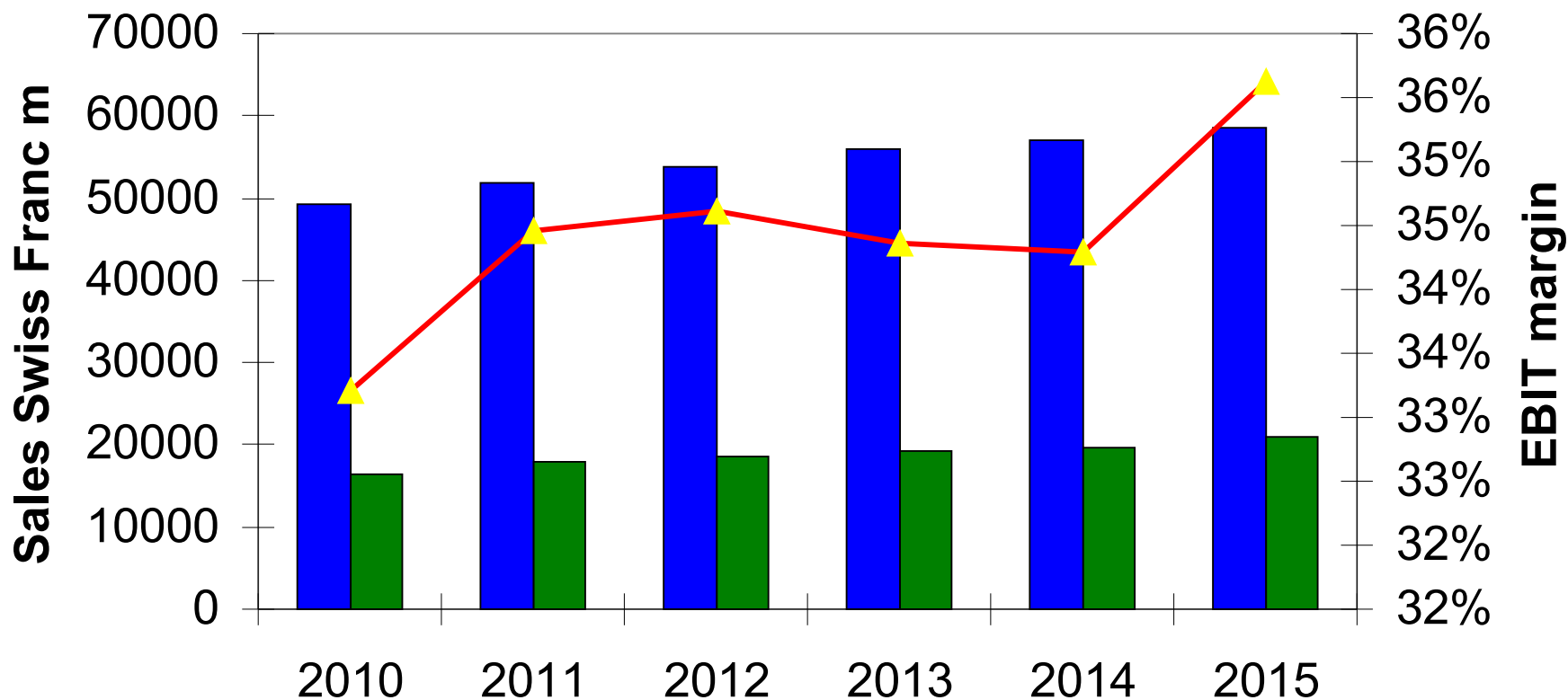
# Roche Sales And Profits Growth Have Been Stunning

**8% pa sales growth**  
**16% pa profit growth**



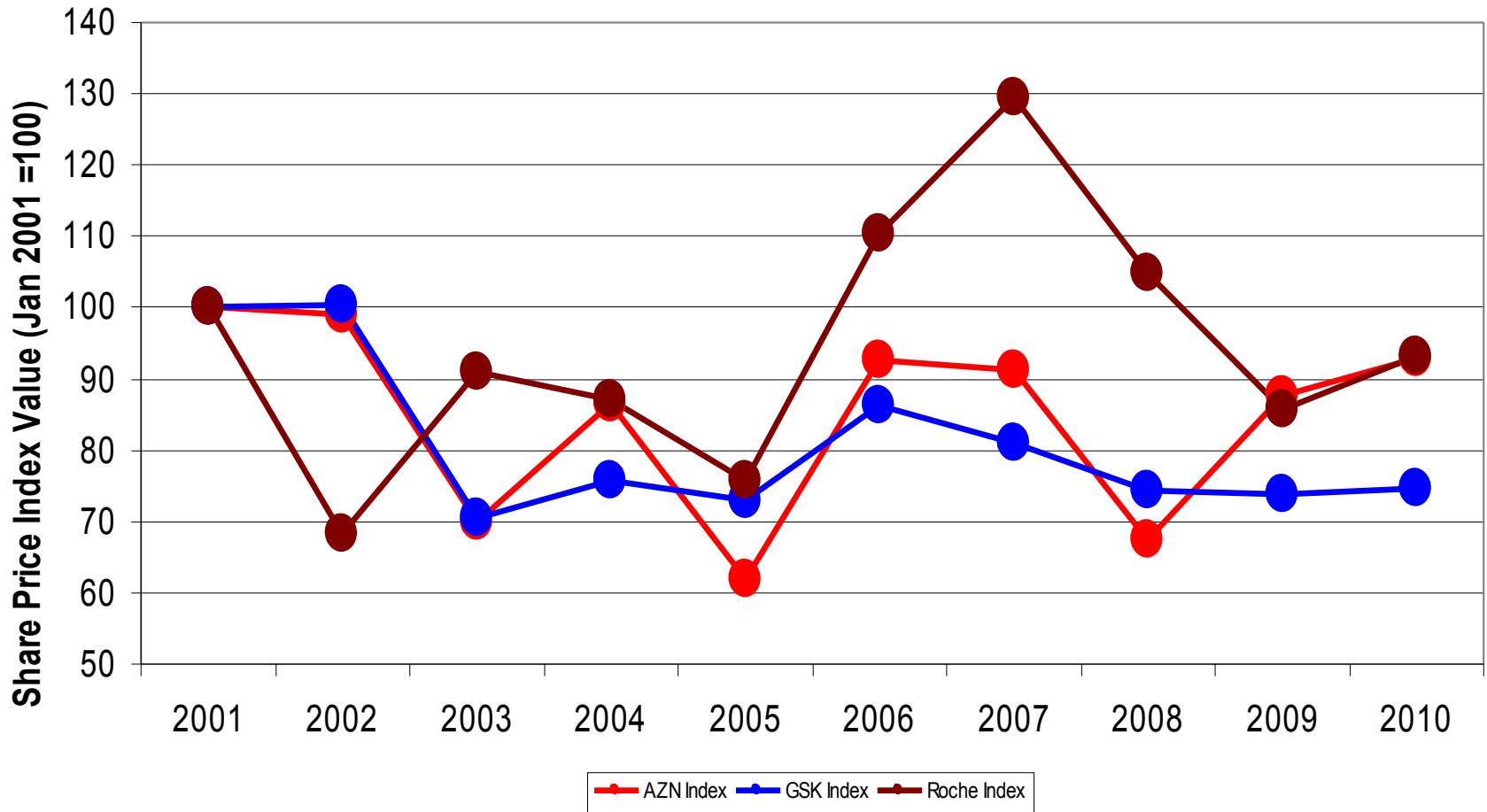
# And Future Looks OK Despite Slowdown

Sales CAGR 3%; EBIT CAGR 6%



# Share Price Performance

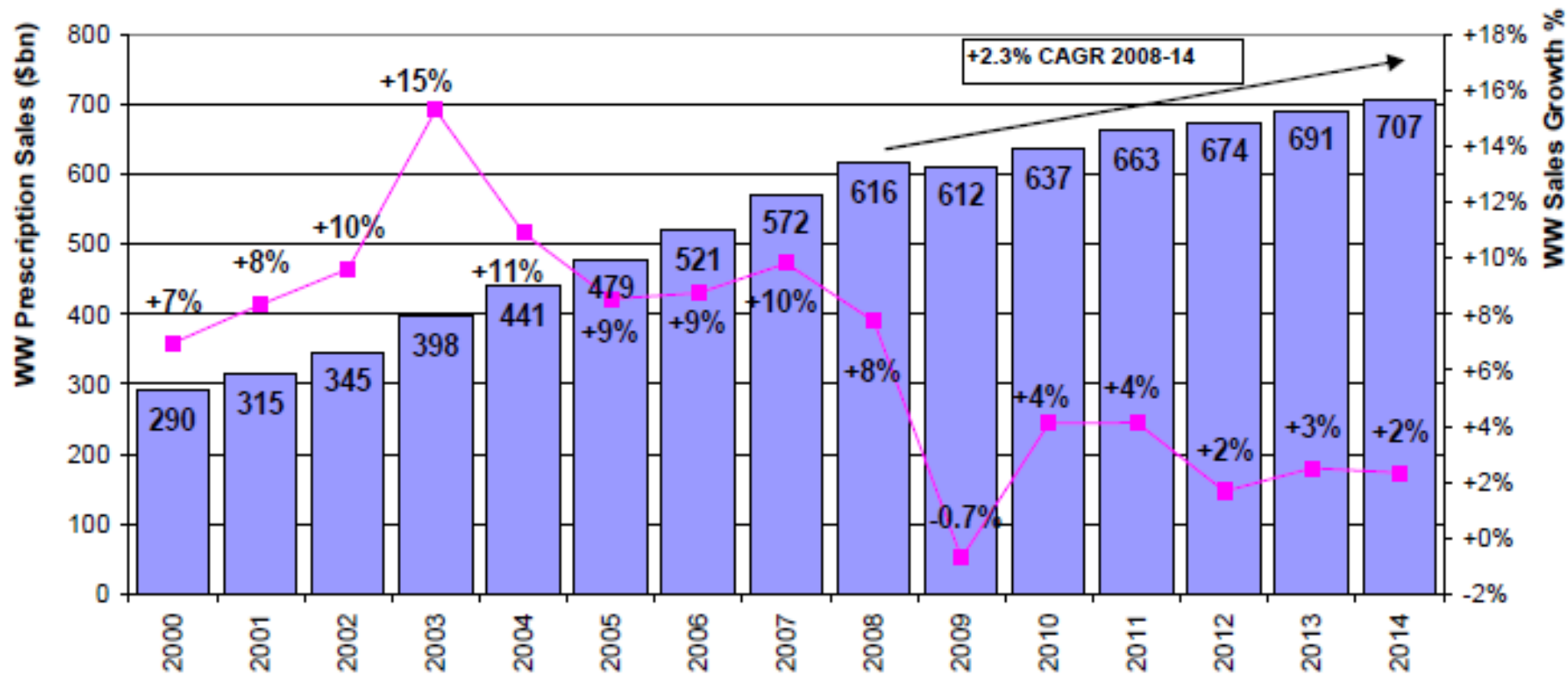
(Prices Indexed to 100 Jan 1 2001)



# Industry Growth Rate Continues to Decline

Worldwide Total Prescription Drug Sales 2000-14

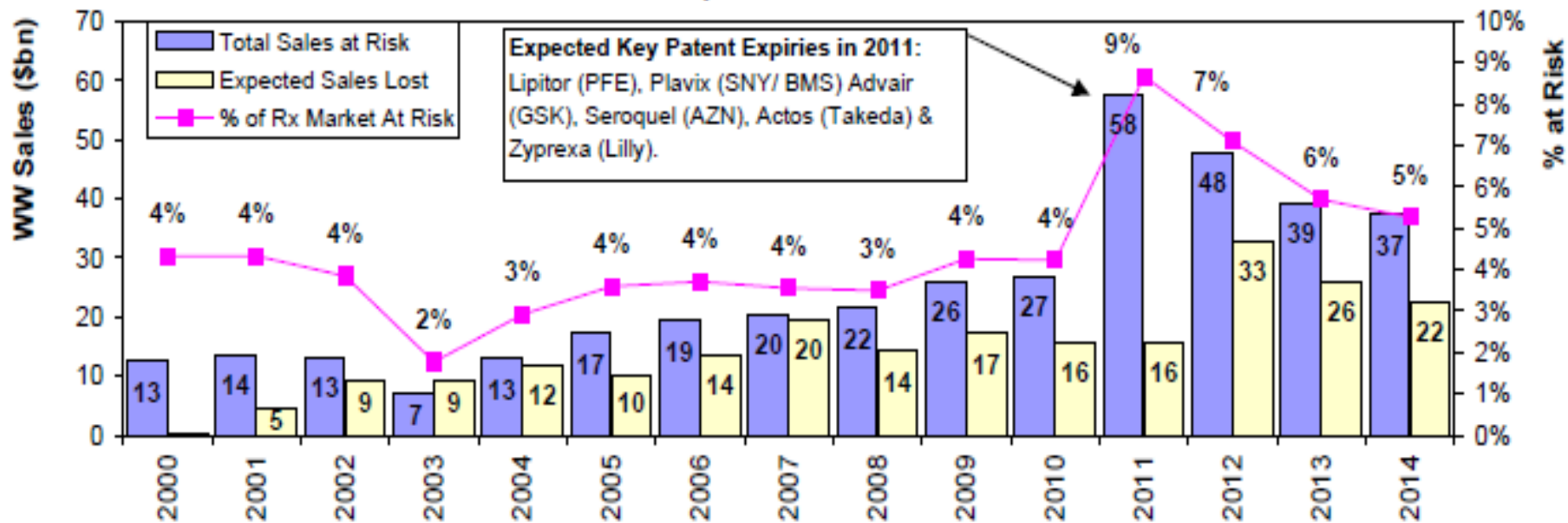
Source: EvaluatePharma® (12 MAY 2009)



Source: Evaluate

# 35% of Global Sales Off Patent 2009-2014

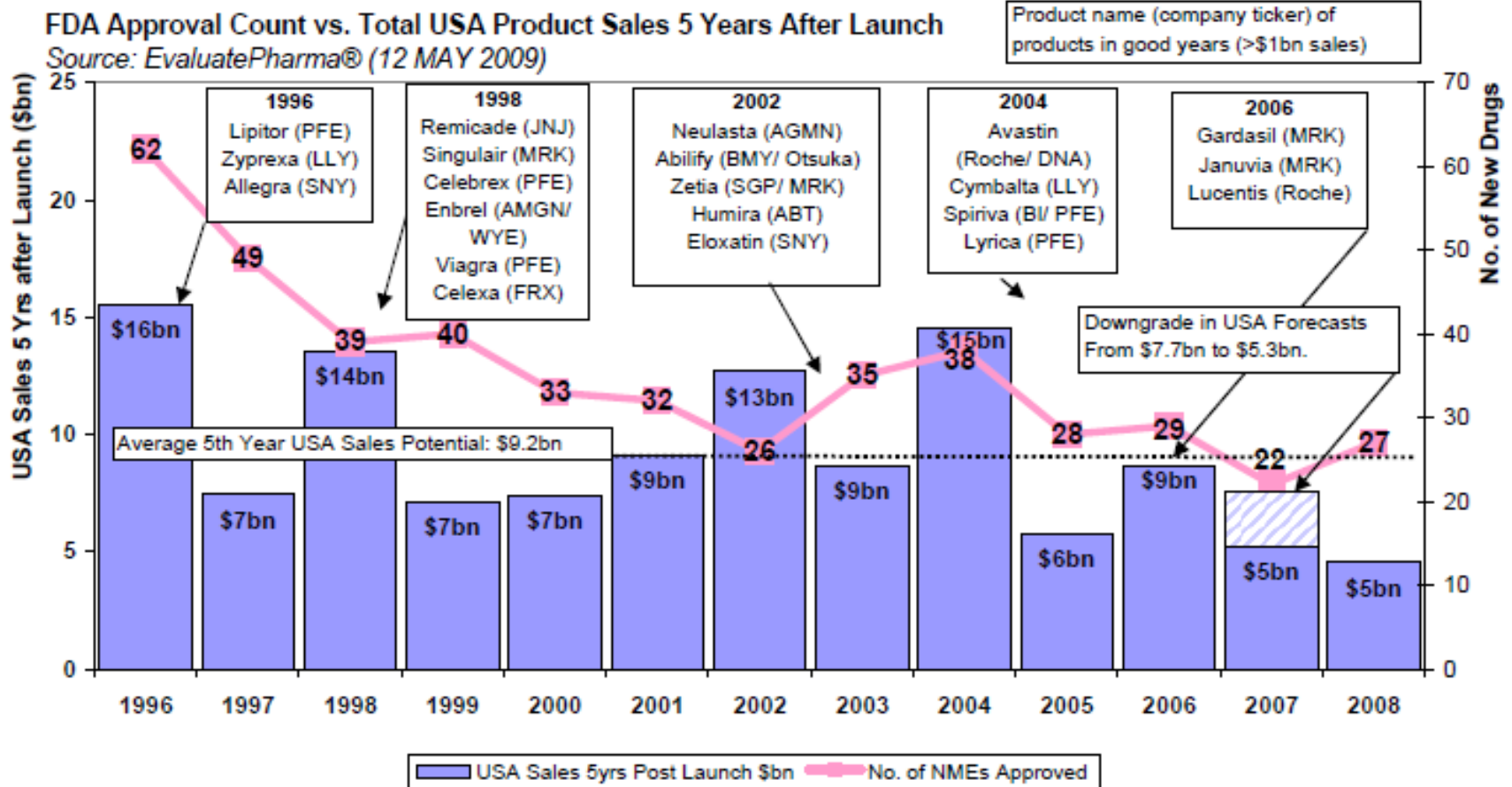
Worldwide Sales At Risk from Patent Expiration 2000-14



Patent Analysis: Sales represent the worldwide product sales in the year prior to patent expiry but allocated to the year of expiry. E.g. Lipitor is forecast to sell \$11.6bn in 2010, this shown above as 'at risk' in 2011.

Source: Evaluate

# Number of NME/BLA Approvals Picking Up But Sales Potential Low



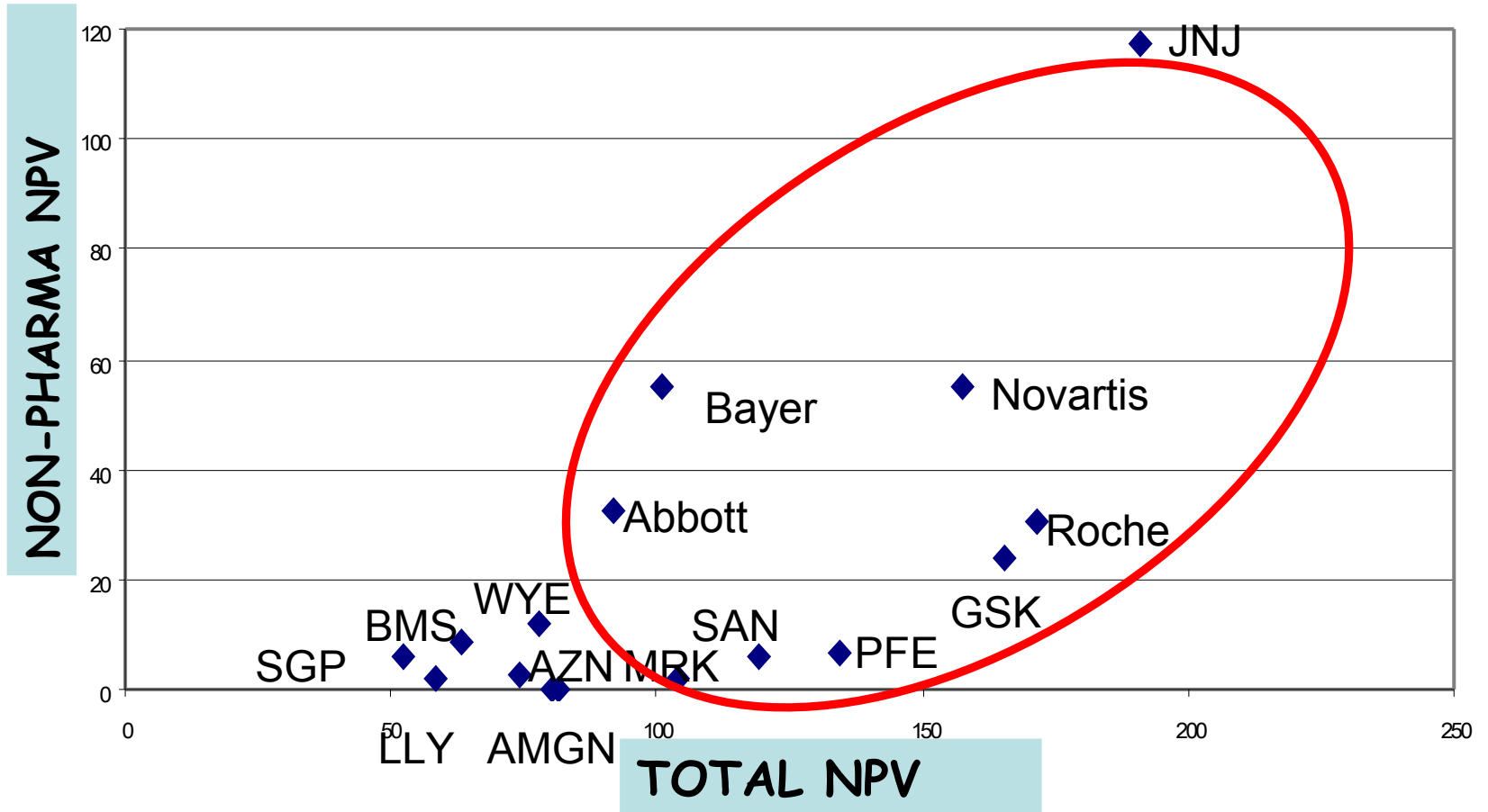
# Where are the Growth Opportunities?

# Sources of Growth

- New products
  - Must meet medical need and offer value for money
- New geographies
  - Emerging markets but must earn license to operate
- Vertical integration
  - Direct distribution, Insurance (Disease Management/  
Risk sharing)?
- Horizontal integration/diversification
  - Generics, OTC, Animal Health, Vaccines, Diagnostics,  
Medtech?

# Diversification Requires Scale

Total NPV vx NPV of Non-Pharma



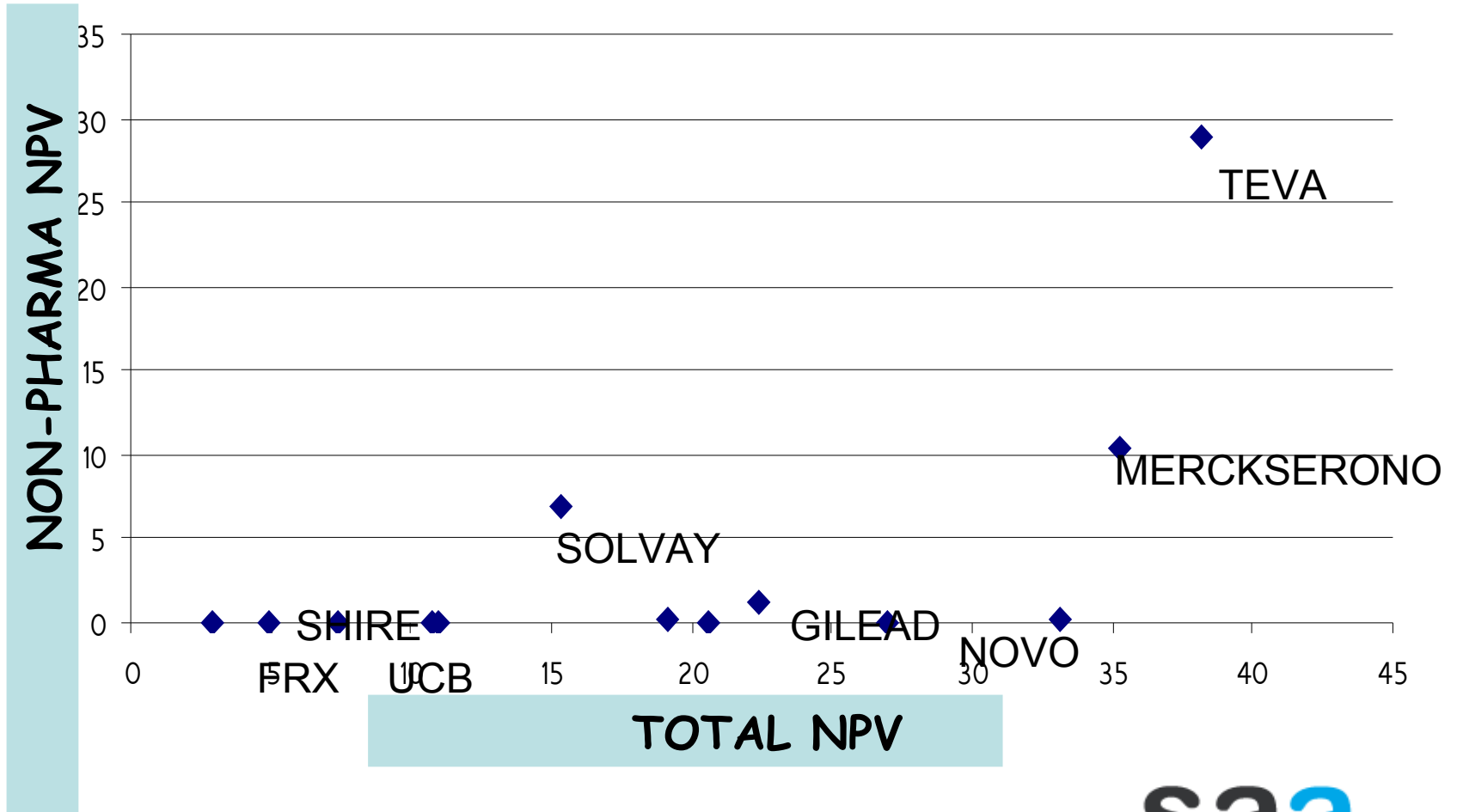
Source: Credit Suisse 40



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# Mid-size Pharma Mostly Has to Focus

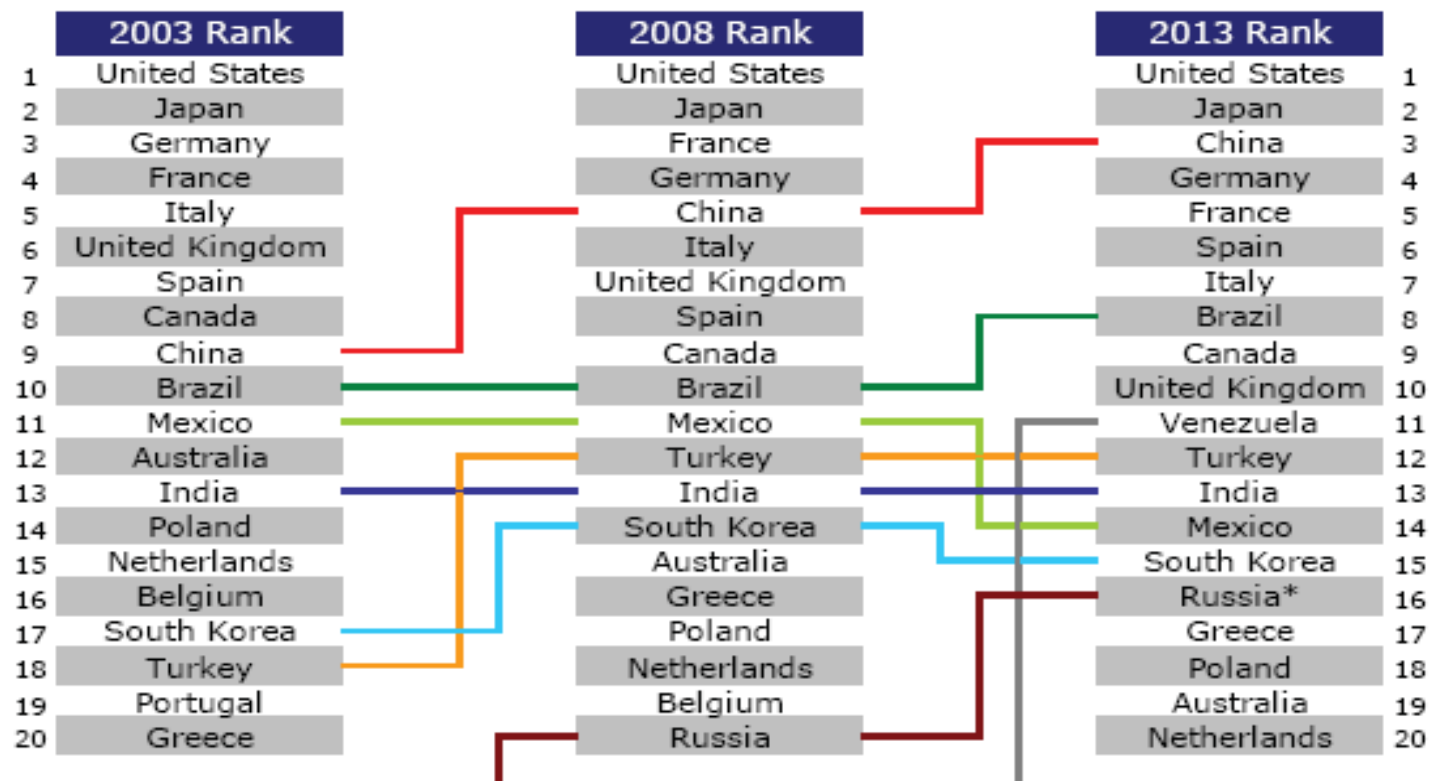
Total NPV vs Non-Pharma NPV



Source: Credit Suisse

# Strong Economic Growth will Drive Healthcare Demand in Emerging Markets

Top Markets 2003-2008

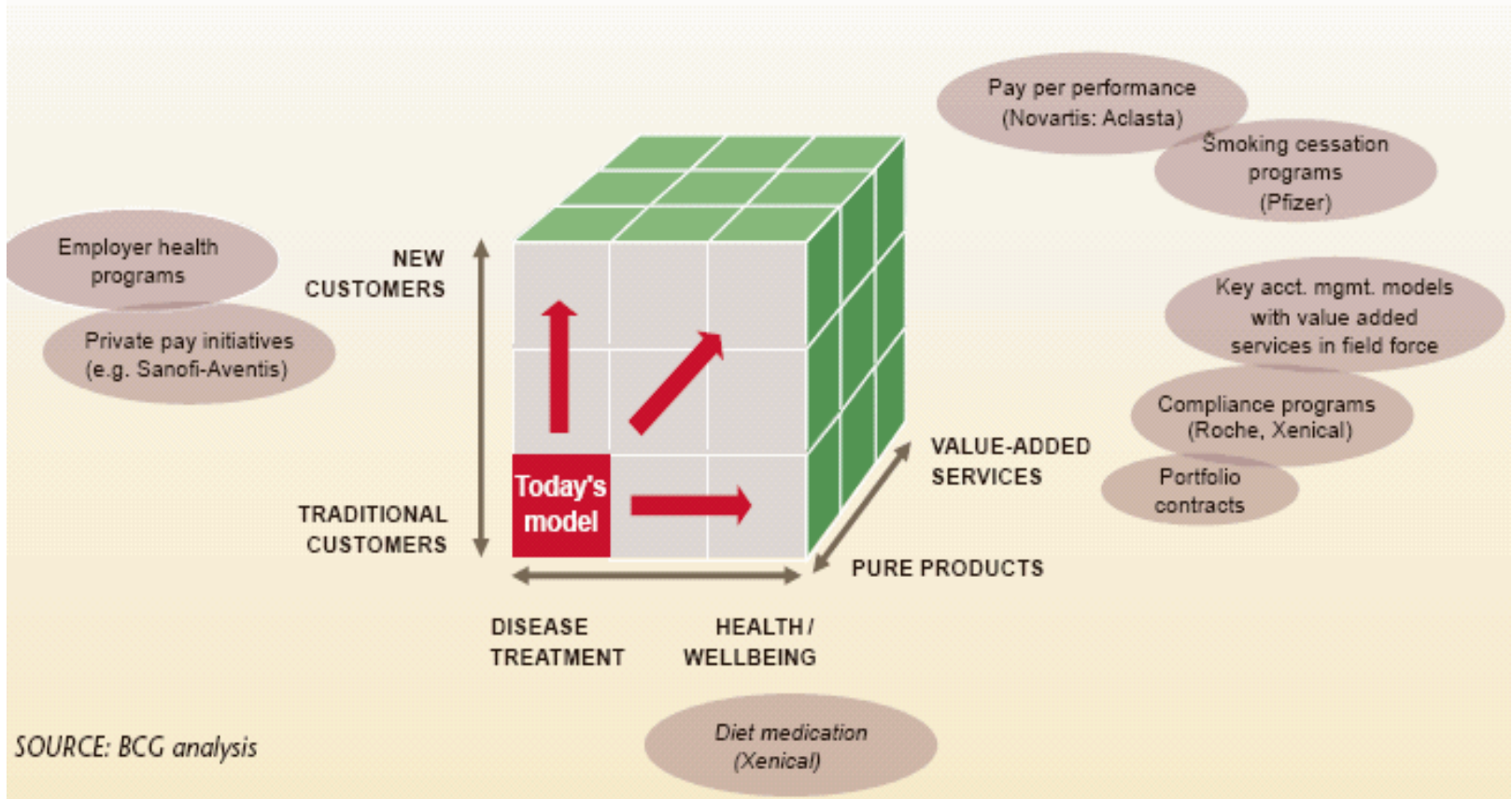


SOURCE: IMS Health

# Perhaps a New Business Model Could Be Considered

Exhibit 3

## Business Model Opportunity Space Largely Unexploited



SOURCE: BCG analysis