



World Preview 2013, Outlook to 2018
Returning to Growth

Welcome to the EvaluatePharma® World Preview 2013, Outlook to 2018

The sixth edition of EvaluatePharma's World Preview brings together many of our analyses to provide a top level insight, from the world's financial markets, into the expected performance of the industry between now and 2018. Based on EvaluatePharma's coverage of the world's leading 4,000 pharmaceutical and biotech companies, the World Preview highlights trends in prescription drug sales, patent risk, R&D spend, global brand sales and market performance by therapy area. Also included in the report is a brief review of 2012 performance. Complimentary copies of the full report can be downloaded at: www.evaluategroup.com/wp2013.

About EvaluatePharma

Since 1996 EvaluatePharma has been providing senior decision makers within the pharmaceutical industry with an essential service that models the sector from the viewpoint of the world's financial markets.

EvaluatePharma's forward looking view of the market is hugely influential as it displays the consensus of expectations, which influence company stock market valuations. The forecasts of equity analysts reveal their perspectives on individual company performance, industry trends and the macro economic environment.

EvaluatePharma has captured the consensus forecasts of equity analysts and seamlessly integrated them with the historic results, as reported by companies. From this comprehensive view of the industry, its past and expected future performance emerges and can be analysed using EvaluatePharma. Analyses range from total market trends and therapeutic overviews to individual company performance and product progress.

Whatever your view on the future of the industry, EvaluatePharma is the essential guide to value in the pharma and biotech sector.

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In last year's edition of the EvaluatePharma® World Preview report, we forecast an unprecedented fall in worldwide prescription drug sales. This year's edition confirms that this did indeed happen last year: in dollar terms, worldwide prescription drug sales fell by 1.6% to \$714bn in 2012. Loss of patent protection on a number of blockbuster brands and fiscal austerity hitting Eurozone countries (compounded by a weak euro against the dollar) contributed to this unprecedented contraction. In total, \$38bn of sales were lost as a result of expired patent protection, including: Lipitor (PFE) losing \$5.6bn, Plavix (BMY/Sanofi) \$4.5bn, Seroquel (AZN) \$3bn and Zyprexa (LLY) \$2.9bn. While sales growth in 2013 is expected to be lacklustre (+0.4%), this report shows that sustained growth will return from the end of 2013, at an average rate of 3.8% per annum between 2012 and 2018 (see page 7).

A bumper year for new drug approvals in 2012

In terms of numbers of new drug (NME/BLA) approvals in the USA, 2012 was the best year since 1997 when Lipitor (PFE) was approved. But perhaps more important than the large number of approvals in 2012 (45 versus 35 in 2011, see page 17), quality¹ was also significantly better than in previous years, as judged by analysts' consensus expectations of sales five-year post launch. These are forecast, in aggregate, to reach \$15.8bn in the USA alone with Eliquis, Stribild, Kalydeco, Xeljanz and Kyprolis all expected to be US blockbusters by 2017. Looking ahead, we expect this positive dynamic to continue, with 2013 set to be another good year for new drug approvals.

Since the publication of last year's edition of the World Preview report, 14 of the most valuable R&D projects have subsequently been approved, effectively releasing \$85bn of value from the industry pipeline.

Since the publication of last year's edition of the World Preview report, 14 of the most valuable R&D projects have subsequently been approved, effectively releasing \$85bn of value from the industry pipeline (page 14). In addition, the net present value of these products has increased by 59%: in part, because approval has removed some of the risk, but also because of a general upgrade in their sales potential by equity analysts. The current R&D pipeline looks healthy too, with 18 new entrants and a total net present value of \$287bn (see page 14). Around 10% of this value is attributable to Gilead's Sofosbuvir (acquired via Pharmasset), which is forecast to sell over \$7bn in 2018 and is currently valued at \$29bn. Should Gilead manage to realize this value, its \$11.2bn gamble on acquiring Pharmasset will have been more than justified.

Contribution from biological products supporting future sales growth

Between 2013 and 2018, \$230bn of worldwide drug sales will be at potential risk from generic erosion following patent expiries. However, only \$114bn of this amount is actually forecast to be lost (see page 7). One reason for this divergence is the growing contribution of biological products to overall worldwide sales: in 2018, around 50% of sales in the top 100 products are expected to be generated by biological products. Although the full impact of bio-similar competition in the USA is unknown at this time, the consensus of equity analysts seems to suggest that biological products will experience much-reduced sales erosion from bio-similar competition than traditional small molecules.

Research and development productivity improving

Investment in research and development over the next six years is expected to exhibit a nominal annual growth of 1.4% – a fall in real terms – and this is accompanied by a decline in the R&D reinvestment rate (see page 15). Better quality new drug approvals in 2012 coupled with an industry that is returning to growth from 2014, signals that R&D productivity is improving.

In the Orphan Drug Report 2013, EvaluatePharma® found that orphan drugs are expected to account for \$127bn of sales in 2018, representing almost 16% of the entire worldwide prescription market (excluding generics).

An area that is already exhibiting superior R&D productivity, and is expected to generate attractive returns in future years, is that of orphan drugs. Indeed, in the Orphan Drug Report 2013, EvaluatePharma® found that orphan drugs are expected to account for \$127bn of sales in 2018, representing almost 16% of the entire worldwide prescription market (excluding generics). A lower cost of development and the ability to attach a higher price premium, versus more generalized medicines, makes this an appealing research area for both large and small pharma.

While not all disease states qualify for orphan drug status, lessons learnt from this sub-sector can be applied to common diseases. Specifically, identifying patient sub-populations, and stratifying common diseases accordingly, are likely to provide some of the benefits currently enjoyed by the developers of orphan drugs. Such benefits include:

1. Smaller disease populations require smaller numbers of patients in clinical trials. These are less costly to run;
2. Targeting sub-populations that are more likely to respond to an investigational therapy increases the chance of clinical success and regulatory approval;
3. Improved patient outcomes raises the overall economic value of a new drug – a measure that is increasingly being considered in the reimbursement decision.

1: Quality of approvals measured as USA sales five-years post launch.

Increasing investor confidence in a growth sector?

Sustained growth in prescription drug sales from 2014, with a greater proportion of these sales coming from higher-priced biological products that experience slower sales erosion, and better quality new drug approvals from improving R&D productivity, suggests that the industry's dynamics are improving. Given this, it is not surprising that the investor community is taking a closer look at the sector, after more than a decade of pain. The top 20 pharma companies' share price outperformed the S&P 500 in 2012 (22% versus 13%, respectively) in anticipation of a new growth period for the industry. And against a background of persistent economic uncertainty, continuing investor focus on the defensive qualities of this industry would seem to be firmly on the cards. However, the depth of economic woes in Europe particularly will test demand for new products as never before and in this respect, the industry is still in uncharted waters.



Paul A Hills

Product Manager, EvaluatePharma®

EvaluatePharma® World Preview 2013 – Analysis Highlights

- Worldwide prescription drug sales forecast to total \$895bn in 2018 (CAGR: 3.8% between 2012 and 2018)
- In dollar terms, worldwide prescription drugs sales experienced an unprecedented fall of 1.6% in 2012 due to a large number of blockbuster patent expiries
- Best year for new drug approvals since 1997
- Between 2013 and 2018, \$230bn of sales at risk from patent expiration
- Humira projected to be world's largest selling product in 2018
- Pfizer remains top company by worldwide Rx sales in 2012; Novartis number two
- By 2018, Novartis expected to be number one, in terms of worldwide Rx sales
- Worldwide pharmaceutical R&D spend forecast to be \$149bn in 2018 (CAGR: 1.4% between 2012 and 2018)
- Gilead's hepatitis C polymerase inhibitor, Sofosbuvir, remains the most valuable R&D product
- Anti-coagulants set to record highest worldwide sales growth of major therapy categories to 2018 (CAGR: 11.5% between 2012 and 2018)
- Within the top 100 prescription products in 2018, biological products expected to account for more than 50% of sales
- Sanofi to be top vaccine company in 2018; GlaxoSmithKline slides to number three
- Teva Pharmaceutical remains leading generic drug maker in 2012

Best year for new
drug approvals since 1997

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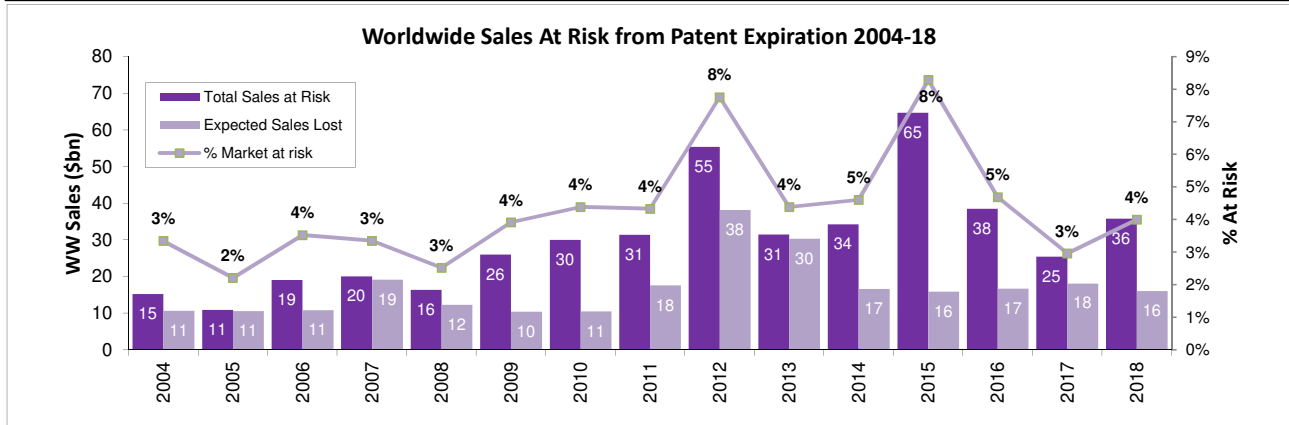
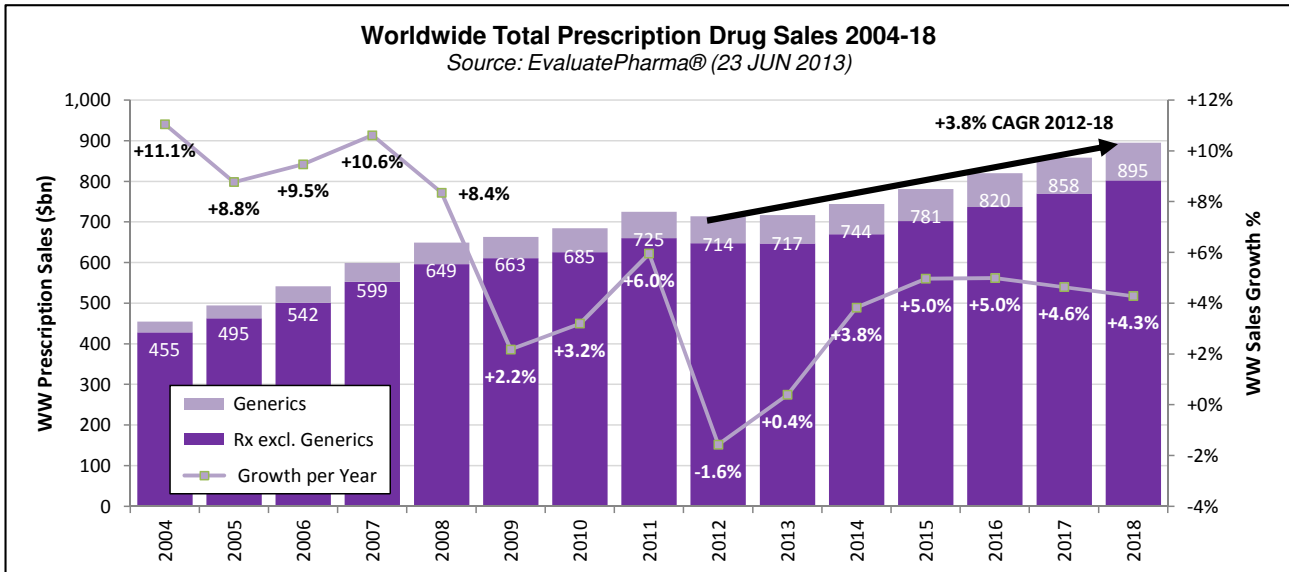
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Worldwide Prescription Drug Sales (2004-18)

Worldwide Prescription Drug Sales Forecast to Grow by 3.8% (CAGR) to \$895bn by 2018

EvaluatePharma® finds that the market for prescription drugs, based on the consensus forecast for the leading 500 pharmaceutical and biotechnology companies, will grow by 3.8% per year (CAGR) between 2012 and 2018 to \$895bn. The unprecedented contraction in prescription sales that was forecast in last year's report has now been confirmed with a decline of 1.6% occurring between 2011 and 2012. The market is forecast to experience sluggish growth throughout 2013 with a sustained recovery not occurring until 2014. Although \$230bn sales are at risk from patent expiries between 2013 and 2018, the market expects around only half of this to be lost as a result of generic competition. This is because a growing proportion of industry sales are from biotechnology products, which are expected to have a less aggressive rate of sales erosion from biosimilar competition.



Patent Analysis: 'Total Sales at Risk' represents the worldwide product sales in the year prior to patent expiry but allocated to the year of expiry. E.g. Plavix had sales of \$7.1bn in 2011, this is shown above as 'At Risk' in 2012.

Worldwide Prescription Drug Sales (2004-18)

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Swine Flu Contribution*					1.1	7.9	5.5	1.7	1.9	1.9	1.8	1.9	1.8	2.0	2.0
WW Prescription Sales (\$bn)															
Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Prescription (Rx)	455	495	542	599	649	663	685	725	714	717	744	781	820	858	895
Growth per Year	+11.1%	+8.8%	+9.5%	+10.6%	+8.4%	+2.2%	+3.2%	+6.0%	-1.6%	+0.4%	+3.8%	+5.0%	+5.0%	+4.6%	+4.3%
Change vs. May 2012 (\$bn)									+5	-15	-15	-12	-6	+2	+11
Generics	27	32	40	46	53	52	59	65	66	70	75	79	83	88	92
Generics as % of Rx	5.9%	6.4%	7.4%	7.7%	8.1%	7.8%	8.6%	9.0%	9.3%	9.7%	10.0%	10.1%	10.2%	10.2%	10.3%
Rx excl. Generics	428	463	502	553	597	611	626	660	648	647	670	702	737	770	803
Growth per Year	+10.9%	+8.1%	+8.4%	+10.2%	+7.9%	+2.5%	+2.3%	+5.5%	-1.9%	-0.1%	+3.5%	+4.9%	+4.9%	+4.6%	+4.2%

Source: EvaluatePharma® (23 JUN 2013)

Prescription (Rx) incl. Generics CAGR 12-18 +3.8%

Note: Industry sales based on Top 500 pharmaceutical and biotech companies.

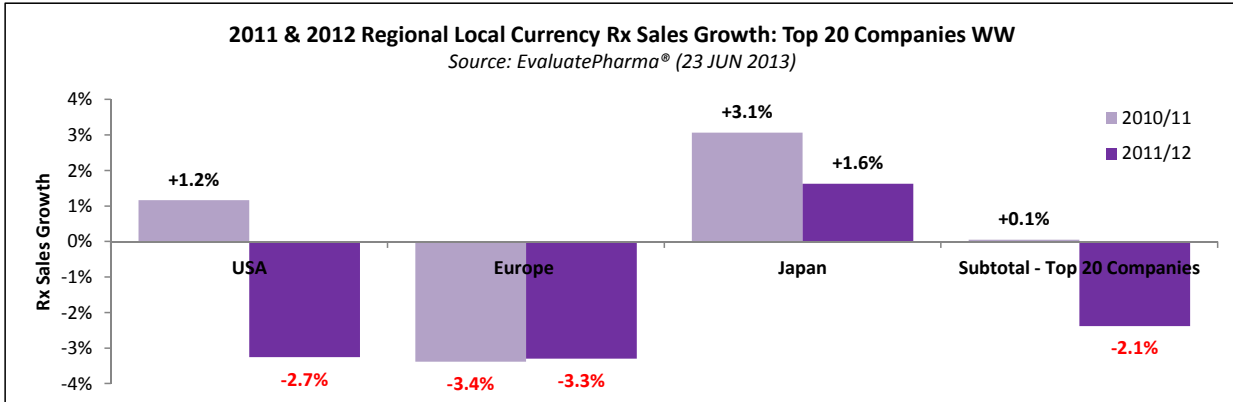
Sales to 2012 based on company reported sales data. Sales forecasts to 2018 based on a consensus of leading equity analysts' estimates for company product sales and segmental sales.

*Swine Flu products include vaccines and influenza treatments Tamiflu and Relenza.



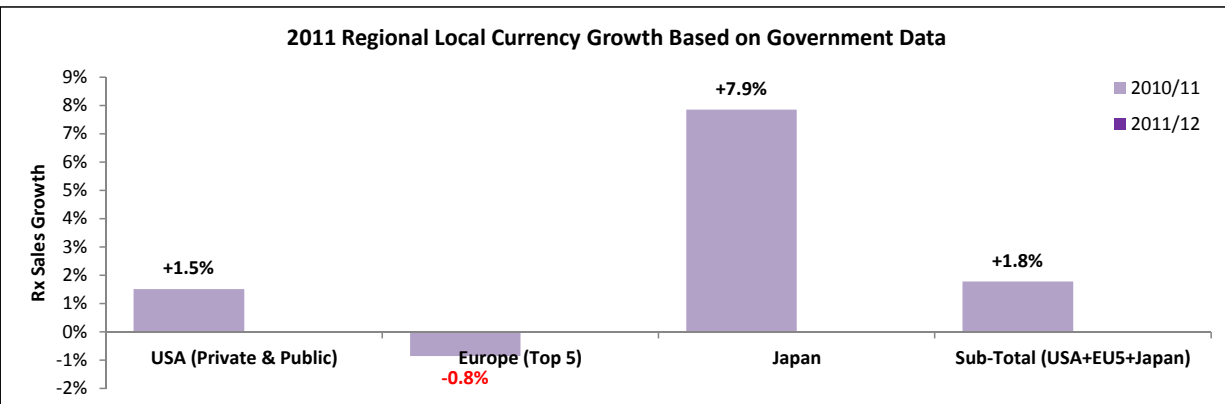
Regional Sales: USA, Europe & Japan (2010-12)

Key Market Prescription Sales Falls 2.1% in 2012 (USA, Europe & Japan); Japan Best Performing Market Up 1.6%
 EvaluatePharma® finds that collective sales from the developed markets of USA, Europe and Japan fell 2.1% in 2012, based on local currency growth. As was the case in 2011, Japan was the best performing major market in 2012 with local sales in yen growing by 1.6%; however, depreciation of the yen resulted in a 1.1% decline when expressed in terms of US dollars. Analysis is based on observing the reported geographic sales from USA, Europe and Japan for the top 20 companies in each market in 2012. In addition, available reported government data on pharmaceutical purchases for 2011 and 2012 was reviewed.



Regional Prescription Drug Sales (2010-12): Observed Top 20 Companies in each Market

Country	Sales (\$bn)			Growth			
	2010	2011	2012	(US\$)		(local currency)	
USA	209.1	211.6	205.8	+1.2%	-2.7%	+1.2%	-2.7%
Europe	135.0	136.9	122.3	+1.4%	-10.7%	-3.4%	-3.3%
Japan	69.0	77.6	76.8	+12.5%	-1.1%	+3.1%	+1.6%
Subtotal - Top 20 Companies	413.1	426.1	404.8	+3.1%	-5.0%	+0.1%	-2.1%
Unallocated	271.5	299.4	309.2				
Total Worldwide Rx Sales	684.7	725.4	714.1	+6.0%	-1.6%		
Swine Flu Contribution*	5.5	1.7	1.9				
Total Excluding Swine Flu	679.1	723.7	712.1	+6.6%	-1.6%		



Reported Government Data for Prescription Drug Sales in USA, EU (Top 5 Countries) & Japan

Country	Country Drug Expenditures 2010 & 2011 only Sales (\$bn)			Growth (US\$)		Growth LC	
	2010	2011	2012	2010/11	2011/12	2010/11	2011/12
USA (Private & Public)	259.1	263.0	n/a	+1.5%	n/a	+1.5%	n/a
Europe (Top 5)	136.8	141.9	n/a	+3.8%	n/a	-0.8%	n/a
Japan	71.0	83.1	n/a	+17.0%	n/a	+7.9%	n/a
Sub-Total (USA+EU5+Japan)	466.9	488.0	n/a	+4.5%	n/a	+1.8%	n/a
Other	217.8	237.5					
Total Worldwide Rx Sales	684.7	725.4	714.1	+3.2%	+6.0%		

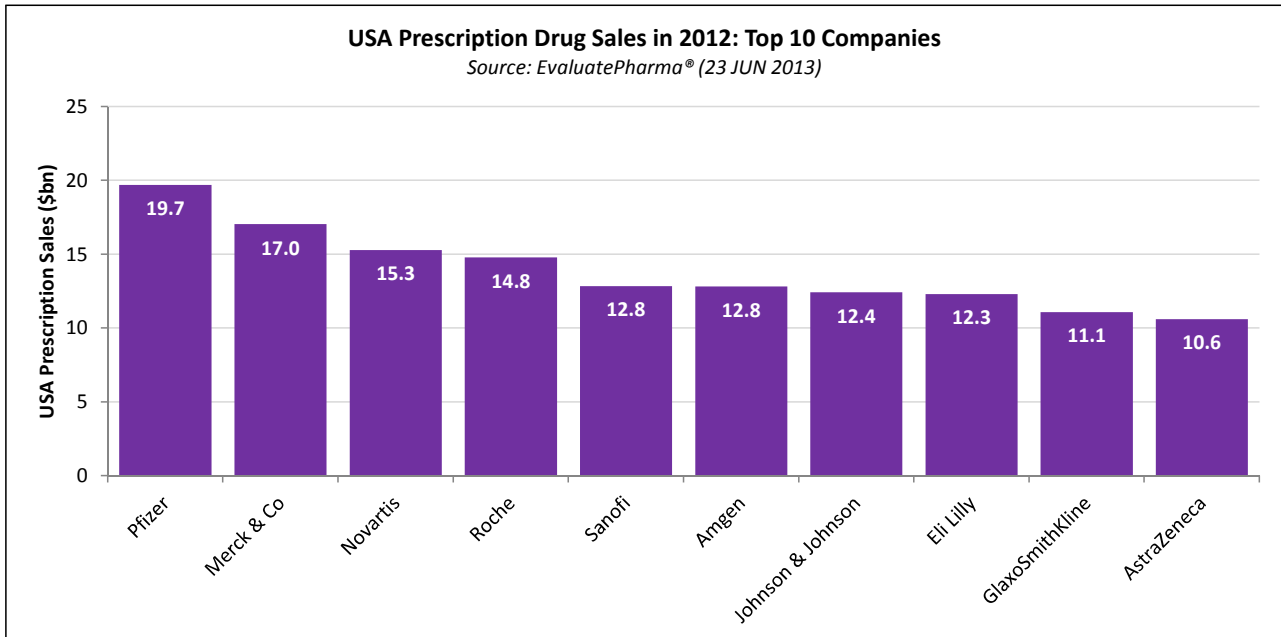
Currency Sensitivity Analysis

Europe Top 5: Germany, France, UK, Italy & Spain.

Currency	2010	2011	2012	2013	2010/11	2011/12	2012/13
Euro (1€ = US \$)	1.33	1.39	1.29		+4.9%	-7.6%	n/a
Japan (100 ¥ = US \$)	1.17	1.27	1.20	1.01	+8.5%	-4.9%	-15.8%
China (1 RMB = US \$)	0.15	0.15	0.16		+4.7%	+2.4%	n/a

USA Prescription Market Sales Decline 2.7%; Pfizer Still No. 1 in USA

EvaluatePharma® finds that USA prescription drug market sales declined 2.7% between 2011 and 2012, based on reported prescription drug sales for the top 20 companies. Pfizer remains in the top position in terms of USA prescription drug sales even after a 19% decline in sales to \$19.7bn in 2012 (vs. \$24.3bn in 2011), primarily due to loss of exclusivity on Lipitor. Forest Laboratories is no longer in the top 20 after Lexapro lost patent protection in 2012 which resulted in almost \$2bn in lost sales. Analysis is based on observing the reported geographic sales for USA for the top 20 companies in 2012. In addition, available reported government data on pharmaceutical purchases of drugs for 2011 and 2012 was reviewed.



USA Prescription Drug Sales (2010-12): Top 20 Companies

Company	US Rx Sales (\$bn)			Growth (US\$)	
	2010	2011	2012	2010/11	2011/12
1 Pfizer	26.6	24.3	19.7	-8.6%	-19.0%
2 Merck & Co	16.7	17.1	17.0	+2.2%	-0.4%
3 Novartis	16.6	16.1	15.3	-2.6%	-5.2%
4 Roche	13.5	13.8	14.8	+2.1%	+6.9%
5 Sanofi	14.0	14.5	12.8	+3.3%	-11.2%
6 Amgen	11.0	11.5	12.8	+4.2%	+11.6%
7 Johnson & Johnson	12.5	12.4	12.4	-1.1%	+0.3%
8 Eli Lilly	12.9	13.0	12.3	+0.9%	-5.1%
9 GlaxoSmithKline	11.8	11.3	11.1	-4.8%	-1.6%
10 AstraZeneca	13.4	13.1	10.6	-2.1%	-19.2%
11 Teva Pharmaceutical	10.2	8.9	10.4	-12.3%	+17.0%
12 Bristol-Myers Squibb	12.6	13.8	10.4	+9.8%	-25.0%
13 Abbott Laboratories	8.9	9.5	10.2	+6.3%	+7.4%
14 Boehringer Ingelheim	6.0	6.7	7.1	+12.1%	+6.4%
15 Novo Nordisk	4.2	5.0	5.9	+18.2%	+19.0%
16 Gilead Sciences	4.2	4.6	5.6	+9.1%	+21.3%
17 Takeda	5.6	5.7	4.9	+1.9%	-13.4%
18 Actavis	2.6	3.7	4.8	+42.5%	+30.2%
19 Mylan	2.8	3.4	4.1	+22.2%	+19.7%
20 Allergan	3.0	3.2	3.5	+6.8%	+8.0%
Total	209.1	211.6	205.8	+1.2%	-2.7%

Country Level Expenditures on Pharmaceuticals

Country	Sales (\$bn)			Growth (US\$)
	2010	2011	2012	2010/11
USA ¹	259.1	263.0	n/a	+1.5%

Note: Pro-forma adjusted for M&A
1: Source: USA (CMS Household Survey)

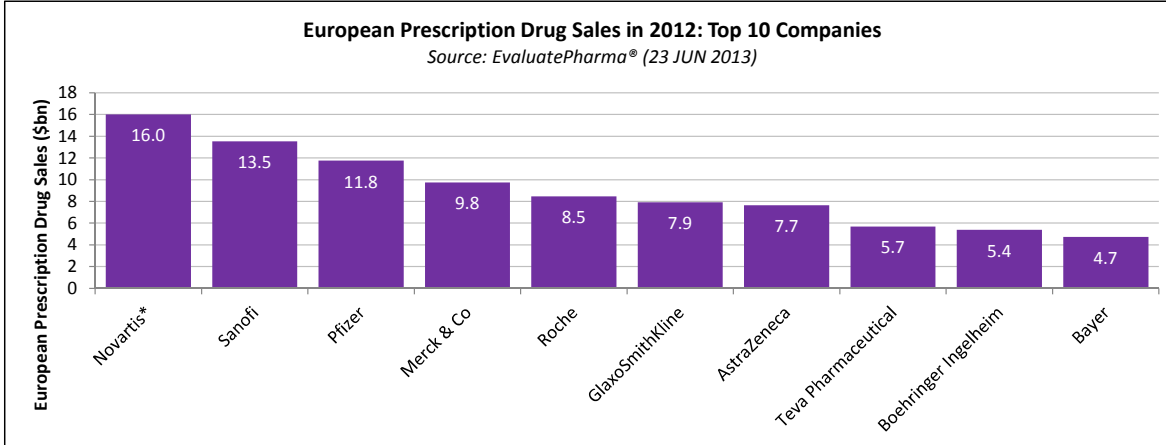


Regional Sales: Europe (2010-12)

European Sales Slump 3.3% in Local Currencies; Novartis Remains No.1 in Europe

EvaluatePharma® found that European drugs sales fell 3.3% in local currency, or 10.7% when translated into US dollars, between 2011 and 2012, based on reported prescription drugs sales for the top 19 companies. The Spanish government continues to curtail its healthcare cost by reducing purchases of drugs by 12.3%, in local currency, in 2012 versus a cut of 8.8% in 2011.

Analysis based on observing the reported geographic sales for the top 20 companies in Europe in 2012. In addition, available reported government data on pharmaceutical purchases for 2011 and 2012 was reviewed.



Europe Prescription Drug Sales (2009/11): Top 20 Companies

Company	EU Rx Sales (\$bn)			Growth (US\$)		EU Rx Sales (€bn)			Growth (€)	
	2010	2011	2012	2010/11	2011/12	2010	2011	2012	2010/11	2011/12
1 Novartis*	16.3	17.6	16.0	+8.3%	-9.3%	12.3	12.7	12.4	+3.3%	-1.8%
2 Sanofi	16.7	16.2	13.5	-3.1%	-16.5%	12.6	11.6	10.5	-7.6%	-9.6%
3 Pfizer	14.3	14.2	11.8	-0.7%	-17.1%	10.8	10.2	9.2	-5.3%	-10.3%
4 Merck & Co	10.5	10.6	9.8	+1.6%	-8.2%	7.9	7.6	7.6	-3.2%	-0.6%
5 Roche	9.1	9.3	8.5	+2.1%	-9.0%	6.9	6.7	6.6	-2.7%	-1.5%
6 GlaxoSmithKline	10.1	9.1	7.9	-9.7%	-13.4%	7.6	6.6	6.2	-13.9%	-6.2%
7 AstraZeneca	10.3	9.7	7.7	-5.7%	-21.5%	7.8	7.0	6.0	-10.1%	-15.0%
8 Teva Pharmaceutical	5.8	6.3	5.7	+9.2%	-10.2%	4.4	4.5	4.4	+4.1%	-2.8%
9 Boehringer Ingelheim	5.4	5.6	5.4	+3.6%	-4.0%	4.1	4.0	4.2	-1.3%	+3.9%
10 Bayer	5.0	5.1	4.7	+1.4%	-7.1%	3.8	3.7	3.7	-3.4%	+0.6%
11 Eli Lilly	5.1	5.3	4.3	+3.6%	-19.5%	3.8	3.8	3.3	-1.2%	-12.8%
12 Menarini	4.0	4.2	4.1	+4.0%	-1.6%	3.0	3.0	3.2	-0.9%	+6.5%
13 Bristol-Myers Squibb	3.4	3.7	3.7	+6.4%	+1.1%	2.6	2.6	2.9	+1.4%	+9.4%
14 Amgen	3.4	3.6	3.6	+4.8%	-0.4%	2.6	2.6	2.8	-0.1%	+7.8%
15 Abbott Laboratories	3.3	3.6	3.5	+10.3%	-2.7%	2.5	2.6	2.7	+5.1%	+5.4%
16 Gilead Sciences	3.2	3.1	3.3	-1.5%	+6.7%	2.4	2.2	2.6	-6.1%	+15.5%
17 Novo Nordisk	3.3	3.6	3.3	+7.7%	-7.5%	2.5	2.6	2.6	+2.6%	+0.1%
18 Merck KGaA	3.5	3.5	3.2	+1.4%	-9.2%	2.6	2.5	2.5	-3.3%	-1.7%
19 Astellas Pharma	2.2	2.4	2.4	n/a	n/a	1.7	1.7	1.8	n/a	n/a
20 Johnson & Johnson	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total*	135.0	136.9	122.3	+1.4%	-10.7%	101.8	98.3	95.1	-3.4%	-3.3%

Currency Impact (\$bn) at 2010 rates:

6.4	-3.9
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Government Expenditures on Pharmaceuticals

Country	Gov.t Purchases (\$bn)			Growth (US\$)		Gov Purchases (€; £bn)			Growth (LC)	
	2010	2011	2012	2010/11	2011/12	2010	2011	2012	2010/11	2011/12
Germany (€)	44.2	46.7		+5.6%		33.3	33.5		+0.7%	
France (€)	34.1	35.6		+4.5%		25.7	25.6		-0.4%	
Italy (€)	22.5	23.1		+3.0%		16.9	16.6		-1.8%	
UK (£)	19.9	21.0		+5.7%		12.9	13.1		+1.9%	
Spain (€)	16.2	15.5	12.6	-4.3%	-19.0%	12.2	11.1	9.8	-8.8%	-12.3%
Top 5 EU Countries	136.8	141.9		+3.8%					-0.8%	

Currency Impact (\$bn) at 2010 rates:

6.4	
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Currency Rate	2010	2011	2012	2010/11	2011/12
1€ = US \$	1.33	1.39	1.29	+5%	-8%
1£ = US \$	1.55	1.60	1.58	+4%	-1%

Note: *Alcon EU sales not available (consolidated by Novartis from 25 AUG 2010). Johnson & Johnson does not disclose European pharmaceutical sales

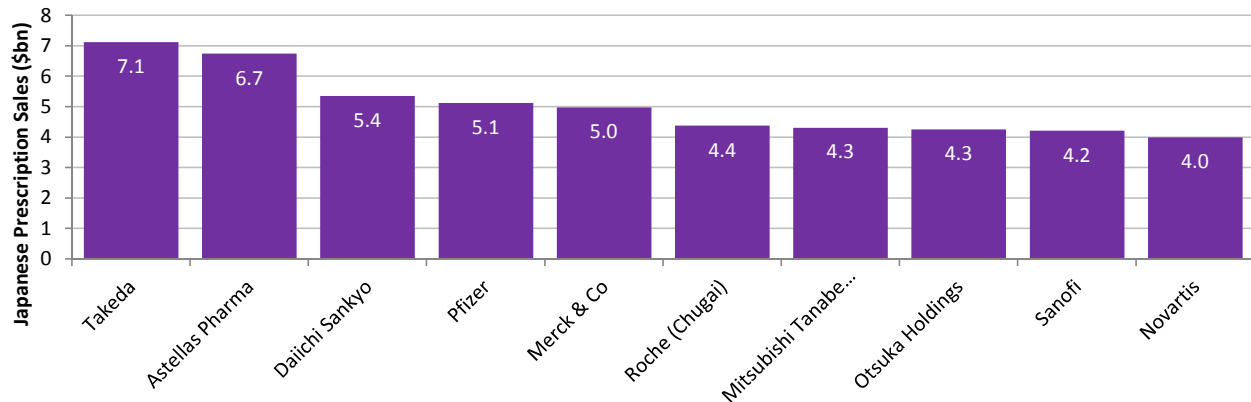
Japanese Market Expands 1.6% in 2012; Takeda Remains No. 1 in Japan

EvaluatePharma® finds that the Japanese prescription drug sales in yen grew 1.6% in 2012, whilst in terms of US dollars they contracted by 1.1% due to depreciation of the yen.

Analysis is based on observing the reported geographic sales for the top 20 companies in Japan in 2012. In addition, available reported government data on pharmaceutical purchases of drugs was reviewed.

Japanese Prescription Drug Sales in 2012: Top 10 Companies

Source: EvaluatePharma® (23 JUN 2013)



Japan Prescription Drug Sales (2010-12): Top 20 Companies

Company	Japan Rx Sales (\$bn)			Growth (\$)		Japan Rx Sales (¥bn)			Growth (¥)	
	2010	2011	2012	2011	2012	2010	2011	2012	2011	2012
1 Takeda	6.8	7.5	7.1	+10.9%	-5.2%	580	593	591	+2.2%	-0.2%
2 Astellas Pharma	6.4	7.1	6.7	+11.2%	-4.7%	545	559	560	+2.5%	+0.2%
3 Daiichi Sankyo	5.0	5.2	5.4	+4.0%	+3.1%	428	410	445	-4.1%	+8.4%
4 Pfizer	5.4	5.2	5.1	-3.1%	-1.5%	471	414	409	-12.0%	-1.3%
5 Merck & Co	3.6	4.7	5.0	+29.2%	+5.7%	320	375	397	+17.4%	+5.8%
6 Roche (Chugai)	4.2	4.3	4.4	+3.9%	+1.5%	365	344	350	-5.6%	+1.7%
7 Mitsubishi Tanabe Pharmaceuticals	4.2	4.5	4.3	+6.5%	-4.2%	362	356	358	-1.9%	+0.7%
8 Otsuka Holdings	3.7	4.1	4.3	+10.6%	+2.9%	321	327	354	+1.9%	+8.2%
9 Sanofi	3.0	4.0	4.2	+35.1%	+5.6%	259	318	336	+22.7%	+5.7%
10 Novartis	3.3	3.9	4.0	+18.2%	+2.6%	290	311	319	+7.4%	+2.7%
11 Eisai	3.8	4.4	3.7	+15.5%	-16.5%	324	345	303	+6.5%	-12.1%
12 GlaxoSmithKline	3.0	3.3	3.1	+10.2%	-6.6%	266	266	249	+0.1%	-6.5%
13 Kyowa Hakko Kirin	2.5	2.9	3.0	+18.1%	+4.0%	211	230	251	+8.9%	+9.4%
14 AstraZeneca	2.6	3.1	2.9	+17.1%	-5.2%	230	244	232	+6.4%	-5.1%
15 Bayer	2.2	2.6	2.8	+20.0%	+7.6%	189	206	222	+9.0%	+7.7%
16 Boehringer Ingelheim	2.2	2.5	2.7	+13.3%	+6.5%	197	203	217	+2.9%	+6.6%
17 Eli Lilly	1.6	2.1	2.2	+30.2%	+6.8%	142	168	179	+18.2%	+6.9%
18 Dainippon Sumitomo Pharma	2.1	2.3	2.1	+6.6%	-7.4%	183	180	175	-1.8%	-2.6%
19 Shionogi	1.9	2.1	2.0	+12.1%	-3.8%	159	165	167	+3.3%	+1.2%
20 Ono Pharmaceutical	1.6	1.8	1.8	+16.8%	-4.8%	136	146	146	+7.7%	+0.1%
Total	69.0	77.6	76.8	+12.5%	-1.1%	5,976	6,159	6,260	+3.1%	+1.6%

Currency Impact (\$bn) at 2010 rates:

	+5.8	+3.7
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Government Purchases

Country	Gov Purchases (\$bn)			Growth (US\$)		Gov Purchases (¥bn)			Local % Growth	
	2010	2011	2012	2010/11	2011/12	2010	2011	2012	2010/11	2011/12
Japan	71.0	83.1	n/a	+17.0%		6,082	6,560		+7.9%	

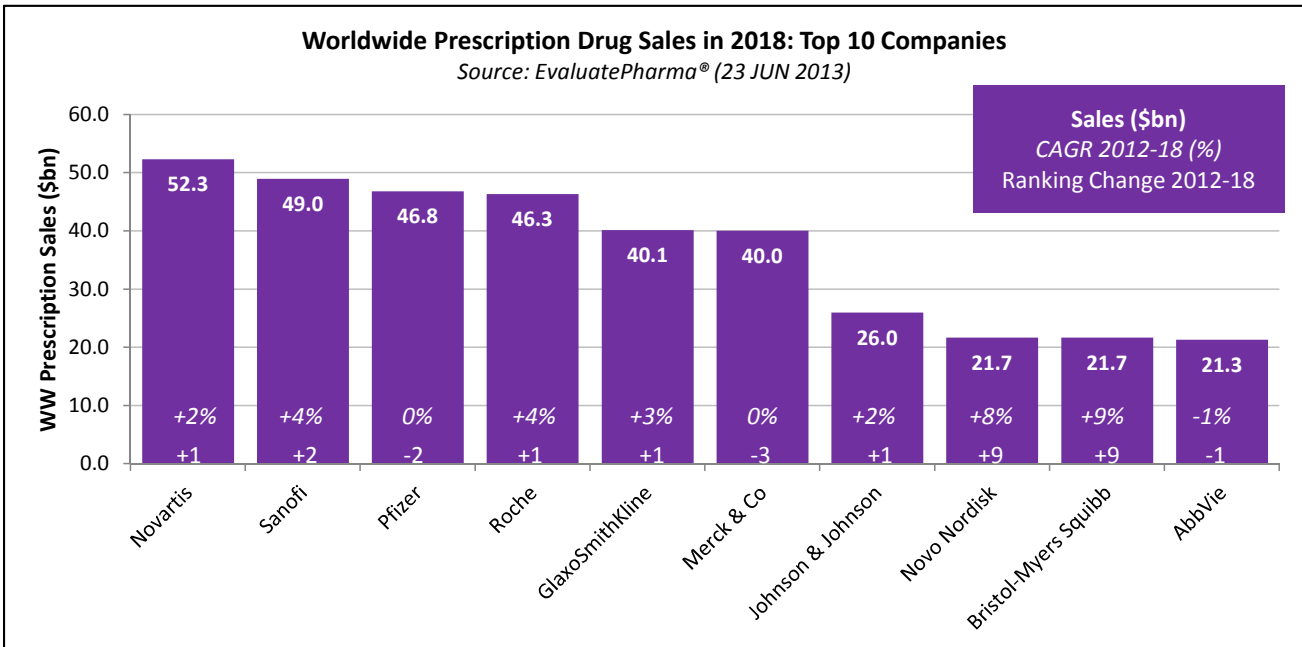
Currency Rate (1 Apr - 31 Mar)	2010	2011	2012	2013	2010/11	2011/12	2012/13
1 ¥ = \$	0.0117	0.0127	0.0120	0.0101	+8%	-5%	-16%
1 \$ = ¥	85.7	79.0	83.1	98.6			



Worldwide Prescription Drug Sales in 2018: Top 20 Companies

Novartis Remains Top of the Class in 2018; Prescription Sales expected to reach \$52.3bn

In last year's edition of the World Preview, EvaluatePharma® found that Novartis would become the number one pharmaceutical company, based on worldwide Rx sales, in 2018. This year, Novartis remains top of the class with sales of \$52.3bn in 2018 or \$3.3bn more than second-place Sanofi. A strong HIV franchise and impressive forecast sales in 2018 for Sofosbuvir (acquired via Pharmasset in Jan 2012) are expected to push Gilead up ten places within the top 20 with total Rx sales of \$21.3bn in 2018, which represents a \$6.2bn increase on the 2018 figure forecast last year. Eli Lilly is forecast to drop six places to 17th in 2018 primarily due to patent expirations of Zyprexa and Cymbalta leading to an annual 4% decline in sales between 2012 to 2018. In absolute dollar terms, GlaxoSmithKline's 2018 total Rx forecasts have fallen the most (compared with May 2012) by \$4.8bn.



Worldwide Prescription Drug Sales (2012/18): Top 20 Companies & Total Market

Company	WW Prescription Sales (\$bn)			2018 Change vs. May 12	WW Market Share			Rank Chg. (+/-)
	2012	2018	CAGR		2012	2018	Chg. (+/-)	
1 Novartis	45.4	52.3	+2%	+1.0	6.4%	5.8%	-0.5pp	+1
2 Sanofi	38.4	49.0	+4%	+0.8	5.4%	5.5%	+0.1pp	+2
3 Pfizer	47.4	46.8	-0%	-1.5	6.6%	5.2%	-1.4pp	-2
4 Roche	37.5	46.3	+4%	+2.4	5.3%	5.2%	-0.1pp	+1
5 GlaxoSmithKline	33.1	40.1	+3%	-4.8	4.6%	4.5%	-0.2pp	+1
6 Merck & Co	41.1	40.0	-0%	-0.6	5.8%	4.5%	-1.3pp	-3
7 Johnson & Johnson	23.5	26.0	+2%	-1.0	3.3%	2.9%	-0.4pp	+1
8 Novo Nordisk	13.5	21.7	+8%	+1.4	1.9%	2.4%	+0.5pp	+9
9 Bristol-Myers Squibb	13.2	21.7	+9%	+0.3	1.9%	2.4%	+0.6pp	+9
10 AbbVie	23.1	21.3	-1%	-1.8	3.2%	2.4%	-0.9pp	-1
11 Gilead Sciences	9.4	21.3	+15%	+6.2	1.3%	2.4%	+1.1pp	+10
12 AstraZeneca	27.1	21.0	-4%	-2.1	3.8%	2.3%	-1.4pp	-5
13 Bayer	14.7	19.4	+5%	+3.3	2.1%	2.2%	+0.1pp	+2
14 Takeda	15.2	17.7	+3%	-1.3	2.1%	2.0%	-0.1pp	-
15 Amgen	16.6	16.4	-0%	+1.9	2.3%	1.8%	-0.5pp	-2
16 Teva Pharmaceutical	17.7	15.8	-2%	-3.4	2.5%	1.8%	-0.7pp	-4
17 Eli Lilly	19.7	15.4	-4%	+1.7	2.8%	1.7%	-1.0pp	-6
18 Boehringer Ingelheim	14.7	12.7	-2%	+0.4	2.1%	1.4%	-0.6pp	-2
19 Baxter International	8.9	12.1	+5%	+0.0	1.2%	1.4%	+0.1pp	+3
20 Astellas Pharma	11.0	12.1	+2%	-0.7	1.5%	1.3%	-0.2pp	-1
Total Top 20	471.3	529.1	+2%		66.0%	59.1%	-6.9pp	
Other	242.8	366.1	+7%		34.0%	40.9%		
Total	714.1	895.2	+4%		100.0%	100.0%		

Source: EvaluatePharma® (23 JUN 2013)

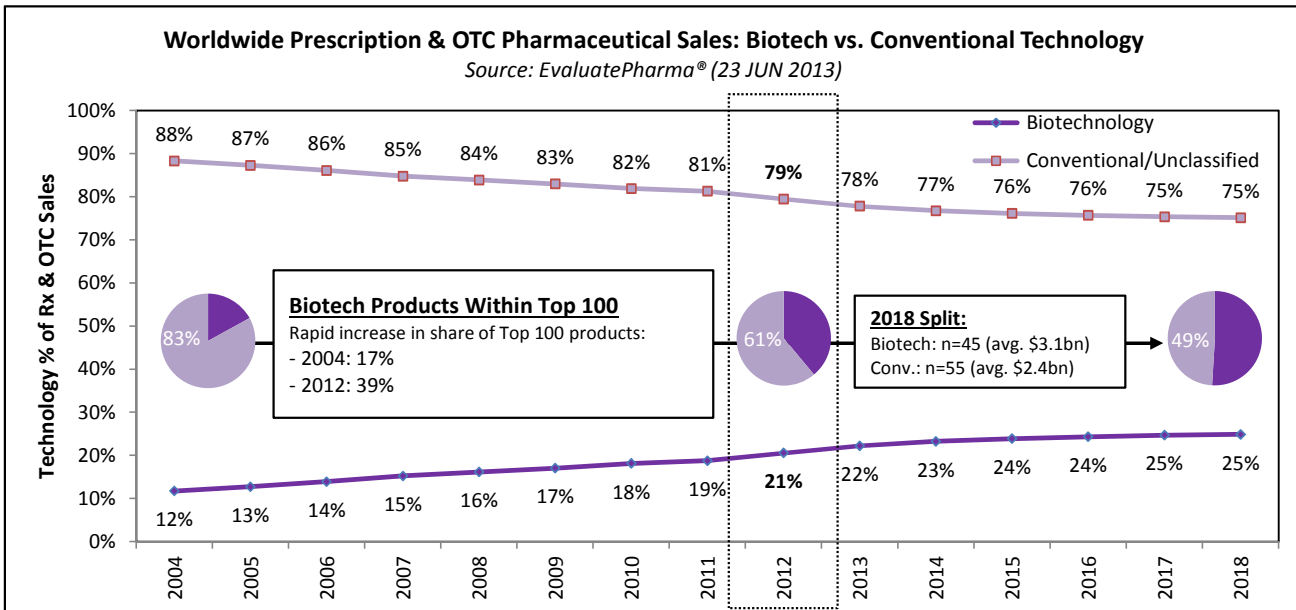
Note: Prescription drug sales include generic drug sales. Excludes alliance revenue and royalties where possible.



Worldwide Prescription & OTC Sales by Technology (2004-18)

Within the Top 100 in 2018, Sales from Biotech Products Edge ahead of Sales from Small Molecule Products

EvaluatePharma® finds that the percentage of sales from biotechnology products (bioengineered vaccines & biologics), within the world's top 100, is set to increase from 39% in 2012 to 51% in 2018. In the broader market, sales from biotechnology products are expected to account for 25% of the world pharmaceutical market by 2018, versus the current share of 21% in 2012. Roche is set to remain the biggest player in the biotechnology space with sales increasing by \$8.6bn to \$35.3bn in 2018, which represents a 5% growth per annum. Amgen's market share of biotechnology products is expected to fall 3.7 percentage points between 2012 and 2018.



Worldwide Prescription & OTC Sales by Technology (2004-2018)

Technology	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Biotechnology	12%	13%	14%	15%	16%	17%	18%	19%	21%	22%	23%	24%	24%	25%	25%
Conventional/Unclassified	88%	87%	86%	85%	84%	83%	82%	81%	79%	78%	77%	76%	76%	75%	75%
Total Rx & OTC Sales	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

WW Sales (\$bn)

Technology	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Biotechnology	56	66	79	96	110	118	130	143	154	167	182	196	210	223	234
Conventional	332	348	371	397	421	432	439	459	435	416	420	432	446	459	474
Other Unclassified Sales	91	106	118	135	150	145	149	160	161	170	181	193	206	220	233
Total Rx & OTC Sales	479	520	568	627	680	695	718	762	750	753	782	821	862	902	941

Source: EvaluatePharma® (23 JUN 2013)

Worldwide Prescription Drug Sales from Biotechnology in 2018: Top 10 Companies

Company	WW Sales (\$bn)			WW Market Share		Chg. (+/-)	Rank Chg.
	2012	2018	% CAGR 12-18	2012	2018		
1 Roche	26.7	35.3	+5%	17.3%	15.1%	-2.2pp	-
2 Sanofi	13.4	21.7	+8%	8.7%	9.3%	+0.6pp	+1
3 Novo Nordisk	12.6	21.1	+9%	8.2%	9.0%	+0.9pp	+1
4 Amgen	15.5	14.9	-1%	10.1%	6.4%	-3.7pp	-2
5 Pfizer	10.3	13.7	+5%	6.7%	5.9%	-0.8pp	+1
6 AbbVie	10.1	13.7	+5%	6.6%	5.8%	-0.7pp	+1
7 Merck & Co	7.4	9.8	+5%	4.8%	4.2%	-0.6pp	+2
8 Johnson & Johnson	8.1	9.5	+3%	5.3%	4.1%	-1.2pp	-
9 Eli Lilly	5.3	9.4	+10%	3.5%	4.0%	+0.6pp	+1
10 GlaxoSmithKline	4.8	8.7	+11%	3.1%	3.7%	+0.6pp	+2

Note: Company drug sales from undisclosed products are presumed to be from conventional (small molecule) technology.

Note: AbbVie's 2012 biotechnology sales estimated as the sum of Abbott Laboratories's disclosed sales of Humira and Synagis in 2012.



Top 20 Most Valuable R&D Projects (Ranked by Net Present Value)

Gilead's Sofosbuvir is the Most Valuable Product

EvaluatePharma's NPV Analyzer finds that Gilead's hepatitis C polymerase inhibitor, Sofosbuvir, is easily the industry's most valuable pipeline product with a current valuation of \$28.6bn (an increase on last year of \$11bn). Analysts have increased their already impressive 2018 forecasts of Sofosbuvir by \$2bn, over the course of the year, to around \$7.4bn. Should Gilead achieve such sales, the \$11.2bn price paid to acquire this asset, via Pharmasset, would be more than justified. Fourteen of the entries in last year's top 20 have since received approval and have collectively seen their NPVs increase 59% since May 2012; effectively releasing over \$84.9bn of value from last year's industry pipeline. As a result of last year's approvals, this year's top 20 has 18 new entries and the entire industry pipeline is estimated to be worth over \$286bn, which should support growth over the coming years.

Top 20 Most Valuable R&D Projects (Ranked by Net Present Value)

Rank	Product	Company	Phase (Current)	Pharmacological Class	WW Product Sales (\$m)		Today's NPV (\$m)
					2018		
1	Sofosbuvir	Gilead Sciences	Filed	Hepatitis C nucleoside NS5B polymerase inhibitor	7,352		28,566
2	BMS-936558	Bristol-Myers Squibb	Phase III	Anti-programmed death-1 MAb	1,869	new entry	9,912
3	GS-7977/GS-5885	Gilead Sciences	Phase III	Hepatitis C nucleoside NS5A & NS5B polymerase inhibitor	2,217	new entry	6,845
4	IMC-1121B	Eli Lilly	Filed	Anti-VEGFr MAb	970	new entry	4,232
5	Ibrutinib	Pharmacyclics	Phase III	Bruton's tyrosine kinase (BTK) inhibitor	1,401	new entry	4,040
6	Reolysin	Oncolytics Biotech	Phase III	Oncolytic virus - Ras activated	1,127		3,887
7	VX-809 + ivacaftor	Vertex Pharmaceuticals	Phase III	CF transmembrane conductance regulator corrector	1,427	new entry	3,538
8	RG3638	Roche	Phase III	Anti-mesenchymal epithelial transition MAb	656	new entry	3,478
9	Palbociclib	Pfizer	Phase III	Cyclin-dependent kinase 4 & 6 inhibitor	794	new entry	3,151
10	LY2062430	Eli Lilly	Phase III	Anti-beta amyloid MAb	726	new entry	3,083
11	Odanacatib	Merck & Co	Phase III	Cathepsin K inhibitor	921	new entry	2,504
12	Dolutegravir	GlaxoSmithKline	Filed	HIV integrase inhibitor	1,284	new entry	2,473
13	Opsumit	Actelion	Filed	Endothelin receptor antagonist	927	new entry	2,421
14	BAX 817	Baxter International	Phase III	Factor VIIa	470	new entry	2,416
15	LY2963016	Eli Lilly	Phase III	Insulin	522	new entry	2,362
16	REGN727/ SAR236553	Sanofi	Phase III	Anti-PCSK9 MAb	621	new entry	2,100
17	Apremilast	Celgene	Filed	Phosphodiesterase IV (PDE4) inhibitor	605	new entry	2,018
18	Afrezza	MannKind	Phase III	Insulin	286	new entry	1,985
19	Riociguat	Bayer	Filed	Guanylate cyclase activator	732	new entry	1,950
20	Anoro Ellipta	GlaxoSmithKline	Filed	Long-acting muscarinic antagonist (LAMA) & long-acting beta 2	882	new entry	1,941
Top 20					25,791		92,901
Other					64,762		193,466
Total					90,552		286,367 -2%

Source: EvaluatePharma® (23 JUN 2013)

NPV of R&D Pipeline May 2012: 292,551

Most Valuable R&D Projects (Ranked by NPV) in May 2012 Which Have Since Been Approved or Suffered Setbacks

Change vs. May '12	Product	Company	Status (May 2012)	Status Change Since May 2012	May 2012 NPV (\$m)	Today's NPV (\$m)	Change vs. May 12 (%)
Approved	Tecfidera	Biogen Idec	Filed	Marketed	9,083	12,993	43%
	Perjeta	Roche	Filed	Marketed	8,838	12,811	45%
	Stribild	Gilead Sciences	Filed	Marketed	4,258	8,796	107%
	Xeljanz	Pfizer	Filed	Marketed	4,002	4,726	18%
	Kadcyla	Roche	Phase III	Marketed	3,757	11,109	196%
	Tresiba	Novo Nordisk	Filed	Marketed	2,981	3,918	31%
	Bexsero	Novartis	Filed	Approved	2,828	2,973	5%
	Vascepa	Amarin	Filed	Marketed	2,758	6,390	132%
	Breo Ellipta	GlaxoSmithKline	Phase III	Approved	2,724	2,257	-17%
	Ryzodeg	Novo Nordisk	Filed	Approved	2,572	2,001	-22%
	Xofigo	Bayer	Phase III	Marketed	2,552	1,538	-40%
	Xtandi	Medivation	Phase III	Marketed	2,459	7,595	209%
	Kyprolis	Onyx	Filed	Marketed	2,289	6,268	174%
	Qsymia	VIVUS	Filed	Marketed	2,140	1,539	-28%
Sub-Total					53,239	84,914	59%
Setback	Bapineuzumab	Elan	Phase III	Abandoned	4,189	0	-100%
Sub-Total					4,189	0	-100%
Total					57,428	84,914	48%

Source: EvaluatePharma® (23 JUN 2013)

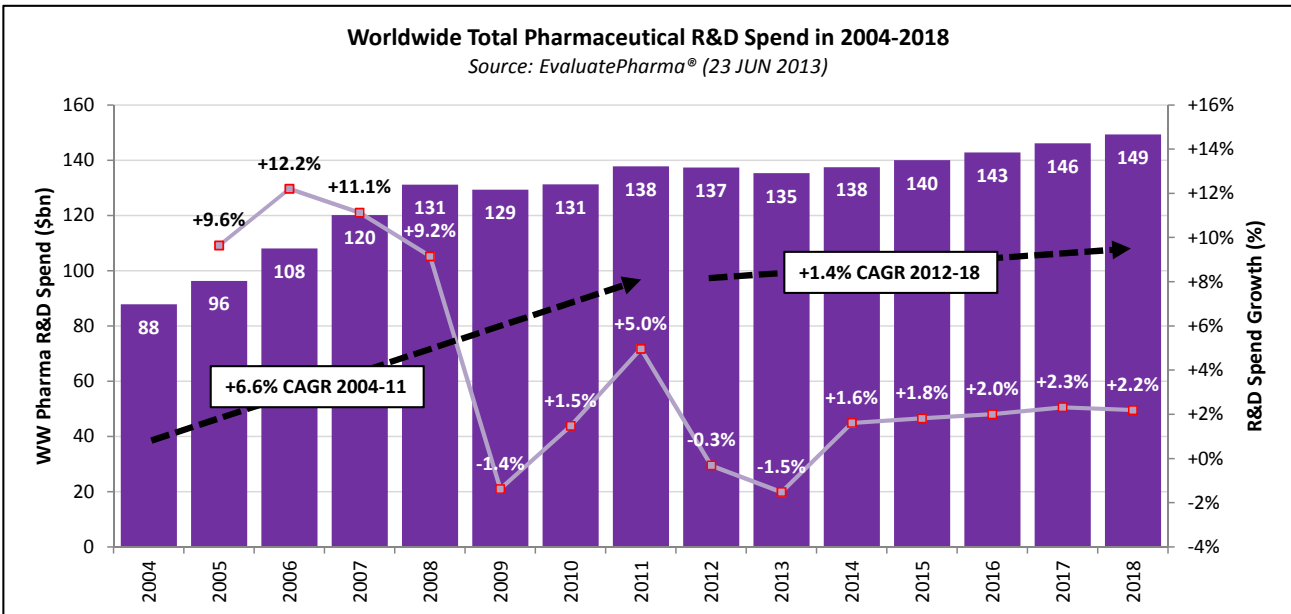
Note: Johnson & Johnson to receive 50/50 profit-share with Pharmacyclics on Ibrutinib.
Onyx Pharmaceuticals to receive royalties from Pfizer on Palbociclib.
Shionogi to receive royalties from GlaxoSmithKline on Dolutegravir.



Worldwide R&D Spend by Pharma & Biotech Companies (2004-2018)

Global Pharmaceutical R&D Spend to Grow by 1.4% (CAGR) to \$149bn in 2018

EvaluatePharma® estimates that worldwide pharmaceutical R&D totalled \$137bn in 2012 representing a decrease of 0.3% from 2011. This contrasts with a growth rate of 5.0% between 2010 and 2011, although a large part of the increase in 2011 R&D spend can be attributed to the weakness of the dollar: a significant portion of R&D costs are booked in euros and Swiss francs. The cost per NME fell for the second consecutive year to \$3.0bn per NME, based on a three-year lag period between R&D expenditure and NME approval*. Over the past ten years, the pharmaceutical industry invested over \$1.2 trillion in R&D.



Worldwide R&D Spend by Pharma & Biotech Companies (2004-2018)

	WW Prescription Sales (\$bn)															
Year	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
Pharma R&D Spend	87.9	96.4	108.1	120.2	131.2	129.4	131.3	137.8	137.4	135.3	137.5	140.0	142.8	146.2	149.4	
Growth per Year		+9.6%	+12.2%	+11.1%	+9.2%	-1.4%	+1.5%	+5.0%	-0.3%	-1.5%	+1.6%	+1.8%	+2.0%	+2.3%	+2.2%	
WW Prescription (Rx) Sales	455	495	542	599	649	663	685	725	714	717	744	781	820	858	895	
R&D as % of WW Rx Sales	19.3%	19.5%	20.0%	20.1%	20.2%	19.5%	19.2%	19.0%	19.2%	18.9%	18.5%	17.9%	17.4%	17.0%	16.7%	
Generics	27	32	40	46	53	52	59	65	66	70	75	79	83	88	92	
Rx excl. Generics	428	463	502	553	597	611	626	660	648	647	670	702	737	770	803	
R&D as % of Rx excl. Generics	20.5%	20.8%	21.6%	21.7%	22.0%	21.2%	21.0%	20.9%	21.2%	20.9%	20.5%	19.9%	19.4%	19.0%	18.6%	

Source: EvaluatePharma® (23 JUN 2013)

CAGR 12-18 on Pharma R&D Spend +1.4%

Cumulative 10 year R&D Spend (2003-12) \$1159 bn

	Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Number of NMEs		38	28	29	26	31	34	26	35	43
Cost per NME (\$bn)		2.3	3.4	3.7	4.6	4.2	3.8	5.0	3.9	3.2
Cost per NME (\$bn) (3 year lag)*					3.4	3.1	3.2	4.6	3.7	3.0

Note: Industry sales based on Top 500 pharmaceutical and biotech companies.

Forecast pharmaceutical research and development spend based on a consensus of leading equity analysts' estimates for company level R&D spend, extrapolated to pharmaceutical R&D when a company has non-pharmaceutical R&D activity.

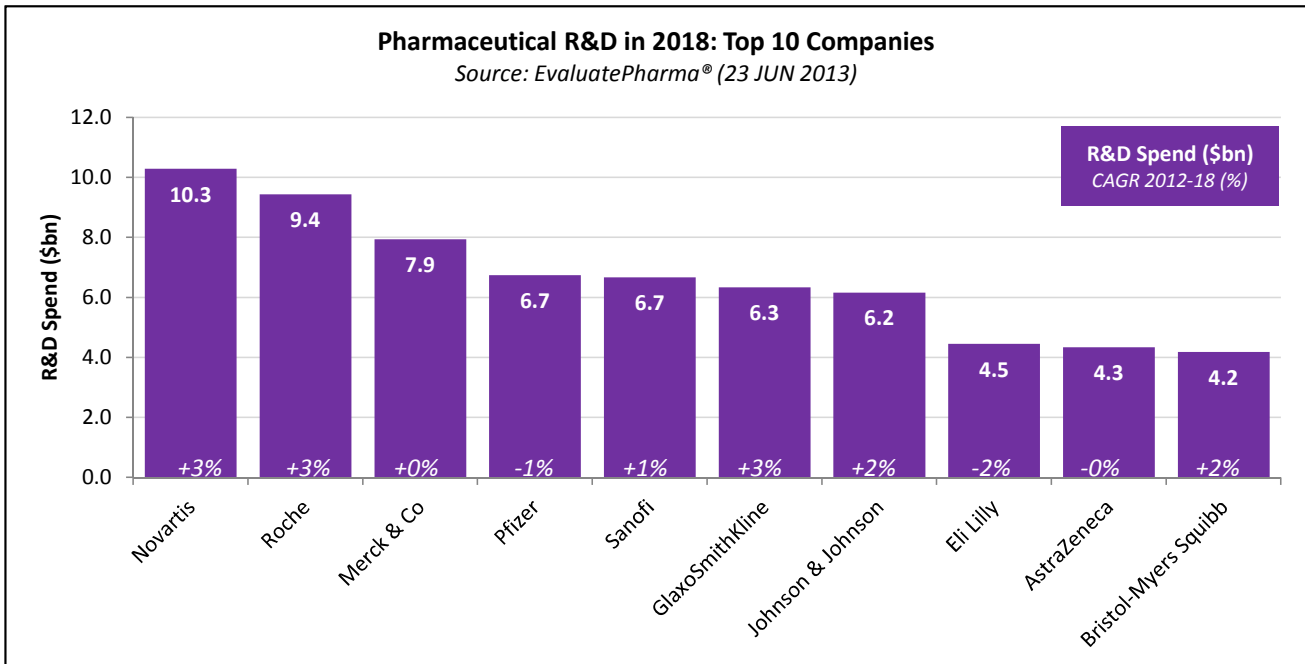
*Cost per NME (\$bn) (3 year lag) uses the R&D expense for 3 years prior to the NME approval instead of the same year. e.g. the 2011 figure of \$3.7bn is the R&D expense in 2008 divided by the number of NMEs in 2011.



Pharmaceutical R&D Spend in 2018: Top 20 Companies

Novartis Remains the Top Pharmaceutical R&D Spender in 2018

EvaluatePharma®'s consensus forecast finds Novartis will continue to spend the most on research and development in 2018, with a spend of \$10.3bn. Of the top 20, Biogen Idec is forecast to be growing its R&D expense the most rapidly, with R&D costs forecast to increase 9% per year from \$1.3bn in 2012 to \$2.2bn in 2018. Four companies in the top 20 (Pfizer, Eli Lilly, AstraZeneca and Takeda) are forecast to invest less in R&D over the next six years.



Pharmaceutical R&D Spend (2012/18): Top 20 Companies & Total Market

Company	Pharma R&D (\$bn)		CAGR 12-18	2018 Change vs. May 12	R&D As a % of Rx Sales		
	2012	2018			2012	2018	Chg. (+/-)
1 Novartis	8.8	10.3	+3%	+0.1	19.4%	19.7%	+0.2pp
2 Roche	8.0	9.4	+3%	+0.7	21.4%	20.4%	-1.0pp
3 Merck & Co	7.9	7.9	+0%	+0.4	19.2%	19.8%	+0.6pp
4 Pfizer	7.0	6.7	-1%	+0.0	14.9%	14.4%	-0.5pp
5 Sanofi	6.1	6.7	+1%	+0.0	15.9%	13.6%	-2.3pp
6 GlaxoSmithKline	5.3	6.3	+3%	-0.8	15.9%	15.8%	-0.1pp
7 Johnson & Johnson	5.4	6.2	+2%	+0.3	22.8%	23.7%	+0.9pp
8 Eli Lilly	5.1	4.5	-2%	-0.2	25.7%	28.9%	+3.2pp
9 AstraZeneca	4.5	4.3	-0%	+0.3	16.4%	20.7%	+4.3pp
10 Bristol-Myers Squibb	3.7	4.2	+2%	-0.1	28.1%	19.3%	-8.8pp
11 Boehringer Ingelheim	3.3	3.4	+0%	+0.3	22.5%	26.5%	+4.0pp
12 Bayer	2.5	3.4	+5%	-0.2	17.1%	17.3%	+0.2pp
13 Takeda	3.9	3.4	-3%	-0.7	25.9%	18.9%	-7.0pp
14 Amgen	3.3	3.3	-0%	+0.3	19.9%	19.9%	-0.0pp
15 AbbVie	2.8	3.2	+2%	+0.0	15.1%	14.8%	-0.3pp
16 Novo Nordisk	1.9	3.0	+8%	-0.0	14.0%	14.0%	+0.1pp
17 Gilead Sciences	1.7	2.6	+7%	+0.8	17.9%	12.1%	-5.8pp
18 Celgene	1.4	2.3	+9%	+0.3	26.3%	21.4%	-4.9pp
19 Astellas Pharma	2.2	2.3	+1%	-0.4	19.9%	18.9%	-1.1pp
20 Biogen Idec	1.3	2.2	+9%	+0.4	35.1%	21.9%	-13.1pp
Total Top 20	86.1	95.5	+1.7%		19.2%	18.3%	-0.9pp
Other	51.7	53.9	+0.7%				
Total	137.8	149.4	+1.3%		19.0%	16.7%	-2.3pp

Source: EvaluatePharma® (23 JUN 2013)

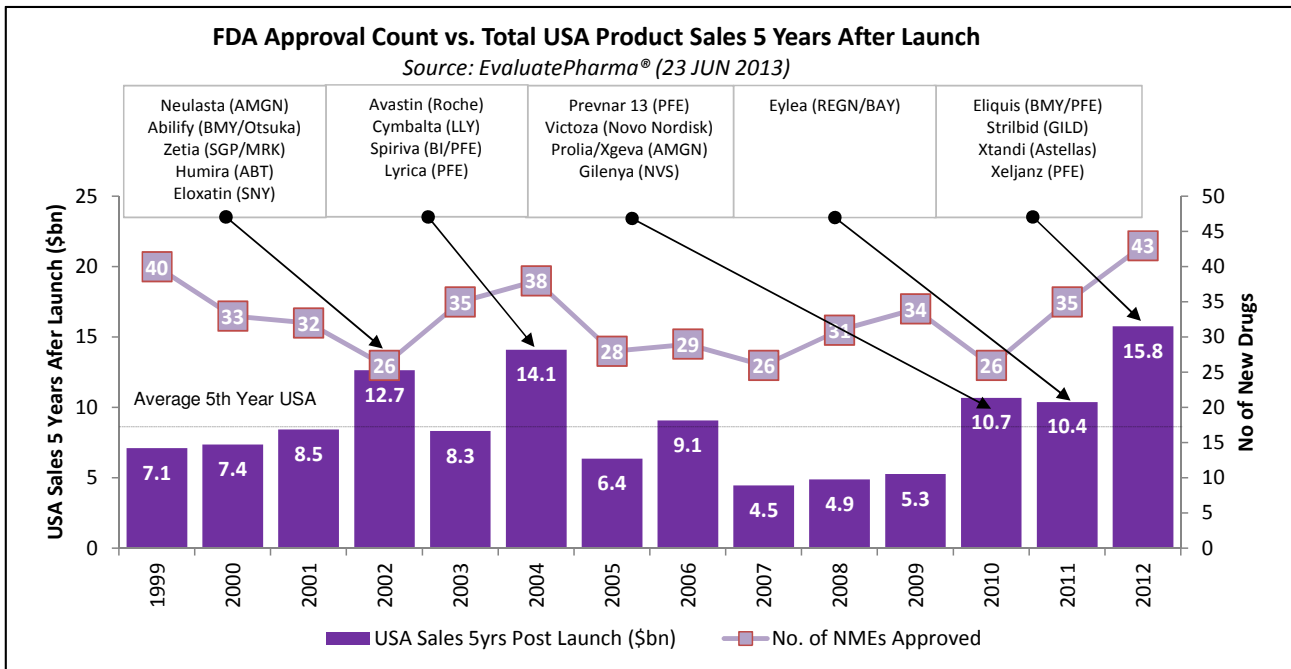
Note: Forecast pharmaceutical R&D spend based on a consensus of leading equity analysts' estimates for company-level R&D spend.



FDA New Drug Approval Analysis (NMEs & Biologicals): 1999 to 2012

Best Year for Approvals since before 1997; Number of New Drugs Approved Up by 23%; Sales Potential Up 52%

EvaluatePharma® found that the FDA approved 43 new drugs in 2012, which represents an increase of 23% from the 2011 figure of 35. The 2012 approvals included 33 new molecular entities (up nine vs. 2011) and ten biologicals (down one vs. 2011). The increase in number of approvals was accompanied by a 52% increase in total USA sales 5-years post launch to \$15.8bn in 2012, which in turn has increased the average 5-year sales per approval by 23% to \$367m. Of the products approved in 2012, Eliquis, Strilbid, Kalydeco, Xeljanz, Xtandi and Kyprolis are all forecast to sell more than \$1bn in the USA five-years post launch.



FDA Approval Count (NMEs & Biologicals) vs. 5th Year after Launch USA Product Sales

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
No. of NMEs Approved	35	27	24	17	21	31	18	18	16	21	19	15	24	33
No. of Biologicals Approved	5	6	8	9	14	7	10	11	10	10	15	11	11	10
Total NMEs + Biologicals	40	33	32	26	35	38	28	29	26	31	34	26	35	43
% Chg.		-18%	-3%	-19%	+35%	+9%	-26%	+4%	-10%	+19%	+10%	-24%	+35%	+23%
USA Sales 5yrs Post Launch \$bn	7.1	7.4	8.5	12.7	8.3	14.1	6.4	9.1	4.5	4.9	5.3	10.7	10.4	15.8
% Chg.		+4%	+14%	+50%	-34%	+69%	-55%	+42%	-51%	+10%	+8%	+103%	-3%	+52%
5yr USA Sales per Approval \$m	178	224	264	487	238	371	228	313	172	158	155	411	297	367
% Chg.		+26%	+18%	+84%	-51%	+56%	-39%	+38%	-45%	-8%	-2%	+165%	-28%	+23%

Top 10 New Molecular Entities in 2012: Ranked on USA Consensus Sales in 2017

Product	Company	Approved	USA Sales	
			2012	2017
1 Strilbid	Gilead Sciences	Aug 2012	58	2,094
2 Eliquis	Bristol-Myers Squibb	Dec 2012	-	1,848
3 Xtandi	Astellas Pharma	Aug 2012	148	1,390
4 Kalydeco	Vertex Pharmaceuticals	Jan 2012	172	1,258
5 Xeljanz	Pfizer	Nov 2012	5	1,207
6 Kyprolis	Onyx Pharmaceuticals	Jul 2012	64	1,003
7 Linzess	Forest Laboratories	Aug 2012	24	808
8 Perjeta	Roche	Jun 2012	58	629
9 Iclusig	ARIAD Pharmaceuticals	Dec 2012	-	501
10 Aubagio	Sanofi	Sep 2012	9	441
Other			338	4,596
Total			875	15,774

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales forecasts based on a consensus of leading equity analysts' estimates.

5th year USA sales for products approved up to the end of 2006 are based on actual company reported sales. E.g. Januvia (Merck & Co), approved in Oct 2006 has company reported US sales in 2011 (5th year post US launch) of \$1,824m.

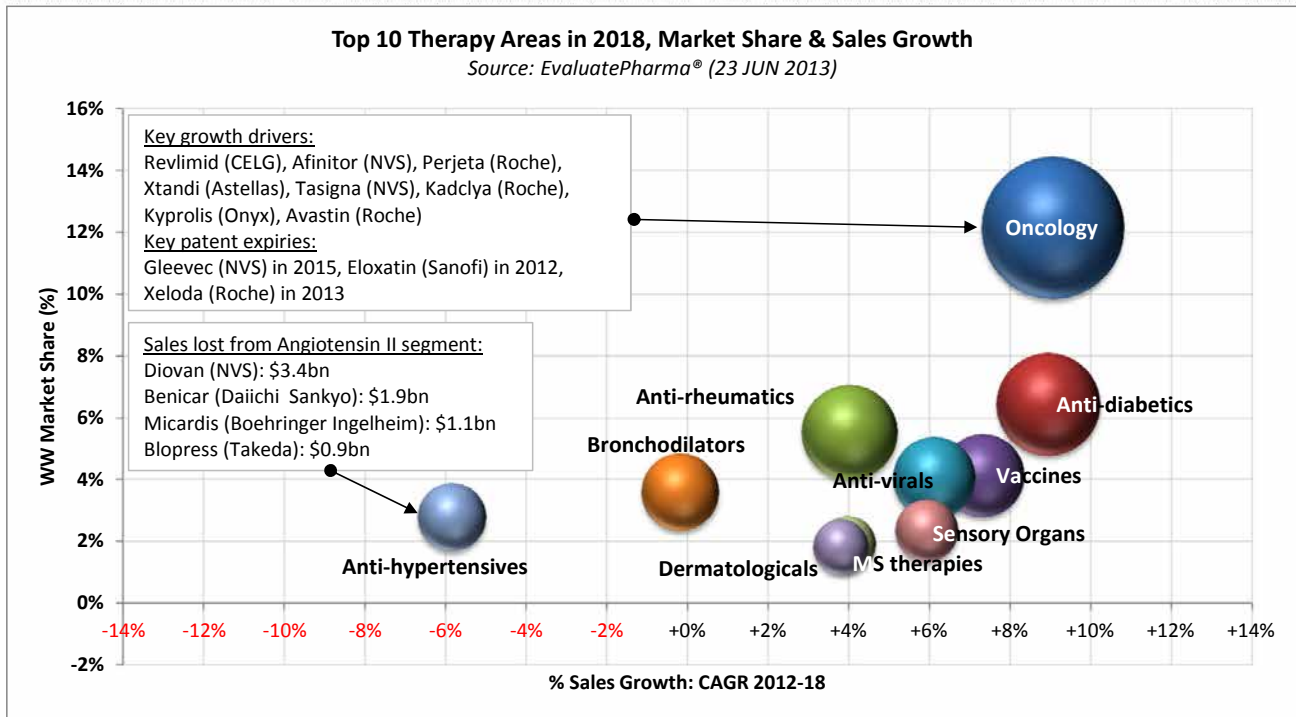
Note: The number of biologicals approved include new biologicals from both CDER and CBER. In 2012 there were 6 CDER biologicals approved and EvaluatePharma estimates that there were 4 CBER biologicals approved (Cangene's VariZIG, Biotest's Bivigam, GSK's Menhix and Novartis's Flucelvax).



Worldwide Prescription & OTC Sales by Therapy Area in 2018

Oncology Remains the Largest Segment; Anti-coagulants Still Expected to Record the Highest Growth to 2018

Oncology remains the largest segment in 2018, with strong growth from both in-line products and potential new entrants off-setting a number of major patent expiries. Over the period of 2012 to 2018, EvaluatePharma® finds that sales from anti-coagulants are set to grow at an annual rate of 11.5%, driven by new oral treatments for the prevention of stroke, MI and thrombosis. The anti-hyperlipidaemics segment dropped out of the top 10 as it continues to feel the effects of recent, and upcoming key patent expiries, with an annual decline of 8.1% between 2012 and 2018.



Worldwide Prescription & OTC Sales by EvaluatePharma® Therapy Area (2012/18): Top 15 Categories & Total Market

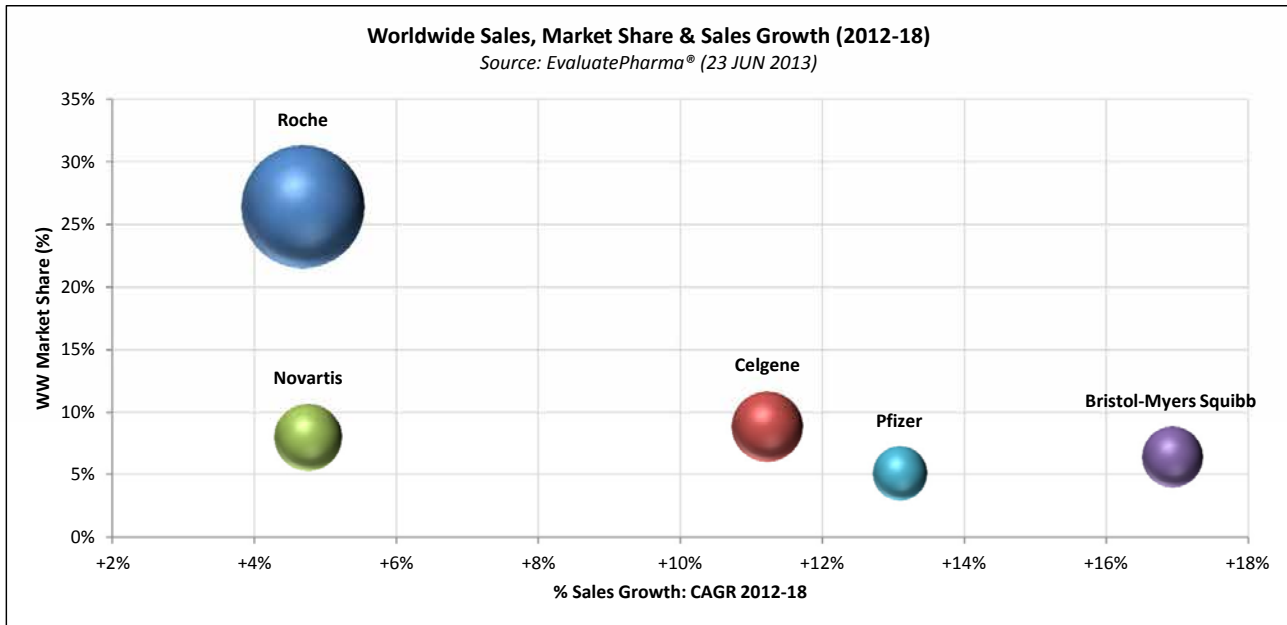
Therapy Area	WW Sales (\$bn)		CAGR % Growth	2018 Change vs. May 12	WW Market Share			Rank Chg. (+/-)
	2012	2018			2012	2018	Chg. (+/-)	
1 Oncology	68.0	114.4	+9.0%	+10.3	9.1%	12.2%	+3.1pp	-
2 Anti-diabetics	36.3	60.6	+8.9%	+2.4	4.8%	6.4%	+1.6pp	+2
3 Anti-rheumatics	41.1	52.1	+4.0%	+7.2	5.5%	5.5%	+0.1pp	-1
4 Vaccines	25.5	38.9	+7.3%	-1.0	3.4%	4.1%	+0.7pp	+3
5 Anti-virals	26.7	38.2	+6.1%	+6.1	3.6%	4.1%	+0.5pp	+1
6 Bronchodilators	34.2	33.9	-0.2%	+1.7	4.6%	3.6%	-1.0pp	-1
7 Anti-hypertensives	37.7	26.2	-5.8%	-2.2	5.0%	2.8%	-2.2pp	-4
8 Sensory Organs	15.7	22.1	+5.9%	+1.3	2.1%	2.4%	+0.3pp	+1
9 MS therapies	14.3	18.0	+4.0%	+2.9	1.9%	1.9%	+0.0pp	+2
10 Dermatology	13.7	17.2	+3.8%	-1.7	1.8%	1.8%	-0.0pp	+2
11 Anti-coagulants	8.0	15.3	+11.5%	-1.4	1.1%	1.6%	+0.6pp	+4
12 Anti-bacterials	14.3	14.7	+0.4%	-0.0	1.9%	1.6%	-0.3pp	-2
13 Anti-hyperlipidaemics	23.8	14.3	-8.1%	-3.7	3.2%	1.5%	-1.7pp	-5
14 Anti-fibrinolytics	10.0	13.2	+4.7%	-0.2	1.3%	1.4%	+0.1pp	-
15 Bone calcium regulators	10.2	10.9	+1.2%	+0.6	1.4%	1.2%	-0.2pp	-2
Top 15	379	490	+4.4%		50.6%	52.1%	+1.5pp	
Other	370	451	+3.3%		49.4%	47.9%	-1.5pp	
Total WW Rx & OTC Sales	750	941	+3.9%		100.0%	100.0%		
Total 'Rx & OTC Sales' includes:								
WW Generic Sales	66.2	92.3	+5.7%		8.8%	9.8%	+1.0%	
OTC Pharmaceuticals	35.3	45.4	+4.3%		4.7%	4.8%	+0.1%	

Source: EvaluatePharma® (23 JUN 2013)

Note: Industry sales based on Top 500 pharmaceutical and biotech companies. Sales in 2012 based on company reported data. Sales forecasts to 2018 based on a consensus of leading equity analysts' estimates for product sales and segmental sales.

Roche Expected to Remain Biggest Player in Oncology Market

EvaluatePharma® finds that Roche continued to be the most dominant player in the oncology market in 2012 with sales of \$23.0bn, accounting for over a third of the entire market. This dominance is expected to continue through 2018 with a 5% year-on-year growth between 2012 and 2018. By 2018, Roche's market share is forecast to fall 7.3 percentage points to 26.5% representing \$30.3bn in annual sales. Astellas Pharma enters the Top 10 following the launch of its treatment for prostate cancer, Xtandi, in September 2012, which is expected to add \$2.8bn to Astellas's 2018 total oncology sales. Overall, the entire oncology market is expected to expand 8% per year between 2012 and 2018 and account for \$114.4bn sales in 2018.



Top 10 Companies & Total Worldwide Oncology Sales 2012-18

Rank	Company	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Rank Chg. 2012-18
		2012	2018		2012	2018	
1	Roche	23,020	30,288	+5%	33.8%	26.5%	-
2	Celgene	5,369	10,167	+11%	7.9%	8.9%	+1
3	Novartis	6,956	9,191	+5%	10.2%	8.0%	-1
4	Bristol-Myers Squibb	2,880	7,357	+17%	4.2%	6.4%	+3
5	Pfizer	2,802	5,861	+13%	4.1%	5.1%	+3
6	AstraZeneca	3,489	3,976	+2%	5.1%	3.5%	-2
7	Johnson & Johnson	2,714	3,816	+6%	4.0%	3.3%	+2
8	Eli Lilly	2,885	3,434	+3%	4.2%	3.0%	-2
9	Astellas Pharma	335	3,222	+46%	0.5%	2.8%	+14
10	GlaxoSmithKline	1,153	2,840	+16%	1.7%	2.5%	+3
Top 10		51,603	80,153	+6%	75.8%	70.1%	
Other		16,435	34,257	+11%	24.2%	29.9%	
Total Industry		68,038	114,411	+8%	100.0%	100.0%	

Source: EvaluatePharma® (23 JUN 2013); Consensus sales from equity analysts' reports

Top 5 Oncology Products Worldwide in 2018

Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Current Status
					2012	2018		2012	2018	
1	Avastin	bevacizumab	Roche	Anti-VEGF MAb	6,149	7,665	+4%	9.0%	6.7%	Marketed
2	Rituxan	rituximab	Roche + Biogen Idec	Anti-CD20 MAb	7,155	6,809	-1%	10.5%	6.0%	Marketed
3	Revlimid	lenalidomide	Celgene	Immunomodulator	3,767	6,576	+10%	5.5%	5.7%	Marketed
4	Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAb	6,283	6,191	-0%	9.2%	5.4%	Marketed
5	Afinitor	everolimus	Novartis	Rapamycin analogue (mTOR inhibitor)	797	3,487	+28%	1.2%	3.0%	Marketed

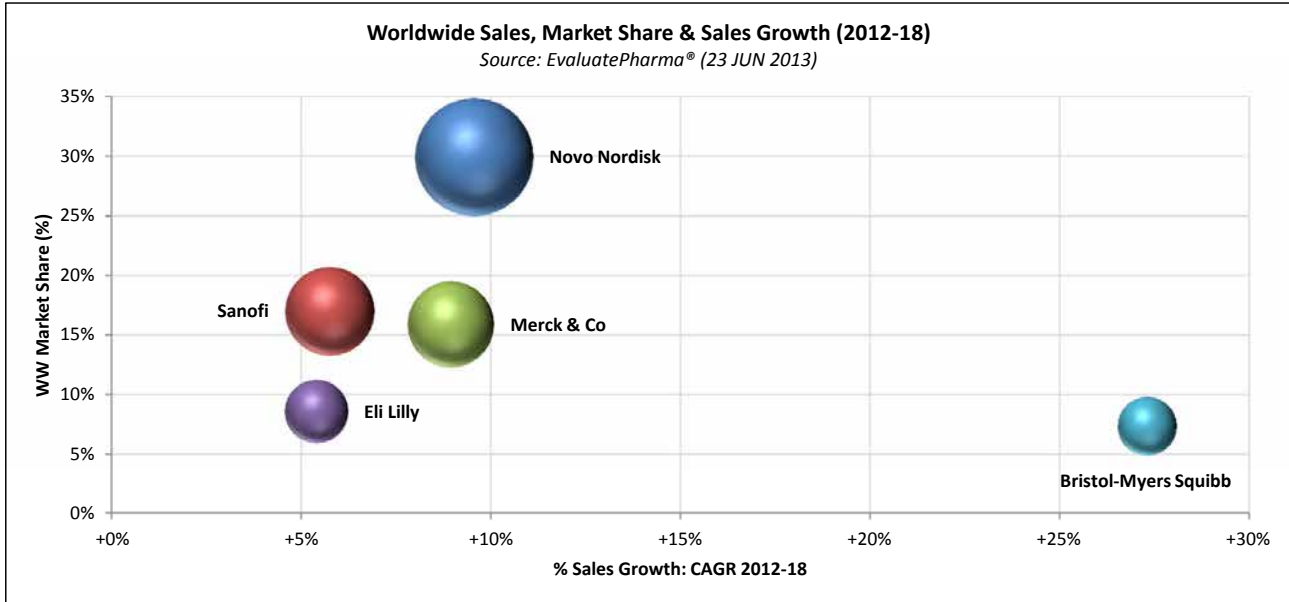
Note: Oncology includes: Alkaloids, Alkylating agents, Anti-metabolites, Anti-neoplastic MABs, Cancer vaccines, Cytotoxic antibiotics, Hormone therapies, Platinum compounds and other anti-cancer. Excludes anti-emetics and anti-anaemics used in chemotherapy-induced anaemia. Also excludes: Interferons, Immunostimulants & Immunosuppressants.



Anti-Diabetics Market to 2018

Novo Nordisk Continues to Dominate Anti-Diabetic Market

EvaluatePharma® finds that Novo Nordisk is forecast to remain the most significant player in the anti-diabetic market in 2018 with strong growth expected to come from its insulin franchise and Victoza, a GLP-1 agonist. Boehringer Ingelheim is forecast to jump seven places in the rankings to number eight in 2018 with sales of its anti-diabetic products set to increase 46% year-on-year between 2012 and 2018.



Note: Bubble = WW Sales in 2018

Top 10 Companies & Total Worldwide Anti-Diabetic Sales 2012-18

Rank	Company	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Rank Chg. 2012-18
		2012	2018		2012	2018	
1	Novo Nordisk	10,517	18,178	+10%	29.0%	30.0%	-
2	Sanofi	7,388	10,329	+6%	20.4%	17.0%	-
3	Merck & Co	5,776	9,657	+9%	15.9%	15.9%	-
4	Eli Lilly	3,823	5,232	+5%	10.5%	8.6%	-
5	Bristol-Myers Squibb	1,054	4,486	+27%	2.9%	7.4%	+1
6	Takeda	2,632	2,088	-4%	7.3%	3.4%	-1
7	Novartis	998	2,069	+13%	2.8%	3.4%	-
8	Boehringer Ingelheim	125	1,233	+46%	0.3%	2.0%	+7
9	Johnson & Johnson	-	792	n/m	n/m	1.3%	New
10	Merck KGaA	513	691	+5%	1.4%	1.1%	+1
Top 10		32,828	54,754	+9%	90.5%	90.3%	
Other		3,443	5,895	+9%	9.5%	9.7%	
Total Industry		36,271	60,650	+9%	100.0%	100.0%	

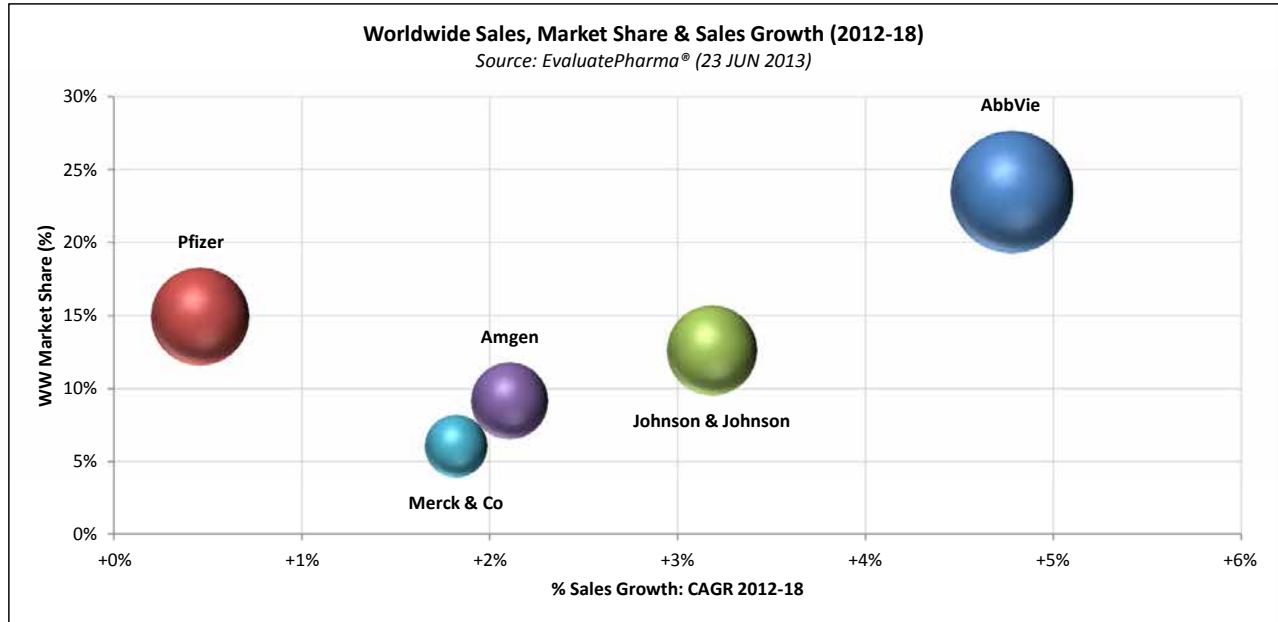
Source: EvaluatePharma® (23 JUN 2013); Consensus sales from equity analysts' reports

Top 5 Anti-Diabetic Products Worldwide in 2018

Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Current Status
					2012	2018		2012	2018	
1	Januvia/Janumet	sitagliptin phosphate	Merck & Co	Dipeptidyl peptidase IV inhibitor	5,745	9,283	+8%	15.8%	15.3%	Marketed
2	Lantus	insulin glargine recombinant	Sanofi	Insulin	6,378	8,121	+4%	17.6%	13.4%	Marketed
3	NovoRapid	insulin aspart	Novo Nordisk	Insulin	2,711	4,940	+11%	7.5%	8.1%	Marketed
4	Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 agonist	1,640	4,067	+16%	4.5%	6.7%	Marketed
5	Levemir	insulin detemir	Novo Nordisk	Insulin	1,690	2,523	+7%	4.7%	4.2%	Marketed

AbbVie Extends No. 1 Lead in Anti-Rheumatics Market in 2018

EvaluatePharma® finds that AbbVie will remain the world's number one player in anti-rheumatics in 2018 with sales of \$12.3bn representing 23.5% of the entire market. The entire Humira franchise (marketed by AbbVie and Eisai) continues to dominate the market with sales expected to reach \$12.8bn in 2018 or 24.5% of the entire market. Outside the Top 5, Bristol-Myers Squibb, Roche and UCB are expected to achieve strong growth from their anti-rheumatic drugs Ocrencia, Actemra and Cimzia, respectively.



Note: Bubble = WW Sales in 2018

Top 10 Companies & Total Worldwide Anti-Rheumatic Sales 2012-18

Rank	Company	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Rank Chg. 2012-18
		2012	2018		2012	2018	
1	AbbVie	9,265	12,257	+5%	22.5%	23.5%	-
2	Pfizer	7,597	7,808	+0%	18.5%	15.0%	+1
3	Johnson & Johnson	5,470	6,602	+3%	13.3%	12.7%	+1
4	Amgen	4,236	4,800	+2%	10.3%	9.2%	+1
5	Merck & Co	2,860	3,187	+2%	7.0%	6.1%	+1
6	Bristol-Myers Squibb	1,176	2,193	+11%	2.9%	4.2%	+2
7	Roche	884	1,944	+19%	1.7%	3.7%	+7
8	UCB	600	1,645	+18%	1.5%	3.2%	+8
9	Bayer	1,018	1,365	+5%	2.5%	2.6%	-
10	Hisamitsu Pharma	1,339	1,000	-5%	3.3%	1.9%	-3
Top 10		34,245	42,800	+4%	83.2%	82.1%	
Other		6,904	9,316	+5%	16.8%	17.9%	
Total Industry		41,149	52,115	+4%	100.0%	100.0%	

Source: EvaluatePharma® (23 JUN 2013); Consensus sales from equity analysts' reports

Top 5 Anti-Rheumatic Products Worldwide in 2018

Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Current Status
					2012	2018		2012	2018	
1	Humira	adalimumab	AbbVie + Eisai	Anti-tumour necrosis factor alpha (TNFa) MAb	9,616	12,782	+5%	23.4%	24.5%	Marketed
2	Enbrel	etanercept	Amgen + Pfizer + Takeda	Tumour necrosis factor alpha (TNFa) inhibitor	8,496	8,736	+0%	20.6%	16.8%	Marketed
3	Remicade*	infliximab	J&J + Merck + Mitsubishi Tanabe	Anti-tumour necrosis factor alpha (TNFa) MAb	7,634	7,228	-1%	18.6%	13.9%	Marketed
4	Xeljanz	tofacitinib citrate	Pfizer + Takeda	Janus kinase (JAK)-3 inhibitor	6	2,682	+177%	0.0%	5.1%	Marketed
5	Simponi*	golimumab	J&J + Merck	Anti-tumour necrosis factor alpha (TNFa) MAb	938	2,410	+17%	2.3%	4.6%	Marketed

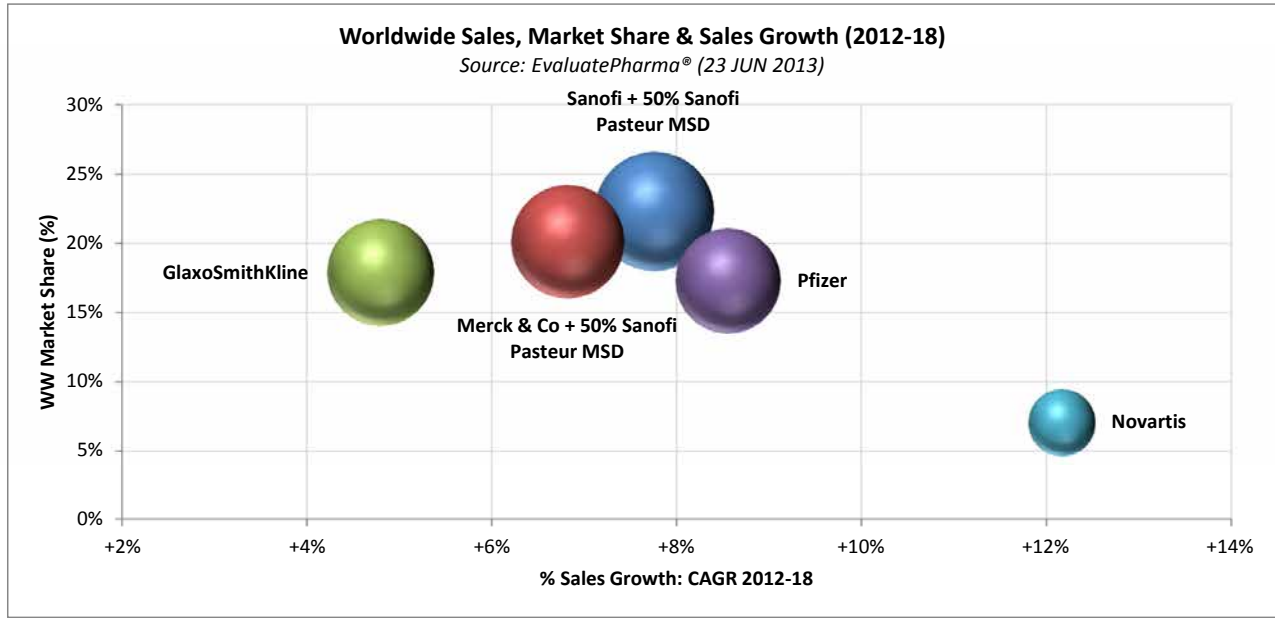
Note: TNF inhibitor sales include RA, Crohn's and Psoriasis. Pfizer books US co-promotion revenues on Enbrel.

*Combined Remicade and Simponi sales \$9.6bn in 2018. Simponi (golimumab) is Merck & Co and J&J's next generation product to Remicade (infliximab).

* Hisamitsu Pharma's 2012 anti-rheumatic sales are based on consensus forecast.

Sanofi No.1 Vaccine Company in 2018

EvaluatePharma® finds that Sanofi, including their share of the Sanofi Pasteur MSD JV with Merck & Co, takes the top position with an estimated \$8.7bn vaccine sales or 22.4% of the entire market in 2018. Pfizer's Prevnar 13 continues to show strong year-on-year growth of 8% between 2012 and 2018, and is expected to account for 15.6% of the entire vaccine market by 2018.



Note: Bubble = WW Sales in 2018

Top 10 Companies & Total Worldwide Vaccine Sales 2012-18

Rank	Company	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Rank Chg. 2012-18
		2012	2018		2012	2018	
1	Sanofi + 50% Sanofi Pasteur MSD	5,553	8,690	+8%	21.8%	22.4%	-
2	Merck & Co + 50% Sanofi Pasteur MSD	5,278	7,839	+7%	20.7%	20.2%	-
3	GlaxoSmithKline	5,265	6,970	+5%	20.7%	17.9%	-
4	Pfizer	4,117	6,735	+9%	16.2%	17.3%	-
5	Novartis	1,381	2,749	+12%	5.4%	7.1%	-
6	CSL	662	948	+6%	2.6%	2.4%	-
7	Johnson & Johnson	396	861	+14%	1.6%	2.2%	-
8	AstraZeneca	181	551	+20%	0.7%	1.4%	+7
9	Emergent BioSolutions	216	439	+13%	0.8%	1.1%	+4
10	Takeda	385	384	-0%	1.5%	1.0%	-3
Top 10		23,433	36,167	+8%	92.0%	93.0%	
Other		2,038	2,708	+5%	8.0%	7.0%	
Total Industry		25,471	38,875	+7%	100.0%	100.0%	

Source: EvaluatePharma® (23 JUN 2013); Consensus sales from equity analysts' reports

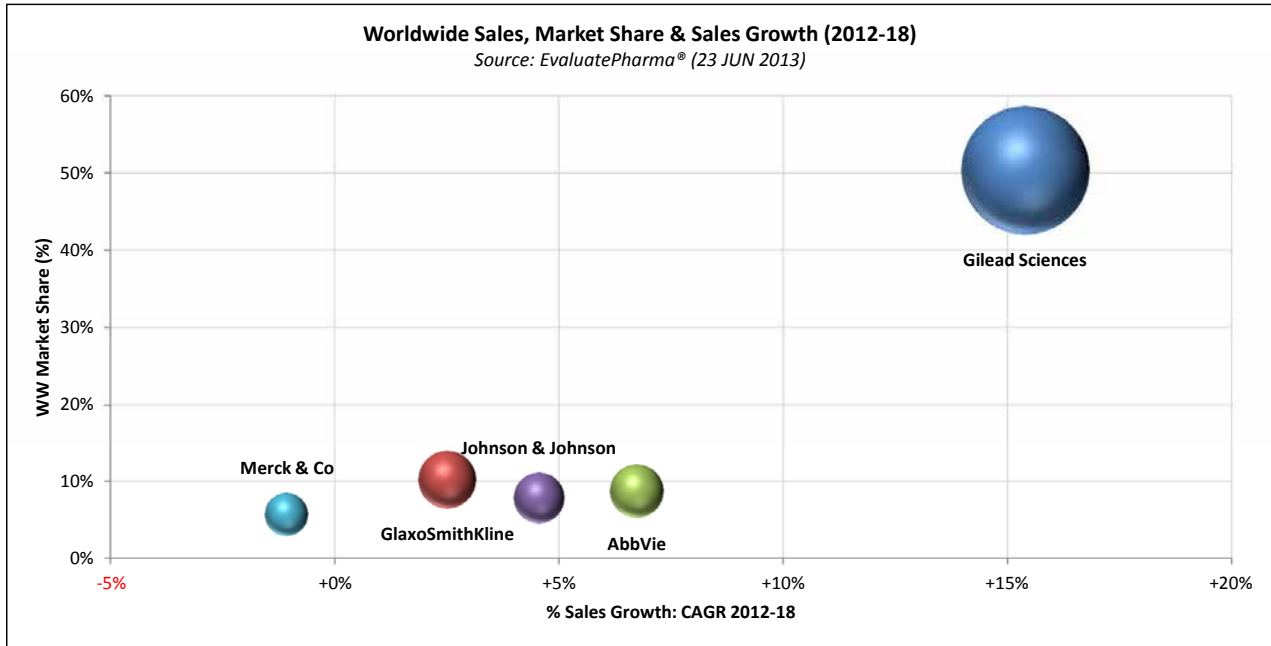
Top 5 Vaccine Products Worldwide in 2018

Rank	Product	Generic Name	Company	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Current Status
				2012	2018		2012	2018	
1	Prevnar 13	pneumococcal vaccine	Pfizer	3,718	6,057	+8%	14.6%	15.6%	Marketed
2	PENTAct-HIB	DTPw, Hib & polio vaccine	Sanofi	1,522	2,351	+8%	6.0%	6.0%	Marketed
3	Gardasil	human papillomavirus (HPV) vaccine	Merck & Co	1,631	2,257	+6%	6.4%	5.8%	Marketed
4	Fluzone/Vaxigrip	influenza vaccine	Sanofi	1,137	1,788	+8%	4.5%	4.6%	Marketed
5	Varivax	varicella vaccine	Merck & Co	1,273	1,475	+2%	5.0%	3.8%	Marketed

Note: Sanofi Pasteur MSD is a European joint venture between Merck & Co and Sanofi.

Gilead Expected to Account for Over 50% of All Anti-Viral Drug Sales by 2018

EvaluatePharma® finds that Gilead will command 50.4% market share of anti-viral sales by 2018 with sales set to increase 15% annually between 2012 and 2018. In addition to its continued domination of the HIV market, with the recently launched Stribild expected to generate over \$3.5bn in new sales in 2018, the market remains optimistic about its filed hepatitis C therapy, Sofosbuvir. Compared with last year's World Preview report, estimated sales of Sofosbuvir have increased by \$2.0bn to a massive \$7.4bn in 2018.



Note: Bubble = WW Sales in 2018

Top 10 Companies & Total Worldwide Anti-viral Sales 2012-18

Rank	Company	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Rank Chg. 2012-18
		2012	2018		2012	2018	
1	Gilead Sciences	8,142	19,236	+15%	30.4%	50.4%	-
2	GlaxoSmithKline	3,368	3,908	+3%	12.6%	10.2%	-
3	AbbVie	2,258	3,339	+7%	8.4%	8.8%	+3
4	Johnson & Johnson	2,304	3,007	+5%	8.6%	7.9%	+1
5	Merck & Co	2,329	2,182	-1%	8.7%	5.7%	-1
6	Bristol-Myers Squibb	3,173	1,968	-8%	11.9%	5.2%	-3
7	Sino Biopharmaceutical	485	864	+10%	1.8%	2.3%	+3
8	Roche	1,411	650	-12%	5.3%	1.7%	-1
9	AstraZeneca	611	584	-1%	2.3%	1.5%	-
10	Pharmstandard	203	269	+5%	0.8%	0.7%	+2
Top 10		24,284	36,008	+7%	90.8%	94.4%	
Other		2,458	2,146	-2%	9.2%	5.6%	
Total Industry		26,742	38,154	+6%	100.0%	100.0%	

Source: EvaluatePharma® (23 JUN 2013); Consensus sales from equity analysts' reports

Top 5 Anti-viral Products Worldwide in 2018

Rank	Product	Generic Name	Company	Pharma Class	WW Sales (\$m)		CAGR 2012-18	WW Market Share		Current Status
					2012	2018		2012	2018	
1	Sofosbuvir	sofosbuvir	Gilead Sciences	Hep C nucleoside NS5B polymerase inhibitor	-	7,352	n/m	-	19.3%	R&D
2	Stribild	cobicistat; elvitegravir; emtricitabine; tenofovir	Gilead Sciences	NRTI, HIV integrase inhibitor & CYP3A inhibitor	58	3,544	+99%	0.2%	9.3%	Marketed
3	GS-7977/GS-5885	ledipasvir; sofosbuvir	Gilead Sciences	Hep C nucleoside NS5A & NS5B polymerase inhibitor	-	2,217	n/m	-	5.8%	R&D
4	Truvada	emtricitabine; tenofovir	Gilead + Torii	NRTI	3,321	1,962	-8%	12.4%	5.1%	Marketed
5	Complera	emtricitabine; rilpivirine; tenofovir	Gilead Sciences	NRTI & NNRTI	342	1,712	+31%	1.3%	4.5%	Marketed

Note: GlaxoSmithKline consolidates 100% of the revenues of Viiv Healthcare, a joint venture with Pfizer for the marketing of the two companies' HIV anti-virals.

Note: AbbVie was spun out from Abbott Laboratories during JAN 2013. Historic numbers for AbbVie represent Abbott Laboratories.



2018: Top 50 Selling Products in the World

Humira is Top Selling Worldwide Product in 2018

EvaluatePharma® finds that the largest global brand in 2018 is forecast to be AbbVie's Humira, which is forecast to grow by 5% annually between 2012 and 2018 to reach \$12.8bn in 2018. This year, Gilead is the only company with R&D products in the top 50 with its hepatitis C candidate, Sofosbuvir, forecast to sell \$7.4bn in 2018. Increased clarity from equity analysts on the expected moderate sales erosion from biosimilar products, and an uplift in TNFa inhibitors in general, has resulted in a marked upward revision in Humira forecasts. Since the publication of last year's World Preview, equity analysts have raised their overall 2018 sales expectations by 1.5%.

Product	Generic Name	Company	Pharmacological Class	WW Product Sales (\$m)			Market Status	Change in 2018 forecasts vs May 12	
				2012	2018	CAGR			
1	Humira	AbbVie + Eisai	Anti-tumour necrosis factor alpha (TNFa) MAb	9,616	12,782	+5%	Marketed	+4,615	+56.5%
2	Januvia/Janumet	Merck & Co + Ono + Almirall + Daewoong	Dipeptidyl peptidase IV (DPP-IV) inhibitor	6,238	10,066	+8%	Marketed	+361	+3.7%
3	Enbrel	Amgen + Pfizer + Takeda	Tumour necrosis factor alpha (TNFa) inhibitor	8,496	8,736	+0%	Marketed	+1,549	+21.6%
4	Lantus	Sanofi	Insulin	6,378	8,121	+4%	Marketed	+2,131	+35.6%
5	Avastin	Roche	Anti-VEGF MAb	6,149	7,665	+4%	Marketed	+88	+1.2%
6	Sofosbuvir	Gilead Sciences	Hepatitis C nucleoside NS5B polymerase inhibitor	-	7,352	-	R&D	+1,994	+37.2%
7	Remicade	Johnson & Johnson	Anti-tumour necrosis factor alpha (TNFa) MAb	7,634	7,228	-1%	Marketed	+1,386	+23.7%
8	Rituxan	Roche + Biogen Idec	Anti-CD20 MAb	7,155	6,809	-1%	Marketed	+474	+7.5%
9	Revlimid	Celgene	Immunomodulator	3,767	6,576	+10%	Marketed	-175	-2.6%
10	Herceptin	Roche	Anti-HER2 (ErbB-2) MAb	6,283	6,191	-0%	Marketed	+881	+16.6%
11	Pnevnar 13	Pfizer + Daewoong	Pneumococcal vaccine	3,781	6,153	+8%	Marketed	-567	-8.4%
12	Seretide/Advair	GlaxoSmithKline + Almirall + Faes	Beta 2 adrenoceptor agonist & corticosteroid	8,088	5,744	-6%	Marketed	+10	+0.2%
13	NovoRapid	Novo Nordisk	Insulin	2,711	4,940	+11%	Marketed	+11	+0.2%
14	Eylea	Regeneron + Bayer + Santen	VEGFr kinase inhibitor	895	4,705	+32%	Marketed	+2,857	+154.6%
15	Victoza	Novo Nordisk	Glucagon-like peptide 1 (GLP-1) agonist	1,640	4,067	+16%	Marketed	+576	+16.5%
16	Lyrica	Pfizer + Eisai + Jeil	Alpha 2 delta ligand	4,370	3,957	-2%	Marketed	+72	+1.8%
17	Lucentis	Novartis + Roche	Anti-VEGF MAb	3,978	3,793	-1%	Marketed	-358	-8.6%
18	Tecfidera	Biogen Idec	Nuclear factor erythroid 2-related factor (Nrf2) pathway activator	-	3,779	-	Marketed	+379	+11.1%
19	Xarelto	Bayer + Johnson & Johnson	Factor Xa inhibitor	596	3,678	+35%	Marketed	+321	+9.6%
20	Botox	Allergan + GlaxoSmithKline	Botulinum toxin	1,953	3,591	+11%	Marketed	+11	+0.3%
21	Eliquis	Bristol-Myers Squibb + Pfizer	Factor Xa inhibitor	2	3,556	+248%	Marketed	-1,159	-24.6%
22	Stribild	Gilead Sciences	Nucleoside reverse transcriptase inhibitor (NRTI), HIV integrase inhibitor & CYP3A inhibitor	58	3,544	+99%	Marketed	+751	+26.9%
23	Afinitor	Novartis	Rapamycin analogue (mTOR inhibitor)	797	3,487	+28%	Marketed	+1,088	+45.4%
24	Soliris	Alexion Pharmaceuticals	Anti-complement factor C5 MAb	1,134	3,376	+20%	Marketed	-405	-10.7%
25	Xgeva/Prolia	Amgen + GSK + Daiichi	Anti-RANKL MAB	1,220	3,368	+18%	Marketed	+12	+0.4%
26	Spiriva	Boehringer Ingelheim + Pfizer	Long-acting muscarinic antagonist (LAMA)	4,580	3,365	-5%	Marketed	+35	+1.1%
27	Symbicort Turbuhaler	AstraZeneca + Sigma-Tau	Corticosteroid & Beta 2 adrenoceptor agonist	3,212	3,258	+0%	Marketed	+146	+4.7%
28	Perjeta	Roche + Chugai	Anti-HER2 (ErbB-2) MAB	60	3,063	+93%	Marketed	+581	+23.4%
29	Xtandi	Astellas Pharma	Androgen receptor antagonist	148	2,769	+63%	Marketed	+1,669	+151.8%
30	Xeljanz	Pfizer + Takeda	Janus kinase (JAK)-3 inhibitor	6	2,682	+177%	Marketed	+876	+48.5%
31	Kalydeco	Vertex Pharmaceuticals	Cystic fibrosis transmembrane conductance regulator (CFTR) potentiator	172	2,659	+58%	Marketed	+639	+31.6%
32	Privigen	CSL	Immunoglobulin	1,880	2,633	+6%	Marketed	+42	+1.6%
33	Tasigna	Novartis	Signal transduction inhibitor	998	2,599	+17%	Marketed	-16	-0.6%
34	Neulasta	Amgen	Granulocyte colony-stimulating factor (G-CSF)	4,092	2,559	-8%	Marketed	-287	-10.1%
35	Kadcyla	Roche	Anti-HER2 (ErbB-2) MAb-DM1 maytansinoid conjugate	-	2,546	-	Marketed	+1,445	+131.2%
36	Levemir	Novo Nordisk	Insulin	1,690	2,523	+7%	Marketed	+1,055	+71.9%
37	Tysabri	Biogen Idec	Anti-VLA-4 MAB	1,639	2,506	+7%	Marketed	+1,452	+137.8%
38	Gilenya	Novartis	Sphingosine-1-phosphate (S1P) receptor modulator	1,195	2,482	+13%	Marketed	+455	+22.5%
39	Humalog	Eli Lilly	Insulin	2,396	2,435	+0%	Marketed	-89	-3.5%
40	Human insulin & devices	Novo Nordisk	Insulin	2,386	2,400	+0%	Marketed	+236	+10.9%
41	Gammagard Liquid	Baxter International	Immunoglobulin	1,593	2,388	+7%	Marketed	+87	+3.8%
42	PENTAct-HIB	Sanofi	DTP, Hib & polio vaccine	1,522	2,351	+8%	Marketed	+300	+14.6%
43	Vyvanse	Shire	Psychostimulant	1,030	2,328	+15%	Marketed	+261	+12.6%
44	Actemra	Roche + Chugai	Anti-interleukin-6 (IL-6) MAB	898	2,279	+17%	Marketed	-113	-4.7%
45	Gardasil	Merck & Co	Human papillomavirus (HPV) vaccine	1,631	2,257	+6%	Marketed	+1,010	+81.0%
46	GS-7977/GS-5885	Gilead Sciences	Hepatitis C nucleoside NS5A & NS5B polymerase inhibitor	-	2,217	-	R&D	n/a	n/a
47	Crestor	AstraZeneca	Statin/ HMG CoA reductase inhibitor	6,253	2,169	-16%	Marketed	-1,335	-38.1%
48	Alimta	Eli Lilly	Thymidylate synthase inhibitor	2,594	2,139	-3%	Marketed	+1,264	+144.5%
49	Stelara	Johnson & Johnson	Anti-interleukin-12 (IL-12) & interleukin-23 (IL-23) MAB	1,025	2,115	+13%	Marketed	-424	-16.7%
50	Plavix	Sanofi + Bristol-Myers Squibb	Platelet aggregation inhibitor	5,106	2,108	-14%	Marketed	-50	-2.3%
Total				139,042	206,094	+7%		+26,143	+8.8%
Total WW Individual Products Forecast in EvaluatePharma®				589,571	709,495	+3%		+16,501	+2.4%
				Impact of increased company coverage in EvaluatePharma®:				+3,924	
				Impact of consensus forecasts added since May 2012 for companies completing IPOs in 2012 and 2013:				+1,970	
				Estimated change in 2018 consensus forecast for all products in EvaluatePharma®:				+10,607	+1.5%

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates.



2018: Top 50 Selling Products in the USA

Humira Also Top Selling Product in USA in 2018

EvaluatePharma® finds that AbbVie's Humira is also set to be the number one product in the USA in 2018 with sales of \$5.6bn. Gilead's Sofosbuvir is expected to be the top product currently in R&D in the USA in 2018 with sales of \$3.6bn. In total, the 2018 forecasts for the top 50 products in the USA have increased by \$23.5bn since May 2012. Overall, equity analysts have raised their total USA 2018 forecasts by 8.4%, compared with last year.

Product	Generic Name	Company	Pharmacological Class	USA Product Sales (\$m)			US Market Status	Change in 2018 forecasts vs May 12	
				2012	2018	CAGR			
1 Humira	adalimumab	AbbVie	Anti-tumour necrosis factor alpha (TNFα) MAb	4,376	5,581	+4%	Marketed	+2,984	+114.9%
2 Lantus	insulin glargine recombinant	Sanofi	Insulin	3,969	5,317	+5%	Marketed	+2,533	+91.0%
3 Enbrel	etanercept	Amgen	Tumour necrosis factor alpha (TNFα) inhibitor	3,967	4,504	+2%	Marketed	+1,647	+57.7%
4 Januvia/Janumet	sitagliptin phosphate	Merck & Co	Dipeptidyl peptidase IV (DPP-IV) inhibitor	3,002	4,242	+6%	Marketed	+62	+1.5%
5 Remicade	infliximab	Johnson & Johnson	Anti-tumour necrosis factor alpha (TNFα) MAb	3,583	4,102	+2%	Marketed	+1,150	+39.0%
6 Revlimid	lenalidomide	Celgene	Immunomodulator	2,144	3,630	+9%	Marketed	+82	+2.3%
7 Sofosbuvir	sofosbuvir	Gilead Sciences	Hepatitis C nucleoside NS5B polymerase inhibitor	-	3,570	-	R&D	+508	+16.6%
8 Lyrica	pregabalin	Pfizer	Alpha 2 delta ligand	1,672	2,997	+10%	Marketed	+1,377	+85.1%
9 Eylea	afibercept	Regeneron Pharmaceuticals	VEGFr kinase inhibitor	838	2,907	+23%	Marketed	+1,059	+57.3%
10 NovoRapid	insulin aspart	Novo Nordisk	Insulin	1,560	2,843	+11%	Marketed	+872	+44.2%
11 Avastin	bevacizumab	Roche	Anti-VEGF MAb	2,640	2,843	+1%	Marketed	-118	-4.0%
12 Rituxan	rituximab	Roche + Biogen Idec	Anti-CD20 MAb	3,320	2,785	-2%	Marketed	-376	-11.9%
13 Victoza	liraglutide	Novo Nordisk	Glucagon-like peptide 1 (GLP-1) agonist	1,024	2,743	+15%	Marketed	+650	+31.0%
14 Prevnar 13	pneumococcal vaccine	Pfizer	Pneumococcal vaccine	1,887	2,716	+5%	Marketed	+101	+3.9%
15 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim + Pfizer	Long-acting muscarinic antagonist (LAMA)	2,300	2,715	+2%	Marketed	-38	-1.4%
16 Tecfidera	dimethyl fumarate	Biogen Idec	Nuclear factor erythroid 2-related factor (Nrf2) pathway activator	-	2,455	-	Marketed	+591	+31.7%
17 Stribild	cobicistat; elvitegravir; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside reverse transcriptase inhibitor (NRTI), HIV integrase inhibitor & CYP3A inhibitor	58	2,444	+71%	Marketed	+727	+42.4%
18 Seretide/Advair	fluticasone propionate; salmeterol xinafoate	GlaxoSmithKline	Beta 2 adrenoreceptor agonist & corticosteroid	4,011	2,307	-8%	Marketed	+71	+3.2%
19 Neulasta	pegfilgrastim	Amgen	Granulocyte colony-stimulating factor (G-CSF)	3,207	2,305	-5%	Marketed	-421	-15.4%
20 Botox	onabotulinumtoxinA	Allergan	Botulinum toxin	1,135	2,285	+11%	Marketed	+687	+43.0%
21 Xgeva/Prolia	denosumab	Amgen	Anti-RANKL MAb	936	2,153	+13%	Marketed	+266	+14.1%
22 Eliquis	apixaban	Bristol-Myers Squibb + Pfizer	Factor Xa inhibitor	-	2,150	-	Marketed	-550	-20.4%
23 Afinitor	everolimus	Novartis	Rapamycin analogue (mTOR inhibitor)	412	2,107	+26%	Marketed	+1,743	+478.7%
24 Vyvance	lisdexamfetamine dimesylate	Shire	Psychostimulant	1,030	1,751	+8%	Marketed	-110	-5.9%
25 Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAb	1,774	1,723	-0%	Marketed	-69	-3.8%
26 Gammagard Liquid	immune globulin (human)	Baxter International	Immunoglobulin	1,163	1,702	+6%	Marketed	+151	+9.8%
27 Tysabri	natalizumab	Biogen Idec	Anti-VLA-4 MAb	886	1,557	+8%	Marketed	+824	+112.3%
28 Viagra	sildenafil citrate	Pfizer	Phosphodiesterase V (PDE5) inhibitor	1,135	1,542	+4%	Marketed	+592	+62.3%
29 Gardasil	human papillomavirus (HPV) vaccine	Merck & Co	Human papillomavirus (HPV) vaccine	1,113	1,517	+5%	Marketed	+652	+75.5%
30 Xtandi	enzalutamide	Astellas Pharma + Medivation	Androgen receptor antagonist	148	1,502	+39%	Marketed	+775	+106.6%
31 Lucentis	ranibizumab	Roche	Anti-VEGF MAb	1,580	1,485	-1%	Marketed	-94	-6.0%
32 Soliris	eculizumab	Alexion Pharmaceuticals	Anti-complement factor C5 MAb	383	1,472	+21%	Marketed	-542	-26.9%
33 Kalydeco	ivacaftor	Vertex Pharmaceuticals	Cystic fibrosis transmembrane conductance regulator (CFTR) potentiator	172	1,419	+35%	Marketed	+402	+39.6%
34 Ibrutinib	ibrutinib	Pharmacyclics	Bruton's tyrosine kinase (BTK) inhibitor	-	1,401	-	R&D	+555	+65.5%
35 Xeljanz	tofacitinib citrate	Pfizer	Janus kinase (JAK)-3 inhibitor	5	1,376	+124%	Marketed	+227	+19.8%
36 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	1,371	1,372	+0%	Marketed	+116	+9.2%
37 Levemir	insulin detemir	Novo Nordisk	Insulin	914	1,364	+6%	Marketed	+765	+127.7%
38 Stelara	ustekinumab	Johnson & Johnson	Anti-interleukin-12 (IL-12) & interleukin-23 (IL-23) MAb	627	1,355	+12%	Marketed	-51	-3.7%
39 Vascepa*	icosapent ethyl	Undisclosed Partner + Amarin	Omega-3 fatty acid	-	1,319	-	Marketed	-828	-38.6%
40 Avonex	interferon beta-1a	Biogen Idec	Interferon beta	1,794	1,299	-5%	Marketed	+116	+9.8%
41 Epogen/Procrit	epoetin alfa	Amgen + Johnson & Johnson	Erythropoietin	2,746	1,299	-10%	Marketed	+182	+16.3%
42 Varivax	varicella vaccine	Merck & Co	Varicella vaccine	1,164	1,298	+2%	Marketed	+609	+88.3%
43 Dolutegravir	dolutegravir	GlaxoSmithKline	HIV integrase inhibitor	-	1,284	-	R&D	+883	+220.3%
44 Gilenya	fingolimod hydrochloride	Novartis	Sphingosine-1-phosphate (S1P) receptor modulator	727	1,274	+8%	Marketed	+140	+12.3%
45 Xifaxan	rifaximin	Salix Pharmaceuticals	Ansamycin	514	1,241	+13%	Marketed	+255	+25.8%
46 Alimta	pemetrexed disodium	Eli Lilly	Thymidylate synthase inhibitor	1,122	1,185	+1%	Marketed	+1,022	+625.2%
47 Reolysin	pelareorep	Oncolytics Biotech	Oncolytic virus - Ras activated	-	1,127	-	R&D	+216	+23.7%
48 Symbicort Turbuhaler	budesonide; formoterol fumarate dihydrate	AstraZeneca	Corticosteroid & Beta 2 adrenoreceptor agonist	1,003	1,121	+2%	Marketed	+406	+56.8%
49 Gamunex IGIV	immune globulin (human)	Grifols	Immunoglobulin	767	1,112	+5%	Marketed	+135	+13.8%
50 Zostavax	herpes zoster vaccine	Merck & Co	Herpes zoster vaccine	607	1,108	+9%	Marketed	+609	+121.9%
Total				68,787	108,907	+7%		+23,545	+17.8%
Total USA Individual Products Forecast in EvaluatePharma®				245,988	296,422	+3%		+23,082	+8.4%

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates.

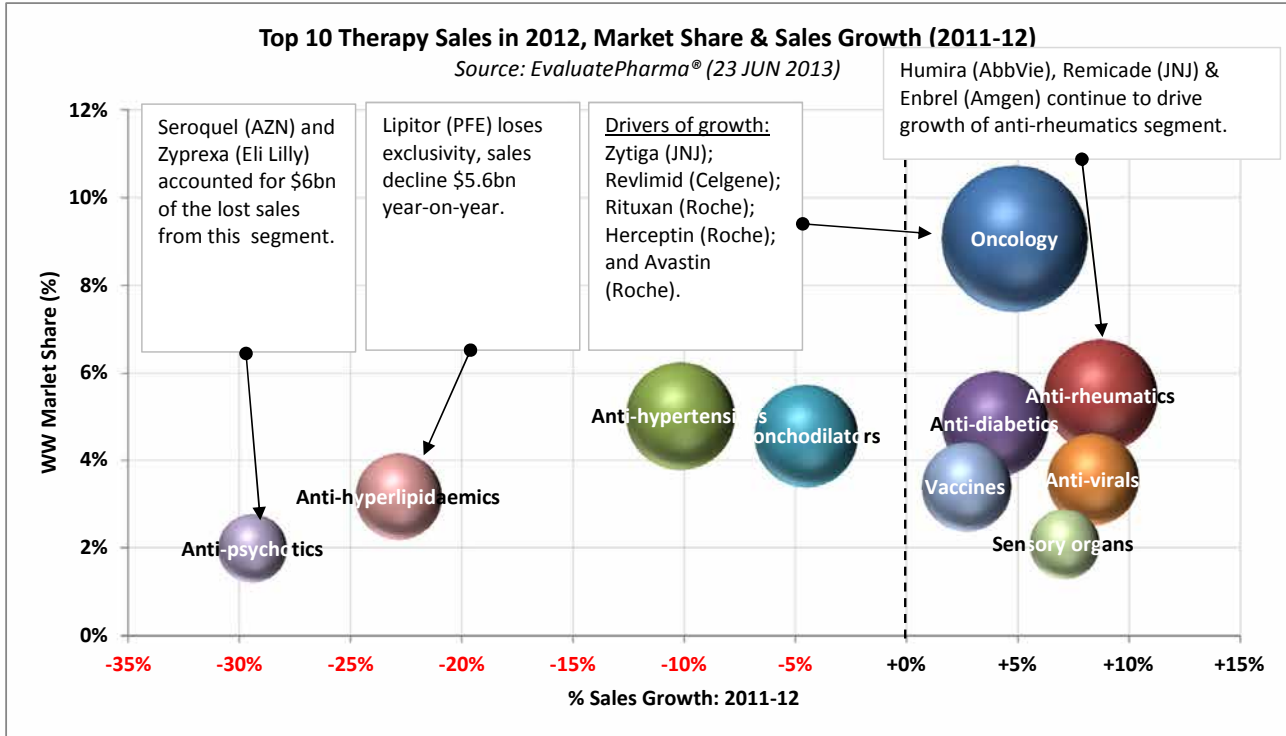
* Amarin launched Vascepa in 2013. Equity Analysts expect Amarin to license the product to a third-party at some point in the future.



Worldwide Prescription & OTC Sales by Therapy Area in 2012

Oncology Largest Segment in 2012; MS Therapies Fastest Growing

EvaluatePharma® finds that oncology remained the largest therapeutic category in 2012 with sales growing by 5% to \$68.0bn, accounting for 9.1% of the worldwide Rx and OTC market. Strong performance of Teva's Copaxone and Novartis's Gilenya helped multiple sclerosis therapies to be the fastest growing segment in 2012 with an increase in sales of 14% to \$14.3bn. The anti-rheumatic segment continued to exhibit strong growth at 9%, culminating in total sales for the segment of \$41.1bn in 2012.



Worldwide Prescription & OTC Sales by Therapy Area: Top 15 Categories

Therapy Area	WW Sales (\$bn)			WW Market Share			Rank
	2011	2012	% Growth	2011	2012	Chg. (+/-)	Chg. (+/-)
1 Oncology	64.9	68.0	+5%	8.5%	9.1%	+0.6pp	-
2 Anti-rheumatics	37.8	41.1	+9%	5.0%	5.5%	+0.5pp	+1
3 Anti-hypertensives	41.9	37.7	-10%	5.5%	5.0%	-0.5pp	-1
4 Anti-diabetics	34.9	36.3	+4%	4.6%	4.8%	+0.3pp	+1
5 Bronchodilators	35.9	34.2	-4%	4.7%	4.6%	-0.1pp	-1
6 Anti-virals	24.7	26.7	+8%	3.2%	3.6%	+0.3pp	+2
7 Vaccines	24.8	25.5	+3%	3.3%	3.4%	+0.1pp	-
8 Anti-hyperlipidaemics	30.8	23.8	-23%	4.1%	3.2%	-0.9pp	-2
9 Sensory organs	14.6	15.7	+7%	1.9%	2.1%	+0.2pp	+3
10 Anti-psychotics	21.2	15.0	-29%	2.8%	2.0%	-0.8pp	-1
11 Anti-bacterials	15.9	14.3	-10%	2.1%	1.9%	-0.2pp	-1
12 MS therapies	12.5	14.3	+14%	1.6%	1.9%	+0.3pp	+3
13 Antacids and Anti-ulcerants	15.4	13.9	-10%	2.0%	1.9%	-0.2pp	-2
14 Dermatologicals	13.6	13.7	+1%	1.8%	1.8%	+0.0pp	-1
15 Antidepressants	12.8	11.6	-10%	1.7%	1.5%	-0.1pp	-1
Top 15	401.8	391.8	-2%	52.8%	52.3%	-0.5pp	
Other	359.8	357.8	-1%	47.2%	47.7%		
Total WW Rx & OTC Sales	761.6	749.6	-2%	100.0%	100.0%		
Total 'Rx & OTC Sales' includes:							
WW Generic Sales	65.1	66.2	+2%	8.5%	8.8%	+0.3pp	
OTC Pharmaceuticals	36.1	35.3	-2%	4.7%	4.7%	-0.0pp	

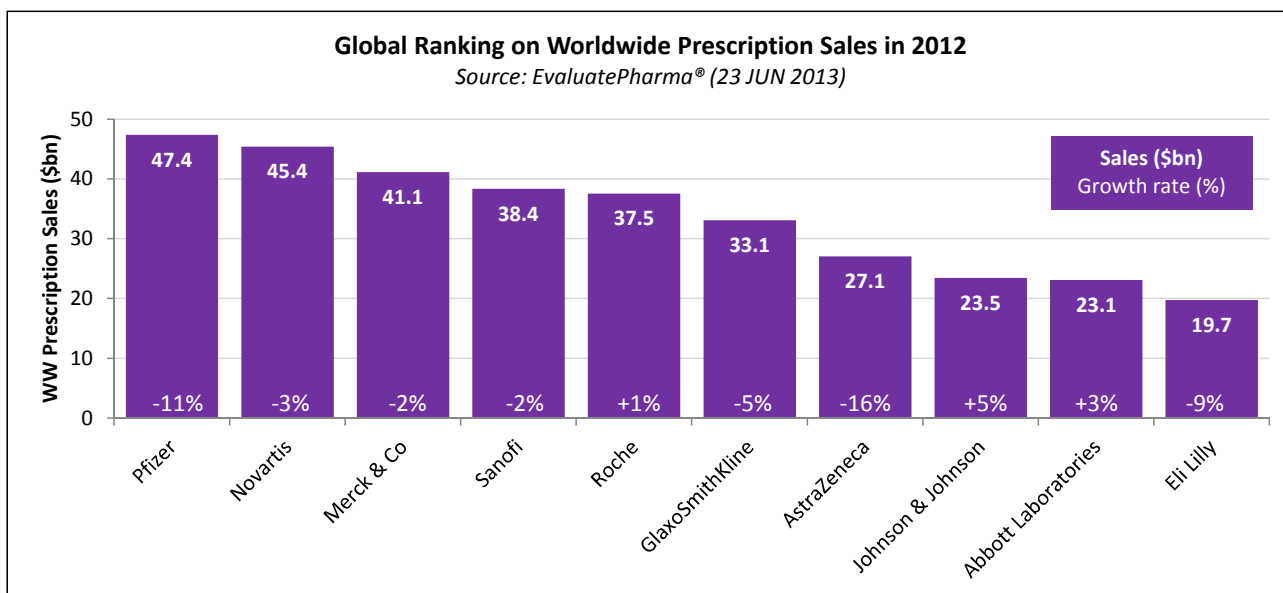
Note: Industry sales based on Top 500 pharmaceutical and biotech companies. Sales in 2012 based on company reported data.



Worldwide Prescription Drug Sales in 2012

Pfizer Holds on to No. 1 Position; Industry-wide Prescription Sales Contract 1.6%

Despite an 11% decline in worldwide prescription drug sales, EvaluatePharma® finds that Pfizer retained its number one position in 2012. The gap between first place Pfizer and second place Novartis narrowed to \$2.0bn (versus \$6.8bn in 2011). Gilead Sciences exhibited the fastest growth over the period with an impressive increase of 16% in worldwide Rx drug sales pushing it into the top 20. As predicted in last year's edition of the World Preview, overall industry-wide prescription drugs sales experienced an unprecedented contraction over the year as a number of key products lost patent protection and a weak euro reduced European sales when converted into US dollars.



Worldwide Prescription Sales in 2012: Top 20 Companies

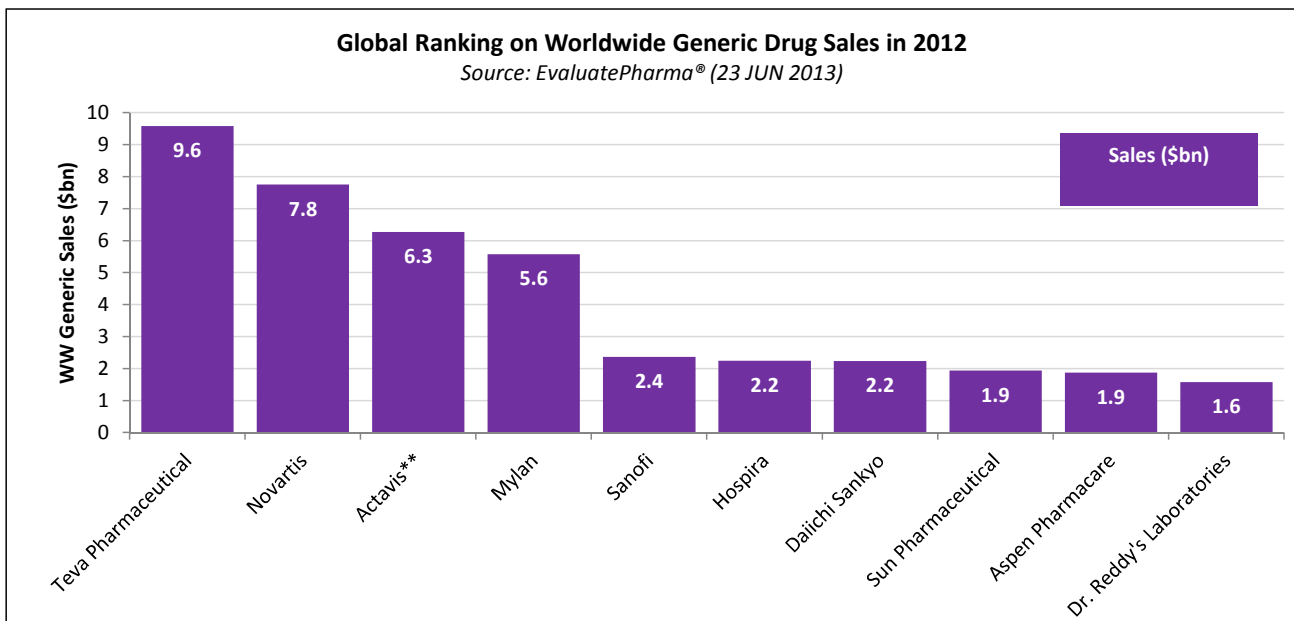
Company	WW Prescription Sales (\$bn)			WW Market Share			Rank
	2011	2012	% Growth	2011	2012	Chg. (+/-)	Chg. (+/-)
1 Pfizer	53.5	47.4	-11%	7.4%	6.6%	-0.7pp	-
2 Novartis	46.6	45.4	-3%	6.4%	6.4%	-0.1pp	-
3 Merck & Co	41.9	41.1	-2%	5.8%	5.8%	-0.0pp	-
4 Sanofi	39.3	38.4	-2%	5.4%	5.4%	-0.0pp	-
5 Roche	37.0	37.5	+1%	5.1%	5.3%	+0.2pp	-
6 GlaxoSmithKline	34.9	33.1	-5%	4.8%	4.6%	-0.2pp	-
7 AstraZeneca	32.4	27.1	-16%	4.5%	3.8%	-0.7pp	-
8 Johnson & Johnson	22.3	23.5	+5%	3.1%	3.3%	+0.2pp	+1
9 Abbott Laboratories	22.4	23.1	+3%	3.1%	3.2%	+0.1pp	-1
10 Eli Lilly	21.6	19.7	-9%	3.0%	2.8%	-0.2pp	-
11 Teva Pharmaceutical Industries	15.7	17.7	+13%	2.2%	2.5%	+0.3pp	+1
12 Amgen	15.3	16.6	+9%	2.1%	2.3%	+0.2pp	+1
13 Takeda	14.7	15.2	+3%	2.0%	2.1%	+0.1pp	+2
14 Bayer	14.7	14.7	-0%	2.0%	2.1%	+0.0pp	-
15 Boehringer Ingelheim	14.1	14.7	+4%	1.9%	2.1%	+0.1pp	+1
16 Novo Nordisk	12.4	13.5	+9%	1.7%	1.9%	+0.2pp	+1
17 Bristol-Myers Squibb	16.9	13.2	-22%	2.3%	1.9%	-0.5pp	-6
18 Astellas Pharma	11.2	11.0	-1%	1.5%	1.5%	+0.0pp	-
19 Daiichi Sankyo	10.5	10.7	+2%	1.4%	1.5%	+0.1pp	-
20 Gilead Sciences	8.1	9.4	+16%	1.1%	1.3%	+0.2pp	+2
Total Top 20	485.4	473.2	-3%	66.9%	66.3%	-0.7pp	
Other	240.0	240.9	+0%	33.1%	33.7%		
Total	725.4	714.1	-1.6%	100.0%	100.0%		

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales in 2012 based on company reported data. Excludes alliance revenue and royalties where possible. Abbott Laboratories spun out its innovative medicines (AbbVie) unit in January 2013.

Teva Top Generic Company in 2012; Novartis Loses Gains Made in 2011; Generic Market Grows 2%

EvaluatePharma® finds that, despite a modest 1% growth over last year, Teva continues to be top of the table in 2012 with total sales from generic products of \$9.6bn or 14.5% of the total global market. Second place Novartis experienced a 10% decline in generic sales which wiped out \$0.8bn of the gains it made in 2011. Much of this loss was as a result of price erosion of its authorised generic enoxaparin. The Actavis/Watson transaction in 2012 resulted in the newly combined entity entering the top five with generic sales of \$6.3bn in 2012 (up 9% on 2011). Overall, the generic market expanded by 2% in 2012 (vs. 10% in 2011) to \$66.2bn based on EvaluatePharma® coverage*.



Worldwide Unbranded Generic Drug Sales in 2012: Top 20 Companies

Company	WW Generic Sales (\$bn)			WW Market Share			Rank Chg. (+/-)
	2011	2012	% Growth	2011	2012	Chg. (+/-)	
1 Teva Pharmaceutical	9.4	9.6	+1%	14.5%	14.5%	-0.0pp	-
2 Novartis	8.6	7.8	-10%	13.2%	11.7%	-1.5pp	-
3 Actavis**	5.8	6.3	+9%	8.9%	9.5%	+0.6pp	-
4 Mylan	5.6	5.6	+0%	8.6%	8.4%	-0.1pp	-
5 Sanofi	2.4	2.4	-2%	3.7%	3.6%	-0.2pp	-
6 Hospira	2.3	2.2	-3%	3.6%	3.4%	-0.2pp	-
7 Daiichi Sankyo	2.2	2.2	+1%	3.4%	3.4%	-0.0pp	-
8 Sun Pharmaceutical	1.7	1.9	+13%	2.6%	2.9%	+0.3pp	+1
9 Aspen Pharmacare	1.8	1.9	+2%	2.8%	2.8%	+0.0pp	-1
10 Dr. Reddy's Laboratories	1.4	1.6	+12%	2.2%	2.4%	+0.2pp	+1
11 Lupin	1.3	1.6	+21%	2.0%	2.4%	+0.4pp	+4
12 STADA Arzneimittel	1.7	1.6	-6%	2.5%	2.4%	-0.2pp	-2
13 Cipla	1.1	1.4	+27%	1.7%	2.1%	+0.4pp	+4
14 Apotex	1.3	1.4	+4%	2.0%	2.1%	+0.0pp	-2
15 Fresenius	1.3	1.4	+6%	2.0%	2.1%	+0.1pp	-1
16 Krka Group	1.2	1.2	-2%	1.9%	1.8%	-0.1pp	-
17 Nichilko Pharmaceutical	1.3	1.1	-14%	2.0%	1.7%	-0.3pp	-4
18 Valeant Pharmaceuticals	0.7	1.1	+45%	1.1%	1.6%	+0.5pp	+5
19 Sawai Pharmaceutical	0.8	1.0	+19%	1.3%	1.5%	+0.2pp	-
20 Par Pharmaceutical Companies	0.8	1.0	+27%	1.2%	1.5%	+0.3pp	+1
Total Top 20	52.9	54.1	+2%	81.3%	81.7%	+0.5pp	
Other	12.2	12.1	-1%	18.7%	18.3%		
Total	65.1	66.2	+2%	100.0%	100.0%		

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales in 2012 based on company reported data (Sun Pharmaceutical Industries, Aspen Pharmacare, Dr. Reddy's Laboratories, Lupin, Cipla, Apotex and Par Pharmaceutical based on forecast data for 2012).

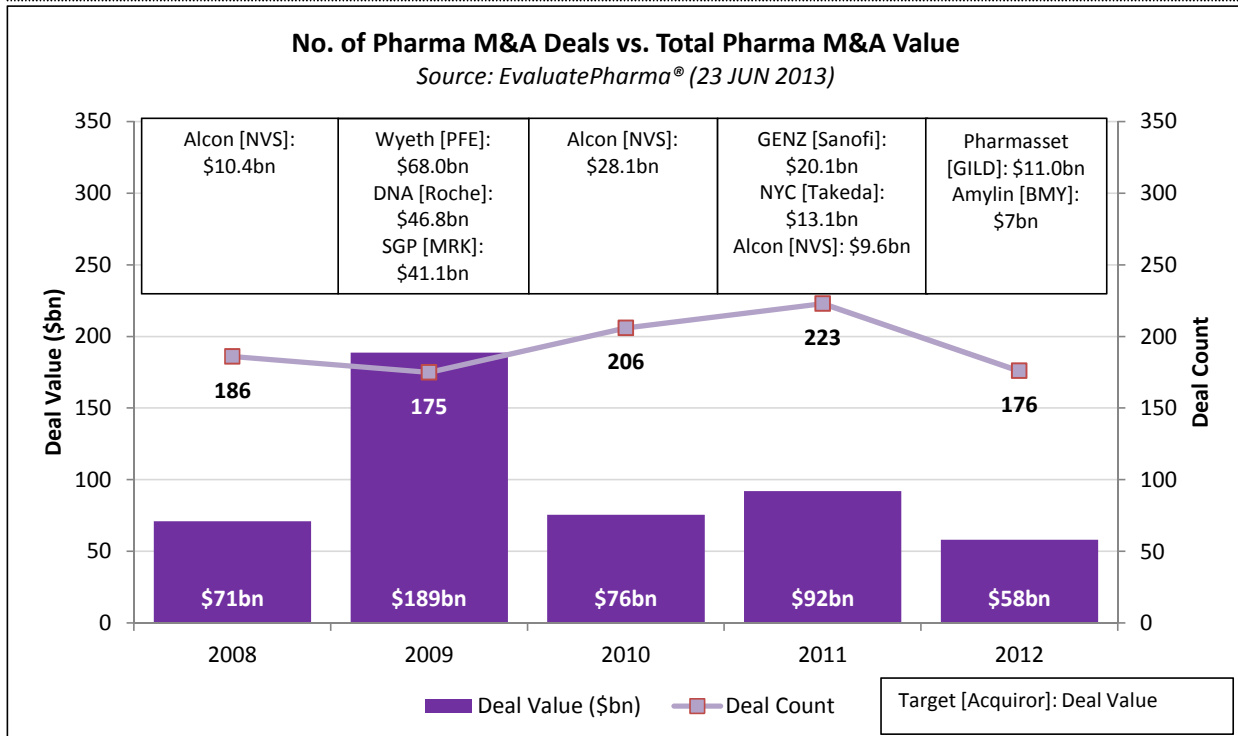
* EvaluatePharma® coverage: 60 generic companies.

** Actavis sales consolidate both Actavis and Watson Pharmaceuticals in 2011 and 2012.



Number of M&A Transactions in 2012 Falls 21%; Total Deal Value Drops 37%

EvaluatePharma® finds that total deal value from M&A involving pharmaceutical companies decreased by 37% to \$58bn in 2012, compared with \$92bn in 2011. The number of deals closed in the period also decreased by 21% to 176. The biggest deal of the year saw Gilead Sciences acquire Pharmasset for \$11.2bn in January 2012. The other notable acquisition was of Amylin by Bristol-Myers Squibb in August 2012 for \$7.0bn.



Count of Pharma M&A Deals vs. Total Pharma M&A Value (2004-2012)

Year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Deal Count	96	153	149	173	186	175	206	223	176
% Chg.		59%	-3%	16%	8%	-6%	18%	8%	-21%
Deal Value (\$bn)	90	69	95	87	71	189	76	92	58
% Chg.		-23%	37%	-9%	-18%	166%	-60%	22%	-37%

Top 10 M&A Deals in 2012: Ranked on Deal Value

Target	Target Location	Target Focus	Acquiror	Completion Date	Deal Value (\$bn)
1 Pharmasset	USA	Biotechnology	Gilead Sciences	17 Jan 12	11.2
2 Amylin Pharma	USA	Biotechnology	Bristol-Myers/AstraZeneca	09 Aug 12	7.0
3 Actavis	Iceland	Generic	Watson Pharma*	31 Oct 12	5.9
4 Human Genome	USA	Biotechnology	GlaxoSmithKline	03 Aug 12	3.0
5 Boston Biomedical	USA	Biotechnology	Dainippon Sumitomo Pharma	25 Apr 12	2.6
6 Medicis Pharma	USA	Specialty	Valeant Pharmaceuticals	11 Dec 12	2.6
7 Inhibitex	USA	Biotechnology	Bristol-Myers Squibb	13 Feb 12	2.5
8 Par Pharmaceutical	USA	Generic	Consortium of Investors	28 Sep 12	1.9
9 Fougera Pharma	USA	Generic	Novartis	23 Jul 12	1.5
10 Ardea Biosciences	USA	Biotechnology	AstraZeneca	20 Jun 12	1.3
Other					18.8
Total					58.3

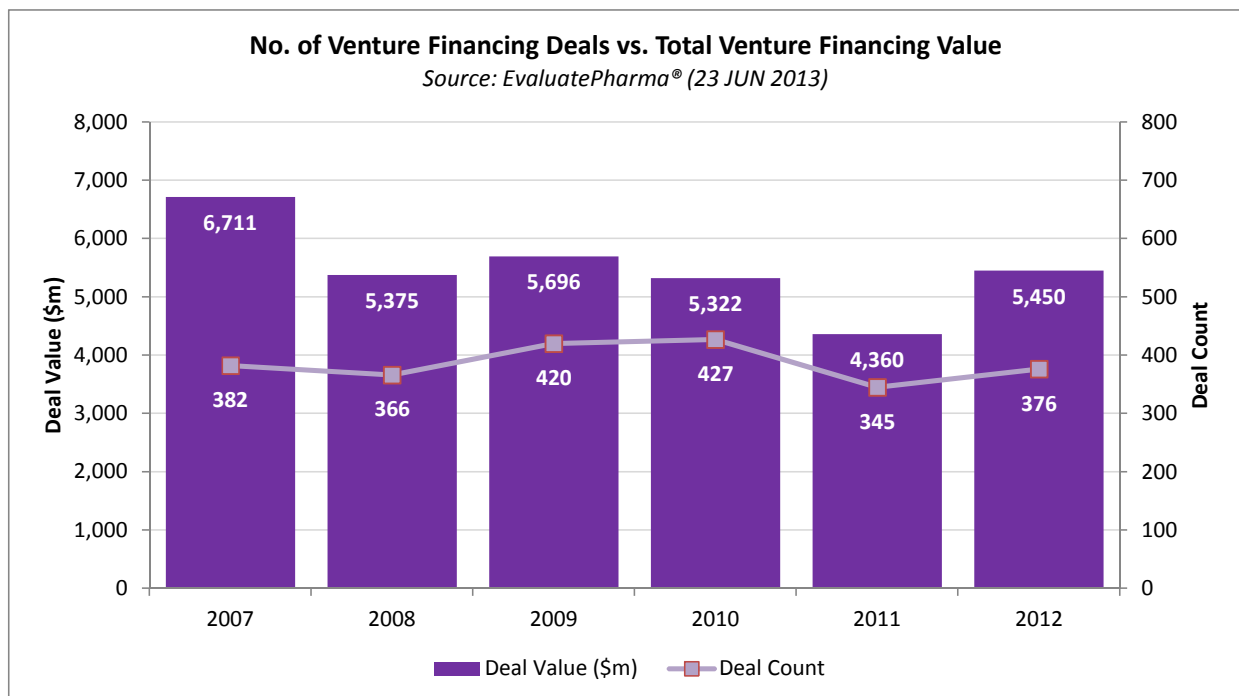
Source: EvaluatePharma® (23 JUN 2013)

Note: Analysis based on closing date of deal.

* Following Watson's acquisition of Actavis, Watson changed its name to Actavis.

Number and Total Value of Venture Financing Deals Up

EvaluatePharma® finds that in 2012 both the number of venture financing deals, up 9% to 376, and the total deal value, up 25% to \$5.5bn, increased versus 2011. The value of venture financing is often viewed as an indicator of R&D investment in the private biotech sector. At \$5.5bn it represents a mere 4% of the total pharmaceutical R&D spend of \$137bn in 2012. Of the top 10 deals in 2012, two involved companies in emerging economies: North China Pharmaceutical Group raised \$474m in October 2012 via a PIPE and moksha8 Pharmaceuticals raised \$125m via a private investment from Forest Laboratories.



Count of Pharma Venture Financing Deals vs. Total Pharma Venture Financing Value (2007-2012)

Year	2007	2008	2009	2010	2011	2012
Deal Count	382	366	420	427	345	376
% Chg.		-4%	15%	2%	-19%	9%
Deal Value (\$m)	6,711	5,375	5,696	5,322	4,360	5,450
% Chg.		-20%	6%	-7%	-18%	25%

Top 10 Venture Financing Deals in 2012: Ranked on Deal Value

Company	Listed / Private	Country	Company Type	Financing Round	Date	Deal Value (\$m)
1 North China Pharmaceutical Group	Private	China	Generic	PIPE	20 Oct 12	474
2 Intarcia Therapeutics	Private	USA	Biotechnology	Undisclosed	15 Nov 12	160
3 moksha8 Pharmaceuticals	Private	Brazil	Specialty	Undisclosed	22 Oct 12	125
4 NantWorks	Private	USA	Biotechnology	Undisclosed	25 Jul 12	125
5 CureVac	Private	Germany	Biotechnology	Series D	18 Sep 12	99
6 Genmab	Listed	Denmark	Biotechnology	PIPE	16 Oct 12	83
7 Relypsa	Private	USA	Biotechnology	Series C	15 Aug 12	80
8 Ultragenyx Pharmaceutical	Private	USA	Biotechnology	Series B	20 Dec 12	75
9 Rib-X Pharmaceuticals	Private	USA	Biotechnology	Series B	29 Nov 12	68
10 Pearl Therapeutics	Private	USA	Specialty	Series D	13 Nov 12	65
Other						4,096
Total						5,450

Source: EvaluatePharma® (23 JUN 2013)

Note: Includes investments in pharmaceutical and biotech companies. Does not include pure-play genomics or medical devices companies.

Includes Private Investment in Public Equity (PIPE).



Key Product Events Positively Impacting Shareholder Value in 2012

Positive Phase III Results Adds \$6.8bn to Gilead's Market Capitalization

The analysis below highlights the top 15 product events that positively impacted shareholder value on the day of announcement (measured by change in market capitalization) in 2012. Positive Phase III data for Sofosbuvir (GS-7977) added \$6.8bn to Gilead's market capitalization as a result of a 14% increase in Gilead's share price. Shareholders of Merck & Co saw the value of their collective holding increase by \$5.2bn as the market also reacted favourably to positive Phase III results for Olanacatib.

Company	Event Type	Product	Therapy Area	Date	Commentary on Share Price Change	% Share Price Change	Market Cap Change
1 Gilead Sciences	Phase III Trial Results	GS-7977/ GS-5885	Systemic Anti-infectives	12 Nov 12	12 Nov: Positive phase III data for its hepatitis C regimen of standard oral treatment ribavirin, along with GS-5885 and sofosbuvir, which produced a 100% cure rate.	+14%	+6,756
2 Merck & Co	Phase III Trial Results	Olanacatib	Musculoskeletal	12 Jul 12	12 Jul: Phase III trial for osteoporosis drug, olanacatib, meets primary efficacy outcomes at interim analysis and is being concluded early. US, EU and Japan filings due in H1'13.	+4%	+5,171
3 Novo Nordisk	FDA Approval (PDUFA)	Ryzodeg	Endocrine	09 Nov 12	8 Nov [post market]: FDA advisory panel recommends approval for company's diabetes treatment, insulin degludec and insulin degludec/insulin aspart.	+7%	+4,749
4 Vertex Pharmaceuticals	Phase II Trial Results	Kalydeco	Respiratory	07 May 12	7 May: Interim phase II results for its cystic fibrosis treatment, Kalydeco, in combination with VX809: drug demonstrates statistically significant improvement in lung function.	+55%	+4,367
5 Gilead Sciences	Phase II Trial Results	Sofosbuvir	Systemic Anti-infectives	19 Apr 12	19 Apr: Positive phase II interim data for hepatitis C treatment, GS-7977, in combination with Bristol-Myers Squibb's, daclatasvir: demonstrated a 100% response rate in previously untreated patients with the most common form of hepatitis C.	+12%	+4,275
6 Gilead Sciences	Phase III Trial Results	GS-7977	Systemic Anti-infectives	03 Feb 12	2 Feb [post market]: Additional positive phase II data for its hepatitis C treatment, GS-7977 (PSI-7977): in combination with ribavirin, 100% of patients had no trace of the virus after four weeks of treatment.	+11%	+4,152
7 Sanofi	Competitor Announcement	Lantus	Endocrine	18 Jul 12	18 Jul: US approval of Novo Nordisk's degludec is delayed after FDA calls an advisory committee hearing. Degludec is a potential future competitor to Sanofi's insulin Lantus.	+4%	+3,845
8 Novo Nordisk	FDA Approval (PDUFA)	Levermir	Endocrine	02 Apr 12	2 Apr: FDA approves company's diabetes treatment, Levermir, in pregnant women with type-I diabetes.	+6%	+3,618
9 Amgen	Results	Enbrel	Musculoskeletal	27 Jul 12	26 Jul [post market]: Better-than-expected Q2'12 earnings and revenues, helped by increased sales of anti-inflammatory drug, Enbrel. Company upgrades its full-year outlook estimate for 2012.	+6%	+3,597
10 Eli Lilly	Phase III Trial Results	LY2062430	Central Nervous System	08 Oct 12	8 Oct: Phase III results for its Alzheimer's disease treatment, Solanezumab: statistically significant slowing of cognitive decline, raising hopes that company may still seek approval for the drug which earlier had showed no benefit in more advanced stages of the disease.	+5%	+2,959
11 Bayer	Priority Review	Stivarga	Oncology & Immunomodulators	29 Jun 12	28 Jun: Company and partner, Onyx Pharmaceuticals, receive FDA priority review for colorectal cancer treatment, regorafenib.	+5%	+2,949
12 Gilead Sciences	Broker Maintains Rating	Stribild	Systemic Anti-infectives	17 Sep 12	17 Sep: JP Morgan maintains "overweight" rating and raises price target to \$75 from \$70, citing the company's HIV franchise and raising FY 2012 sales estimates for HIV treatment, Stribild (Quad).	+6%	+2,860
13 Gilead Sciences	Competitor Announcement	Sofosbuvir	Systemic Anti-infectives	02 Aug 12	1 Aug [post market]: Bristol-Myers Squibb suspends phase II trials of its hepatitis C treatment, BMS-986094, due to safety concerns, raising hopes for Gilead's drug, GS-7977.	+7%	+2,770
14 Bayer	EU Filing	Eylea	Sensory Organs	06 Dec 12	6 Dec: Company completes EU registration for its contraceptive Jaydess and expects approvals in the coming months. Also makes European filing, with Regeneron Pharmaceuticals, for its macular oedema treatment Eylea.	+3%	+2,424
15 Merck & Co	Litigation	Zetia	Cardiovascular	30 Apr 12	27 Apr [post market]: US court rules in favour of the company in a patent infringement lawsuit against Mylan for cholesterol drugs, Zetia and Vytorin, stating that Merck's patent is valid and enforceable.	+2%	+2,373
Top 15 Total							+56,865
Total Events Positively Impacting Shareholder Value in 2011							+321,891

Source: EvaluatePharma's EventAnalyzer (23 JUN 2013)

Note: EvaluatePharma's EventAnalyzer contains a back catalogue of events which had the greatest impact on company valuations dating back to December 2007. Events can be viewed by Company, Product, Therapy Area and Peer Group to see instantly the impact of events on company valuation and the news flow driving share price movement. Events are categorized into 100 unique Event Type classifications, allowing you to track the market impact of key types of news flow (e.g. regulatory approvals, financial results, patent litigation, broker sentiment and competitor announcements, etc).



Key Product Events Negatively Impacting Shareholder Value in 2012

Novartis Hit by Reports of Adverse Events

The analysis below highlights the top 15 product events that negatively impacted shareholder value on the day of announcement (measured by change in market capitalization) in 2012. Novartis share price fell 6%, wiping \$7.5bn off the company's market capitalization, after USA and EU regulators announced that they would be reviewing the benefits and risks of Novartis's MS treatment, Gilenya. Negative Phase II results for Sofosbuvir in combination with ribavirin in February 2012 caused Gilead's share price to tumble 14% although this was largely recovered in November 2012 after the announcement of positive Phase III results.

Company	Event Type	Product	Therapy Area	Date	Commentary on Share Price Change	% Share Price Change	Market Cap Change
1 Novartis	Side Effect Risk/ Negative Label	Gilenya	Central Nervous System	20 Jan 12	20 Jan: Reports of heart problems prompts US and EU regulators to review benefits and risks of the company's MS treatment, Gilenya.	-6%	-7,495
2 Gilead Sciences	Phase II Trial Results	GS-7977 (PSI-7977)	Systemic Anti-infectives	17 Feb 12	17 Feb: Company's reports disappointing phase IIb data for hepatitis C treatment, GS-7977 (PSI-7977) plus ribavirin: 6 out of 8 treated patients relapsed after a course of treatment, triggering concerns over the drug's efficacy.	-14%	-5,882
3 Roche	Phase III Trial Results	RG1658 (JTT-705)	Cardiovascular	07 May 12	7 May: Company terminates phase III trials of dalcetrapib, for the treatment of coronary heart disease, after independent data monitoring committee identified lack of a clinical meaningful efficacy.	-3%	-5,472
4 Bristol-Myers Squibb	Phase II Trial Results	BMS-986094	Systemic Anti-infectives	02 Aug 12	2 Aug: Company suspends phase II trials of its hepatitis C treatment, BMS-986094, due to safety concerns.	-9%	-5,121
5 GlaxoSmithKline	Phase III Trial Results	Breo Ellipta	Respiratory	09 Jan 12	9 Jan: GSK and Theravance reports result from phase III trial of COPD drug, Relovair: drug fails to provide statistical significant results compared to GSK's Seretide.	-4%	-4,944
6 Abbott Laboratories	Results	Humira	Musculoskeletal	17 Oct 12	17 Oct: Company reports mixed Q3'12 results, with earnings beating forecasts but weaker-than-expected sales due to slower growth of arthritis treatment, Humira.	-4%	-4,849
7 Novo Nordisk	FDA Advisory Committee	Tresiba	Endocrine	06 Nov 12	6 Nov: FDA releases briefing documents ahead of an advisory panel meeting on 8 Nov for diabetes treatment, Tresiba: raise concerns about the possible risk of heart problems.	-7%	-4,787
8 Merck & Co	Phase III Trial Results	Tredaptive	Cardiovascular	20 Dec 12	20 Dec: Company announces negative phase III trial results for hyperlipidaemia treatment, Tredaptive: company will not seek US approval.	-3%	-4,564
9 Celgene	EU Filing	Revlimid	Oncology & Immunomodulators	21 Jun 12	21 Jun: Company withdraws its EU submission to widen the use of its blood-cancer drug, Revlimid, for the maintenance treatment of newly diagnosed multiple myeloma patients.	-11%	-3,399
10 AstraZeneca	Results	Seroquel	Central Nervous System	26 Apr 12	26 Apr: Company reports an 11% decline in Q1 profits, badly missing expectations, hurt by weaker sales of Crestor, Seroquel and Nexium, and concerns about the company's pipeline as multiple patents expire.	-6%	-3,251
11 Pfizer	Competitor Announcement	Spiriva	Respiratory	23 Feb 12	23 Feb: FDA advisory committee recommends the approval of Forest Laboratories' and Almirall's COPD treatment, acilidium bromide, raising competition for company's drug, Spiriva.	-2%	-2,537
12 Baxter International	FDA Approval Delay	HyQvia (10% HyQ)	Systemic Anti-infectives	16 Apr 12	16 Apr: FDA requests additional information related to the long-term use of company and Halozyme's immunodeficiency drug, HyQ, potentially delaying the drug's approval by a year or more.	-7%	-2,187
13 Teva Pharmaceutical Industries	Results	Copaxone	Central Nervous System	09 May 12	9 May: Company's Q1'12 sales miss analysts' estimates, due to a slowdown in European demand for generic medicines and lower-than-expected sales of its MS treatment, Copaxone.	-5%	-2,150
14 Eli Lilly	Competitor Announcement	LY2062430	Central Nervous System	24 Jul 12	24 Jul: Pfizer announces that its Alzheimer's drug, bapineuzumab, fails to meet its co-primary endpoints in phase III trials, raising concerns about the potential effectiveness of Eli Lilly's Alzheimer's treatment, solanezumab.	-4%	-2,147
15 Vertex Pharmaceuticals	Phase II Trial Results	Kalydeco	Respiratory	28 Jun 12	28 Jun: Company announces positive final phase II data from its cystic fibrosis treatment Kalydeco in combination with VX-809; however, investors concerned by lack of comparability with interim results.	-16%	-2,096
Top 15 Total							-60,881
Total Events Negatively Impacting Shareholder Value in 2012							-290,351

Source: EvaluatePharma®'s EventAnalyzer (23 JUN 2013)

Note: EvaluatePharma®'s EventAnalyzer contains a back catalogue of events which had the greatest impact on company valuations dating back to December 2007. Events can be viewed by Company, Product, Therapy Area and Peer Group to see instantly the impact of events on company valuation and the news flow driving share price movement. Events are categorized into 100 unique Event Type classifications, allowing you to track the market impact of key types of news flow (e.g. regulatory approvals, financial results, patent litigation, broker sentiment and competitor announcements, etc).



Enterprise Value Analysis: 2011 to 2012

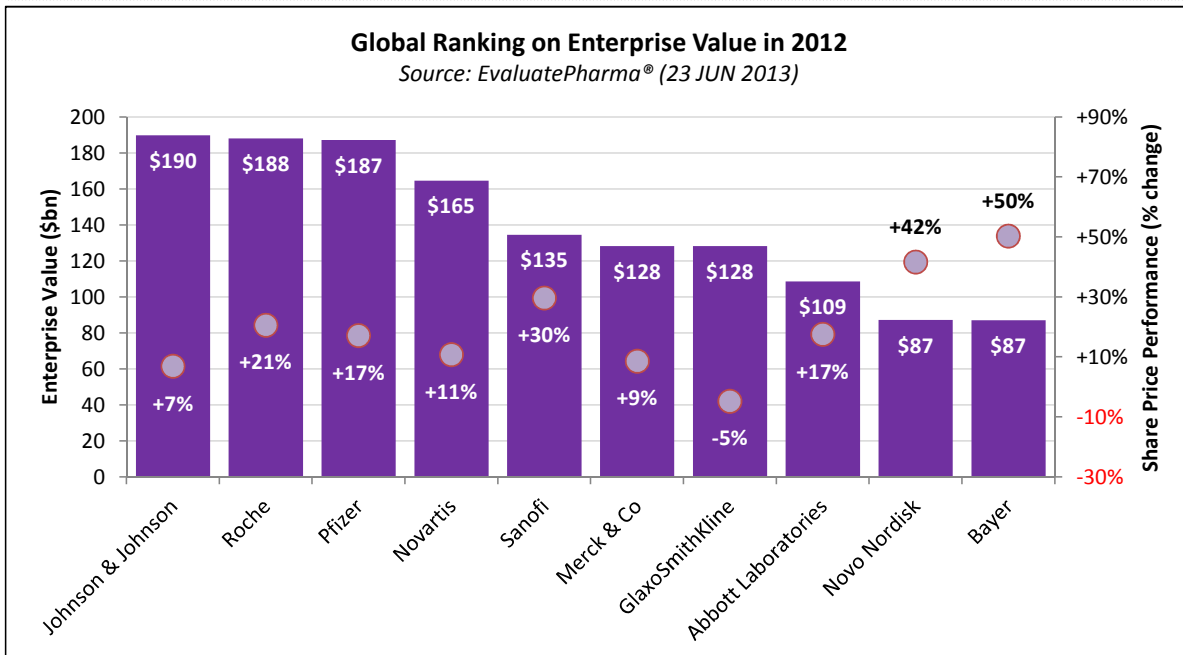
Johnson & Johnson No. 1 in Enterprise Value Rankings in 2012

EvaluatePharma® finds that Johnson & Johnson is top of the Enterprise Value table after increasing 14% over the year to \$190bn.

Gilead saw the greatest increase in share price over the year with 79% growth, which contributed to a impressive 118% increase in the company's Enterprise Value. Almost 30% of the growth occurred after positive Phase III results were announced for the company's Hepatitis C treatment, Sofosbuvir, which it added to its portfolio via the \$11.2bn acquisition of Pharmasset in January 2012.

Of the top 20, Bristol-Myers Squibb suffered the biggest fall in share price, dropping 8%, after it suspended its BMS-986094 Phase II trial in Hepatitis C.

Overall, the top 20 companies' share prices performed well, with an average gain of 22% over the year.



Top 20 Companies in 2012: Ranked by Enterprise Value (based on valuation on 31 DEC 12)

Company	Enterprise Value (\$bn)			Share Price (\$ ADR)			Enterprise Value Ranking		
	2011	2012	% Growth	2011	2012	% Growth	2011	2012	Chg. (+/-)
1 Johnson & Johnson	166.0	189.8	+14%	65.58	70.10	+7%	2	1	+1
2 Roche	164.0	188.1	+15%	170.56	205.67	+21%	3	2	+1
3 Pfizer	174.8	187.3	+7%	21.42	25.08	+17%	1	3	-2
4 Novartis	152.7	164.7	+8%	57.17	63.30	+11%	4	4	-
5 Sanofi	114.8	134.6	+17%	36.54	47.38	+30%	7	5	+2
6 Merck & Co	117.2	128.3	+10%	37.70	40.94	+9%	6	6	-
7 GlaxoSmithKline	129.8	128.3	-1%	45.63	43.47	-5%	5	7	-2
8 Abbott Laboratories	94.9	108.6	+14%	55.75	65.50	+17%	8	8	-
9 Novo Nordisk	64.8	87.3	+35%	115.26	163.21	+42%	9	9	-
10 Bayer	63.1	87.1	+38%	63.80	95.92	+50%	10	10	-
11 Amgen	51.9	68.6	+32%	64.21	87.40	+36%	13	11	+2
12 Gilead Sciences	28.5	62.1	+118%	20.47	36.72	+79%	21	12	+9
13 AstraZeneca	57.3	60.7	+6%	46.29	47.27	+2%	11	13	-2
14 Bristol-Myers Squibb	56.2	57.1	+2%	34.90	32.24	-8%	12	14	-2
15 Eli Lilly	48.2	56.3	+17%	41.56	49.32	+19%	15	15	-
16 Reckitt Benckiser	38.9	49.0	+26%	49.55	61.56	+24%	16	16	-
17 Teva Pharmaceutical	49.1	43.8	-11%	40.36	37.34	-7%	14	17	-3
18 Baxter International	29.9	39.1	+31%	49.19	66.66	+36%	19	18	+1
19 Biogen Idec	26.0	34.1	+31%	110.05	146.37	+33%	25	19	+6
20 Fresenius	27.4	33.7	+23%	94.03	114.21	+21%	22	20	+2
Total Top 20	1,655.5	1,908.6	+15%		avg.	+22%			
					S&P 500:	+13%			

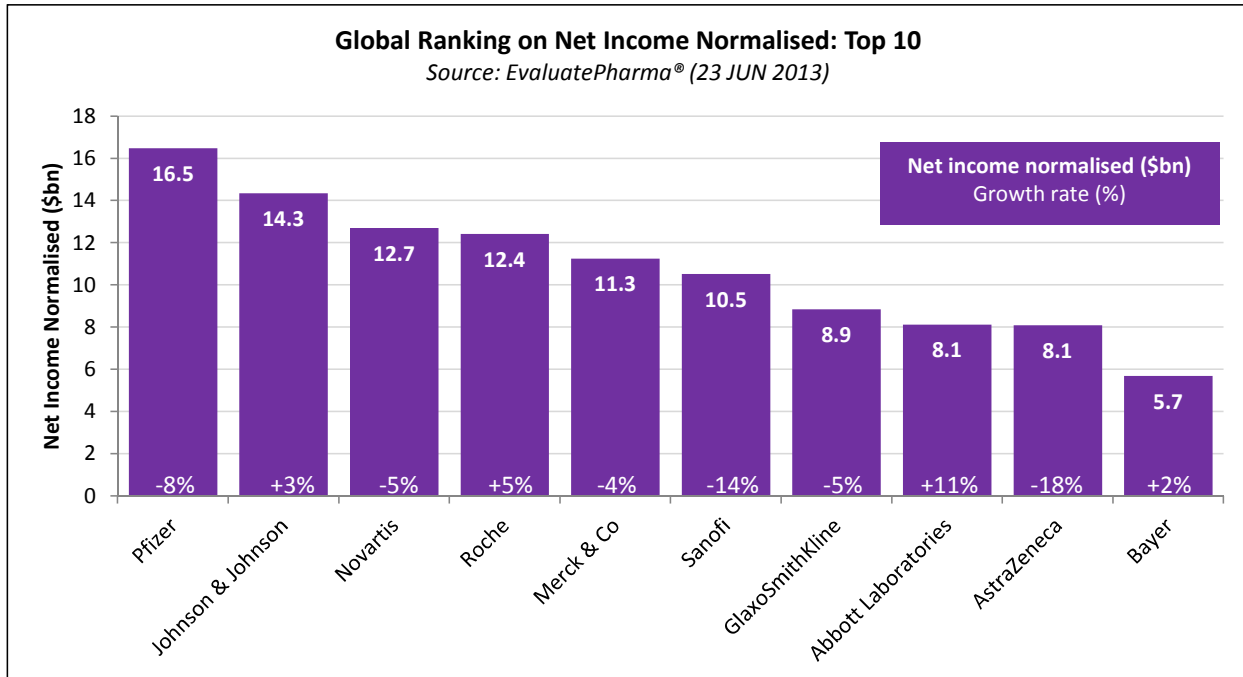
Source: EvaluatePharma® (23 JUN 2013)



Net Income in 2012: Top 20 Companies

Pfizer Remains No. 1 in Terms of Net Income in 2012

EvaluatePharma® finds that, despite a fall of 8%, Pfizer reported the industry's largest net income (normalised) in 2012 recording \$16.5bn. Eli Lilly's net income (normalised) fell 23% to \$3.8bn and its net margin fell 3.5 percentage points to 16.7%. Whilst Gilead experienced the largest decline in net margin of 6.3 percentage points, its margin remains one of the strongest amongst its peers.



Net Income in 2012: Top 20 Companies

Company	Net Income Normalised (\$bn)			Net Margin		
	2011	2012	% Growth	2011	2012	Chg. (+/-)
1 Pfizer	17.8	16.5	-8%	27.3%	27.9%	+0.6pp
2 Johnson & Johnson	13.9	14.3	+3%	21.3%	21.3%	+0.0pp
3 Novartis	13.4	12.7	-5%	22.5%	22.1%	-0.4pp
4 Roche	11.8	12.4	+5%	24.6%	25.6%	+1.0pp
5 Merck & Co	11.7	11.3	-4%	24.3%	23.8%	-0.5pp
6 Sanofi	12.2	10.5	-14%	26.3%	23.4%	-2.9pp
7 GlaxoSmithKline	9.3	8.9	-5%	21.2%	21.2%	-0.1pp
8 Abbott Laboratories	7.3	8.1	+11%	18.9%	20.4%	+1.5pp
9 AstraZeneca	9.9	8.1	-18%	29.5%	28.9%	-0.6pp
10 Bayer	5.6	5.7	+2%	10.9%	11.1%	+0.2pp
11 Amgen	4.8	5.1	+6%	30.6%	29.3%	-1.3pp
12 Teva Pharmaceutical Industries	4.4	4.7	+5%	24.2%	23.0%	-1.2pp
13 Eli Lilly	4.9	3.8	-23%	20.2%	16.7%	-3.5pp
14 Novo Nordisk	3.2	3.7	+16%	25.8%	27.5%	+1.7pp
15 Bristol-Myers Squibb	3.9	3.3	-17%	18.5%	18.6%	+0.1pp
16 Reckitt Benckiser	2.9	3.1	+5%	19.1%	20.3%	+1.1pp
17 Gilead Sciences	2.9	2.7	-5%	34.5%	28.2%	-6.3pp
18 Baxter International	2.5	2.5	+2%	17.8%	17.7%	-0.1pp
19 Merck KGaA	2.1	2.1	+3%	14.4%	14.8%	+0.4pp
20 Celgene	1.6	2.0	+22%	33.7%	36.0%	+2.3pp
Top 20	146.2	141.4	-3%	23.7%	23.3%	Weighted Avg.

Source: EvaluatePharma® (23 JUN 2013)

Measure: Net Income Normalised

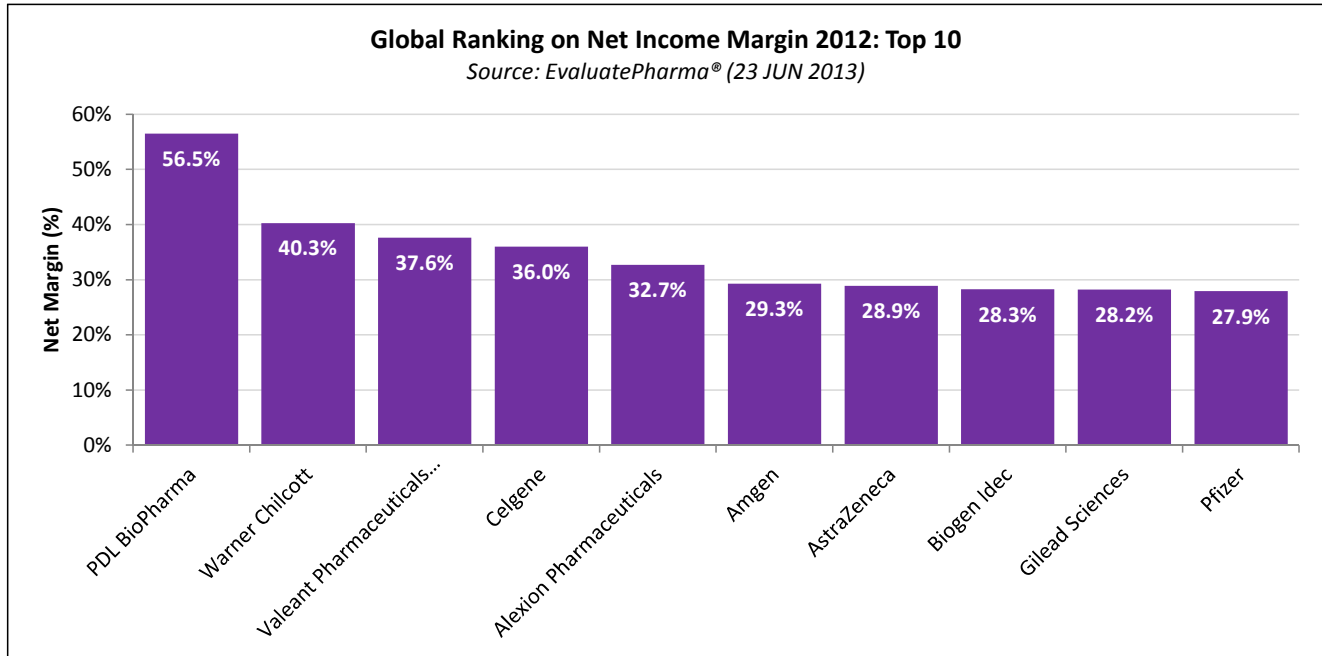
The accounting profit a company made during 2012, adjusted to exclude any one-off items, such as restructuring charges and disposal gains/losses.



Net Income Margin in 2012: Top 20 Companies

PDL BioPharma Continues to be the Most Profitable Pharma/Biotech Company in 2012

EvaluatePharma® finds that for the fifth year running PDL BioPharma achieved the highest net income normalised margin at 56.5%, an increase of 1.3 percentage points over the previous year. PDL was the first company to spin-out its R&D unit (Facet Biotech) and effectively be run as a listed royalty company with no active R&D operations.



Net Margin in 2012: Top 20 Companies

Company	Net Margin			Net Income - Normalised		
	2011	2012	Chg. (+/-)	2011	2012	% Growth
1 PDL BioPharma	55.2%	56.5%	+1.3pp	200	212	+5.9%
2 Warner Chilcott	35.7%	40.3%	+4.6pp	974	1,024	+5.2%
3 Valeant Pharmaceuticals International	36.2%	37.6%	+1.4pp	892	1,335	+49.7%
4 Celgene	33.7%	36.0%	+2.3pp	1,623	1,982	+22.1%
5 Alexion Pharmaceuticals	28.3%	32.7%	+4.5pp	221	371	+67.7%
6 Amgen	30.6%	29.3%	-1.3pp	4,773	5,060	+6.0%
7 AstraZeneca	29.5%	28.9%	-0.6pp	9,909	8,085	-18.4%
8 Biogen Idec	28.5%	28.3%	-0.2pp	1,437	1,561	+8.6%
9 Gilead Sciences	34.5%	28.2%	-6.3pp	2,894	2,737	-5.4%
10 Pfizer	27.3%	27.9%	+0.6pp	17,839	16,476	-7.6%
11 Novo Nordisk	25.8%	27.5%	+1.7pp	3,194	3,702	+15.9%
12 Roche	24.6%	25.6%	+1.0pp	11,839	12,421	+4.9%
13 Shire	24.1%	25.1%	+1.0pp	1,027	1,176	+14.6%
14 Sun Pharmaceutical Industries	35.4%	24.7%	-10.6pp	602	476	-20.9%
15 Merck & Co	24.3%	23.8%	-0.5pp	11,697	11,250	-3.8%
16 CSL	21.5%	23.4%	+1.9pp	1,014	1,271	+25.4%
17 Sanofi	26.3%	23.4%	-2.9pp	12,242	10,516	-14.1%
18 Teva Pharmaceutical Industries	24.2%	23.0%	-1.2pp	4,438	4,671	+5.3%
19 Cubist Pharmaceuticals	25.7%	22.9%	-2.7pp	193	212	+9.7%
20 Novartis	22.5%	22.1%	-0.4pp	13,358	12,698	-4.9%

Source: EvaluatePharma® (23 JUN 2013)

Measure: Net Margin

A ratio measuring company profitability based on net income normalised divided by total revenue.

Note: Analysis only includes companies with two consecutive years of profit and with 2012 profit in excess of \$50m. Sun Pharmaceutical and CSL are based on forecast data for 2012.



2012: Top 50 Selling Products in the World

Lipitor No Longer World's Largest Selling Product in 2012: Humira Takes the No. 1 Spot
 EvaluatePharma® finds that sales of Pfizer/Astellas's Lipitor fell 56% to \$4.8bn in 2012 following the loss of US patent protection in late 2011. Humira was the largest selling product in 2012 with sales of \$9.6bn equating to a 17% year-on-year increase.

Product	Generic Name	Company	Pharmacological Class	WW Product Sales (\$bn)			Products	
				2011	2012	% Growth	Age (Yrs)	Technology
1 Humira	adalimumab	Abbott Labs + Eisai	Anti-tumour necrosis factor alpha (TNFa) MAb	8,236	9,616	+17%	10.4	Monoclonal antibody
2 Enbrel	etanercept	Amgen + Pfizer + Takeda	Tumour necrosis factor alpha (TNFa) inhibitor	7,892	8,496	+8%	14.6	Recombinant product
3 Seretide/Advair	fluticasone propionate; salmeterol xinafoate	GSK + Almirall + Faes Farma	Beta 2 adrenoreceptor agonist & corticosteroid	8,233	8,088	-2%	14.8	Small molecule chemistry
4 Remicade	infliximab	J&J + Merck & Co + Mitsubishi Tanabe	Anti-tumour necrosis factor alpha (TNFa) MAb	7,187	7,634	+6%	14.8	Monoclonal antibody
5 Rituxan	rituximab	Roche	Anti-CD20 MAb	6,790	7,155	+5%	15.5	Monoclonal antibody
6 Crestor	rosuvastatin calcium	AstraZeneca	Statin/ HMG CoA reductase inhibitor	7,161	6,800	-5%	10.3	Small molecule chemistry
7 Lantus	insulin glargine recombinant	Sanofi	Insulin	5,451	6,378	+17%	12.9	Recombinant product
8 Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAb	5,940	6,283	+6%	14.7	Monoclonal antibody
9 Januvia/Janumet	sitagliptin phosphate	Merck & Co + Ono Pharma + Almirall	Dipeptidyl peptidase IV (DPP-IV) inhibitor	5,124	6,238	+22%	6.8	Small molecule chemistry
10 Avastin	bevacizumab	Roche	Anti-VEGF MAb	5,984	6,149	+3%	9.3	Monoclonal antibody
11 Abilify	aripiprazole	Otsuka Holdings	5-HT1A (serotonin) & dopamine D2 partial agonist & 5-HT2 (serotonin) antagonist	5,216	5,305	+2%	10.5	Small molecule chemistry
12 Cymbalta	duloxetine hydrochloride	Eli Lilly + Shionogi	5-HT (serotonin) & norepinephrine reuptake inhibitor (SNRI)	4,245	5,111	+20%	8.8	Small molecule chemistry
13 Plavix	clopidogrel bisulfate	Sanofi + Bristol-Myers	Platelet aggregation inhibitor	9,654	5,106	-47%	15.3	Small molecule chemistry
14 Lipitor	atorvastatin calcium	Pfizer + Astellas Pharma + Almirall	Statin/ HMG CoA reductase inhibitor	10,840	4,809	-56%	16.4	Chiral chemistry
15 Gleevec	imatinib mesylate	Novartis	Tyrosine kinase inhibitor	4,659	4,675	+0%	12.1	Small molecule chemistry
16 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim	Long-acting muscarinic antagonist (LAMA)	4,389	4,580	+4%	11.0	Small molecule chemistry
17 Diovan	valsartan	Novartis + Ipsen + Recordati	Angiotensin II antagonist	5,737	4,448	-22%	16.7	Small molecule chemistry
18 Lyrica	pregabalin	Pfizer + Eisai + Jell	Alpha 2 delta ligand	3,879	4,370	+13%	8.7	Small molecule chemistry
19 Singulair	montelukast sodium	Merck & Co + Kyorin + Sigma-Tau	Leukotriene D4 antagonist	5,967	4,353	-27%	15.3	Small molecule chemistry
20 Nexium	esomeprazole magnesium	AstraZeneca + Daiichi Sankyo	Proton pump inhibitor (PPI)	4,478	4,205	-6%	12.8	Chiral chemistry
21 Neulasta	pegfilgrastim	Amgen	Granulocyte colony-stimulating factor (G-CSF)	3,952	4,092	+4%	11.2	Recombinant product
22 Copaxone	glatiramer acetate	Teva Pharmaceutical + Sanofi	MS agent	3,580	4,027	+12%	16.4	Small molecule chemistry
23 Lucentis	ranibizumab	Novartis + Roche	Anti-VEGF MAb	3,772	3,978	+5%	6.7	Monoclonal antibody
24 Prevnar 13	pneumococcal vaccine	Pfizer + Daewoong	Pneumococcal vaccine	3,706	3,781	+2%	3.4	Bioengineered vaccine
25 Revlimid	lenalidomide	Celgene	Immunomodulator	3,208	3,767	+17%	7.4	Small molecule chemistry
26 Atripla	efavirenz; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside & non-nucleoside reverse transcriptase inhibitor (NRTI & NNRTI)	3,225	3,574	+11%	6.9	Small molecule chemistry
27 Micardis	telmisartan	Boehringer Ingelheim + Astellas Pharma + Bayer	Angiotensin II antagonist	3,669	3,539	-4%	14.5	Small molecule chemistry
28 Epogen/Procrit	epoetin alfa	Amgen + J&J + Kyowa Hakko Kirin	Erythropoietin	3,730	3,450	-8%	24.0	Recombinant product
29 Truvada	emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences + Torii Pharmaceutical	Nucleoside reverse transcriptase inhibitor (NRTI)	3,001	3,321	+11%	8.8	Small molecule chemistry
30 Symbicort Turbuhaler	budesonide; formoterol fumarate dihydrate	AstraZeneca + Sigma Tau	Corticosteroid & Beta 2 adrenoreceptor agonist	3,167	3,212	+1%	12.7	Small molecule chemistry
31 Celebrex/Celecox	celecoxib	Pfizer + Astellas Pharma	COX-2 inhibitor	2,941	3,171	+8%	14.4	Small molecule chemistry
32 Seroquel XR	quetiapine fumarate	AstraZeneca + Astellas Pharma	5-HT2 (serotonin) & dopamine D2 antagonist	6,180	3,148	-49%	5.8	Small molecule chemistry
33 Avonex	interferon beta-1a	Biogen Idec	Interferon beta	2,687	2,913	+8%	17.1	Recombinant product
34 Blopress/Atacand	candesartan cilexetil	Takeda + AstraZeneca + Almirall	Angiotensin II antagonist	3,490	2,821	-19%	15.5	Small molecule chemistry
35 Aranesp	darbepoetin alfa	Amgen + Kyowa Hakko Kirin	Erythropoietin	3,018	2,743	-9%	11.9	Recombinant product
36 NovoRapid	insulin aspart	Novo Nordisk	Insulin	2,392	2,711	+13%	13.7	Recombinant product
37 Alimta	pemetrexed disodium	Eli Lilly	Thymidylate synthase inhibitor	2,461	2,594	+5%	9.3	Small molecule chemistry
38 Zetia	ezetimibe	Merck & Co	Cholesterol absorption inhibitor	2,428	2,567	+6%	10.6	Small molecule chemistry
39 Benicar/Olmetec	olmesartan medoxomil	Daiichi Sankyo + Daewoong	Angiotensin II antagonist	2,636	2,544	-3%	11.1	Small molecule chemistry
40 OxyContin	oxycodone hydrochloride	Purdue Pharma + Shionogi	Opioid agonist	2,713	2,473	-9%	17.5	Small molecule chemistry
41 Lovenox	enoxaparin sodium	Sanofi	Heparin, low molecular weight (LMWH)	2,938	2,434	-17%	25.4	Miscellaneous
42 Rebit	interferon beta-1a	Merck KGaA	Interferon beta	2,354	2,433	+3%	15.4	Recombinant product
43 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	2,368	2,396	+1%	17.0	Recombinant product
44 Human insulin & devices	insulin (human)	Novo Nordisk	Insulin	2,446	2,386	-2%	90.2	Recombinant product
45 Velcade	bortezomib	J&J + Takeda	Proteasome inhibitor	2,010	2,382	+18%	10.1	Small molecule chemistry
46 Advate	factor VIII (procoagulant)	Baxter International	Factor VIII	2,212	2,234	+1%	9.8	Recombinant product
47 Avapro	irbesartan	Sanofi + Bristol-Myers Squibb + Daiichi Sankyo + Sumitomo + Shionogi	Angiotensin II antagonist	2,997	2,196	-27%	15.6	Small molecule chemistry
48 Viagra	sildenafil citrate	Pfizer	Phosphodiesterase V (PDE5) inhibitor	1,981	2,051	+4%	15.2	Small molecule chemistry
49 Cialis	tadalafil	Eli Lilly + Nippon Shinyaku	Phosphodiesterase V (PDE5) inhibitor	1,953	1,968	+1%	10.3	Small molecule chemistry
50 Botox	onabotulinumtoxinA	Allergan + GSK	Botulinum toxin	1,746	1,953	+12%	23.4	Recombinant product
Total				216,023	206,658	-4%	14.5	

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates.

2012: Top 50 Selling Products in the USA

Humira Replaces Plavix as No. 1 Drug in the USA

EvaluatePharma® finds that Abbott/AbbVie's Humira was the largest selling product in the USA in 2012 following an 28% increase in sales to \$4.4bn. Key patent expires in the USA resulted in a 64% decline in Plavix sales to \$2.4bn in 2012. Total sales of the top 50 products in the USA fell 2% to \$104.7bn.

Product	Generic Name	Company	Pharmacological Class	USA Product Sales (\$bn)			USA Age (Yrs)	Company Strategy
				2011	2012	% Growth		
1 Humira	adalimumab	Abbott Laboratories	Anti-TNFa MAb	3,427	4,376	+28%	10.4	Company acquisition
2 Abilify	aripiprazole	Otsuka Holdings	5-HT1A & D2 partial agonist & 5-HT2 antagonist	4,006	4,066	+2%	10.6	Organic
3 Seretide/Advair	fluticasone propionate; salmeterol xinafoate	GlaxoSmithKline	Beta 2 adrenoreceptor agonist & corticosteroid	3,969	4,011	+1%	12.8	Organic
4 Lantus	insulin glargine recombinant	Sanofi	Insulin	3,251	3,969	+22%	13.1	Company acquisition
5 Enbrel	etanercept	Amgen	TNFa inhibitor	3,458	3,967	+15%	14.6	Company acquisition
6 Cymbalta	duloxetine hydrochloride	Eli Lilly	5-HT & norepinephrine reuptake inhibitor	3,173	3,918	+23%	8.8	Organic
7 Remicade	infliximab	Johnson & Johnson	Anti-TNFa MAB	3,276	3,583	+9%	14.8	Company acquisition
8 Rituxan	rituximab	Roche	Anti-CD20 MAB	3,078	3,320	+8%	15.5	Company acquisition
9 Neulasta	pegfilgrastim	Amgen	Granulocyte colony-stimulating factor (G-CSF)	3,006	3,207	+7%	11.4	Joint venture
10 Crestor	rosuvastatin calcium	AstraZeneca	Statin/HMG CoA reductase inhibitor	3,074	3,164	+3%	9.8	In-licensed
11 Januvia/Janumet	sitagliptin phosphate	Merck & Co	DPP-IV inhibitor	2,536	3,001	+18%	6.6	Organic
12 Copaxone	glatiramer acetate	Teva Pharmaceutical Industries	MS agent	2,794	2,893	+4%	16.5	In-licensed
13 Epogen/Procrit	epoetin alfa	Amgen & JNJ	Erythropoietin	2,854	2,746	-4%	24.0	Joint venture
14 Avastin	bevacizumab	Roche	Anti-VEGF MAB	2,649	2,640	-0%	9.3	Company acquisition
15 Plavix	clopidogrel bisulfate	Bristol-Myers Squibb	Platelet aggregation inhibitor	6,709	2,424	-64%	15.6	In-licensed
16 OxyContin	oxycodone hydrochloride	Purdue Pharma	Opioid agonist	2,600	2,350	-10%	17.5	Organic
17 Spiriva	tiotropium bromide monohydrate	Boehringer Ingelheim	Long-acting muscarinic antagonist	2,084	2,300	+10%	9.4	Organic
18 Nexium	esomeprazole magnesium	AstraZeneca	Proton pump inhibitor (PPI)	2,397	2,272	-5%	12.3	Organic
19 Atripla	efavirenz; emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	NRTI & NNRTI	2,022	2,253	+11%	6.9	Joint venture
20 Singulair	montelukast sodium	Merck & Co	Leukotriene D4 antagonist	3,536	2,152	-39%	15.3	Organic
21 Revlimid	lenalidomide	Celgene	Immunomodulator	1,830	2,144	+17%	7.4	Organic
22 Diovan	valsartan	Novartis	Angiotensin II antagonist	2,333	2,087	-11%	16.5	Organic
23 Prevnar 13	pneumococcal vaccine	Pfizer	Pneumococcal vaccine	1,928	1,887	-2%	3.3	Company acquisition
24 Avonex	interferon beta-1a	Biogen Idec	Interferon beta	1,628	1,794	+10%	17.1	Organic
25 Herceptin	trastuzumab	Roche	Anti-HER2 (ErbB-2) MAB	1,608	1,774	+10%	14.7	Company acquisition
26 Celebrex	celecoxib	Pfizer	COX-2 inhibitor	1,597	1,745	+9%	14.4	Company acquisition
27 Gleevec	imatinib mesylate	Novartis	Tyrosine kinase inhibitor	1,459	1,698	+16%	12.1	Organic
28 Lyrica	pregabalin	Pfizer	Alpha 2 delta ligand	1,514	1,672	+10%	8.4	Company acquisition
29 Namenda	memantine hydrochloride	Forest Laboratories	NMDA antagonist	1,400	1,625	+16%	9.6	In-licensed
30 Truvada	emtricitabine; tenofovir disoproxil fumarate	Gilead Sciences	Nucleoside reverse transcriptase inhibitor (NRTI)	1,385	1,613	+16%	8.8	Company acquisition
31 Lucentis	ranibizumab	Roche	Anti-VEGF MAB	1,722	1,580	-8%	6.9	Company acquisition
32 NovoLog/NovoRapid	insulin aspart	Novo Nordisk	Insulin	1,295	1,560	+20%	13.0	Organic
33 Seroquel	quetiapine fumarate	AstraZeneca	5-HT2 & dopamine D2 antagonist	4,123	1,508	-63%	6.1	Organic
34 Humalog	insulin lispro recombinant	Eli Lilly	Insulin	1,399	1,371	-2%	17.0	Organic
35 Zetia	ezetimibe	Merck & Co	Cholesterol absorption inhibitor	1,223	1,332	+9%	10.6	Company acquisition
36 Rebif	interferon beta-1a	Merck KGaA	Interferon beta	1,076	1,264	+17%	11.3	Company acquisition
37 Varivax	varicella vaccine	Merck & Co	Varicella vaccine	831	1,164	+40%	18.2	In-licensed
38 Gammagard Liquid	immune globulin (human)	Baxter International	Immunoglobulin	1,083	1,163	+7%	8.1	Organic
39 Incivek	telaprevir	Vertex Pharmaceuticals	Hepatitis C NS3/4A protease inhibitor	951	1,162	+22%	2.0	Organic
40 AndroGel	testosterone	Abbott Laboratories	Androgen	874	1,152	+32%	13.3	Company acquisition
41 Viagra	sildenafil citrate	Pfizer	Phosphodiesterase V inhibitor	1,003	1,135	+13%	15.2	Organic
42 Botox	onabotulinumtoxinA	Allergan	Botulinum toxin	978	1,135	+16%	23.4	Product acquisition
43 Alimta	pemetrexed disodium	Eli Lilly	Thymidylate synthase inhibitor	995	1,122	+13%	9.3	In-licensed
44 Gardasil	human papillomavirus (HPV) vaccine	Merck & Co	Human papillomavirus (HPV) vaccine	880	1,113	+26%	7.0	In-licensed
45 Actos	pioglitazone hydrochloride	Takeda	Peroxisome proliferator activated receptor (PPAR) gamma agonist	3,098	1,100	-65%	13.9	Organic
46 TriCor	fenofibrate	Abbott Laboratories	Fibrate	1,372	1,098	-20%	11.8	Company acquisition
47 Advate	factor VIII (procoagulant)	Baxter International	Factor VIII	962	1,057	+10%	9.9	Organic
48 Vyvanse	lisdexamfetamine dimesylate	Shire	Psychostimulant	805	1,030	+28%	6.3	Company acquisition
49 Victoza	liraglutide	Novo Nordisk	GLP-1 agonist	694	1,024	+48%	3.4	In-licensed
50 Neupogen	filgrastim	Amgen	Granulocyte colony-stimulating factor	959	1,007	+5%	22.3	Joint venture
Total				106,905	104,728	-2%	11.9	

Source: EvaluatePharma® (23 JUN 2013)

Note: Sales represent company reported sales where available, otherwise based on an average of equity analyst estimates. EvaluatePharma® endeavours to treat the sales from patent protected new formulations of existing products as distinct entities where possible. Epogen, Aranesp, Neupogen and Neulasta developed via Kirin-Amgen joint venture.

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