

We had a team name, but we forgot it

**Biogen**

# History

1978: Founded

1983: IPO

1986: INTRON

1988: First profitable quarter

2003: Biogen and IDEC merge to form Biogen IDEC

# Biogen Acquisitions

- 2003: Biogen and IDEC merge in \$6.8 billion deal
- 2006: Biogen IDEC acquires Fumapharm AG
- 2007: Biogen IDEC acquires Syntonix Pharmaceuticals in \$120M deal
- 2013: Biogen IDEC acquires all rights to TYSABRI for \$3.25 billion
- 2015: Biogen acquires Convergence for \$675 million

# Business Overview

- Develop, market, and manufacture therapies for people living with serious neurological, autoimmune and rare diseases

# Business Segments

- Multiple Sclerosis
- Hemophilia
- Genentech Relationships
- Other

# Multiple Sclerosis

- Tecfidera
  - Relapsing forms of MS in the U.S.
  - Relapsing-remitting MS in the E.U.
  - #1 prescribed oral MS therapy in U.S. & Germany
- Avonex
  - Relapsing forms of MS
- Plegridy
  - Relapsing forms of MS in the U.S.
  - PRMS in the E.U.
- Tysabri
  - Relapsing forms of MS
  - Crohn's disease in the U.S.
- Fampyra
  - Walking ability for patients with MS



# Hemophilia

- Eloctate
  - Adults and children with hemophilia A for control of bleeding episodes
  - Market: U.S. & Japan
- Alprolix
  - Adults and children with hemophilia B for control of bleeding episodes
  - Market: U.S. & Japan



Based on approximately 7,100 pharmacy dispensing records from 22 Specialty Pharmacies collected through August 2015

When changing factor,  
more people choose **ALPROLIX**

ALPROLIX is the #1 Factor IX patients and doctors choose when changing factor therapy.

# Genentech Relationships

- Rituxan

- Non-Hodgkin's lymphoma
- CLL
- Rheumatoid arthritis
- Two forms of ANCA-associated vasculitis
- Market: U.S. & Canada

- Gazyva

- In combination with chlorambucil for previously untreated CLL
- Market: U.S.





# Other

- Fumaderm
  - Moderate to severe plaque psoriasis
  - Market: Germany

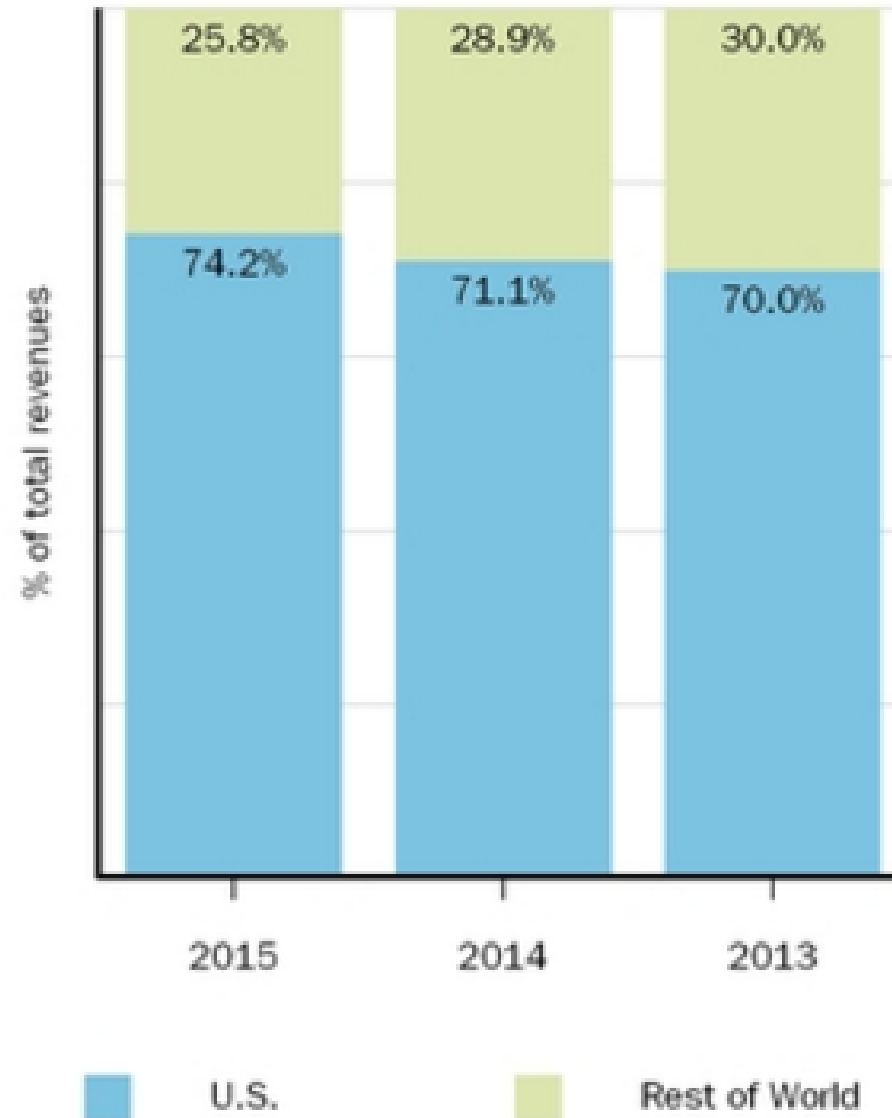


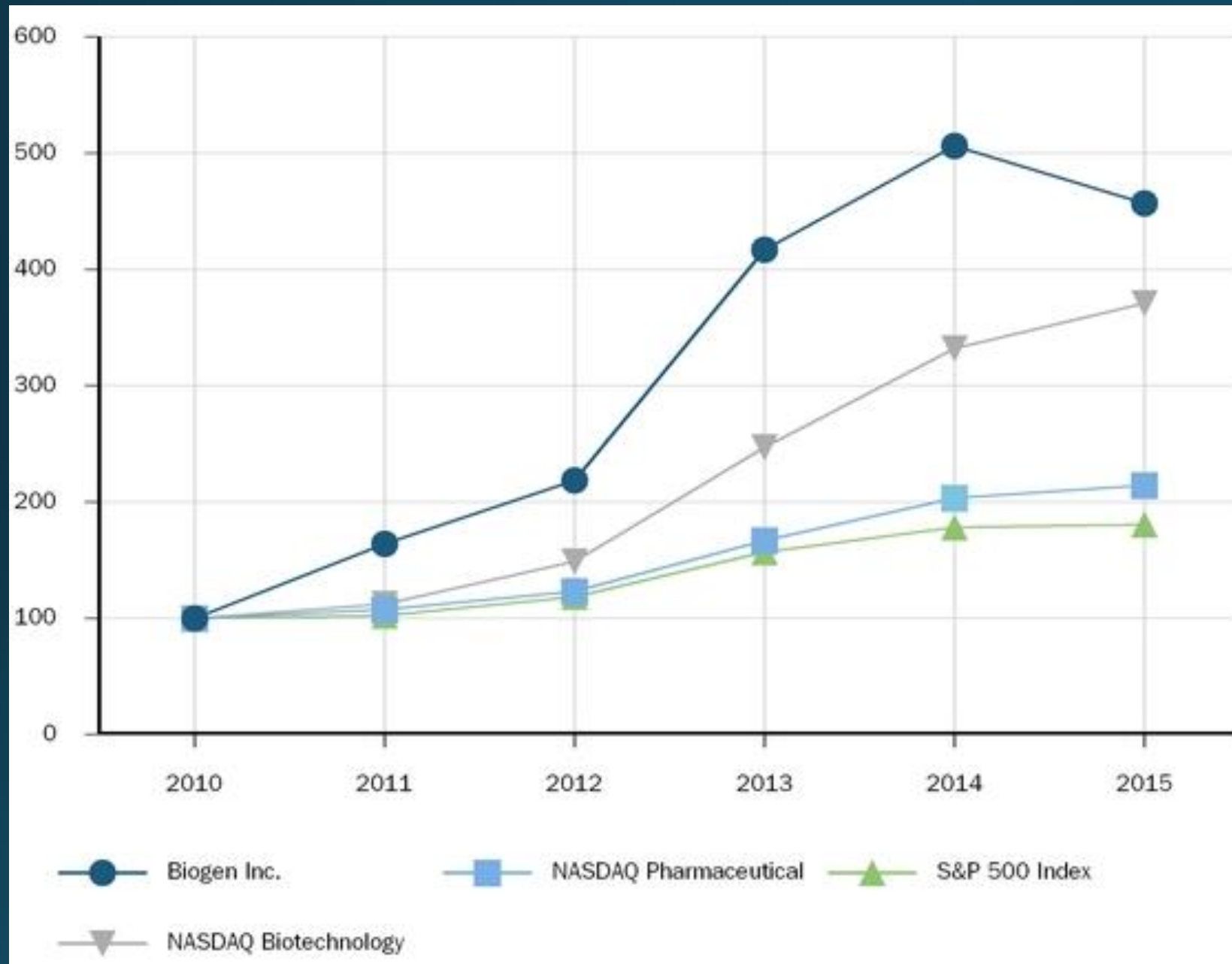
### Product Sales by Principal Product



- TECFIDERA
- Interferon
- TYSABRI
- Other (1)
- Unconsolidated Joint Business

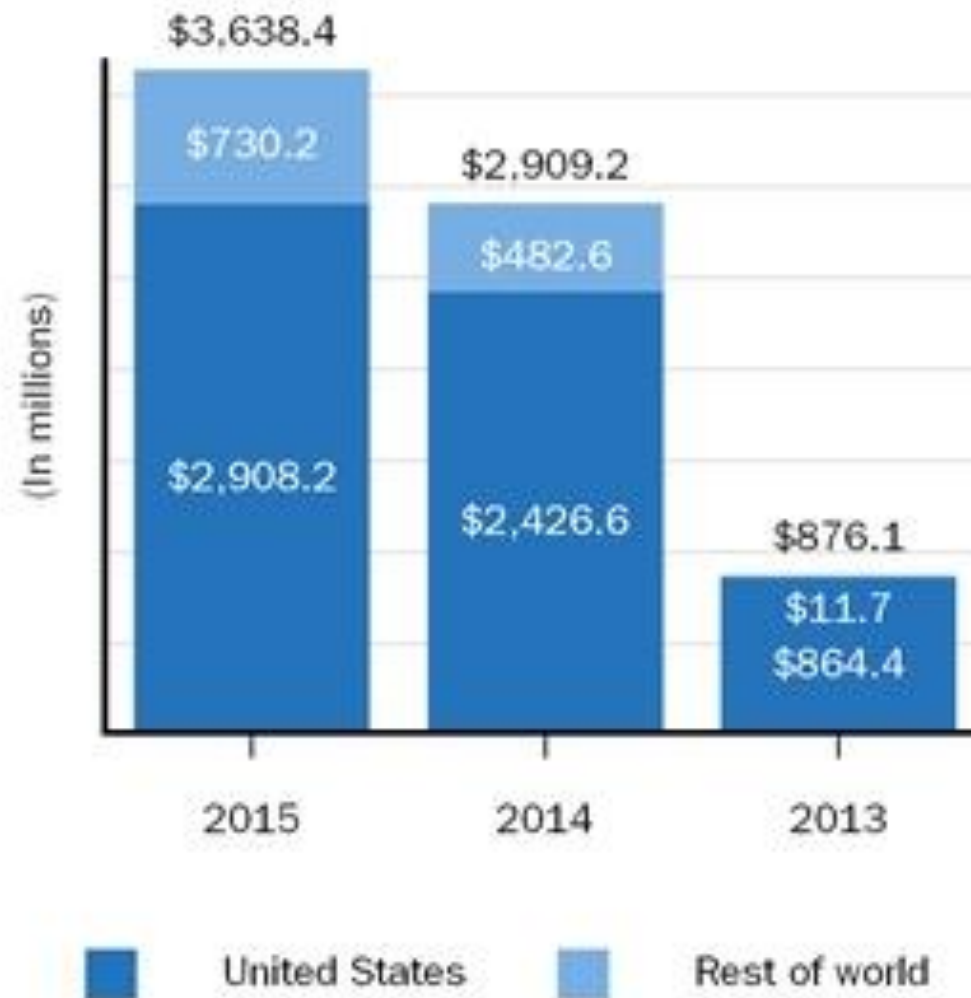
## Geographic Sales





## TECFIDERA

For the Years ended December 31, 2015, 2014 and 2013



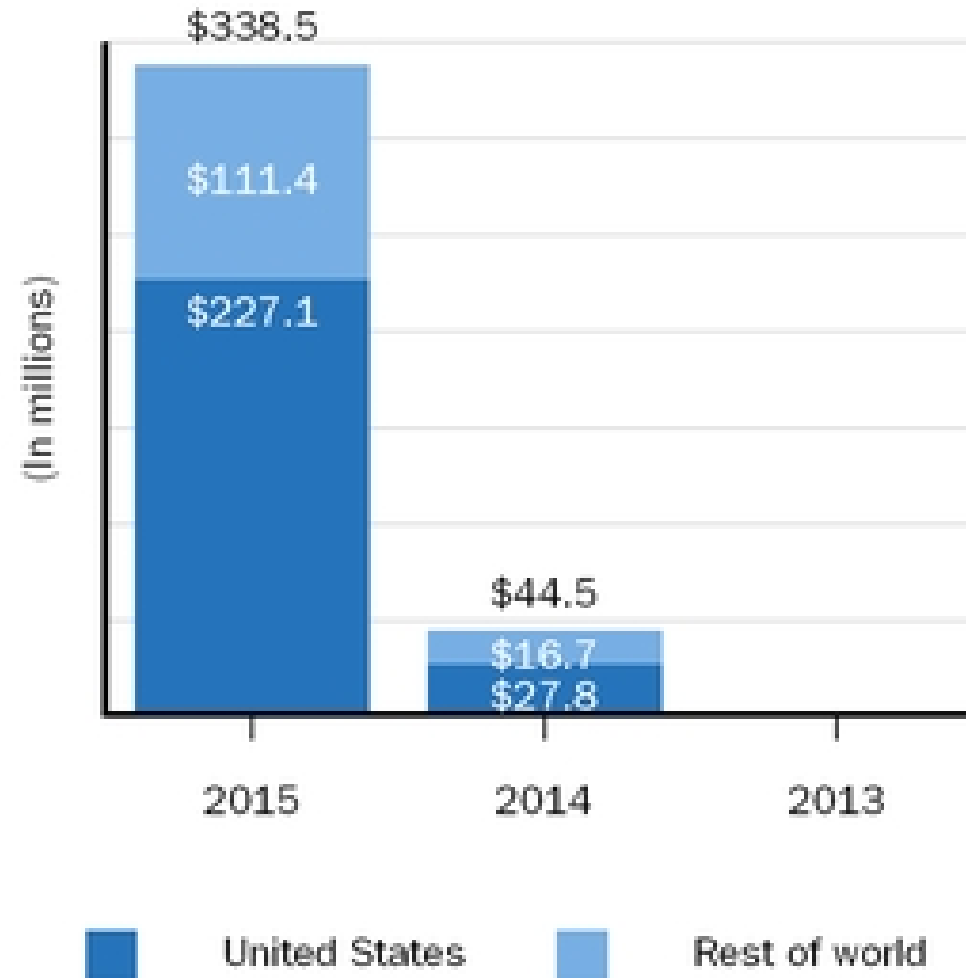
## AVONEX

For the Years ended December 31, 2015, 2014 and 2013



## PLEGRIDY

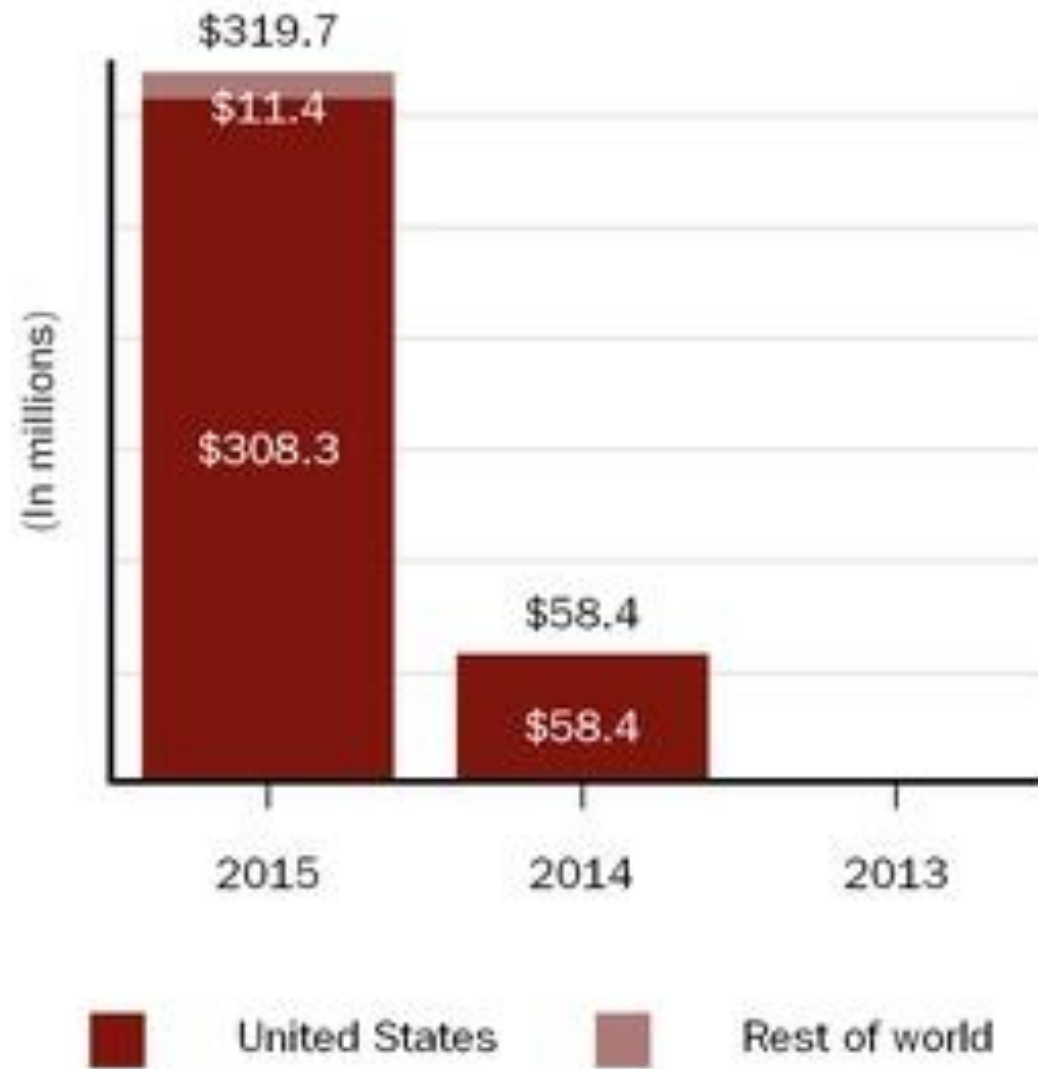
For the Years ended December 31, 2015, 2014 and 2013



# ELOCTATE



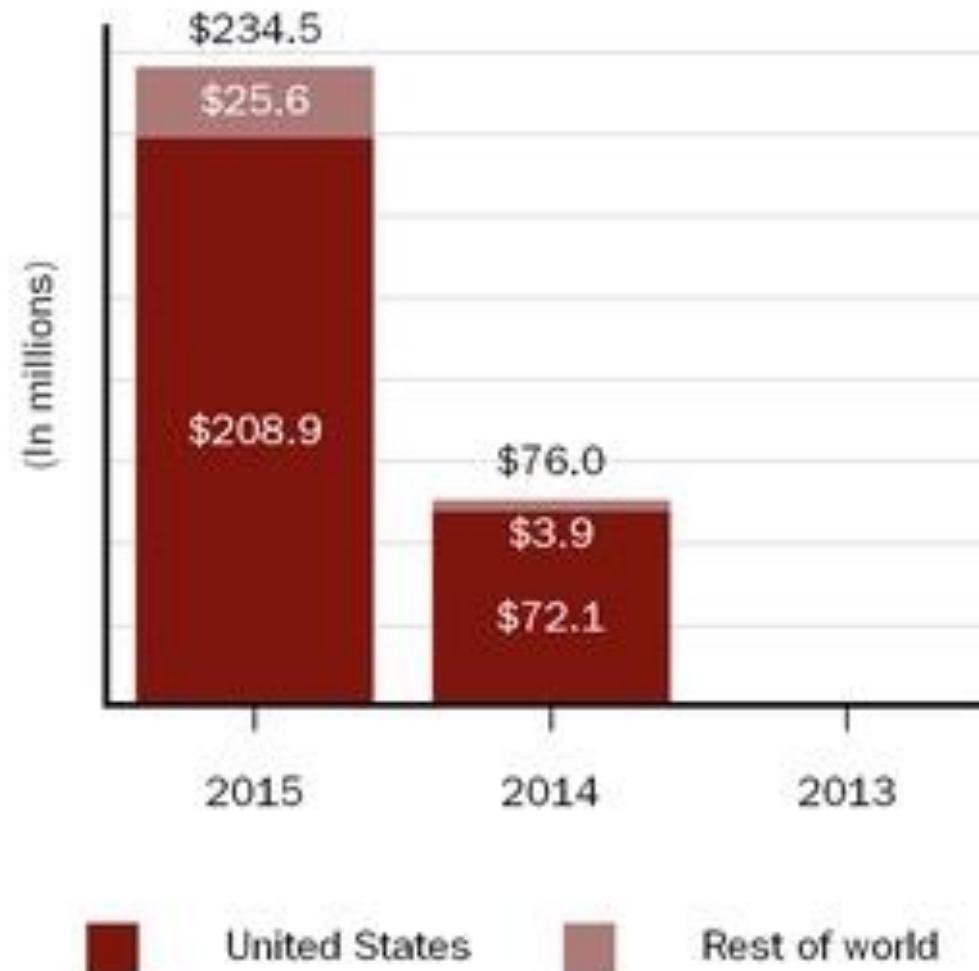
For the Years ended December 31, 2015, 2014 and 2013





## ALPROLIX

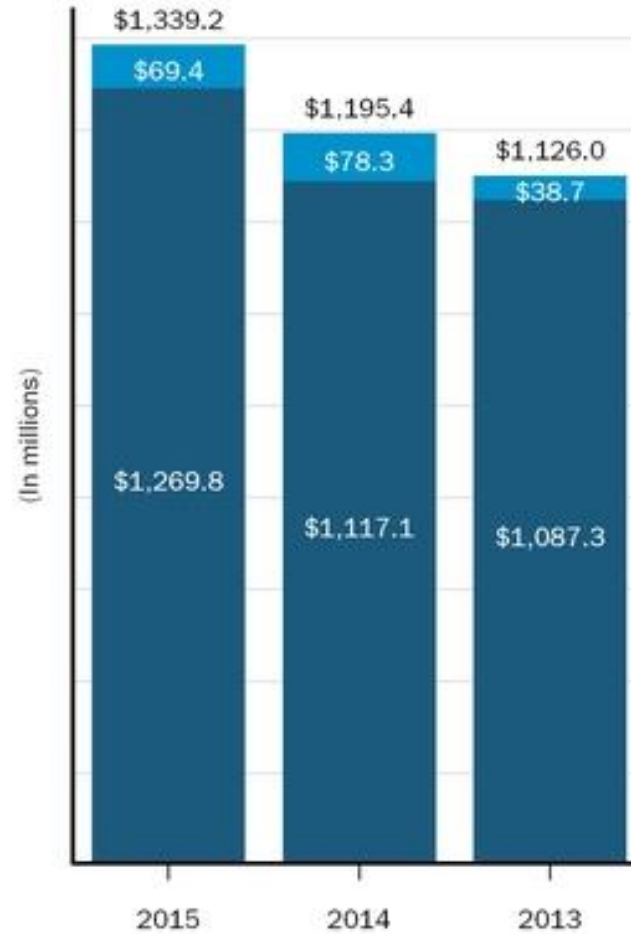
For the Years ended December 31, 2015, 2014 and 2013



## Unconsolidated Joint Business Revenues

Revenues from unconsolidated joint business are summarized as follows:

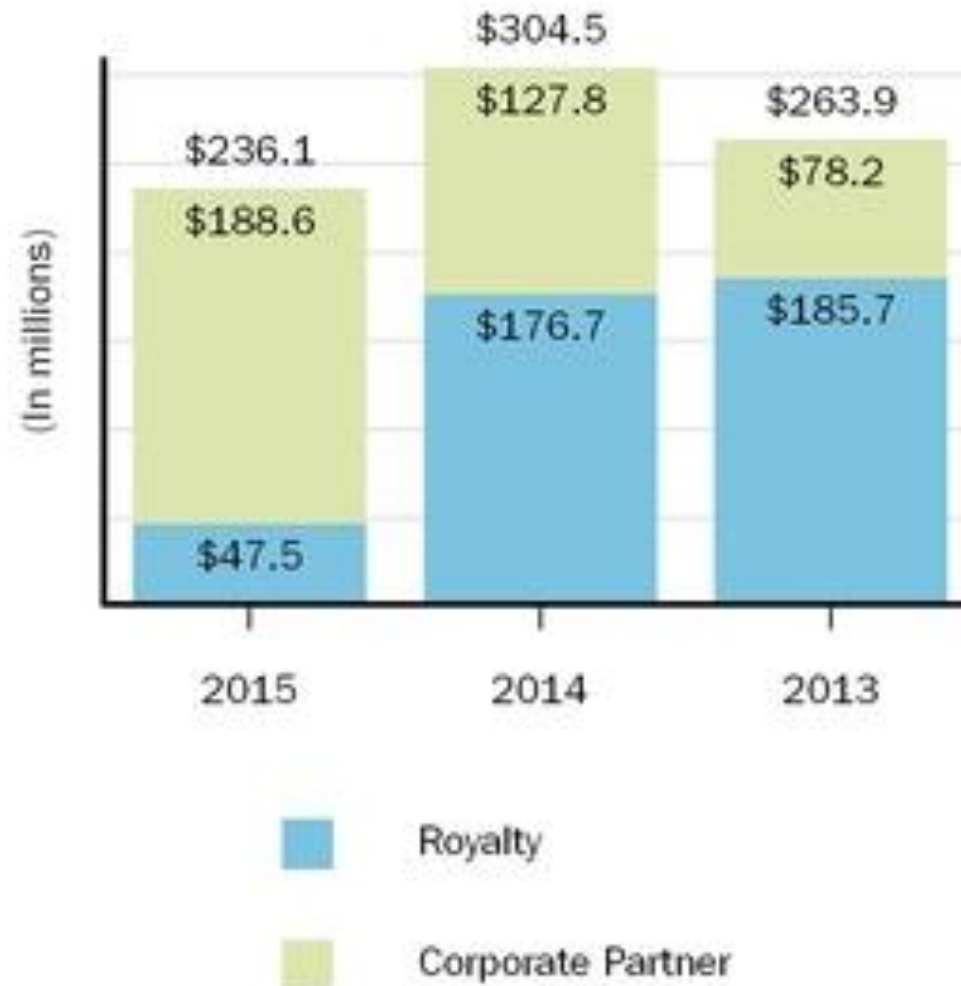
For the Years ended December 31, 2015, 2014 and 2013



- Biogen's share of pre-tax profits\*
- Revenue on sales in the rest of world

## Other Revenues

For the Years ended December 31, 2015, 2014 and 2013



## Research and Development

For the Years ended December 31, 2015, 2014 and 2013



- Marketed products
- Late stage programs
- Early stage programs
- Research and discovery
- Other research and development costs
- Milestone and upfront expenses



# Business Pipeline

- Multiple Sclerosis
- Hemophilia
- Neurodegeneration
- Genentech Relationships
- Biosimilars
- Other Programs

# Multiple Sclerosis

- Zinbryta
  - Field Testing
- Tysabri
  - Acute Ischemic Stroke
  - Phase 2
- Anti-Lingo
  - Optic Neuritis
  - Phase 2



# Hemophilia

- Eloctate
- Alprolix

## PACKAGING DESIGNED WITH PATIENTS IN MIND

Please see Instructions For Use for Storage and Handling



### Comes in a small hard case

- Helps with portability
- For travel or home use
- Press the arrows on both sides and lift up on the circles



### It's stackable

- Addresses storage concerns



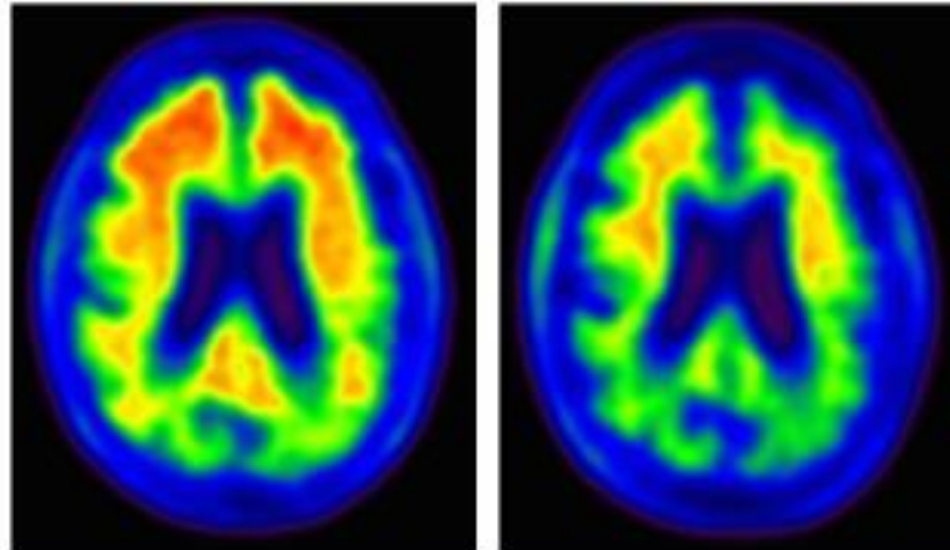
### Everything is neatly packaged

- 1 single-use vial containing lyophilized powder for reconstitution
- 1 pre-filled diluent syringe with plunger rod
- 1 sterile vial adapter reconstitution device

# Neurodegeneration

- Aducanumab
  - Alzheimer's Disease
  - Phase 3

**BIIB037 Reduced Amyloid at One Year\***



**Baseline**

**Week 54**



# Genentech Relationships


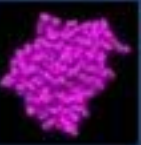




- Gazyva
  - Non-Hodgkin's Lymphoma
  - Field Testing
- Ocrelizumab



# Biosimilars

- Benepali
- Flixabi
  - Multiple Immunology Indications in Europe
  - Field Testing

**Size & Complexity – Small Molecule Drugs & Proteins**

	Small Molecule Drug	Large Molecule Drug	Large Biologic
Size	Aspirin 21 atoms 	hGH ~ 3000 atoms 	IgG Antibody ~ 25,000 atoms 
Complexity	Bike ~ 20 lbs 	Car ~ 3000 lbs 	Business Jet ~ 30,000 lbs (without fuel) 

# Current Phases of Clinical Trials

- Field Testing: 3 drugs
- Phase 3: 6 drugs
- Phase 2: 8 drugs
- Phase 1: 7 drugs

# Manufacturing Locations

- Research Triangle Park, North Carolina
- Hillerod, Denmark
- Cambridge, Massachusetts

# Research Triangle Park, North Carolina



- Produces:
  - Alprolix
  - Avonex
  - Eloctate
  - Plegridy
  - Tecfidera
  - Tysabric
- 2013: won facility of the year for International Society for Pharmaceutical Engineering

# Hillerod, Denmark

- Large Scale Manufacturing
- Produces:
  - Tysabri
  - Clinical Products
- Medical Device Assembly
  - Avonex Pen
  - Plegridy Pen
- Labeling and Packing (for outside the US)
  - Avonex
  - Alprolix
  - Eloctate
  - Tysabri

# Cambridge, Massachusetts

- Responsible for label and packing operation that supplies clinical trials
- Produces:
  - Avonex
  - Eloctate
  - Plegridy

# Joint Venture

- 2016: European Commission approved Benepali
- Samsung Bioepis
  - 2013 entered agreement
  - Plan to commercialize 3 anti-TNF biosimilar products



# Patents



Product	Territory	Expiration
Tecfidera	U.S.	2018
	U.S.	2018
	U.S.	2028
	U.S.	2018
	U.S.	2019
	U.S.	2019
	U.S.	2020
	Europe	2019
	Europe	2028
	Avonex & Plegridy	U.S.
Plegridy	U.S.	2022
	U.S.	2023
	U.S.	2025
	Europe	2019



Product	Territory	Patent Expiration
Tysabri	U.S.	2017
	U.S.	2020
	U.S.	2023
	Europe	2020
	Europe	2023
Fampyra	Europe	2016
	Europe	2025
	Europe	2025
Eloctate and Alprolix	U.S.	2024
	U.S.	2024
	U.S.	2024
	U.S.	2025
	Europe	2024
	Europe	2024
	Europe	2024
	Europe	2024
Eloctate	U.S.	2031
	U.S.	2031
Alprolix	U.S.	2031

# Regulatory Exclusivity

Product	Territory	Expected Expiration
Tecfidera	U.S.	2018
	E.U.	2024
Plegridy	U.S.	2026
	E.U.	2024
Tysabri	U.S.	2016
	E.U.	2016
Famprya	E.U.	2021
Eloctate	U.S.	2026
Elocta	E.U.	2025
Alprolix	U.S.	2026

# Share Repurchases

Period	Total Number of Shares Purchased (#)	Average Price Paid per Share (\$)	Total Number of Shares Purchased as Part of Publicly Announced Programs (#)	Maximum Approximate Dollar Value of Shares That May Yet Be Purchased Under Our Programs (\$ in millions)
October 2015	4,976,270	275.87	4,976,270	\$ 629.0
November 2015	2,131,417	295.12	2,131,417	\$ —
December 2015	—	—	—	\$ —
<b>Total</b>	<b>7,107,687</b>	<b>281.64</b>		

# Competitive Advantage

- Barriers to Entry
- Patents
- Strong R&D Strategy
- Pipeline

# Growth

- Dependent on four principle products
- Drug pipeline
  - Alzheimer drug
  - Currently working on 24 drugs

# Risks

- Dependent on revenue from principle products
- Operation Results may be affected by current and future healthcare reforms
- Harm caused by inadequate protection for intellectual property and other rights

- Long term success depends on development of new and current products
- Failure to manage clinical activities may lead to denial or delay of regulatory approvals
- Dependent on relationships with third parties
- Failure to comply with legal requirements could lead to costs and penalties



# Qualitative Analysis

Qualitative Question	
What type of business is this: Commodity or Sustained Competitive advantage?	Sustained Competitive Advantage
Is the business easily explainable?	Yes
Is it heavily unionized?	No
Does it require heavy capital infusion?	No
Does it require a lot of R&D?	Yes
Can inventory become obsolete?	No
Are there chronic "one-time" write offs?	No
Is the company able to raise its prices to offset inflation?	Yes

# IOFS

<u>TTM</u>	Value	Low Threshold	Pass?
Gross Profit Margin	88.48%	≥ 20%	Yes
% SGA	22.19%	≤ 80%	Yes
% R&D	21.14%	≤ 10%	No
% Depreciation	6.30%	≤ 10%	Yes
Interest % of OP	1.95%	≤ 15%	Yes
Net Profit Margin	32.95%	≥ 10%	Yes
Current Ratio	2.60	≥ 1	Yes
Obligation Ratio	1.84	< 5 years	Yes
Adj. Debt to Shareholder Equity	1.50	< 0.8	No
Return on Equity	37.84%	≥ 15%	Yes
Return on Capital	22.32%	≥ 15%	Yes
Dividend Payout Ratio	0.00%	≤ 60%	Yes
Preferred Stock	None	None	Yes
Capital Expenditures	18.13%	≤ 25%	Yes
Net Earning Trend	Up	Up	Yes
Retained Earnings Trend	Up	Up	Yes

Statistical Array Analysis
***Increasing trends?***

Sales per Share	Increasing
Cashflows per Share	Increasing
Earnings per Share	Increasing
Dividends Declared per Share	Nil
Capital Spending per Share	Consistent
Book Value per Share	Increasing
Revenues (Sales)	Increasing
Gross Profit Margin	High
Operating Profit Margin	Increasing
Number of Stores	Nil
Net Profit	Increasing
Net Profit Margin	Increasing
Working Capital	Decreasing
Shareholder's Equity	High
Return on Total Capital	increasing
Return on Shareholder's Equity	Increasing
Common Shares Outstanding	Decreasing
Long-Term Debt	Increasing
LT Debt Payable in 5 years	Nil
All Dividends to Net Profit under 60%	Nil
Annual Growth Rate Analysis	Increasing

# Gross Profit Margin

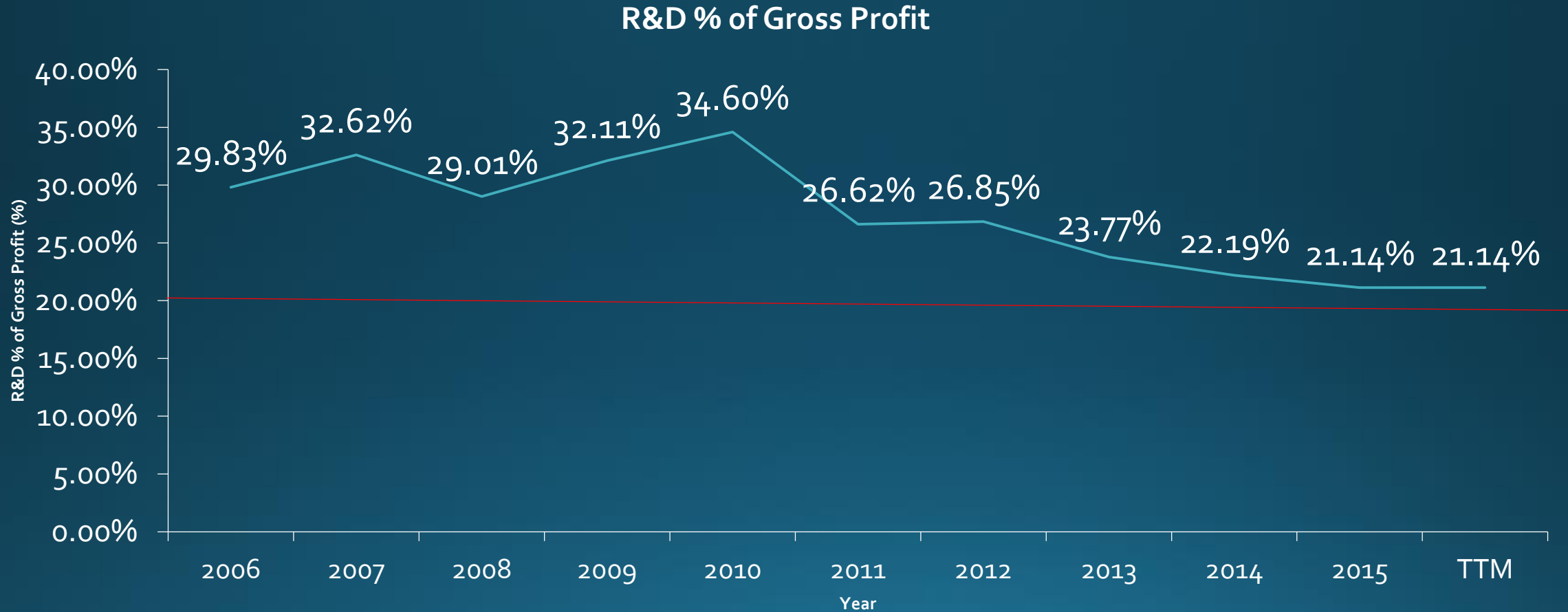


# % SGA

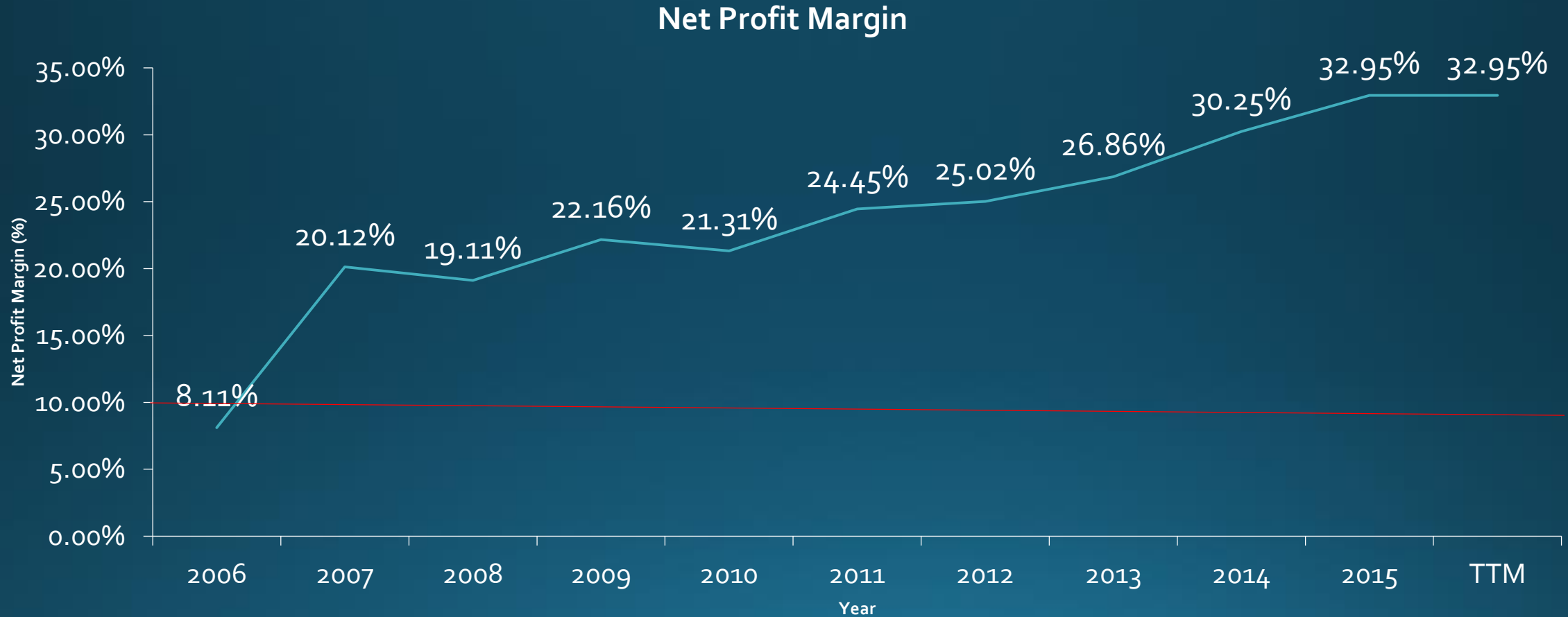
## SGA % of Gross Profit



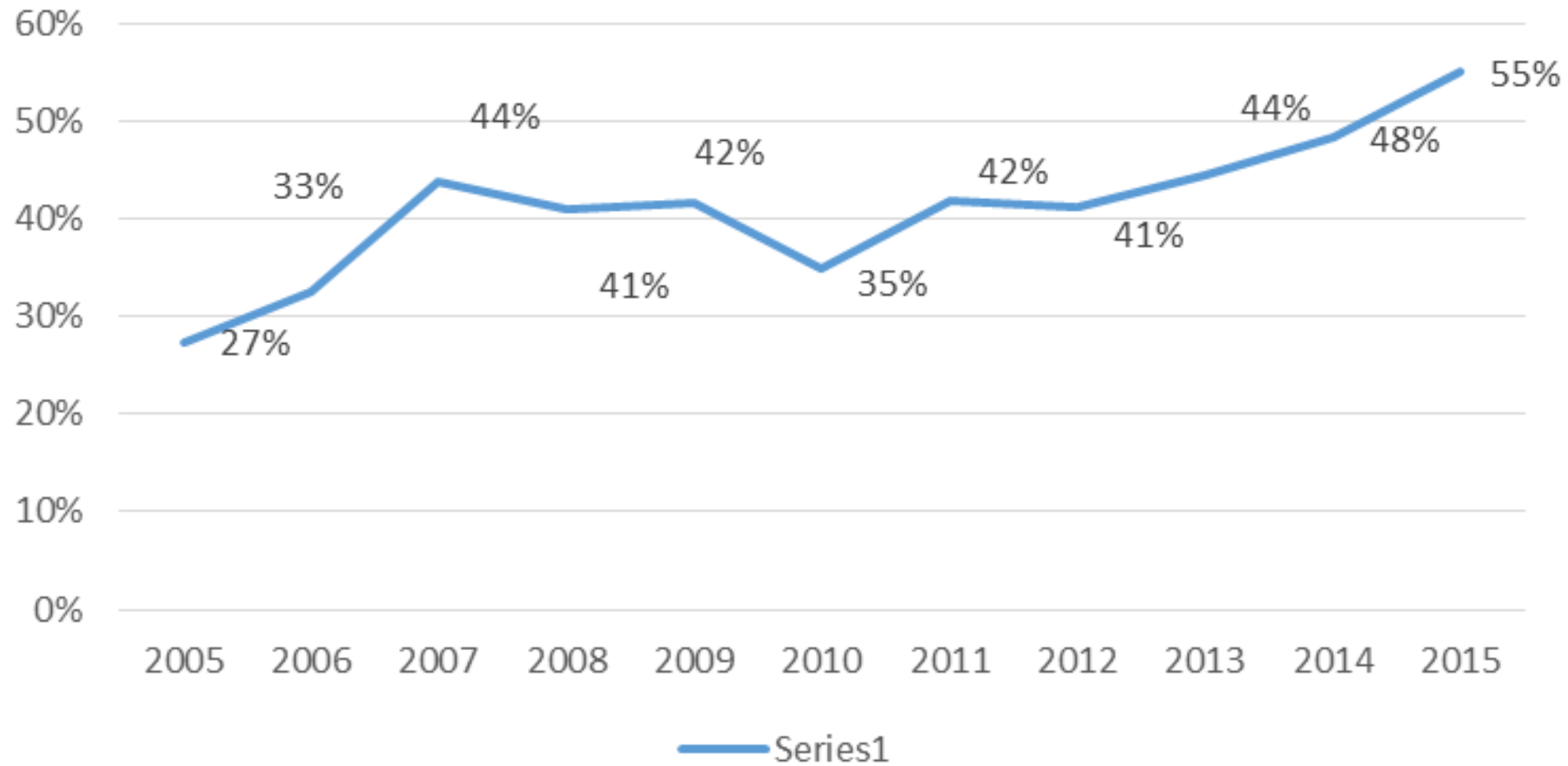
# % R&D



# Net Profit Margin

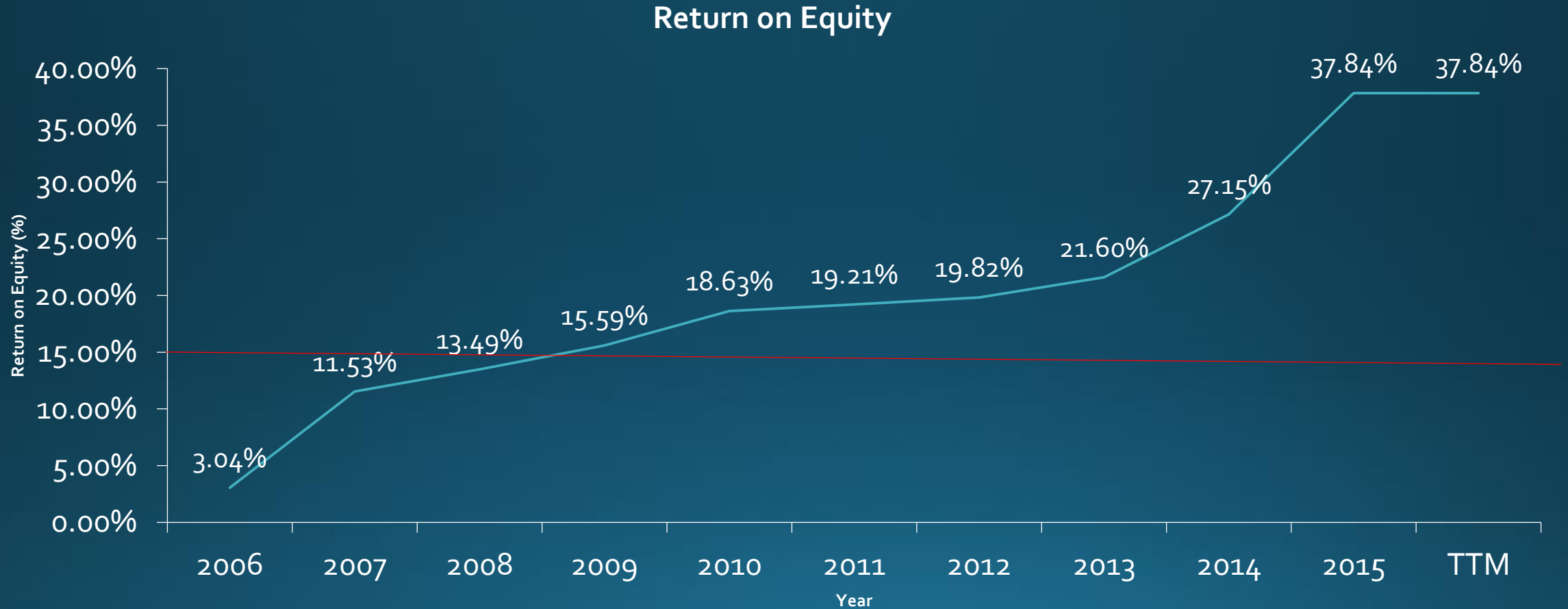


## Operating Profit Margin

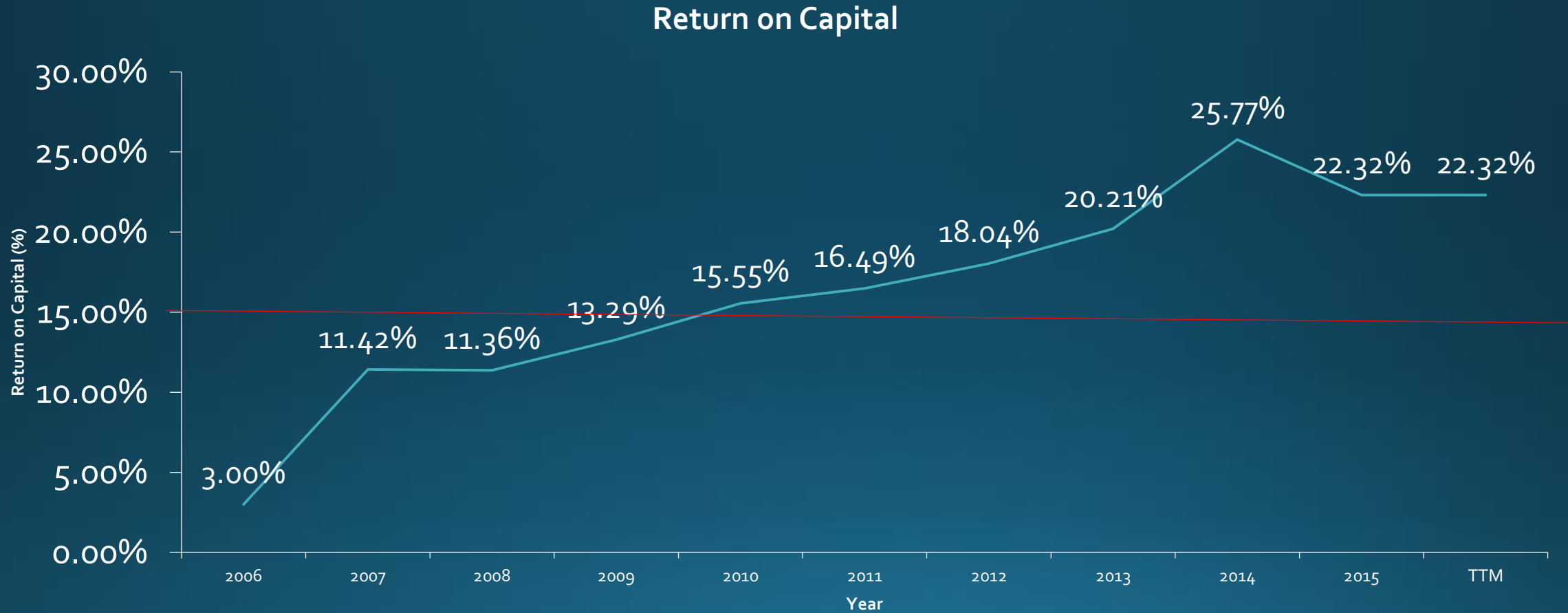




# Return on Equity



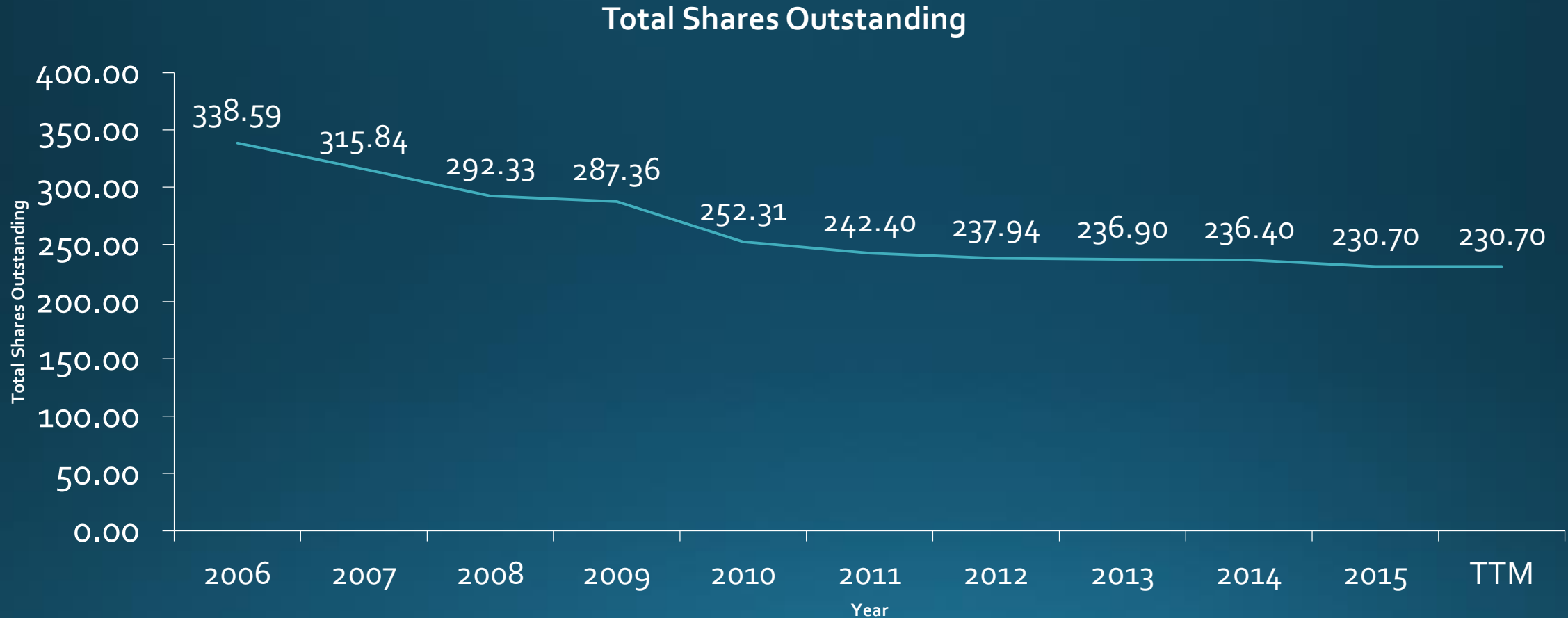
# Return on Capital



# Net Earnings Trend



# Total Shares Outstanding



32% shares bought  
back

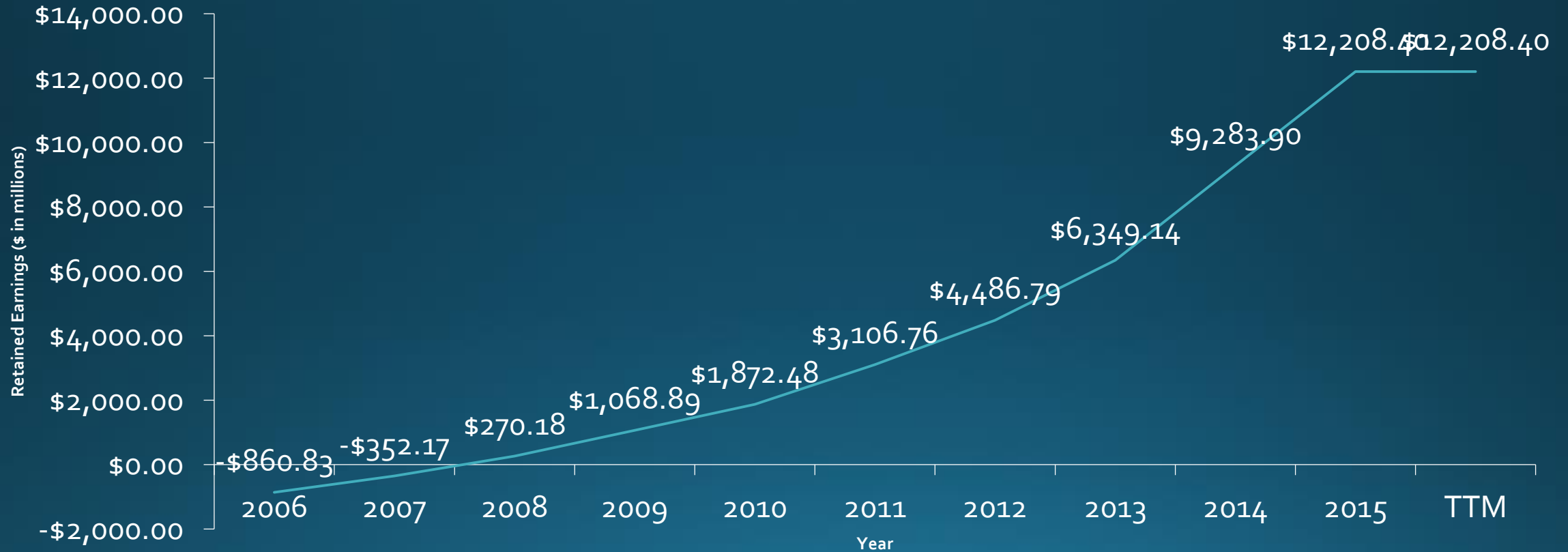
# Revenues (15 Year)



936% Growth

# Retained Earnings

Retained Earnings



# DuPont Analysis

	Total Asset Turnover	Net Profit Margin	Financial Leverage Multiplier	Return on Equity
2013	0.58	27%	1.38	22%
2014	0.68	30%	1.32	27%
2015	0.55	33%	2.08	38%
TTM	0.55	33%	2.08	38%

# DuPont (Competitive)

	Total Asset Turnover	Net Profit Margin	Financial Leverage Multiplier	Return on Equity
Biogen	0.55	33%	2.08	37.84%
Roche	0.67	18%	3.61	42.25%
Novo Nordisk	1.19	32%	1.95	75.20%



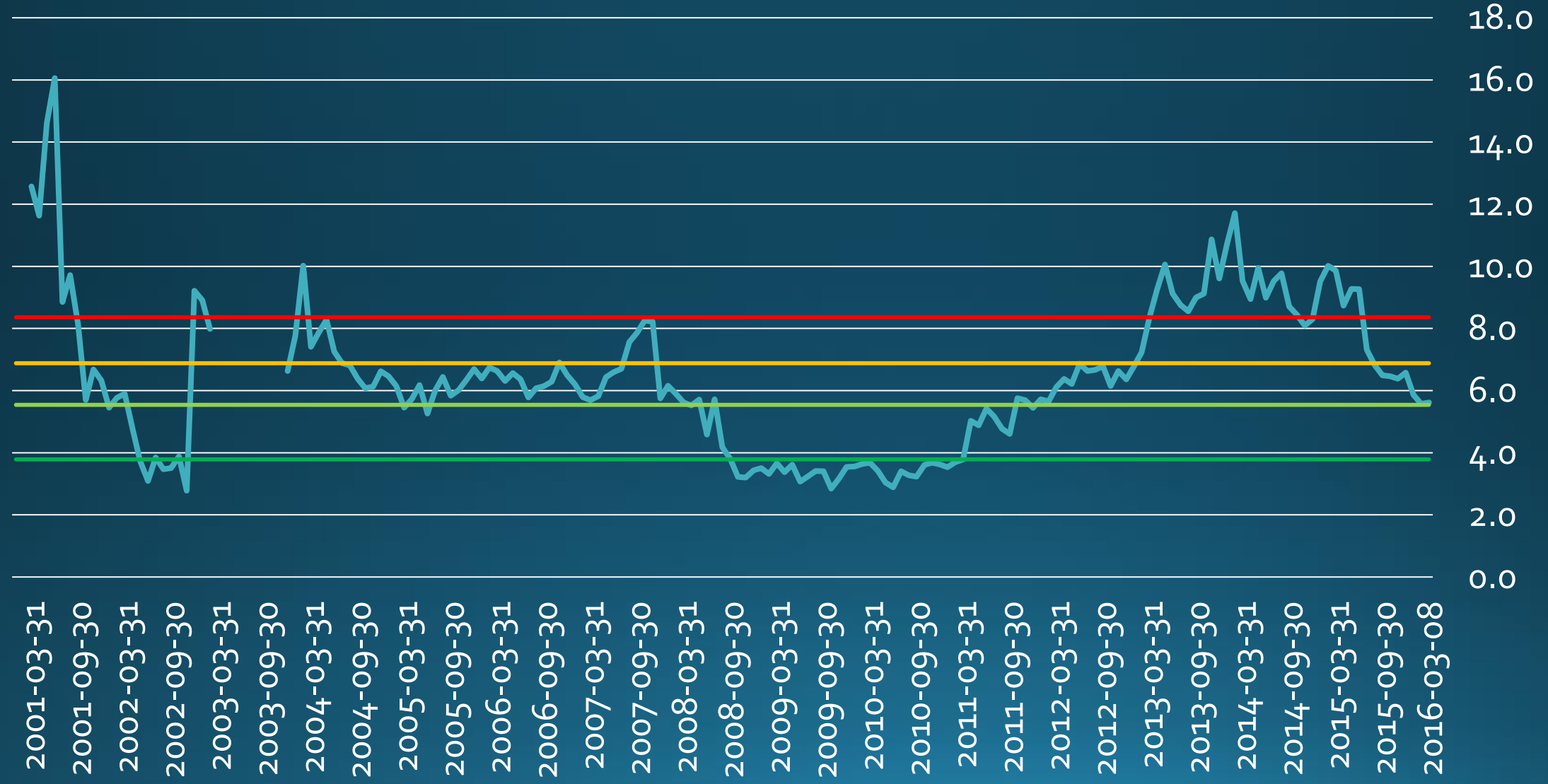
# Industry Breakdown



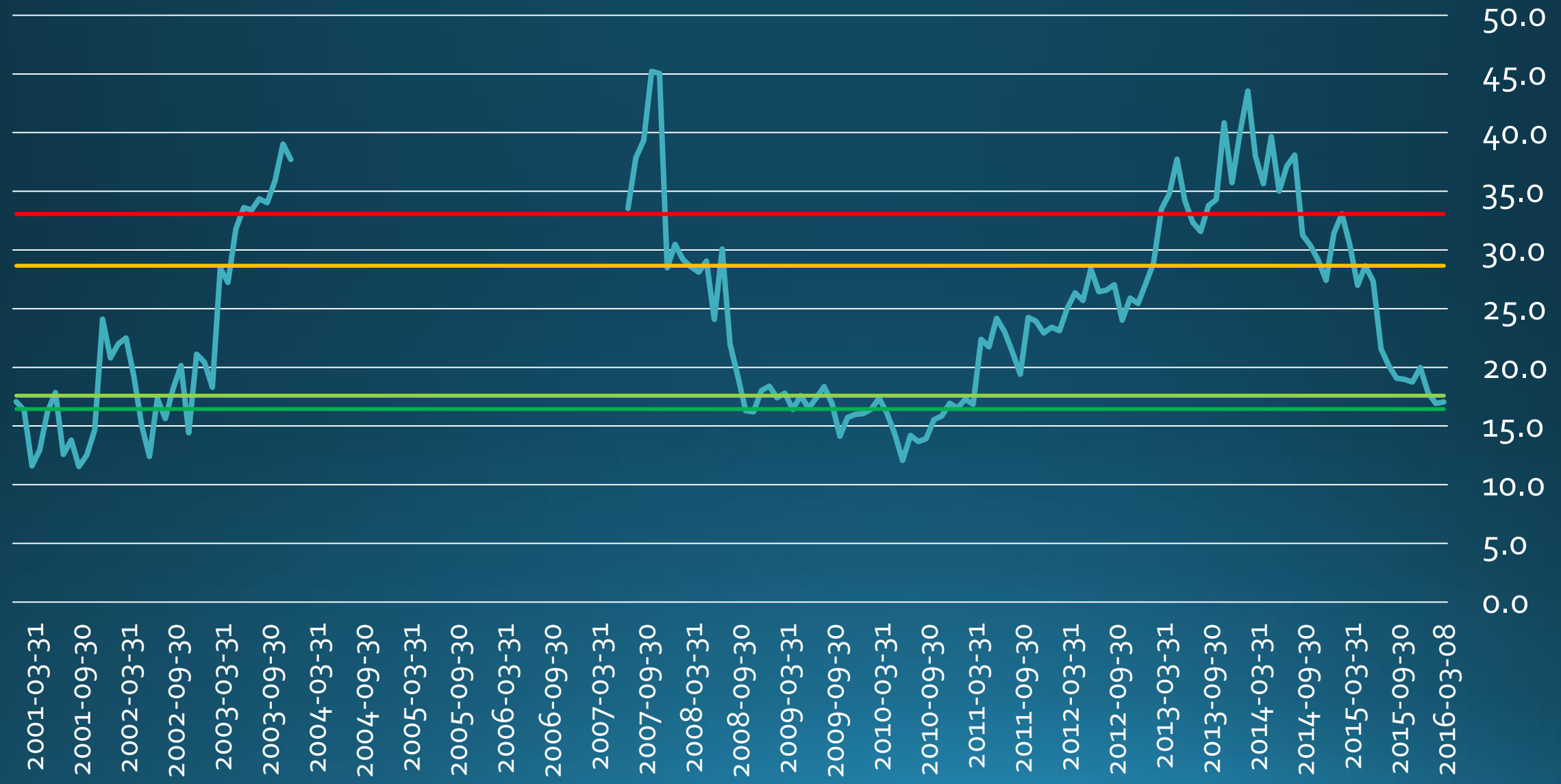
Industry Breakdown	Biogen	Roche Holdings	Novo Nordisk
Market Cap	55,482	214,709	145,210
PE (ttm)	16.54	24.51	27.93
P/S	5.43	4.31	9.47
P/B	5.90	10.16	20.91
EV/EBIT	11.79	17.50	19.28
Price/FCF	19.29	19.37	31.90
Yield (%)	0	3.21%	1.30%
ROE (%)	38%	42%	75%
ROA (%)	20.50%	12.07%	41.26%
Operating Margin (%)	45.44%	27.42%	43.64
Net Margin (%)	32.95%	17.58%	32.27%

Valuebands

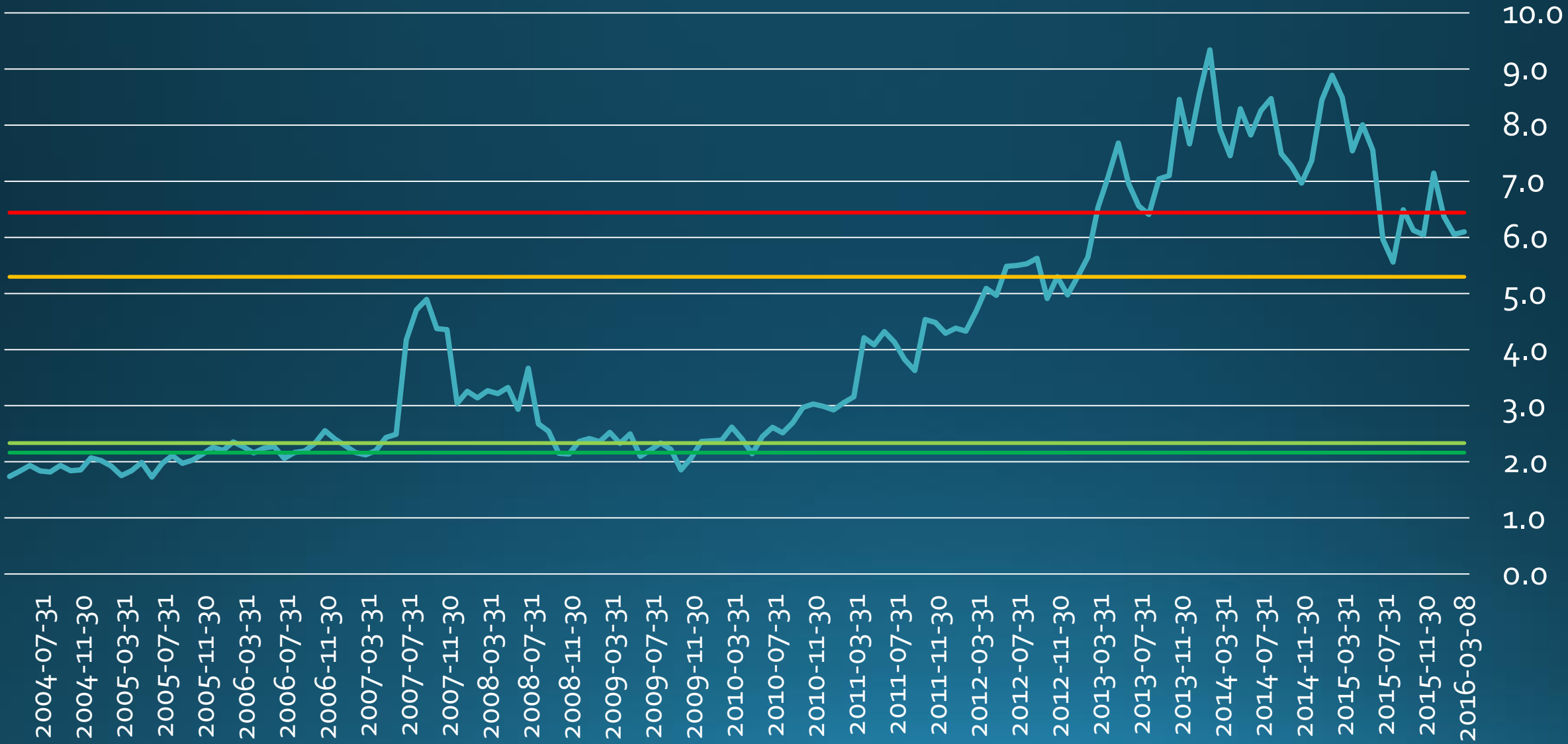
# Price/Sales



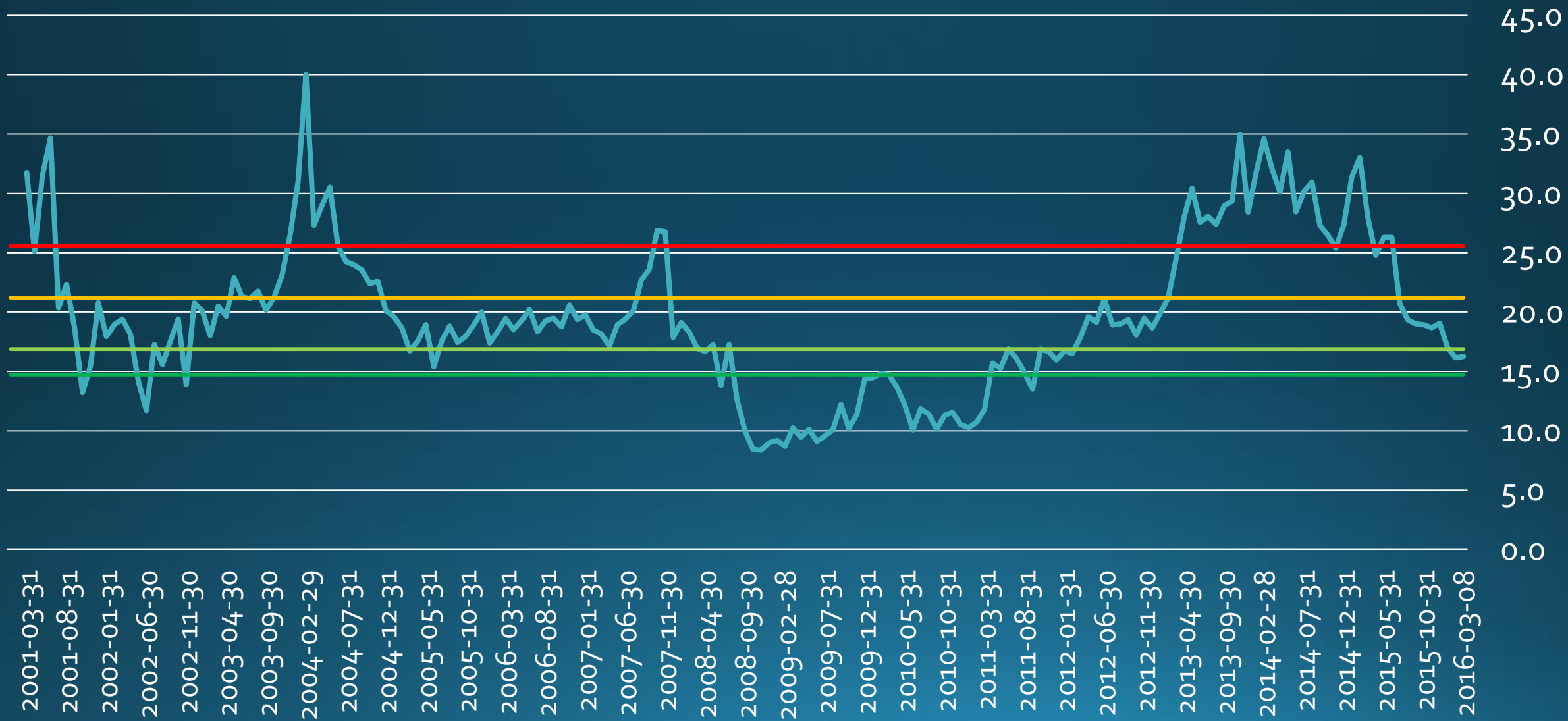
# Price/Earnings



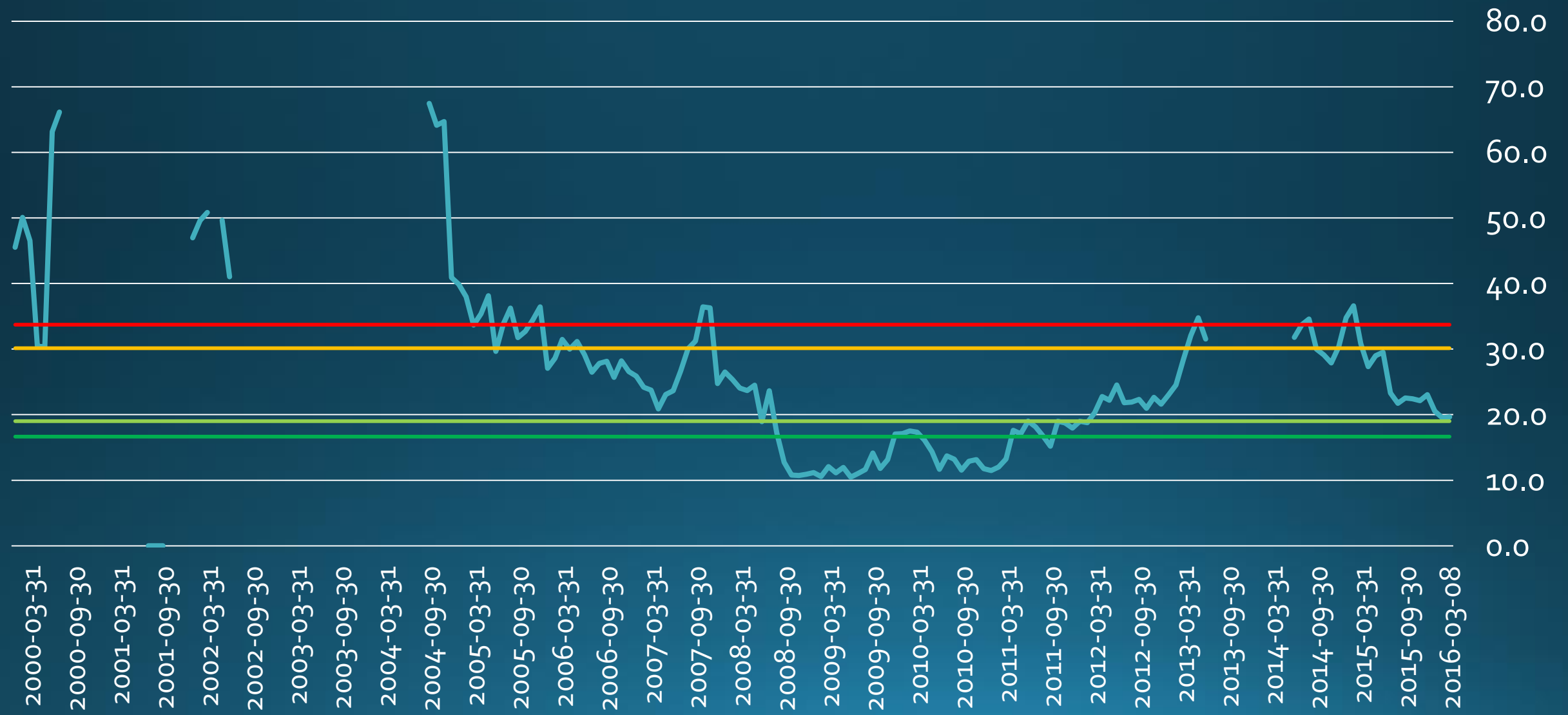
# Price/Book



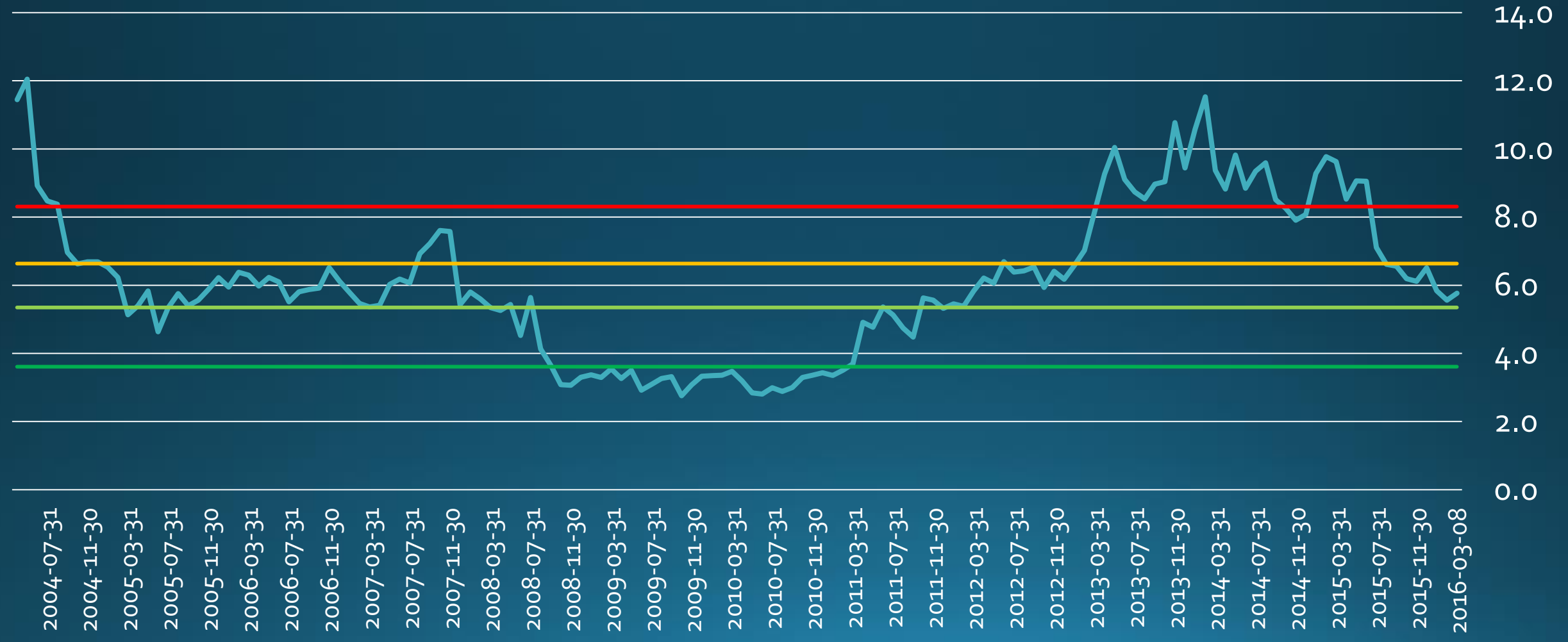
# Price/Cashflow



# Price/Free Cashflow



# EV/Revenue

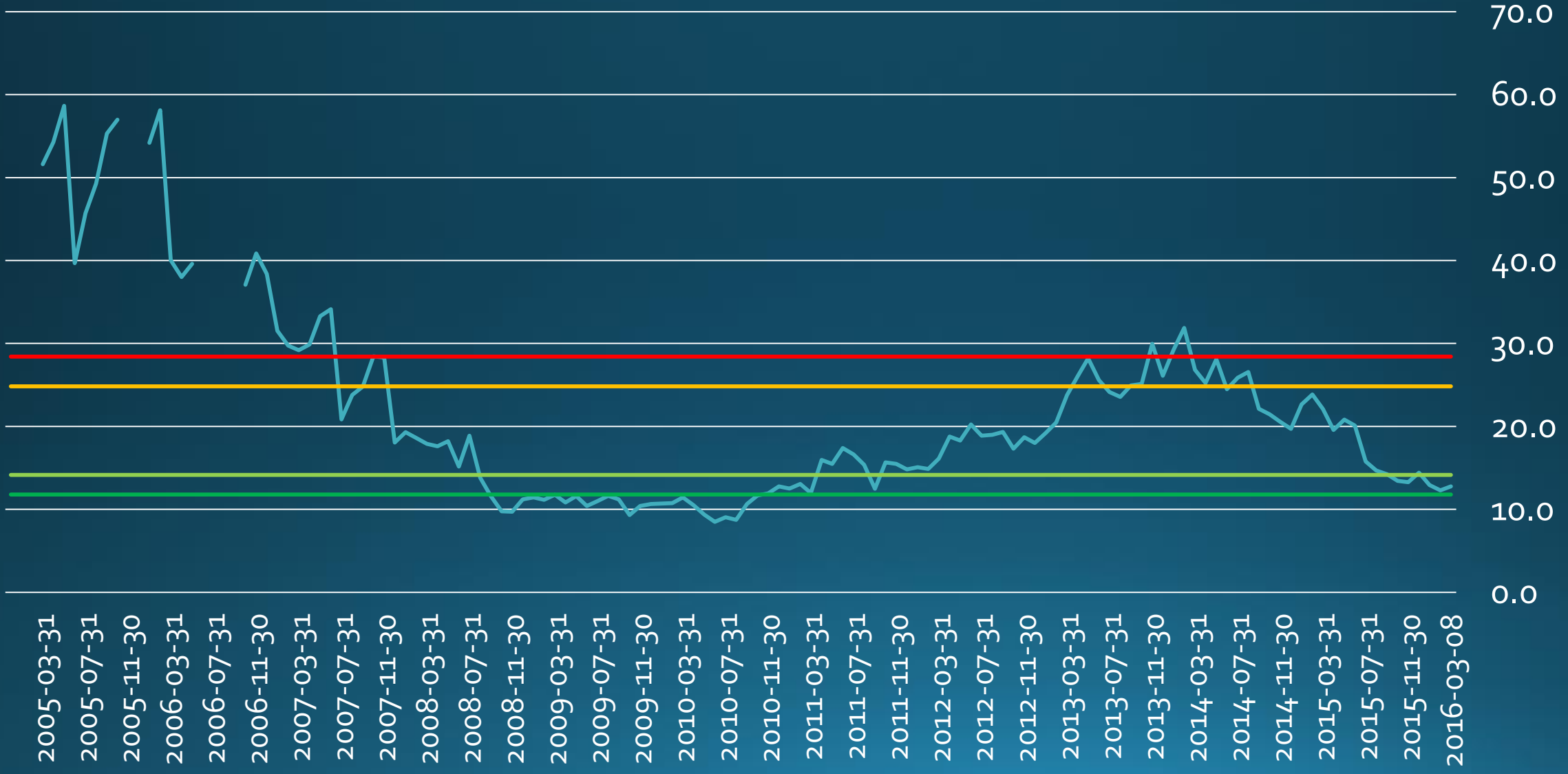




# EV/EBITDA



# EV/EBIT




# Discounted Cashflow

# Guru Default

Earnings Per Share : \$  ?

Growth Rate In the Next:  Years :  % ?

Business Predictability  ?

Terminal Growth Rate:  % ?

Years of Terminal Growth:  ?

Discount Rate:  % ?

➔

**DCF** Reverse DCF NEW

Tangible Book Value: \$   Add to Fair Value ?

Growth Value: \$ **228.62** ?

Terminal Value: \$ **208.08** ?

**= Fair Value: \$ 436.7** ?

Price:

Margin Of Safety: 42%


## Financial Data of Biogen Inc

Annual Rates (per share)	10 yrs	5 yrs	12 months
Revenue Growth (%)	20.70	21.80	12.70
EBITDA Growth (%)	26.00	30.60	17.90
EBIT Growth (%)	35.70	34.00	25.00
EPS without NRI Growth (%)	38.10	32.30	23.80
Free Cash Flow Growth (%)			17.50
Book Value Growth (%)	9.30	15.70	-7.00

# DCF: Even Better

Earnings Per Share : \$  ?

Growth Rate In the Next:  Years :  % ?

Business Predictability  ?

Terminal Growth Rate:  % ?

Years of Terminal Growth:  ?

Discount Rate:  % ?

➔

**DCF** Reverse DCF NEW ↵

Tangible Book Value: \$   Add to Fair Value ?

Growth Value: \$ **277.28** ?

Terminal Value: \$ **284.2** ?

**= Fair Value: \$ 561.48** ?

Price:

Margin Of Safety: 55%


## Financial Data of Biogen Inc

Annual Rates (per share)	10 yrs	5 yrs	12 months
Revenue Growth (%)	20.70	21.80	12.70
EBITDA Growth (%)	26.00	30.60	17.90
EBIT Growth (%)	35.70	34.00	25.00
EPS without NRI Growth (%)	38.10	32.30	23.80
Free Cash Flow Growth (%)			17.50
Book Value Growth (%)	9.30	15.70	-7.00

# DCF: Valueline

Earnings Per Share : \$  ?

Growth Rate In the Next:  Years :  % ?

Business Predictability  ?

Terminal Growth Rate:  % ?

Years of Terminal Growth:  ?

Discount Rate:  % ?

➔

**DCF** Reverse DCF NEW ↵

Tangible Book Value: \$   Add to Fair Value ?

Growth Value: \$ **191.73** ?

Terminal Value: \$ **154.77** ?

**= Fair Value: \$ 346.5** ?

Price:


Margin Of Safety: 27%

ANNUAL RATES	Past	Past	Est'd '12-'14
of change (per sh)	10 Yrs.	5 Yrs.	to '18-'20
Sales	22.0%	18.0%	17.0%
"Cash Flow"	--	20.5%	16.0%
Earnings	--	26.5%	<span style="border: 2px solid red; padding: 2px;">16.5%</span>
Dividends	--	--	Nil
Book Value	5.0%	12.5%	15.0%

# DCF: Conservative

Earnings Per Share : \$  ?

Growth Rate In the Next:  Years :  % ?

Business Predictability  ?

Terminal Growth Rate:  % ?

Years of Terminal Growth:  ?

Discount Rate:  % ?

➔

**DCF** Reverse DCF NEW

Tangible Book Value: \$   Add to Fair Value ?

Growth Value: \$ **169.3** ?

Terminal Value: \$ **124.59** ?

**= Fair Value: \$ 293.89** ?

Price:

Margin Of Safety: **14%**


## Financial Data of Biogen Inc

Annual Rates (per share)	10 yrs	5 yrs	12 months
Revenue Growth (%)	20.70	21.80	12.70
EBITDA Growth (%)	26.00	30.60	17.90
EBIT Growth (%)	35.70	34.00	25.00
EPS without NRI Growth (%)	38.10	32.30	23.80
Free Cash Flow Growth (%)			17.50
Book Value Growth (%)	9.30	15.70	-7.00

# Reverse DCF

Earnings Per Share : \$  ?

Growth Rate In the Next:  Years ?

Business Predictability  ?

Terminal Growth Rate:  % ?

Years of Terminal Growth:  ?

Discount Rate:  % ?

➔

DCF **Reverse DCF** NEW ↵

**= Growth Rate: 11.65%** ?

Revenue Growth Rate: 20.70%(10y) 21.80%(5y) 12.70%(1y) ?

EBITDA Growth Rate: 26.00%(10y) 30.60%(5y) 17.90%(1y) ?

Earnings Growth Rate: 38.10%(10y) 32.30%(5y) 23.80%(1y) ?

Free Cash Flow Growth Rate: 0.00%(10y) 0.00%(5y) 17.50%(1y) ?

Book Value Growth Rate: 9.30%(10y) 15.70%(5y) -7.00%(1y) ?

## Financial Data of Biogen Inc

Annual Rates (per share)	10 yrs	5 yrs	12 months
Revenue Growth (%)	20.70	21.80	12.70
EBITDA Growth (%)	26.00	30.60	17.90
EBIT Growth (%)	35.70	34.00	25.00
EPS without NRI Growth (%)	38.10	32.30	23.80
Free Cash Flow Growth (%)			17.50
Book Value Growth (%)	9.30	15.70	-7.00

**51.05% Cut in EPS Growth**



Conscious Investor

# 3 Year

	12/06	12/07	12/08	12/09	12/10	12/11	12/12	12/13	12/14	12/15	EPSttm	Years	HGROWTH	STAEGR®
<b>EPS (\$)</b>	0.630	1.993	2.650	3.351	3.944	5.038	5.756	7.815	12.374	15.342	\$15.342	3	40.11%	95.30%
<b>SPS (\$)</b>	5.267	10.726	14.225	15.926	19.608	20.852	23.317	29.332	36.271	43.113		3	21.24%	99.46%

# 3 Year Safety

	Price	EPSttm	P/E Ratio	HGrowth	Payout	STRET®
Default	255.66	\$15.342	25.05	40.11%	0.0%	42.80%
Safety	255.66	\$15.342	14.16	16.42%	0.0%	12.71%

Cut P/E by 43.47%

Cut Growth Rate by 59.06%

# 6 Year

	12/06	12/07	12/08	12/09	12/10	12/11	12/12	12/13	12/14	12/15	EPSttm	Years	HGROWTH	STAEGR®
<b>EPS (\$)</b>	0.630	1.993	2.650	3.351	3.944	5.038	5.756	7.815	12.374	15.342	\$15.342	6	32.16%	93.22%
<b>SPS (\$)</b>	5.267	10.726	14.225	15.926	19.608	20.852	23.317	29.332	36.271	43.113		6	18.31%	96.43%

# 6 Year Safety

	Price	EPSttm	P/E Ratio	HGrowth	Payout	STRET <sup>®</sup>
Default	255.66	\$15.342	25.05	32.16%	0.0%	34.76%
Safety	255.66	\$15.342	14.16	14.51%	0.0%	10.98%

Cut P/E by 43.47%

Cut Growth Rate by 54.88%

# 10 Year

	12/06	12/07	12/08	12/09	12/10	12/11	12/12	12/13	12/14	12/15	EPSttm	Years	HGROWTH	STAEGR®
<b>EPS (\$)</b>	0.630	1.993	2.650	3.351	3.944	5.038	5.756	7.815	12.374	15.342	\$15.342	10	33.36%	75.35%
<b>SPS (\$)</b>	5.267	10.726	14.225	15.926	19.608	20.852	23.317	29.332	36.271	43.113		10	21.00%	85.05%


# 10 Year Safety

	Price	EPSttm	P/E Ratio	HGrowth	Payout	STRET®
Default	255.66	\$15.342	25.05	33.36%	0.0%	35.97%
Safety	255.66	\$15.342	14.16	14.29%	0.0%	10.79%

Cut P/E by 43.47%

Cut Growth Rate by 57.16%

# 6 Year Kill It

	Price	EPSttm	P/E Ratio	HGrowth	Payout	STRET <sup>®</sup>	Req Return	TARG <sup>®</sup>
Default	255.66	\$15.342	25.05	33.36%	0.0%	35.97%	-10.00%	\$36.79K
Safety	255.66	\$15.342	14.16	14.29%	0.0%	10.79%	-10.00%	\$4.44K
 Saved 2016-03-10	255.66	\$15.342	8.00	12.00%	0.0%	3.37%		

Cut P/E by 68.06%

Cut Growth Rate by 64.02%



# 6 Year Kill It Again

	Price	EPSttm	P/E Ratio	HGrowth	Payout	STRET <sup>®</sup>
Default	255.66	\$15.342	25.05	33.36%	0.0%	35.97%
Safety	255.66	\$15.342	14.16	14.29%	0.0%	10.79%
 Saved 2016-03-10	255.66	\$15.342	6.50	10.00%	0.0%	0.09%

Cut P/E by 74.05%

Cut Growth Rate by 70.02%

# Intraportfolio Valuations

# Price/Book

Ticker	▲ ... Book
AIG-WT	-
AIG	0.7
BRK.B	1.3
CMI	2.4
QCOM	2.6
WMT	2.8
BBBY	3.3
UNP	3.3
ORCL	3.5
NSRGY	3.8
MSFT	5.4
<b>BIIB</b>	6.0
CHRW	8.9
IBM	9.5
PEP	12.2

# Price/Earnings

Ticker	▲ Price / Earnings
AIG-WT	-
BBBY	10.1
IBM	10.3
CMI	13.0
WMT	14.2
BRK.B	14.2
UNP	14.6
<b>BIIB</b>	16.7
QCOM	17.3
ORCL	18.5
CHRW	20.4
NSRGY	23.7
PEP	27.3
AIG	31.2
MSFT	37.6

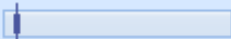
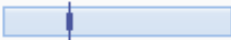

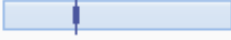
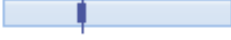



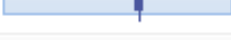
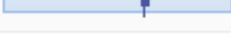
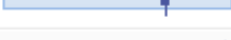
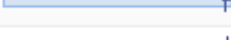
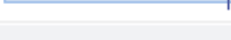
# Price/Sales

Ticker	Price / Sales
AIG-WT	-
WMT	0.5
BBBY	0.7
CHRW	0.8
CMI	1.0
AIG	1.2
BRK.B	1.6
IBM	1.7
PEP	2.4
NSRGY	2.5
UNP	3.2
QCOM	3.5
ORCL	4.5
MSFT	4.9
<b>BIIB</b>	<b>5.5</b>

# PEG Ratio

Ticker	PEG Trailing
NSRGY	-
AIG-WT	-
AIG	-
MSFT	-
PEP	-
<b>BIB</b>	0.5
UNP	1.0
BBBY	1.0
BRK.B	1.1
CMI	1.6
CHRW	2.4
QCOM	2.6
ORCL	2.8
IBM	3.4
WMT	18.5

# Price

Ticker	5-Year Price / Earnings Range
AIG-WT	
NSRGY	
<b>BIIB</b>	16.0  49.4
UNP	12.5  24.0
BRK.B	12.7  19.9
BBBY	8.3  18.7
IBM	8.7  16.0
QCOM	12.4  26.3
CHRW	13.9  33.5
WMT	11.0  19.0
CMI	8.3  20.7
ORCL	13.3  24.1
AIG	2.1  -
MSFT	8.8  39.5
PEP	15.1  27.4

Wait...Our name is

# Contagious Investors



# Conclusion

- Barriers to Entry
- Financially Sound
- Patents
- High Growth

# Recommendation

- Market order

## ***Borrowings***

On September 15, 2015, we issued senior unsecured notes for an aggregate principal amount of \$6.0 billion, consisting of the following:

- \$1.5 billion of 2.90% Senior Notes due September 15, 2020, valued at 99.792% of par;
- \$1.0 billion of 3.625% Senior Notes due September 15, 2022, valued at 99.920% of par;
- \$1.75 billion of 4.05% Senior Notes due September 15, 2025, valued at 99.764% of par; and
- \$1.75 billion of 5.20% Senior Notes due September 15, 2045, valued at 99.294% of par.

In addition to the 2015 Senior Notes, we have \$550.0 million aggregate principal amount of 6.875% Senior Notes due March 1, 2018 that were originally priced at 99.184% of par.